Effects of Instruction in an Assignment Completion Strategy on the Homework Performance of Students with Learning Disabilities in General Education Classes

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Homework is an important activity in the lives of school-aged children, including students with learning disabilities (LD). Characteristics often associated with LD (e.g., poor organizational skills) may adversely impact the rate and quality of homework completion. In this study, a multiple-probe across-students design (Horner & Baer, 1978) was used to evaluate the effects of instruction in a comprehensive, independent assignment completion strategy with regard to homework completion rates and the quality of products completed in response to assignments given in general education classrooms. Eight of nine students mastered use of the strategy, and their homework completion rates and the quality of their homework products improved. Associated with these improvements were increases in quarterly grades and teacher ratings of the quality of the assignments. Thus, direct instruction in a comprehensive strategy comprised of organizational behaviors can result in independent completion of more homework by students with LD. Nevertheless, instruction in organizational skills alone appears insufficient to produce a 100 percent submission rate: student motivation to complete assignments and mastery of the skills required, as well as the appropriateness of assignments for students, need to be addressed.

Since the early days of formal education, teachers have provided students with extended practice by assigning academic tasks called "homework" to be completed outside the formal school setting. Independent completion of both short- and long-term academic tasks through homework is a common demand in public education (Lenz, Ehren, & Smiley, 1991; Putnam, Deshler, & Schumaker, 1993). For example, in districts having homework policies, secondary students can expect to have about eight hours of homework assigned per week (Epstein, Polloway, Foley, & Patton, 1993). Furthermore, while there is variability in the extent to which homework performance plays a role in determining a student's grade (Bryan, Nelson, & Mathur, 1995), results of one investigation indicate that in seventh- and tenth-grade content-area classes (i.e., English, science, social studies, and math), between 17 and 32 percent of a student's grade is based on homework performance (Putnam et al., 1993).

As a result, homework is an important activity in the lives of most American school-aged children and their families, including those children and youth with special needs who are enrolled in classes in which homework is assigned. Homework concerns are especially critical for the 82 percent of students with learning disabilities (LD) who receive all or most of their academic instruction in general education classrooms (U.S. Department of Education, 1999).

Proponents of homework suggest that it is a vital part of the academic experience because it increases the number of opportunities students have to practice new skills and learn new content, and, as a result, improves students' academic achievement. They also argue that it enhances student attitudes toward education, bolsters self-discipline and good study habits, and encourages students to learn during leisure time (Cooper, 1989; Salend & Gajria, 1995). On the other hand, opponents argue that homework results in overexposure to academics, reduces opportunities for leisure and community activities, and may negatively affect the parent-child relationship (Bryan et al., 1995).

Unfortunately, the small, often inconclusive, and contradictory body of literature on homework (Paschal, Weinstein, & Walberg, 1984) makes resolution of this controversy difficult. Although a majority of the few empirical studies on the impact of homework on general education populations indicate that some positive results can be achieved with homework, others have indicated that homework

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does not produce gains (cf. Cooper & Nye, 1994; Otto, 1985).

For children and youth with LD, homework may produce mixed outcomes. Although homework allows for increased academic engaged time and distributed practice (which should be beneficial for students with special needs), the necessary instructional conditions are not always achieved, and the expected benefits are often not produced. Two conditions appear necessary for benefits to accrue (cf. Rosenberg, 1989): teachers must assign appropriate academic tasks, and students must complete those tasks. If both are not present, the performance, self-esteem, and grades of students with disabilities may be adversely affected, and a widened achievement gap may result between them and peers who do not have disabilities and who complete the homework.

To fulfill the first of the conditions required to produce beneficial results, teachers must plan and assign homework tasks that involve appropriate content at appropriate instructional levels that match students' skills. Teachers must also provide positive consequences for homework completion. Unfortunately, both general and special education teachers often do not plan and assign appropriate tasks (Rademacher, Schumaker, & Deshler, 1996; Salend & Gajria, 1995). For example, a survey of 88 teachers of students with LD revealed that although 80 percent of the teachers regularly assigned homework, few matched the assigned tasks to students' skills and few provided feedback on or positive consequences for homework performance (Salend & Schliff, 1989). Fortunately, recent research in this area (Rademacher et al., 1996) has developed and validated a routine for teachers to use in planning, presenting, and evaluating assignments that involves matching assignments to students' skills and providing feedback about homework performance (Rademacher, Deshler, Schumaker, & Lenz, 1998). Thus, the first condition for promoting the success of homework can be achieved.

To fulfill the second condition that must be present for benefits to accrue from homework, students must complete assignments at acceptable rates and levels of proficiency. In other words, if students do not complete assignments and put some effort into the process, they will not benefit from the assignments. Unfortunately, and for a variety of reasons, many students do not complete homework. Various nonhomework activities (e.g., video-games, television, the Internet, social functions, clubs, and athletics) often compete for students' out-of-school time. Then, as students mature, the developmental demands for independence that accompany adolescence come into play, and many students tend to reject the efforts of adults who try to schedule time for them with regard to doing homework. The students also tend to reject the offer of assistance from parents and other adults for homework tasks even though they may need it. Sometimes, the students do not know how to access people who could help them with difficult academic tasks.

For students with LD, the reasons for not completing homework are even more complex than those listed above. In many cases, their disabilities are directly tied to skills associated with homework completion. Because of listening and memory deficits, they often do not know what has been assigned; because of organizational deficits, they often fail to take home appropriate materials for completing assignments (Lenz, 1992; Polloway, Foley, & Epstein, 1992). Because of a host of other deficits, they have difficulty with recording assignments, allocating time for and maintaining attention on homework assignments, correctly estimating the time required to finish a task, especially a long-term assignment, monitoring assignment completion, and continuing to work even if a task seems too difficult (Salend & Gajria, 1995).

To overcome these difficulties, students with LD need to learn skills related to listening for and accurately recording an assignment, planning how much time should be scheduled to complete it and when to complete it, identifying what materials are needed and taking them home, setting attainable goals related to the homework, recruiting help when needed, monitoring where they are with regard to task completion, and rewarding themselves for sticking to the plan and completing the task. To avoid the other problems described earlier, they also need to learn to manage homework activities largely on their own to promote their independence and feelings of self-control, self-efficacy, and freedom of choice with regard to the many activities that compete for their time and attention.

Despite the needs of students with LD in this area, little research has been conducted on actually teaching them these skills. Most of the studies that have been conducted in this area (e.g., O'Melia & Rosenberg, 1994; Rosenberg, 1989; Sah & Borland, 1989) have focused on what teachers and/or parents can do to improve the homework performance of students. Techniques such as increased parental supervision of homework completion, formal home schedules for homework completion, contingencies for homework completion, and student teams for correcting homework have been used.

Only two studies have focused on directly teaching some of the targeted skills to adolescents with LD. In the first, Lenz et al. (1991) taught students with LD a complex goal-attainment process in relation to project assignments. Although positive results were achieved, this process was used by the students only in a controlled and tightly supervised environment (i.e., a summer school class). They did not work on the assignments at home. In a later study, Trammel, Schloss, and Alper (1994) taught students how to record their assignments, indicate whether or not the assignment was turned in, how to graph their homework completion rates, and how to set goals related to homework. They found that the students' homework completion rates in six general education classes were highest when the students had learned all these skills and that the students sustained these high rates in a maintenance condition and in follow-up probes where they received no rewards or reminders. Unfortunately, the students completed the homework in the resource room under their teacher's supervision during the whole study. They did not use the skills independently at home.

In summary, all the previously mentioned studies involved the evaluation of the effects of an intervention that was implemented in a special class setting or in an isolated class in which students knew their homework performance was being monitored. Students either completed their homework at home under close parental supervision with the

knowledge that their parents were communicating regularly with the special education teacher (Rosenberg, 1989; Sah & Borland, 1989), or they completed the homework in the resource room (Trammel et al., 1994) or their assigned projects in a summer school class (Lenz et al., 1991) under the supervision of their teacher. Thus, no studies have focused on teaching students a strategy comprised of the complex constellation of skills required for independent completion of *any* assignment. Additionally, no studies have focused on the instruction of these skills in one setting and evaluated students' generalization of the skills to regular secondary general education class settings and home when students do not know that their homework performance is being monitored. Further, no study has determined whether secondary general education teachers' perceptions of students' homework performance and the quarterly grades that they award students are sensitive to changes in homework completion rates and in the quality of assignments produced.

There are several reasons why an instructional intervention is needed for teaching students with LD how to independently complete their homework. First, students with LD often fail or barely pass tests (e.g., Bulgren, Schumaker, & Deshler, 1988), and their scores on these tests often comprise a large proportion of their grades in general education classes (Putnam et al., 1993). Improved homework completion rates might enable them to receive passing or average grades in these classes and ultimately result in higher graduation rates for this population. Second, many special education teachers spend most of their time monitoring homework completion. If students know how to complete assignments independently, these teachers would have more time to teach students strategies that would improve their grades even further or to focus on those homework assignments that are especially difficult. Necessarily, the intervention must be relatively brief in duration, given the realities of all the skills these students need to learn and the paucity of time for teaching them. Additionally, the intervention should be easy to implement, and it should focus on ensuring that students generalize the skills

to a variety of classes and can function independent of adult supervision.

Thus, the overall purpose of this study was to design and validate the effects of strategic instruction in an assignment completion strategy on students with LD. The research questions were: (1) Can students with LD master an assignment completion strategy? (2) Do assignment completion rates, quality of assignment products, grades, and teacher satisfaction with students' work improve in general education classes after students with LD receive instruction in the assignment completion strategy? and (3) Are those changes maintained over time?

METHOD

Participants and Setting

Participants were nine middle-school students between the ages of 12 and 15 who were classified as having a learning disability according to school district and Pennsylvania State guidelines. All students were participating in mainstream, academic classes for at least three periods per day (see Table 1 for the amount of time spent in the resource setting as well as other demographic information).

Students were nominated to participate in the study by two resource class teachers. Teachers were asked to nominate students having extreme difficulty completing and turning in homework assignments in their mainstream classes and who were disorganized in their approach to assignment completion. Teacher perception of the students' difficulties was validated by baseline data: over a two-month period, the selected students turned in an average of 44 percent of their assignments (range = 20 to 55%). Further verification of difficulties for participants in the area of homework completion was gathered through interviews conducted prior to the intervention with the students. Self-descriptions of assignment completion problems mirrored those identified in

TABLE 1
Student Demographics

Subject[1]	Gender	Age	Ethnicity	SES[2]	Intelligence[3]	Reading GE[4]	Math GE[5]	Written Language GE[6]	Grade	No. of Periods in Resource Room
1	M	13	W	L	120	4.0	5.2	3.7	8th	4
2	M	12	W	L	104	2.0	3.2	—	6th	4
3	M	15	W		89	6.3	4.9	—	8th	3
4	M	14	W	L	101	3.8	1.2	1.5	8th	4
5	F	15	W		88	6.0	5.3	4.2	8th	3
6	M	12	W	L	101	3.3	4.1	2.2	6th	3
7	M	14	W		105	2.4	3.4	2.0	8th	3
8	M	12	W		96	2.9	6.2	3.2	7th	2
9	M	13	W		96	3.6	2.7	3.7	8th	1
Means		13.3			100	3.8	4.0	2.9		3

[1] W = Caucasian.
[2] L = Student eligible for free lunch.
[3] Full scale IQ scores derived from the WISC-R.
[4] GE = Grade equivalent scores derived from the Woodcock Reading Mastery Tests-Revised (Form H).
[5] GE = Grade equivalent scores derived from the Key Math Test-Revised.
[6] GE = Grade equivalent scores derived from the Woodcock-Johnson Psychoeducational Battery.

the professional literature for students with learning disabilities. For example, students reported having trouble with accurately and completely recording instructions for out-of-class assignments in the time allotted by classroom teachers and with planning study time. They also said that they were reluctant to ask clarifying questions of teachers.

The intervention was conducted in a middle school (i.e., grades 6–8, student population = 500), in a northeastern, rural school district serving a student population of approximately 2,000 students. Instruction occurred in a room (approximately 8′ by 12′) adjacent to one of the resource classrooms. The room contained student desks, a teacher's desk, a chalkboard, an overhead projector, and a screen.

The Strategy and Associated Materials

An assignment completion strategy, called the PROJECT Strategy, was designed to be taught to the students. The strategy steps focus on the complete sequence of overt and cognitive behaviors involved in assignment completion, such as recording assignments quickly and accurately, analyzing assignments in terms of amount of time/effort needed, devising a plan for assignment completion based on this analysis, working on the assignment, and turning it in. Additionally, the strategy also includes metacognitive behaviors such as self-monitoring, self-instruction, and self-evaluation. The seven major steps and the substeps that cue these behaviors are shown in Figure 1. The first letters of the major steps form the first-letter mnemonic device "PROJECT," which students can use to remember the names of the steps so that they can instruct themselves on what to do next.

As they work through the steps of the strategy, students fill in three forms. The Monthly Planner (Figure 2) is a month calendar that students can use for long-range planning. The Weekly Study Schedule (Figure 3) is a week-at-a-glance calendar that students can use to plan exactly when they will

Prepare your forms

Record and ask

Organize
   Break the assignment into parts
   Estimate the number of study sessions
   Schedule the sessions
   Take your materials home

Jump to it

Engage in the work

Check your work

Turn in your work

FIGURE 1   Strategy steps and substeps.

do each assignment. The Assignment Sheet (Figure 4) is a form on which students record the assignment. This form was specially designed for students who have difficulty writing.

When using the first step of the assignment completion strategy, *Prepare Your Forms*, the student fills in numbers corresponding to the days of the current and subsequent month on two Monthly Planners (Figure 2). Any "special events" (e.g., athletic games/events, holidays, birthdays, trips) are noted on days they will occur so that time can be planned accordingly on those days and surrounding days. Next, the student prepares a Weekly Study Schedule (Figure 3) by writing in the date for each day of the week and blocking out time periods during each day when work on assignments cannot be done (e.g., while the student is eating, sleeping, at soccer practice, etc.).

The second step of the strategy, *Record and Ask*, is used when a teacher gives an assignment. First, the student independently, quickly, and accurately records the assignment on an Assignment Sheet (Figure 4) using abbreviations (e.g., "SS" for "social studies" or "LA" for "language arts"). Words printed on the Assignment Sheet are circled in lieu of writing them. For example, if the assignment is to "read Chapter 3 and answer chapter questions one through four," the student circles the words "Read" and "Answer" and then writes the rest of the assignment on the lines provided using abbreviations (e.g., Ch. 3, Q. 1–4). Additionally, the student notes the due date in the designated blank. Whenever the assignment is due in a different week than the current one, the student records the assignment and due date on the Monthly Planner using abbreviations. (This Monthly Planner is checked nightly to monitor upcoming due dates.) Then the student thinks about the instructions that have been given and asks questions about unclear aspects of the assignment. These questions can be asked immediately or after school, as needed. Finally, the student records any additional information learned on the Assignment Sheet.

The third major step of the strategy, *Organize*, is used toward the end of the day after all assignments have been recorded to fine tune the study schedule and ensure that all appropriate materials are taken home. The first letters of the names of the substeps for the Organize step form the mnemonic device "BEST." (See Figure 1.) First, the student *Breaks the Assignment into Parts*. For example, if the assignment is to write a book report, the student might break the task into parts such as selecting a book, reading the book, making notes, completing a first draft, and executing a final draft. These parts are listed on a piece of scrap paper. Then the student counts the number of parts and records this number (e.g., "5") next to "# of parts" on the Assignment Sheet. Next, the student *Estimates the Number of Study Sessions* required to complete the assignment (each study session is defined as a 30-minute block of time) by thinking about the different parts of the assignment and estimating how many half-hour blocks of time will be needed to complete them. Then the student writes this number on the Assignment Sheet next to "# of study sessions." Next, the student *Schedules the Sessions* by writing the abbreviation of the assignment (e.g., "BKRPT" for book report or "SS" for social studies) in a box on the Weekly Study Schedule corresponding to the days and times work will be done on the assignment (see

MONTHLY PLANNER

for the month of _____ November _____

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
☐	☐	1	2	3	4	5
6	7	8	9	10 Book Report Due in Eng.	11	12
13	14	15	16	17	18 My birthday!	19
20	21	22 Science Test Chapter 4	23	24 Band Concert 7 P.M.	25 Winter Dance 7:30 P.M.	26
27	28	29	30	☐	☐	☐

FIGURE 2   Monthly Planner.

Figure 3). As this is done, the student takes care to schedule study sessions enough in advance so that the assignment can be completed on time. For example, homework due the next day is scheduled for that night, and parts of long-term assignments are spread over several days well in advance of the due date because efforts sometimes take longer than estimated and unexpected events may occur. Finally, the student *Takes Materials Home* by putting all materials needed (e.g., books and handouts) for each assignment or part of an assignment to be completed that day or weekend in his or her backpack and carries them home.

The fourth, fifth, and sixth steps of the assignment completion strategy are used when the student is scheduled to work on the assignment at home or in a study hall. The fourth step, *Jump to It*, is used to overcome task avoidance, get out needed materials, use self-affirmations about the quality of work to be done, and check the requirements of the task. As the assignment is actually completed in the fifth step (*Engage in the Work*), the student notices any problems encountered and recruits help from parents or a "study buddy" from class. For Step 6 (*Check Your Work*), which is used when the work is completed, the student evaluates the quality of the work (e.g., its neatness, its completeness, and the effort put into it), makes any needed corrections, and circles a "quality grade" on the Assignment Sheet (see Figure 4). The student then places the assignment in a folder specially designated for completed homework.

The last step, *Turn in Your Work*, begins immediately after the homework has been completed. The student puts the assignment folder in a certain location (e.g., in a backpack by the door) so that it can be found easily. The next day, the student takes the assignment to school, checks the Monthly Planner and Assignment Sheets to ensure that all assignments that are due are turned in, and turns in the assignments on time. When the assignment has been turned in, the student records the date on the Assignment Sheet next to "Done" and engages in self praise for sticking to the plan and completing the work.

Measures

Strategy Usage in Simulated Probes

Each student's performance of the first three steps of the assignment completion strategy when given a simulated assignment in the resource room was recorded on a 33-item checklist (hereafter referred to as the Simulation Checklist). Some of the items on the checklist related to whether the dates on the Monthly Planner were filled in, if special events had been noted, and whether the due date of a long-term assignment had been recorded. Other items related to whether the student

WEEKLY STUDY SCHEDULE

Study Schedule for Week of ___Ap. 12 - 18___

DATE	12	13	14	15	16	17	18
TIME	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
6:30-7:00							
7:00-7:30							
7:30-8:00							
8:00-8:30							
8:30-9:00							
9:00-9:30							
9:30-10:00							
10:00-10:30							
10:30-11:00	Bk RPRT						
11:00-11:30	BkRPRT						
11:30-12:00							
12:00-12:30							
12:30-1:00							
1:00-1:30							
1:30-2:00		HIST TEST					
2:00-2:30		HIST TEST					
2:30-3:00							
3:00-3:30							
3:30-4:00			MATH				
4:00-4:30			BK RPRT				
4:30-5:00			Bk RPRT			BKRPRT	
5:00-5:30						BKRPRT	
5:30-6:00						MATH	
6:00-6:30							
6:30-7:00							
7:00-7:30				BKRPRT			
7:30-8:00				BKRPRT	HEALTH		
8:00-8:30				MATH	BK RPRT		
8:30-9:00					BKRPRT		
9:00-9:30							
9:30-10:00							
10:00-10:30							

FIGURE 3   Weekly Study Schedule.

ASSIGNMENT SHEET

FIGURE 4   Assignment Sheet.

had recorded the assignment and due date on the Assignment Sheet accurately, circled appropriate action words, used abbreviations, broken the assignment into logical parts, and recorded the estimated number of study sessions needed. Still other items related to whether the student blocked out times that would not be devoted to homework and recorded and labeled the appropriate number of study sessions on the Weekly Study Schedule. One point was awarded for each part of the strategy completed. Thus, a total of 33 points were available on the Simulation Checklist. One checklist was completed for each simulated assignment presented during a simulation probe. Since four assignments were presented during each simulation probe, a percentage of points earned score was calculated for each simulation probe by totaling the number of points earned on the four checklists related to that probe, dividing that "points earned" total by the total number of points available, and multiplying by 100.

Strategy Usage in General Education Classes

A second checklist (hereafter referred to as the Generalization Checklist) was utilized to measure student use of strategy steps for assignments presented in the students' general education classes. This checklist was comprised of the same 33 items as the Simulation Checklist along with two additional items: whether the student had rated the quality of the completed assignment and whether the student had recorded its completion on the Assignment Sheet. (These items could be scored for actual assignments given in general education classes because the students had an opportunity to complete them; in contrast, they were not asked to actually complete the simulated assignments.) A scorer used the Generalization Checklist while analyzing each student's assignment notebook, which was a notebook that contained many copies of the three forms (i.e., the Monthly Planner, Weekly Study Schedule, and Assignment Sheets) and in which the students recorded their actual class assignments.

In order to earn a point for an item on the Generalization Checklist, the student had to complete the corresponding part of the strategy appropriately in the notebook, and the infor-

mation the student recorded had to accurately correspond to information associated with an actual assignment given by the student's general education teacher (see below for how this information was collected). A percentage of points earned per week score was calculated by summing the number of points earned by a student on all checklists associated with all assignments given in targeted general education classes during a specific week, dividing that total by the number of points available, and multiplying by 100.

Assignment Completion

Measures of student performance related to assignment completion in general education classes were obtained by using a data collection form that was filled out by targeted general education teachers. This form (hereafter referred to as the Teacher Form) contained places to record: (1) a description of each assignment; (2) the date the assignment was given; (3) its due date; and (4) whether the assignment was turned in on time, late, or not at all. Two assignment completion measures were calculated directly from these forms for each week for each student: the percentage of assignments turned in on time, and the total percentage of assignments turned in (i.e., those that were on time plus those that were late). Additionally, a third measure, the percentage of actual assignments students recorded in their notebooks was determined by comparing the students' assignment notebooks to the teachers' reports of homework assigned. The number of assignment descriptions in the students' notebooks that matched the teachers' descriptions of assignments was divided by the total number of assignments described by the teachers and multiplied by 100 to calculate this measure.

Quality of Homework

Also on the Teacher Form was a place where the teacher indicated for each assignment whether all, most, some, or none of the assignment's requirements were met. (This quality measure was used in lieu of grades on assignments because

most of the teachers simply gave students credit or no credit for each assignment.) From the teachers' responses on the form, the percentage of a student's assignments each week that met all or most of the teachers' requirements was calculated by dividing the number of assignments meeting this criterion by the total number of assignments in a week and dividing by 100.

Quarterly Grades

The students' quarterly grades for targeted classes were collected from school records. Each student's grade-point average was calculated for the classes by associating each letter grade with a number (i.e., A = 4, B = 3, etc.), summing the numbers, and dividing by the total number of classes. First-quarter grades (the quarter before any students received instruction) were compared to fourth-quarter grades (the quarter after instruction had been completed for all students).

Teacher Ratings

A questionnaire was used to collect ratings of the participating targeted teachers related to the overall assignment completion performance of participating students before and after the study. The questionnaire contained four items, each formatted with a six-point scale. Items were related to (1) overall organizational skills, (2) turning in assignments on time, (3) overall quality of submitted assignments, and (4) accuracy of work on assignments.

Student Interviews

Two student interviews were used: the strategy interview and the satisfaction interview. In the strategy interview, students were asked six open-ended questions about how they approached out-of-class assignments that focused on (1) how well they kept track of assignments, (2) whether they used a study plan, (3) whether they had problems getting started on homework, (4) whether they were comfortable asking teachers about assignments in class, (5) what they did when having a problem completing a homework assignment, (6) whether they had problems recording assignments in class, and (7) whether they usually understood what to do and how to do it when completing homework. This interview was administered at the beginning and end of the study.

The satisfaction interview was administered only at the end of the study and contained five open-ended questions to assess students' satisfaction with the Assignment Completion Strategy. These questions were (1) Was the strategy helpful to you? How? (2) What parts of the strategy were the most helpful? (3) What parts of the strategy were not as helpful? (4) What would you change or add to the strategy? and (5) Would you recommend this strategy to other students?

Interscorer Reliability

To determine interscorer reliability on use of the Simulation Checklist and the Generalization Checklist, two inde-

pendent raters (two graduate students) scored approximately 25 percent of the forms (Monthly Planner, Weekly Study Schedule, and Assignment Sheet). An agreement was tallied when both raters indicated that a student used a particular part of the strategy correctly. The mean percentage of agreement for simulation probes was 97 percent (range = 94 to 100%) and for actual assignments in general education classes was 92 percent (range = 88 to 97%).

Interscorer reliability for the assignment completion and quality measures was obtained by having two independent raters score a randomly selected sample of two weeks of Teacher Forms for each student and calculate weekly means (e.g., the percentage of assignments turned in on time). The mean percentage of agreement for all students on these measures was 100 percent.

Experimental Design

A multiple-probe across-students design (Horner & Baer, 1978) was used and replicated twice. This design included three conditions: baseline, instruction, and maintenance. All nine students began baseline at the same time. They were each administered at least two baseline simulation probes. Instruction began with three students whose baseline scores on the Simulation Checklist were stable. When these students' scores on the Simulation Checklist improved, the remaining six students were given another probe, and another three students with stable baselines received instruction. When those three students' probe scores improved, the final three students were given another simulation probe followed by strategy instruction. After each student had completed the instruction, the maintenance condition began, and the strategy instructor continued to administer probes every few weeks at random to each student.

Procedures

Baseline

For each student, at least three general education classes were targeted. A total of eight teachers of math, English, social studies, health, and art participated. The resource teachers informed these general education teachers that they wanted to monitor how well certain students were performing on out-of-class assignments and asked them to complete the Teacher Form during selected weeks. They were not told that the students were participating in a study and receiving instruction in assignment completion, nor were they informed about the purpose of the study. Teacher Forms were collected by the resource teachers at the end of the selected weeks. Additionally, the teachers were asked to complete a questionnaire rating each student.

Also during baseline, an assignment notebook containing several copies of the three forms (Monthly Planners, Weekly Schedule Sheets, and Assignment Sheets) was distributed to the students by their resource teachers. They were asked to use the notebook to record all their assignments in all their general education classes. They were not told that their assignment notebooks were going to be examined regarding

their assignments in general education classes, and they were not given instruction on how to use the notebooks.

Once they had been given the assignment notebooks, all nine students began participating in simulation probes in the resource room. For each probe, the first author gave the students four assignments (three short-term and one long-term assignment; three in written form on the board and one presented orally). One of the four assignments had a critical piece of information omitted (e.g., due date, page number) to allow the students an opportunity to exhibit the "Ask" part of the *Record and Ask* step. The students were asked to complete the three forms as best they could for each assignment. Each student participated in at least two simulation baseline probes (i.e., received eight assignments). Also, each student participated in a baseline strategy interview.

Instruction

Instruction was scheduled four times per week for approximately 30 minutes per session and was provided by the first author, who is a certified special education teacher, has a Ph.D. in special education, and is a certified Strategic Instruction Model Trainer. Students met with the instructor in small groups (four to five students), depending on their schedule, in the resource room. (Students other than those consenting to participate in the study also received the instruction.)

To standardize the instruction across participating students, an instructional protocol was created that contained word-for-word scripts for presenting the information to students plus step-by-step descriptions of procedures for teaching the strategy. (See Figure 5 for an example of the script.) The instructor used the scripts verbatim and followed the step-by-step instructions in this document during each lesson. The instructional protocol was organized according to instructional stages similar to those outlined by Ellis, Deshler, Lenz, Schumaker, and Clark (1991). (More detail on the instructional procedures is provided by Hughes, Ruhl, Deshler, & Schumaker, 1995.)

In the first stage of instruction, the assignment completion strategy steps were described to the students along with where, when, why, and how the strategy can be used. Students were required to take notes about the strategy steps during this stage. In the second stage of instruction, the use of all the steps of the strategy was modeled for students. Here, the instructor spoke his thoughts aloud while showing the students how to do each step and substep of the strategy. (See Figure 5 for a portion of the model.)

During the third stage, students were engaged in verbal rehearsal activities to help them memorize the names of the strategy steps, the "BEST" substeps, and descriptions of when, where, why, and how to use the strategy. They were asked rapid-fire questions while visual and verbal cues were gradually faded out until they could answer all the questions rapidly and fluently.

In the fourth stage of instruction, called "controlled practice," students practiced using the first three steps of the strategy under "controlled conditions." That is, the teacher gave copies of all three forms to the students and simulated giving assignments in a manner and format similar to what the students would experience in their general education classes. As during baseline, students received four assignments

Sample script segment for the Schedule Sessions Substep

during the Model Stage of Instruction

TEACHER: "Next, I'll schedule the study sessions for the assignments I got today. I'll start with the ones due tomorrow because I want to make sure I have time to get my assignments for tomorrow done tonight. Let's see... what assignments are due tomorrow?" [Teacher checks the Monthly Planner and the Assignment Sheets.]

"Hmm... I have a math and a Spanish assignment due. I already estimated that math will take one thirty-minute session, and Spanish will take about two sessions. I add one plus two and see that I need to schedule three sessions for tonight. I look at my Weekly Schedule and see that I have slots open between 4:30 PM and 6:00 PM. I'll write 'math' in one of the boxes and 'Spanish' in two of the boxes in that time slot." [Teacher writes in the subject names in the appropriate boxes.] "Then I'll have dinner, and the rest of the evening will be free."

FIGURE 5   Sample script segment for the *Schedule Sessions* substep during the model stage of instruction.

during each simulation probe. The students were directed to use the first three steps of the strategy (*Prepare to Record*, *Record and Ask*, and *Organize*) as each assignment was presented by the instructor. Student practice attempts were scored, and corrective feedback was given until each student had mastered use of the three strategy steps at or above an arbitrarily chosen mastery level (90 percent of the steps and substeps performed correctly).

After achieving mastery in simulated practice activities that were focused on the first three steps of the strategy, students participated in the sixth stage of instruction, which involved a review of the remaining four steps of the strategy and a discussion of how they could generalize their use of all seven strategy steps to their general education classes. Topics included the benefits of using the strategy and how to watch for cues signaling situations in which the strategy could be used (e.g., "Today's assignment is as follows . . ."). In contrast to the instructional stages outlined by Ellis et al. (1991), no further generalization procedures (e.g., giving specific assignments to use the strategy in other classes, telling students that their forms would be checked to verify their use of the strategy, involving others such as classroom teachers or parents) were implemented in this study in order to determine if students would generalize their strategy use independent of such procedures. Throughout all of the instructional stages, the Teacher Forms were collected from the targeted teachers.

Maintenance

Six weeks after strategy instruction had ended, the instructor asked to see the students' assignment notebooks, and the students' performance of the strategy steps in general education classes was scored for randomly selected weeks that occurred during the study. At no other time in the study were the notebooks examined. Also during this condition, the Teacher Forms were collected from the targeted teachers and simulation probes were administered to the students. At the end of the study, the student interviews were conducted and the teachers completed the rating questionnaire. The students' quarterly grades were collected at the end of the school year.

RESULTS

Strategy Use

Strategy Use During Simulation Probes in the Resource Room

The solid circles in Figures 6 through 8 show baseline, instruction, and maintenance results with regard to simulation probe scores in the resource room. During baseline, the students earned an average of 19 percent of the points available on the Simulation Checklist. During instruction, eight of the nine students met the mastery criterion (earned 90 percent or more of the points available on one probe trial) within two or three practice probes and earned an average of 81 percent of the points. There was an increasing trend across trials for all of these students. The other student (S5) was somewhat of an

outlier with regard to her performance in all aspects of this study. While she was pleasant and agreeable, she stated early in the study that she was not interested in school, usually did no homework, and was just waiting for another year to pass so she could enroll in beauty school. Although her performance increased substantially above baseline levels, where her average score was 11 percent, she earned an average of only 65 percent of the points during the instruction condition. (Instruction was discontinued with her before she met mastery because she stated after two simulated practice sessions that she was not interested in learning the strategy and did not want to exert the required effort to reach mastery.) During the maintenance condition, while the other eight students earned an average of 90 percent of the points, she earned an average of 38 percent of the points. Improvement in performance occurred only after instruction was implemented in each student's case. The performance of the eight students during instruction was maintained during the maintenance condition across time. With the exception of S3, whose data represented a slightly decreasing trend, the trends shown in the data in this condition were stable. In general, with the exception of S5, their performances ranged between 80 and 95 percent, with no students' scores ranging more than 15 percentage points. None of the students' performances within the maintenance condition overlapped with their baseline performances.

Strategy Use in Targeted Classes

On average, each student received nine assignments per week (range = 7 to 12) in the targeted classes. Types of assignments varied and included completing math and vocabulary worksheets, chapter questions, study guides, art projects, and book reports, making graphs, and bringing in newspaper/magazine articles on particular topics. The open circles in Figures 6 to 8 display the percentage of points students earned on the Generalization Checklist for recording these assignments and planning their study time in their assignment notebooks throughout the study. Overall, students rarely used any of the strategy steps during baseline; only three students recorded anything in their notebooks. The nine students earned an average of 1.7 percent of the points available per week; the three students who actually recorded something earned an average of 8 percent of the points per week.

During the instructional condition, the nine students earned an average of 28 percent of the points. During maintenance, they earned an average of 60 percent of the points. Five students (S4, S5, S6, S7, and S9) showed some decrease in strategy use over the course of this condition, but, with the exception of S5, their scores remained well above those in the baseline and instructional conditions. There was more variability in the students' maintenance scores on this measure than on the simulation probe measure, with some students' performances ranging as much as 25 percentage points.

Assignment Completion Rates

The mean percentage of homework assignments turned in on time and the mean percentage of all homework assignments
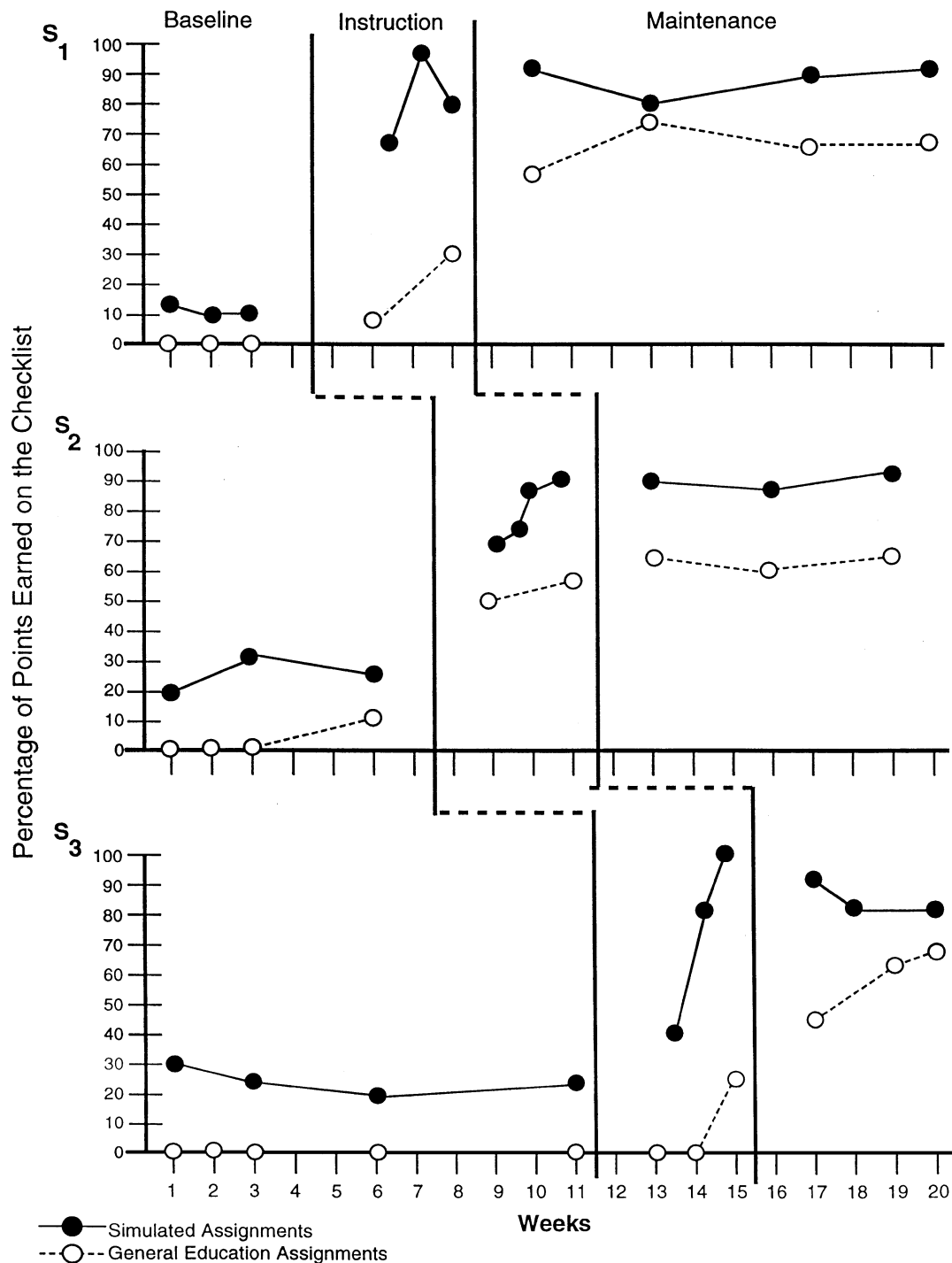
FIGURE 6   Percentage of points earned on the checklists by S1, S2, and S3 in simulated practice sessions in the resource room and in their Assignment Notebooks for general education classes.

turned in (i.e., those that were *on time or late*) by students in each condition are presented in Table 2 and are summarized in Figures 9 (for all students) and 10 (for the eight students who met mastery). During baseline, the mean percentage of homework turned in on time was 43 percent; the mean percentage of all homework turned in was 54 percent. Group means for the total percentages of homework turned in on time and all

homework turned in for the instructional condition were 52 and 58 percent, respectively, and for the maintenance condition were 64 and 70 percent, respectively. (If S5's data are not included in the calculations, these means are 57 and 64 percent, respectively, for the instructional condition and 72 and 77 percent, respectively, for the maintenance condition.)
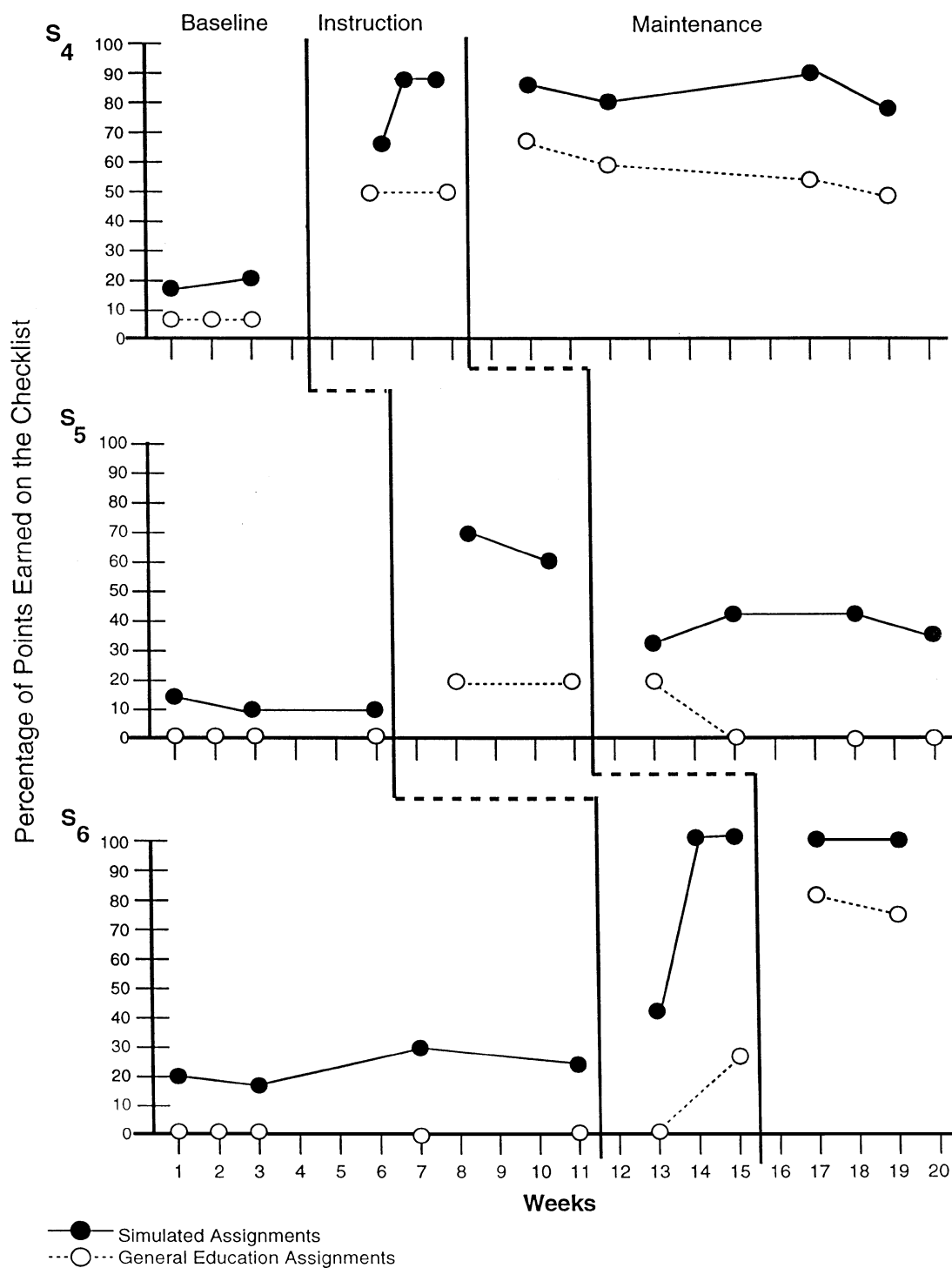
FIGURE 7   Percentage of points earned on the checklists by S4, S5, and S6 in simulated practice sessions in the resource room and in their Assignment Notebooks for general education classes.

Quality of Assignments

The mean percentages of assignments turned in per week that met all or most of the teachers' requirements are also presented by condition in Table 2 and summarized in Figures 9 and 10. As a group, the students met all or most of the assignment requirements an average of 45 percent of the time during baseline, 56 percent of the time during instruction, and 66 percent of the time during the maintenance condition. If S5's data are not included in the calculations, the group mean for the instructional condition was 63 percent and for the maintenance condition was 73 percent.
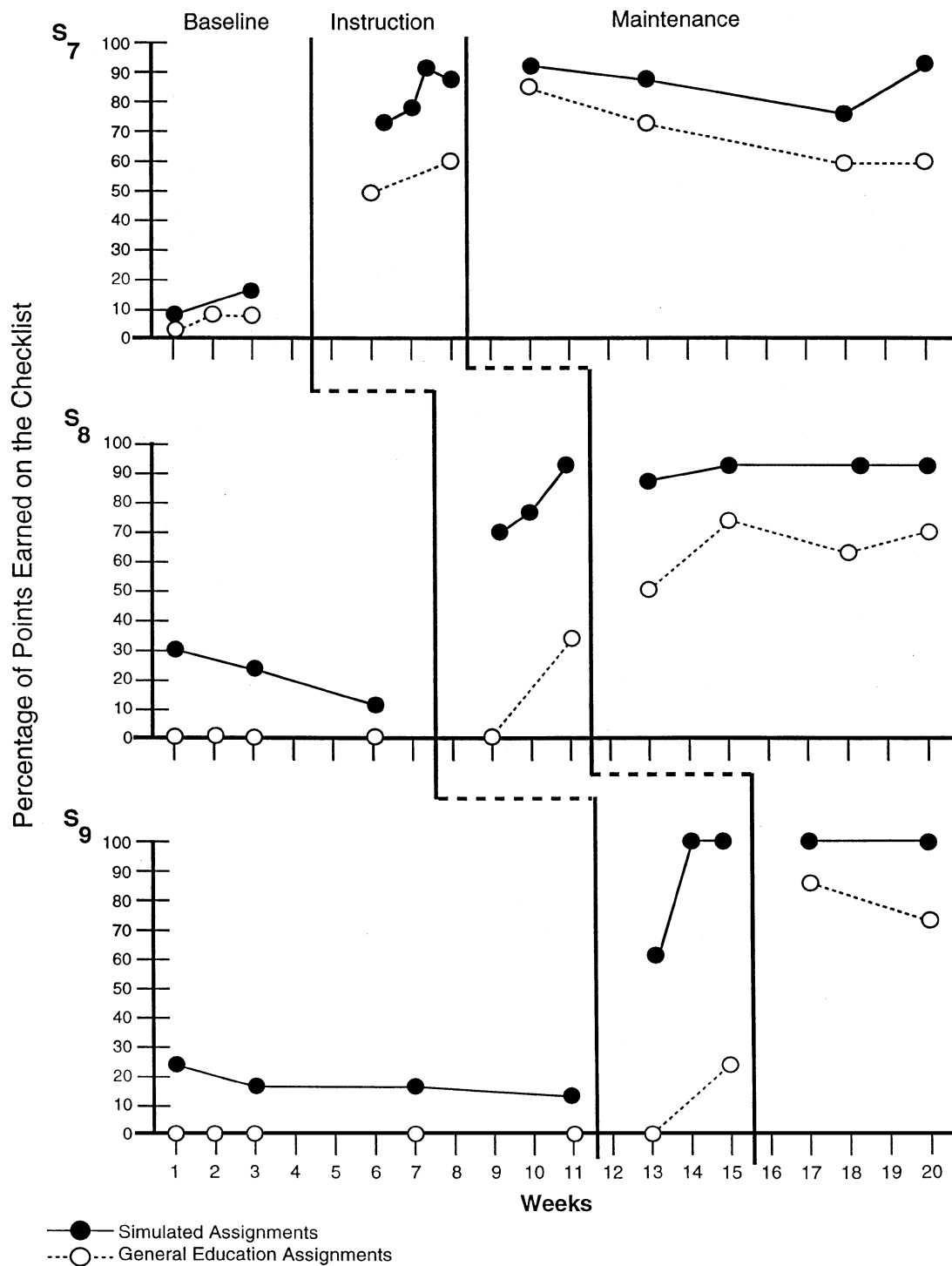
FIGURE 8   Percentage of points earned on the checklists by S7, S8, and S9 in simulated practice sessions in the resource room and in their Assignment Notebooks for general education classes.

Quarterly Grades

During the first quarter, the eight students who mastered the strategy earned a mean grade-point average (GPA) of 1.7 in the targeted classes. During the fourth quarter, these students earned a mean GPA of 2.6 in those classes. Six of the nine students earned higher GPAs in the fourth quarter than in the first. Student 5 failed all her courses across the whole school year, and two other students' GPAs remained the same as well (S7 and S8). (See Table 3 for individual data.) When the

TABLE 2
Mean Percentage of Assignments Meeting Certain Requirements Across Experimental Conditions

Subject	Baseline			During Instruction			Maintenance		
	OT[1]	ALL[2]	REQ[3]	OT	ALL	REQ	OT	ALL	REQ
1	53	67	44	46	57	59	69	74	75
2	21	29	23	56	58	64	75	81	64
3	48	64	53	82	90	60	72	78	67
4	38	49	36	41	55	54	65	71	67
5	30	39	27	10	10	4	2.5	13	10
6	47	55	56	58	58	62	72	76	74
7	53	59	53	49	57	74	70	76	73
8	41	55	52	60	63	62	67	75	74
Total Means	42.9	54.0	45.4	52.0	57.9	56.0	63.8	69.8	66.2
Means w/o S5	44.5	55.9	47.8	57.4	63.9	62.5	71.5	76.9	73.3

[1] OT = Mean percentage of assignments turned in on time.
[2] ALL = Mean percentage of assignments turned in on time or late (i.e., all assignments turned in).
[3] REQ = Mean percentage of assignments meeting all or most of the requirements specified by teacher.

teachers were asked at the end of the study what percentage of the quarterly grade was dependent on assignment completion, they specified a mean of 32 percent of the quarterly grade.

Teacher Ratings

At the beginning of the study, the mean teacher ratings (on a six-point scale) for all the students were 3.3 for organization, 3.7 for turning assignments in on time, 3.8 for quality of work, and 3.9 for accuracy. At the end of the study, the mean ratings were 4.7, 5.0, 4.8, and 5.2, respectively. Analyses of individual data (shown in Table 4) revealed that, with the exception of S5, S8, and S9, who had some ratings that stayed the same and/or declined, the mean teacher ratings for most of the students reflected this increasing trend.

Student Interviews

During the preinstruction strategy interview, seven of the students indicated that they had difficulty keeping track of their assignments. During the postinstruction interview, these same seven students indicated that they almost always knew what they were supposed to do and when to do it. Also, during the preinterview, five of the students said they did not develop any plan for completing homework. During the postinterview, these same five students stated that they now planned their homework on a daily basis. Unfortunately, during both the pre- and postinterviews, these students indicated that they continued to have problems getting started and following through on assignments (although several indicated they did not have as *much* difficulty as in the past). In general, there were no changes in their comfort level related to asking
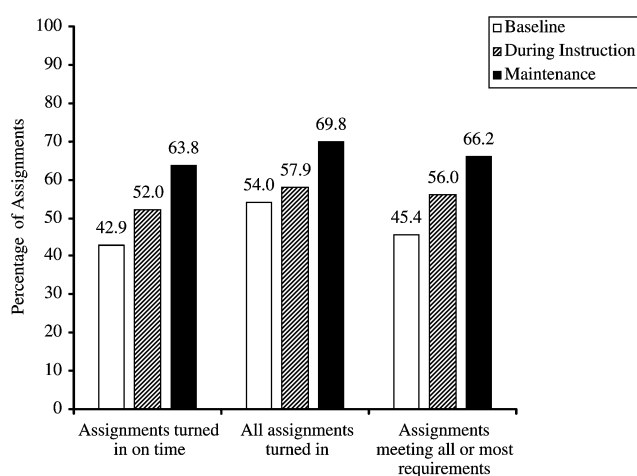

FIGURE 9   Percentage of assignments turned in on time, on time and late, and in which all or most of the requirements were met across experimental conditions for all students.
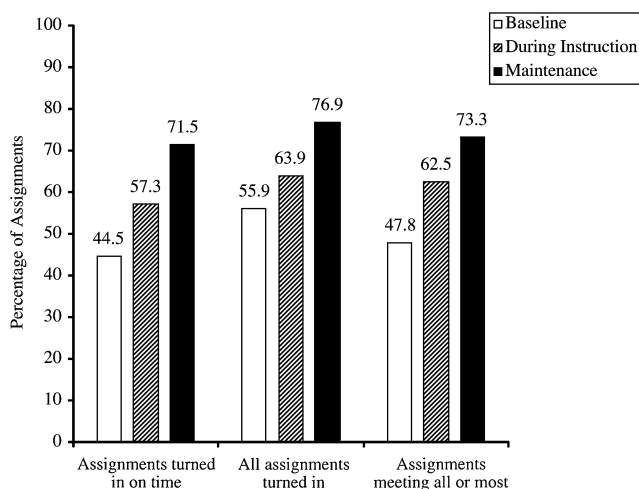

FIGURE 10   Percentage of assignments turned in on time, on time and late, and in which all or most of the requirements were met across experimental conditions for the eight students who met mastery.

TABLE 3
Quarterly Grade-Point Averages in Targeted
Courses for Individual Students

Subject	First Quarter	Fourth Quarter
S1	1.0	2.0
S2	1.0	2.0
S3	1.0	2.0
S4	2.0	2.3
S5	0.0	0.0
S6	2.0	2.3
S7	2.7	2.7
S8	2.0	2.0
S9	2.0	3.5

teachers for clarification about assignments in class; they continued to feel uncomfortable about asking teachers for more information about assignments. Three students, who indicated on the preinterview that they asked their parents for help if they had a problem with homework, stated on the postinterview that they first called another student before asking their parents. Finally, six students stated during the postinterview that they had less difficulty understanding/remembering what they were supposed to do when completing the assignment.

During the satisfaction interview, all the students who mastered the strategy indicated that they believed the strategy was helpful. Most comments centered on ideas such as, "It kept me organized" and "It helped me keep track of what needed to be done." When asked about what parts of the strategy were most helpful, the majority indicated that the BEST substeps of the *Organize* step were the most useful ($N = 7$) followed by using the Assignment Sheet during the *Record and Ask* step ($N = 6$). Several students ($N = 5$) indicated that they did not like blocking out times on the Weekly Study Schedule and preferred to just write in when they would study. Two students said they did not think the *Jump to It* step was helpful because sometimes they just wanted to do something else besides homework. Finally, when asked whether they would recommend the strategy to other students, eight of the nine students said they would.

TABLE 4
Mean Teacher Ratings

Subjects	Overall Organizational Skills		Assignments in on Time		Quality		Accuracy	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
S1	4.7	5.3	4.0	5.7	5.0	5.7	4.7	5.7
S2	2.0	4.7	3.0	4.5	2.7	4.0	3.0	6.0
S3	2.5	5.0	2.5	6.0	3.5	5.0	2.5	4.7
S4	3.0	4.0	3.0	4.0	2.3	5.5	3.0	6.0
S5	2.4	2.3	2.0	2.0	4.0	4.0	3.0	3.3
S6	3.0	5.0	3.0	5.0	4.0	5.0	3.0	5.0
S7	5.3	6.0	5.7	7.0	4.2	5.5	5.4	6.0
S8	4.3	5.0	5.4	5.0	5.4	5.7	5.4	5.0
S9	2.2	5.0	4.0	5.4	3.0	3.0	4.7	4.7
Total Means	3.3	4.7	3.7	5.0	3.8	4.8	3.9	5.2
Means w/o S5	3.4	5.0	3.8	5.3	3.8	4.9	4.0	5.4

DISCUSSION

Results of this study indicate that young adolescents with LD can learn, apply, and maintain their use of a comprehensive strategy designed for independently recording and completing assignments in such a way that their rate of assignment completion in general education classes increases and the number of requirements met increases. Associated with these improvements were better quarterly grades and higher teacher ratings for a majority of the students. For the large majority of the students in this study, these changes occurred after relatively little instructional time: approximately seven hours of instructional time spread over four weeks. Additionally, their higher levels of performance were maintained after instruction was discontinued.

These positive findings are similar to the positive results of other studies that focused on improving the assignment performance of students with LD via instruction in organizational/self-management skills (Lenz et al., 1991; Trammel et al., 1994). However, in the previous studies, students completed the assignments under the supervision of a summer school or resource teacher. Additionally, student acquisition of a strategy was not measured, and generalization of the strategy to other settings and maintenance of strategy use was not measured. Moreover, the quality of student work was not measured, quarterly grades were not reported, and general education teacher ratings of students' homework assignment behaviors were not gathered. This study extends previous research by demonstrating that students can *independently* perform strategy steps to record assignments given in their general education classes and complete the assignments at home with no prompting from parents and teachers and without the implementation of artificially contrived contingencies once they have learned a set of organizational/self-management skills. Moreover, this study showed that students can maintain their use of these skills over time.

The average homework completion rate during the maintenance condition (73 percent) of the eight students who mastered the strategy in this study is similar to the rates achieved in at least one other study. For example, O'Melia and Rosenberg's (1994) cooperative homework teams (CHT) procedure produced a mean assignment completion rate of 74 percent; however, the teacher had to implement the CHT procedure every day in math class, utilizing a considerable portion of class time. Additionally, the homework completion rates in only one class (math) were affected by the CHT procedure. Although the assignment completion rates achieved in some other studies (Rosenberg, 1989; Trammel et al., 1994) were higher than those produced in this study, the students in those studies completed the assignments under the close supervision of a teacher or parents. In the current study, the students completed the assignments entirely on their own, on their own time, and in their own homes. Although their parents knew about the study (since they had signed consent forms), they were not aware of the procedures or how their children were performing (other than receiving quarterly report cards from the school), nor were they asked to supply contingencies or supervision in the home. Likewise, the resource teachers did not supervise the completion of the students' homework. (Time in resource classes was used for

teaching content (e.g., math, English) to the students rather than supervising their homework completion.)

Although the results of this study are certainly a positive demonstration with regard to what students with LD can accomplish, they reveal some important considerations for educators and some remaining issues for future research. First, the baseline results indicate that simply giving an assignment notebook to students with LD and prompting them to use it does not produce high rates of assignment recording or completion. The baseline results indicate that these students need explicit instruction in the complex sequence of behaviors related to assignment recording and completion before higher rates are produced.

Second, even though eight of the students met the mastery criterion during simulated activities in the resource room and all the students improved with regard to their use of the skills imbedded in the strategy, none of the students used all or close to all the measured strategy steps consistently in their general education classes after they had received the initial instruction as well as they did after they were explicitly instructed to do so in the generalization stage of instruction. In fact, during the instructional condition, their performance with regard to recording assignments in class did not change much. Some students' (S1 and S7) performance with regard to turning in assignments actually decreased slightly during the instructional condition. This is not surprising since the students did not receive the generalization instruction (to actually use the strategy in their classes) until the last day of the instructional condition.

When interviewed at the end of the study, the students reported that they had either forgotten steps or preferred not to use them. Some of the students reported gradually omitting more and more of the recording steps as they found they were not needed. (They reported that they could remember the information and did not need to record it.) Several components of the strategy were reported as more frequently omitted than others. These components included: (1) noting special dates on the Monthly Planner, (2) crossing out nonstudy times on the Weekly Study Schedule, (3) scheduling due dates on the Monthly Planner, and (4) assigning themselves a quality grade.

Although determining the impact of these omissions on assignment completion in this study is not possible, one might surmise that neglecting to note due dates on the Monthly Planner and thereafter neglecting to check the Monthly Planner might result in failure to turn in some assignments. Educators need to be aware that simply instructing students with LD in a complex strategy may not be enough. They need to provide explicit generalization instruction, and they may need to follow up on how well the students are generalizing the strategy by regularly checking assignment notebooks against the actual assignments given by teachers and provide feedback about strategy use and additional rationales about why certain parts of the strategy should not be omitted.

Third, only two of the students reached assignment completion rates above 80 percent in the maintenance condition. Not surprisingly, some students' quarterly grades did not improve. Rosenberg's (1989) data indicate that assignment completion rates above 90 percent are related to achieving benefits from homework. Although the assignments in Rosenberg's study were quite different from those in this study (they were related to the practice of spelling words only), and the students in this study indicated in informal discussions that they simply did not have the skills necessary to do some of their assignments, a rate of assignment completion higher than the 77 percent rate achieved here would seem to be desirable, especially if improved quarterly grades are to be achieved. Again, educators need to be aware that simply teaching students a strategy and not providing follow up on generalization may not lead to the desired end goal.

Two other factors seem to be related to success with instruction in this strategy: students' skill deficits and motivation. During the interviews, several students said that sometimes they did not know how to do the work required. A review of the assignments with a resource teacher validated the students' remarks; she indicated that, given their skills (on average, these students were reading and writing at the third-grade level), she would not expect the students to be able to complete some of the assignments (e.g., writing a paper) independently. This informal finding is similar to those noted by others (e.g., Polloway et al., 1992; Putnam et al., 1993; Rosenberg, 1989).

Obviously, providing instruction on an assignment completion strategy alone will be insufficient if the student does not have the skills to complete the assignment. Educators need to teach students other strategies (e.g., reading and writing strategies) they need to be successful on assignments. This is now possible given the array of validated methods available for teaching students with LD academic strategies (e.g., Deshler & Schumaker, 1986; Lenz, Schumaker, Deshler, & Beals, 1984; Schumaker, Deshler, Zemitzsch, & Warner, 1993; Schumaker & Sheldon, 1985) Additionally, general education teachers need to take into consideration the skills of the students with LD who are enrolled in their classes as they design their assignments. They need to present options that all students can consider and then help students with skill deficits choose the options that most closely fit their skills (Rademacher et al., 1996).

Students must be motivated to complete assignments. As shown in this study, S5, who was not motivated to get a high school diploma, did not master the strategy, and her assignment completion rates and failing grades did not improve. Again, instruction in an assignment completion strategy may not be sufficient to produce the desired results with such a student. Students may need to have learned a strategy like the Self-Advocacy Strategy (VanReusen, Bos, Schumaker, & Deshler, 1994), set goals for the future, including graduation from high school, and be working toward those goals before they become motivated to do difficult work in their classes. Additionally, general education teachers may need to plan motivating assignments for their students. They need to provide a variety of assignments that engage student interest, are relevant to the students' lives, and allow students to make choices (Brophy & Alleman, 1991; Rademacher et al., 1996).

In addition to all these concerns, there are some limitations related to this study that should be noted. First, the implementation of the instructional program was not measured; instead, the instructor followed the same detailed

word-for-word script for all students in the study. Second, the actual performance of students on their assignments was not measured. Since the teachers did not score homework, a quality rating was collected from the teachers on each assignment, and an overall quality rating and an accuracy rating were collected at the beginning and end of the study. Additionally, no measures of student learning were gathered. These types of measures (quality of homework and student learning) would have been difficult to collect and report because the students were taking different courses from teachers who had different objectives, their homework covered different topics and skills, and the type of homework varied from day to day. Sometimes they had a worksheet to complete; other times they had a paper to write. Measuring student performance on such disparate tasks in a common way is difficult; measuring student learning as a result of completing such disparate tasks is even more daunting.

Future research in this area might focus on the inclusion of more generalization instruction (e.g., giving students specific assignments to use the strategy in their classes and periodically reporting to the teacher on strategy use) as well as more involvement of teachers and parents. For example, general education teachers might be involved as the student is initially learning the strategy by asking them to initial the student's notebook to show that the student has recorded all the necessary information for an assignment. Parents might be asked to sign the notebook, indicating that the work is complete before the student becomes involved in some other evening activity (e.g., talking on the phone, watching TV). This supervision could be gradually faded as the student becomes more and more successful. Additionally, students might be asked to graph their assignment completion rates each week and to set goals for future weeks to make them aware of the amounts of homework they are and are not completing. They might meet with a resource teacher weekly to discuss progress related to their goals. In other words, the strategy designed for this study might be combined with other types of procedures (e.g., goal setting and graphing, parent supervision, parent use of contingencies) to determine whether higher rates of assignment completion can be achieved.

Additionally, future studies might compare the effects of teaching this strategy alone to the effects of teaching this strategy in combination with the other procedures mentioned above or to the effects of some other procedure alone (e.g., the use of home contingencies for homework completion). Future studies might also include all the students' classes and teachers in the intervention, implement the intervention(s) for a whole school year, and measure student achievement.

In summary, the present study has demonstrated that the rates and quality of independent completion of homework assignments in general education classes by students with LD can be affected after a relatively short period of intensive and systematic instruction (modeling, describing, verbal practice, practice and feedback, and mastery learning). Future studies need to be designed to focus on the generalization of strategy use and procedures for enhancing the effects of the instruction (e.g., initial involvement of parents and/or teachers, combining the instruction with instruction in other strategies) as well

as comparing this intervention with others in order to determine the most effective methods for producing independent and successful student performance in all classes.

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