DOCUMENT RESUME

ED 293 262 EC 202 461

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TITLE Instructional Tasks Used by Mentally Retarded, Learning Disabled, Emotionally Disturbed and Nonhandicapped Elementary Students. Research Report No. 2. Instructional Alternatives Project.
INSTITUTION Minnesota Univ., Minneapolis.
SPONS AGENCY Office of Special Education and Rehabilitative Services (ED), Washington, DC.
PUB DATE Jun 87
GRANT G008430054
NOTE 30p.; For related documents, see EC 202 460-463.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Class Activities; Classroom Techniques; Comparative Analysis; Elementary Education; *Emotional Disturbances; Instructional Materials; *Learning Activities; *Learning Disabilities; Learning Modalities; Mainstreaming; Mild Disabilities; *Mild Mental Retardation; Resource Room Programs; Special Classes; Teacher Student Relationship; *Teaching Methods; *Time on Task

ABSTRACT

Observational data were collected on the instructional tasks used by 122 elementary students (30 learning-disabled, 32 emotionally/behaviorally disturbed, 30 educable mentally retarded, and 30 nonhandicapped). No differences between handicapped and nonhandicapped students were revealed in an analysis of time using each of eight specific tasks (readers, workbooks, worksheets, papers and pencils, listening to lecture, other media, teacher-student discussion, fetch/put away) and two task composites (teacher-directed tasks and paper-focused tasks). For those students who received instruction in both mainstream and special education settings, comparisons of the tasks used for different handicap categories revealed that a greater proportion of time was devoted to teacher tasks with emotionally/behaviorally disturbed students as compared to other categories of students. Significantly larger proportions of time were spent on paper tasks and significantly smaller proportions of time on fetch/put away tasks in the special education setting compared to the mainstream setting. In general, findings suggested that the same instructional tasks are being used with handicapped and nonhandicapped students, as well as with different types of handicapped students; and there are minimal differences in instructional tasks used across mainstream and special education settings for handicapped students. (Author/JDD)

University of Minnesota

RESEARCH REPORT NO. 2

INSTRUCTIONAL TASKS USED BY MENTALLY RETARDED, LEARNING DISABLED, EMOTIONALLY DISTURBED AND NONHANDICAPPED ELEMENTARY STUDENTS

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INSTRUCTIONAL ALTERNATIVES PROJECT

June, 1987

Abstract

Observational data were collected on the instructional tasks used by 30 learning disabled (LD), 32 emotionally/behaviorally disturbed (EBD), 30 educable mentally retarded (EMR), and 30 nonhandicapped students. The specific task being used was coded every 10 seconds for one entire school day for each student. Analyses of time using each of eight specific tasks and two task composites (teacher-directed tasks and paper-focused tasks) revealed no differences between handicapped and nonhandicapped students. Repeated measures analyses for categories of handicapped students as a function of setting revealed only one category effect and two setting effects. Interaction effects involved EMR group differences. In general, findings suggested that the same instructional tasks are being used with handicapped and nonhandicapped students, as well as with different types of handicapped students. Further, there are minimal differences in instructional tasks used across mainstream and special education settings for handicapped students.

This project was supported by Grant No. G008430054 from the U.S. Department of Education, Office of Special Education and Rehabilitative Services (OSERS). Points of view or opinions do not necessarily represent official position of OSERS.

Instructional Tasks Used By Mentally Retarded, Learning Disabled, Emotionally Disturbed, and Nonhandicapped Elementary Students

Currently, in most states students must be classified in order to receive special education services. With the exception of the addition of a category called "learning disabilities," the current system for classification of handicapped students is much like the first system proposed by Horn (1924). Across the United States, however, a wide variability exists in the types of students considered eligible for special education. Different categories/labels are used in the classification systems of different states (Chalfant, 1985). States also use different criteria to define conditions such as learning disabilities and educable mental retardation. Students are classified at different rates from state to state, especially those with "milder" handicaps (Reynolds & Lakin, in press).

One reason given in support of classification is that it leads to differentiated instruction for the different categories or types of children. Several studies have been conducted to ascertain the extent to which specific interventions are maximally effective with different types of children (Ysseldyke, 1973). Such investigations have been called aptitude-treatment interaction (ATI) research. Overall, the results of ATI studies have been disappointing (Arter & Jenkins, 1977). It has not been demonstrated that specific categories of handicapped children learn differently from one another; principles of effective instruction apply across categories (Reynolds & Lakin, in press; Ysseldyke, in press). The National Academy of Sciences panel has suggested that "the placement team that labels and places a child

in a special program [should] demonstrate that any differential label used is related to a distinctive prescription for educational practices...that lead to improved outcomes" (Heller, Holtzman, & Messick, 1982, p. 94). From the ATI research, it appears that this may be a difficult goal to meet.

The fundamental assumption that classification results in differential instruction has received little attention and rarely has been tested. An important aspect of differentiated instruction is the nature of the tasks assigned or used in instruction. Similarly, there is little research on the extent to which the kinds of tasks teachers use with mildly handicapped students differ from those used with nonhandicapped students.

Several studies and reviews have concluded that students spend most of the instructional day working at their desks on independent seatwork activities such as worksheets and workbooks (Calfee & Calfee, 1976; Durkin, 1978-79; Durkin, 1984; Good, 1983; Sirotnik, 1983; Stodolsky, 1983). In a review of task allocation, Sirotnik found that there is little variety in teaching practices across schools and that little change has occurred over time. Students are involved in "traditional," "passive" activities most frequently. Estimates of the percentage of the student's time spent completing written assignments range from 20% to 60% (Anderson, 1986; Durkin, 1978-79); 70% of the school day is spent in independent seatwork activities (Good, 1983). This abundance of seatwork can be observed at all grade levels. It is prevalent in several academic subjects, including reading, social

studies, and math. A surprising amount of time also is spent in general routines such as clean-up, preparation, and transition. Estimates of the percentage of student time spent in these tasks ranges from 8% to 11% (Anderson, 1986, Durkin, 1978-79).

Thurlow, Ysseldyke, and Graden (1982) investigated the nature of instruction for LD students during resource and mainstream instruction. They found no significant differences in the percentage of time allocated to various tasks for LD students during their time in the regular and resource rooms. In both settings, the largest percentages of time were allocated to readers and to other media (e.g., films, teaching games). The least amounts of time were spent listening to lectures and making transitions. Seatwork tasks (workbooks, worksheets, and paper/pencil tasks) overall accounted for the greatest amount of time. Task allocation was compared for LD students and non-LD students during LD resource room time (when the non-LD students were in the regular class in comparable content areas). No significant differences were found in the amount of time allocated to various tasks. Readers were used by both groups for over 20 minutes during the observation period of approximately 95 minutes. LD students also were compared with their non-LD classmates during LD mainstream time. No significant differences were found; readers were used by both groups for the greatest amount of time, followed by other media. Again, listening to lectures and transitional time occupied the least amount of time. When the seatwork tasks are added together, they again comprised the greatest amount of instructional time.

In another study, Graden, Thurlow, and Ysseldyke (1983) addressed the question: to what extent does the percentage of academic responding time differ as a function of the task used? Fifty-four elementary students were observed over the entire school day. These researchers found that academic responding was highest during paper and pencil activities; students were actively engaged 40% of the time during these tasks. Students were actively engaged 30% of the time when using readers, workbooks, or worksheets. Active responding time dropped to less than 5% during lectures or teacher-student discussions. Students were more passively involved (attending) during these tasks, hence the lower active academic responding.

The present study was conducted to describe the types of tasks used in mainstream and special education classrooms and to compare the instructional methodology used with different categories of students in different settings. The following hypotheses were tested:

1. No differences exist in the amount of time different kinds of tasks are used by nonhandicapped and mildly handicapped students.

2. No differences exist in the amount of time different kinds of tasks are used by mildly handicapped students in different settings.

3. No differences exist in the amount of time different kinds of tasks are used by learning disabled, emotionally disturbed, and mentally retarded students.

Method

Subjects

Subjects in this study were 122 students (67 female, 55 male) in 10 schools in two school districts (urban and suburban). Ninety-two

of the students were school-identified handicapped students; their primary handicap labels were: 30 learning disabled (LD), 32 emotionally/behavior disordered (EBD), and 30 educable mentally retarded (EMR). The nonhandicapped students were selected from among those who received no extra services during school, such as Chapter I or High Potential. Seventy students (50 special education, 20 regular education) were from the suburban district and 52 (42 special education, 10 regular education) were from the urban district. The study took place in 84 classrooms (59 mainstream, 19 resource room, 5 self contained).

All handicapped students' primary labels were verified by the special education teacher. In one of the districts, a noncategorical instructional approach was used. For this reason, specific behavioral descriptions were used in addition to school-assigned labels as guidelines for identifying EBD and EMR students. EBD students were described as students who had chronic task incompletion problems, acting out, behavior difficulties, or social interaction difficulties; any of the three characteristics were to be severe enough to impede academic performance. EMR students were descrited as students who were functionally academically retarded in all four basic skill areas. Most of the students received their basic skill instruction within special education settings.

The LD students received resource room instruction for up to one-half day in both districts. The EBD students received special education services via consultation and resource room instruction in

both districts. The EMR students received special education services in self-contained classes in the suburban district and in either resource rooms for more than half the day or in self-contained classes in the urban district.

Students were in grades 2 (n = 36), 3 (n = 38), 4 (n = 47), and 5 (one EMR student in a 4/5 split grade classroom). The categories of students were fairly evenly distributed across grades 2-4. The students ranged in age from 91 to 146 months; for LD students the age range was 91-136 months ($\bar{X}$ = 113 months); for EBD students the age range was 97-137 months ($\bar{X}$ = 115 months); for EMR students the age range was 99-146 months ($\bar{X}$ = 119 months); and for regular education students the age range was 91-128 months ($\bar{X}$ = 109 months). The majority of the students 72% (n = 88) were Caucasian; 24% (n = 29) were Black. The remaining 4% (n = 5) of the subjects were Asian, Native American, or of undetermined race/ethnicity.

Teachers of the subjects were primarily female (88%). Their mean number of years of teaching experience was 16.6 years (range = 1-31 years). Most teachers held a bachelor's degree and additional credits (42.7%) or a master's degree (32.0%); 12.0% held a bachelor's degree only and 13.3% held a master's degree plus additional credits.

Observation System

A modified version of the Code for Instructional Structure and Student Academic Response (CISSAR) observation system developed by Greenwood, Delquadri, and Hall (1978) was employed to collect data on quantity of instructional time. The original system focused the

observation on the behavior of one target student (rather than sampling behaviors of several students) and allowed observers to record six event areas: activity, task, teaching structure, teacher position, teacher activity, and student response.

The original system was modified in three ways. In this study the observers recorded only four event areas: activity (12 codes), task (8 codes), structure (3 codes) and student response (19 codes). Two codes, one in the activity event area, and one in the student response event area were redefined. Can't Tell (CT) was changed to reflect "computer training," and self-stimulation (SST) was changed to reflect "wait" time. All four event areas were coded each 10-second interval. A total of 42 different events could be recorded with the modified version of the CISSAR system. The eight task codes are the focus of this report.

An interval time sampling technique was used to direct the recording of events. The four event areas were recorded every 10 seconds over the entire school day while the student was in the classroom. Coding was structured into blocks of six 10-second intervals. An auditory electronic timer attached to a clipboard was used to signal the 10-second intervals. The timer was equipped with an earplug so that only the observer could hear the signal (a short beep sound). The clipboard held coding sheets and provided a hard surface for marking events.

CISSAR data were collected by four female observers. Of the four observers, two had attended college for at least one year (one of

these had a B.A.). Two others had completed a business or vocational school program. Training of CISSAR observers in the observation system was accomplished during two weeks of half day training sessions through the use of the Observer and Trainer's Manual (Stanley & Greenwood, 1980). Training required observers to read materials and then practice coding small numbers of events through the use of a variety of media, including flashcards, overheads and videotapes. Exercises and quizzes were presented throughout the manual. Mastery (100% correct) of the material in each unit was required before continuing on to the next unit. Mastery of the CISSAR system required preciseness and automatic recall; therefore, training involved much drillwork. Two to three days of additional practice coding within actual classrooms concluded the training.

Reliability checks were conducted 12 times during the study. During a reliability check, two observers coded events on the same target student for 15 minutes. The desired level of agreement was 90%. Actual agreement levels ranged from 91% to 100%, with the average being 98.1%.

Procedure

Observers coded activities on a whole-day basis (one observer all day). Observations were not conducted during breaks, such as those for lunch, recess and bathroom. Also, observers did not code during physical education, music, or special assembly programs since the observation system did not apply to these situations. Typically, observers did not code continuously for a period of more than two

hours because of natural breaks within the school day. Observers did follow target students when they left their homerooms to go to other classrooms for other subjects, or when they went to the resource teacher for special instruction. Coding was conducted in these other classrooms in the same manner as in homerooms. Regardless of the physical setting, observers attempted to position themselves to be unobtrusive and to avoid revealing the identity of target students to the target students themselves or to other students.

Every 10 seconds, observers recorded data within the four event areas of activity, task, structure and student response. During the first 10-second interval of a 60-second block of time, observers marked slashes in the appropriate circles within the four areas. If there were no changes in activity, task or structure for the next five 10-second intervals, the observers marked slashes in only the student response area. If, however, there was a change in either activity, task or structure, the observer began coding in the next block and marked slashes in the appropriate circles for the four event areas.

Teachers were told that the research involved looking at how different kinds of children respond to instruction. Target students' identities were revealed to the teachers; this might tend to bias the results in a positive direction. Although the observers were never told the student's classification or level of service, it was impossible to keep observers blind to handicapped vs. nonhandicapped classification since the observers followed them when they went to special education settings.

Data Analysis

In order to convert the observational data to estimates of total ..ces spent in each activity, the number of 10-second intervals for each of the 42 codes was summed over the entire day and divided by six. In addition, two composites were constructed rom five of the individual codes:

Teacher-Directed Task: Listen to teacher lecture, teacher-student discussion.

Paper-Focused Task: Workbooks, worksheets, paper and pencil.

The other individual codes (readers, other media, fetch/put away) were summarized separately.

One-way analysis of variance was used to test differences in the amounts of time handicapped (LD/EBD/EMR) and nonhandicapped students spent in various tasks throughout the school day. Repeated measures ANOVAs were used to make comparisons across settings and categories. A conversion of minutes to proportions was necessary to control for differences in the amount of time students spent in various settings. In addition, we treated the EMR students as two separate groups, EMR-resource and EMR-self contained, because of differences in where they were instructed.

Results

Amount of Time Spent on Different Tasks

Means, standard deviations, and ranges for the amount of time handicapped and nonhandicapped students spent in various tasks are reported in Table 1. Readers were a frequently used task for all

Table 1

Amount of Time in Various Tasks by Category Across the Total Day

Task		Category[a] LD	EBD	EMR	NH
Readers	$\bar{X}$	43.68	35.08	26.90	42.26
	SD	24.82	22.38	18.79	22.38
	Range	13-112	0-90	0-693	0-81
Workbooks	$\bar{X}$	11.82	14.77	15.69	15.53
	SD	12.61	12.29	14.93	16.96
	Range	0-47	0-44	0-53	0-68
Worksheets	$\bar{X}$	40.00	40.26	39.93	41.68
	SD	25.21	25.86	23.24	24.91
	Range	3-91	3-102	0-94	5-99
Papers and Pencils	$\bar{X}$	18.16	19.19	13.83	16.11
	SD	21.15	17.14	19.58	15.34
	Range	0-101	0-72	0-60	0-53
Listen to Lecture	$\bar{X}$	10.71	10.90	10.66	15.85
	SD	7.93	10.70	8.35	16.74
	Range	0-28	0-46	0-29	0-68
Other Media	$\bar{X}$	38.97	29.27	40.33	25.56
	SD	26.90	19.01	24.09	17.31
	Range	4-126	0-62	4-133	0-59
Teacher-Student Discussion	$\bar{X}$	26.43	36.30	29.81	32.58
	SD	16.35	20.77	13.11	18.05
	Range	6-81	6-89	9-57	3-69
Fetch/Put Away	$\bar{X}$	23.97	28.34	28.06	25.72
	SD	11.50	12.45	12.36	11.08
	Range	6-51	8-57	9-55	10-57
Paper-Focused	$\bar{X}$	69.98	74.22	69.45	73.49
	SD	29.69	31.66	25.86	26.29
	Range	13-163	31-138	23-114	23-122
Teacher-Directed	$\bar{X}$	37.14	47.19	40.46	48.43
	SD	15.46	23.04	14.85	21.74
	Range	7-88	14-105	19-72	12-108

[a]Categories are: LD = learning disabled, EBD = emotionally/behaviorally disturbed, EMR = educable mentally retarded, NH = nonhandicapped

students, as were worksheets and media (teaching games, films). The least frequently used tasks were listening to lectures and workbooks. Handicapped students spent approximately 11 minutes per day listening to lectures, while nonhandicapped students spent slightly more time --16 minutes per day. Workbook time averaged 15 minutes per day for all students.

While teacher-student discussions were not the most frequently used tasks, EBD and nonhandicapped students did spend an average of 35 minutes per day engaged in discussion. All students spent a surprising amount of time in fetch/put away tasks (such as transition, preparation and clean up). Some students spent as much as 28 minutes per day in these transitional activities. For some students, this equaled or exceeded the amount of time spent on some academic tasks. For example, EMR students spent 28 minutes per day in fetch/put away and 27 minutes per day in readers.

When time spent in workbooks, worksheets and paper/pencil tasks are combined, it becomes evident that all students spent the most time per day engaged in these paper-focused tasks, averaging 72 minutes per day. In most cases, students spent 1.5 to 2 times more time on paper tasks than they did using readers or involved in teacher-directed activities (listening to lectures and teacher-student discussions).

It is important to note the wide variability in ranges among students. For example, one LD student spent 35 minutes per day with other media, whereas another spent over two hours. One EMR student spent no time during the observation with readers, while another spent

69 minutes. One EBD student spent 3 minutes per day on worksheets, while another spent 100 minutes on the same type of task.

The first research question addressed was the extent to which different groups of students spend differing amounts of time on various tasks. One-way ANOVA's were conducted to compare time spent over the entire school day on each task for each category. No significant differences were found among the categories in the amount of time spent on the various tasks.

Proportion of Time Spent on Instructional Tasks in Different Settings

The different categories of handicapped students in this study spent different amounts of time in mainstream and special education settings (Ysseldyke, Thurlow, Christenson, & Weiss, 1987). As shown in Table 2 and Figure 1, LD students spent an average of 159 minutes per day in the mainstream and 47 minutes per day in the special education setting. EBD students also spent a greater amount of time in the mainstream setting (average of 190 minutes per day) than in the special education setting (23 minutes per day). EMR students, however, spent less time in the mainstream setting (58 minutes per day) than in the special education setting (135 minutes per day).

The second research question addressed the extent to which differences existed in the amount of time teachers spent using different kinds of tasks to instruct mildly handicapped students in different settings. Given that students spent differing average amounts of time in the mainstream and special settings, and that some students were not observed in both settings, this analysis was

Table 2

Amount of Time During One School Day That Groups of Handicapped Students Spend in Regular and Special Education

Category	Setting	
	Regular Education	Special Education
LD		
$\bar{X}$	158.76	47.10
SD	47.64	32.68
Range	44-296	0-164
EBD		
$\bar{X}$	190.28	22.76
SD	45.10	24.32
Range	88-273	0-91
EMR		
$\bar{X}$	58.31	135.25
SD	70.21	65.68
Range	0-183	23-238

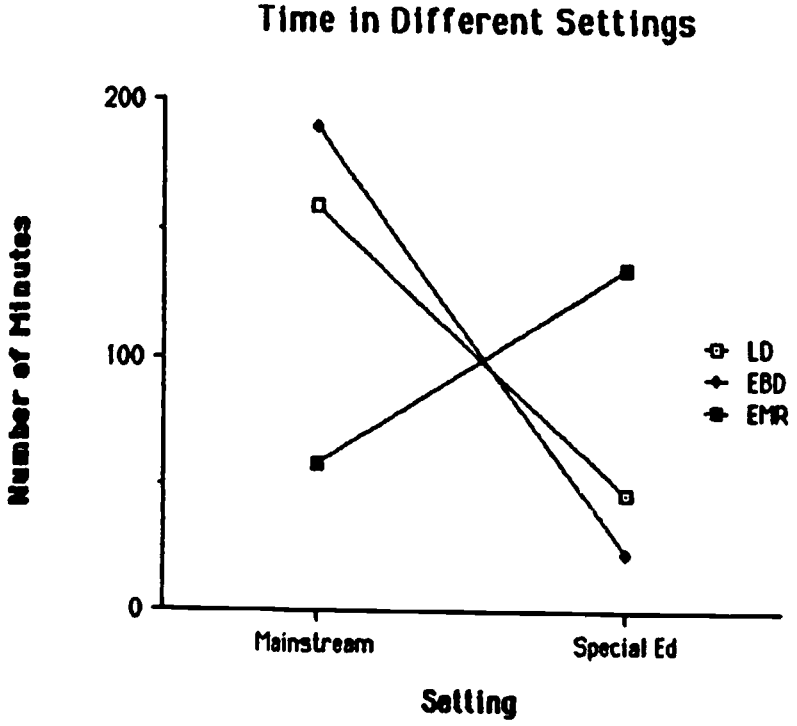

Figure 1. Time Spent in Mainstream and Special Education Settings by LD, EBD, and EMR Students

completed using the proportion of time the student was actually in the setting that was spent on the different kinds of tasks. These results are presented by task in Table 3.

Paper tasks. This composite reflects the proportion of time spent in all paper tasks, including workbooks, worksheets, and paper and pencil tasks. For students who received services in both mainstream and special education classes ($n = 64$), a one between, one within repeated measures analysis of variance was used to analyze differences in the means. The between groups factor was handicapping condition (LD, EBD, EMR students in resource rooms, and EMR students in developmental classes); the within groups factor was setting (mainstream vs. special education setting).

No significant differences were found in the proportion of time students in the various handicapping conditions spent engaged in paper tasks overall. There were significant differences in the proportion of time spent in paper tasks in the two settings, F (1,60) = 7.32, $p < .01$, with a greater proportion of student time in paper tasks in the special education setting ($\bar{X} = .39$) than in the mainstream setting ($\bar{X} = .30$). The interaction of setting and category was not significant.

Teacher tasks. This composite reflects the proportion of time spent in all teacher tasks, including listening to lectures and teacher-student discussion. Significant differences were found in the proportion of time students in the various handicapping conditions spent engaged in teacher tasks, F (3,60) = 3.05, $p < .05$. Post-hoc tests using the Student-Newman-Keuls procedure indicated that EBD

Table 3

Proportion of Time Allocated to Tasks as a Function of Handicapping Condition and Setting

		Mainstream				Special			
		LD (n=28)	EBD (n=21)	EMR-R[a] (n=10)	EMR-D[b] (n=5)	LD (n=28)	EBD (n=21)	EMR-R (n=10)	EMR-D (n=5)
Composites									
Paper Tasks	$\bar{X}$	.296	.342	.341	.095	.392	.348	.491	.350
	SD	.14	.14	.18	.21	.20	.31	.19	.05
Teacher Tasks	$\bar{X}$	.214	.233	.256	.103	.110	.260	.065	.166
	SD	.10	.13	.13	.20	.10	.32	.05	.10
Individual Codes									
Readers	$\bar{X}$	.217	.161	.093	)3	.167	.140	.300	.045
	SD	.13	.10	.13	.14	.17	.23	.21	.03
Other Media	$\bar{X}$	.134	.117	.165	.460	.280	.221	.108	.231
	SD	.14	.09	.10	.37	.19	.22	.14	.15
Fetch-Put Away	$\bar{X}$	.139	.150	.145	.140	.049	.030	.035	.206
	SD	.07	.08	.05	.09	.06	.03	.05	.08

[a]EMR students who received all of their special education service in the resource room

[b]EMR students who received all of their special education service in the developmental classroom

students spent significantly more time engaged in teacher tasks than did LD students. No significant differences were noted in the proportion of time spent in teacher tasks by setting, nor was the interaction of setting and category significant.

Readers. While there were no significant differences in the proportion of time spent in readers as a function of either category or setting, a significant interaction of setting and category was found, F (3,60) = 3.93, $p < .01$ (see Figure 2). Post-hoc contrasts indicated that LD students spent a greater proportion of time in readers than did EMR-resource students in the mainstream setting, but that there were no differences among any of the groups in special education settings.

Other media. A significant interaction effect of setting and category also was obtained for other media, F (3,60) = 5.45, $p < .01$. This interaction is diagrammed in Figure 3. Post-hoc contrasts indicated that the proportion of time for EMR-self contained students with other media was significantly greater than for all other groups in the mainstream setting, but that there were no differences among any of the groups in special education settings.

Fetch/put away. A significant interaction effect of setting and category was found for fetch/put away tasks also, F (3,60) = 6.91, $p < .001$ (see Figure 4). The results of a post-hoc comparison indicated that in the special education setting, EMR-self contained students spent a significantly greater proportion of time in fetch/put away tasks than all other groups. In the mainstream, no significant

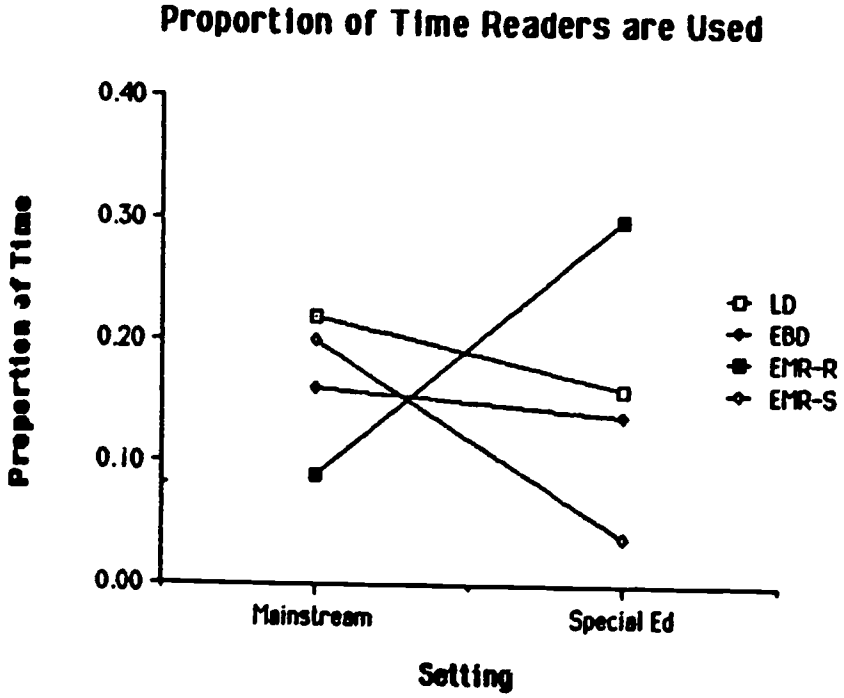

Figure 2. Time Spent Using Readers by LD, EBD, and EMR Students

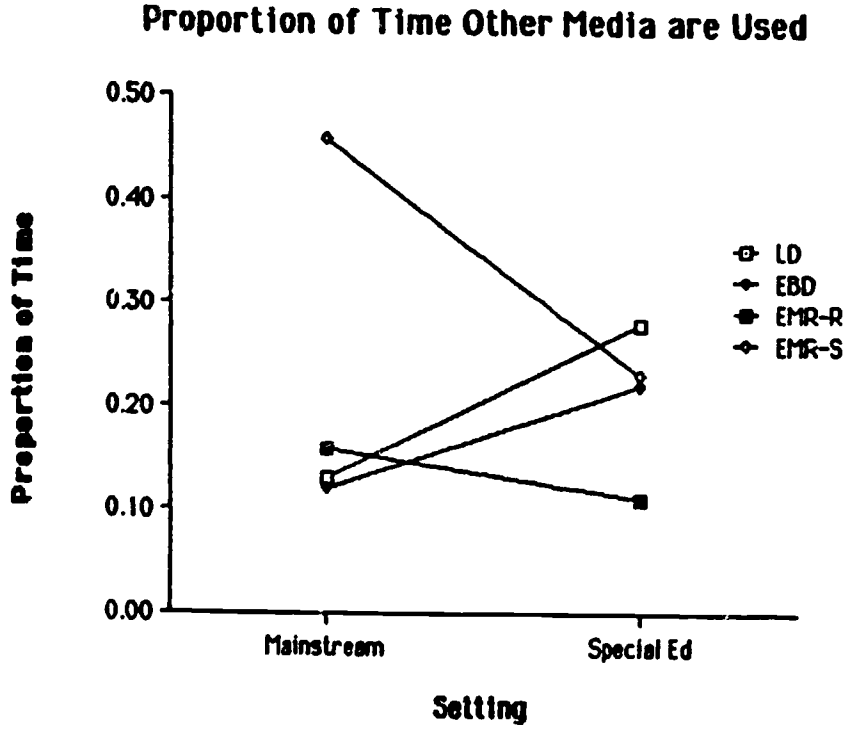

Figure 3. Time Spent Using Media by LD, EBD, and EMR Students

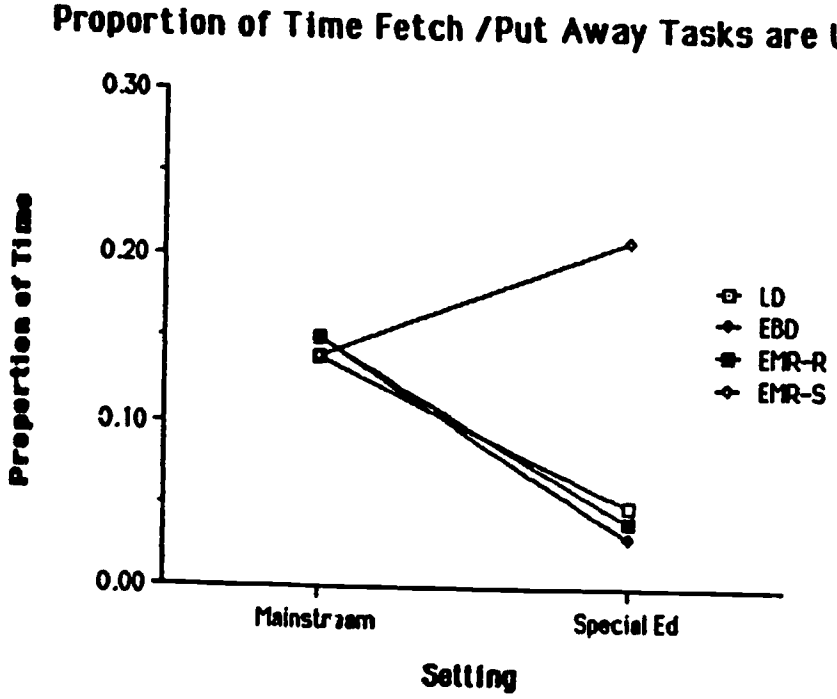

Figure 4. Time Spent With Fetch/Put Away Tasks by LD, EBD, and EMR Students

differences existed among the groups in proportion of time spent in fetch/put away. Overall, a greater proportion of student time was spent in fetch/put away tasks in the mainstream setting ($\bar{X}$ = .14) than in special education settings ($\bar{X}$ = .05).

Discussion

Relatively few significant differences were found in this observational study of the kinds of tasks used to instruct elementary school children overall, as a function of category, or as a function of instructional setting. During a typical school day, these elementary school students spent most of tneir time involved with paper-focused tasks, accounting for nearly 36% of the total time they were observed. Various readers were used for an average of 35 minutes, accounting for another 14% of the observed time. Relatively little time was devoted to a listen-to-lecture format. The findings basically are consistent with previous findings on time devoted to written tasks (Anderson, 1986; Durkin, '978-79; Sirotnik, 1983), as well as on time devoted to general routines such as preparation and clean up.

For those students who received instruction in both mainstream and special education settings, comparisons of the tasks used for different categories and in different settings revealed only one category effect and two setting effects. The category effect reflected the greater proportion of time devoted to teacher tasks (listen to lecture, teacher-student discussion) with EBD students as compared to all other categories of students. This finding probably

is a function of the focus on behavior and social skills with this group of students, which occurs comparatively more frequently in the special education setting. The two setting effects reflected significantly larger proportions of time on paper tasks and significantly smaller proportions of time on fetch/put away tasks in the special education setting compared to the mainstream setting. Given the findings of higher academic engaged rates when students are using paper and pencil tasks (see Graden et al., 1983), this task allocation is encouraging.

The three interaction effects that were identified all involved the EMR group. EMR-resource students had smaller proportions of mainstream time devoted to readers, while no differences occurred in the special education setting. EMR-self contained students had larger proportions of mainstream time devoted to other media than all other groups, but no differences existed in the special education setting. EMR-self contained students had larger proportions of special education time taken by fetch/put away tasks than all other groups, although no differences occurred in the mainstream setting. These interaction effects certainly suggest that the EMR population deserves more attention in classroom observational research. While some differences between EMR students served primarily in resource rooms and EMR students served primarily in special education rooms may be a function of variability in their ability levels (see Ysseldyke, Thurlow, Christenson, & Weiss, 1987), this may not explain all differences observed. The small numbers of students included in these

groups in the present study make the need for further research essential.

The supposition that classification results in differential instruction ... not received much support from the data analyzed in this study. In fact, it is more likely than not that the special education student receives an array of tasks that is not differentiated as a function of the student's categorical label. Not only are there not differences among categories of handicapped students, in general, but there also are not differences between mildly handicapped students and nonhandicapped students. The findings lend additional support to the suggestion that principles of effective instruction apply across categories (Reynolds & Lakin, in press, Ysseldyke, in press).

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