

Teaching Behaviorally Disordered Adolescents to Use Self-Management Skills for Improving the Completeness, Accuracy, and Neatness of Creative Writing Homework Assignments

Nancy Glomb and Richard P. West

ABSTRACT

The purpose of this study was to examine the effects of a self-management procedure known as WATCH that was designed to teach adolescents with learning and behavior problems to improve the completeness, accuracy, and neatness of their creative writing homework assignments. The procedure was based on four strategies: teaching students the fundamentals of behavior change, teaching students to use self-instruction, teaching students to set goals and implement plans to achieve those goals, and teaching students to accurately evaluate their work. Two high school students who were classified as behaviorally disordered were taught to develop plans for completing their creative writing homework assignments, and to evaluate the completeness, accuracy, and neatness of their assignments. A multiple baseline design across students was used to determine if improvements in the completeness, accuracy, and neatness of homework assignments were associated with the use of the procedure. Data show that the completeness, accuracy, and neatness of creative writing assignments increased for both students following training in the use of the WATCH procedure.

Adolescents with learning and behavior problems often possess poor planning or goal implementation skills, and do not complete independent work on time (Tollefson, Tracy, Johnson, & Chatman, 1985). Several researchers (Beare, 1985; Filipzak, 1979; Leung & Carr, 1984) have indicated that most regular classroom teachers feel unprepared to accommodate students with special needs, and in fact, are unwilling to use individualized programs even after they are provided with materials and training. It is therefore important for students with learning problems to acquire the skills necessary for success in regular classrooms prior to entering those situations.

Teaching students the fundamentals of behavior change (Brigham, 1982; Brigham, Hopper, Hill, deArmas, & Newsom, 1985), the use of self-instruction strategies (Leon & Pepe, 1983; Meichenbaum & Goodman, 1971), planning and goal implementation strategies (Tollefson et al., 1985), and self-evaluation techniques (Bolstad & Johnson, 1972; Drabman, Spitalnik, & O'Leary, 1973; Rhode, Morgan, & Young, 1983; Robertson, Simon, Pachman, & Drabman, 1979; Turkewitz, O'Leary, & Ironsmith, 1975) have all been used successfully to teach students to take responsibility for their academic performance and classroom behavior. Brigham (1982) indicated that students must analyze and restructure their personal environments before they can begin to change specific problem behaviors. In the model used by Brigham, students learned to manage their behavior by recording antecedent and consequent events of behavior in their environment, studying the relationship of those events to their behavior, and changing their behavior to produce different consequences. This approach also taught students that they could exercise considerable control over their environment, a concept considered by Kanfer and Gaelick (1986) to be an important prerequisite for successful training of self-management skills.

Meichenbaum and Goodman (1971) sought to decrease problem behaviors by training children to talk to themselves about what they were doing. Since self-instruction typically requires individuals to ask themselves questions and then answer them, it seems to be an appropriate technique for learning disabled and behaviorally disordered students who are frequently confused about what it is they are supposed to do (Leon & Pepe, 1983). The technique encourages students to consider more carefully the requirements of the task and compare their performance to those requirements.

Tollefson et al. (1985) used a planning and goal implementation strategy to teach adolescents with learning problems to increase their rate of completing academic tasks. Students were taught to write weekly achievement contracts which consisted of a goal statement for the week and a specific implementation plan to meet the goal. They were then taught to evaluate the appropriateness of the goal and plan at the end of each week. Four of the eight subjects in this study increased their task completion rate in the resource room, and three of the students increased their rate of task completion in the regular classroom.

In several studies (Bolstad & Johnson, 1972; Drabman et al., 1973; Rhode et al., 1983; Robertson et al., 1979; Turkewitz et al., 1975) students have been trained to monitor their work through self-evaluation by recording instances of their behavior or rating the quality of their behavior during an interval of time. Honest and accurate evaluation is shaped by matching ratings with the teacher, and gradually fading the matching procedure. If the fading of external systems is successfully achieved, the self-monitoring process "begins a feedback loop in which self-adjusted responses are made until the standard of performance is achieved or approximated" (Kazdin, 1974, p. 73).

Purpose of the Study

Research on self-management has investigated a variety of variables and applications. Self-managed behavior change programs include one or more critical activities that are managed by the individual whose behavior is the target of change, unlike programs that are largely managed by a teacher, parent, or other person (Young, Smith, West, & Morgan, 1987). Researchers are continuing to investigate the feasibility of shifting the responsibility of behavior change from external managers to the person him/herself.

Although teaching students the skills to improve their own performance and maintain acceptable levels of classroom and academic behavior has proven to be effective, much of the research on these techniques has focused on elementary students (Bandura & Perloff, 1967; Bolstad & Johnson, 1972; Davis & Hajicek, 1985; Drabman et al., 1973; Harris & Graham, 1985; Rhode et al., 1983). Research conducted with secondary students has focused primarily on decreasing disruptive behaviors (Kiburz, Miller, & Morrow, 1984; Warrenfeltz et al., 1981). Few studies have evaluated procedures for teaching adolescents to complete assignments that they are expected to work on independently. This study combined four strategies identified in the research literature, namely, (a) teaching students the fundamentals of behavior change, (b) teaching students to use self-instruction strategies, (c) teaching students to set goals and implement plans to achieve those goals, and (d) teaching students to evaluate the quality of their work. The purpose of this study was to assess the effectiveness of these four strategies used by secondary students to improve the completeness, accuracy, and neatness of their academic work.

METHOD

Participants

The participants in this study were two high school students who were classified as behaviorally disordered. Both students were attending the resource program for half of the school day, and were enrolled in regular education classes for the remainder of the day. They were referred to the experimenter by their resource teacher for participation in the study because they did not complete homework or independent seatwork.

Students contracted with the experimenter and the school guidance counselor to meet with the experimenter for the training. Students participating in this study received one credit that was figured into their overall GPA for the trimester the study was conducted. The decision to use a grade as a reinforcer was based on a pilot study conducted during the previous trimester when students similar to those participating in this study chose an extra credit grade over other types of reinforcers.

Setting

The self-management training was conducted in a conference room within the school's main office area. The room measured 12 ft by 15 ft and had a round table, chairs, and a large chalkboard on one wall.

Independent Variable

The independent variable in this study was a procedure called WATCH that was designed to teach adolescents how to plan assignments and monitor their academic work for (a) completeness of assignments, (b) how accurately they followed all of the directions or performance standards for the assignment, and (c) neatness. WATCH is an acronym that stands for the steps in the procedure: (a) **W**rite down an assignment when it is given and write the due date; (b) **A**sk for clarification or help on the assignment if needed; (c) **T**ask-analyze the assignment and schedule the tasks over the days available to complete the assignment; and (d) **C**heck all work for completeness, accuracy, and neatness.

Dependent Variable

The dependent variable for this study was creative writing assignments. Students were given a packet containing five full-color pictures each Monday and instructed to write one story about each of the pictures. The compositions were to be submitted the following Friday. A complete assignment was defined as one in which the student had written at least 190 words. A sample of writing compositions from several regular education students judged by their teachers to be doing acceptable written work in class revealed that this was the average number of words on a page for an assignment of this type. Accuracy was defined as the number of sentences having a subject and a predicate, a capital letter at the beginning, and punctuation at the end. Neatness measures included handwriting errors and messy errors. A handwriting error was defined as a word that was illegible. Messy errors included cross-outs, write-overs, tears, and smudges.

The creative writing assignment described above was selected for this study because it did not require any academic skills that the students could not already perform proficiently. Each student's ability to write a full-page composition, write in complete sentences, and write neatly was validated by the students' special education teacher. Spelling errors were not counted because it would have been impossible to limit each student to the repertoire of words that he or she knew.

Kazdin (1982) suggested that social validation measures be used to determine the specific focus of an intervention. The decision to use these dependent measures was based on responses to a social validation questionnaire designed to assess local high school teachers' expectations for students in their classes, and skills in which they felt low achieving students were deficient. All of the respondents reported that handing in at least part of the assignment by the due date would help their D and F students achieve at least a C grade, and most of the respondents reported that attending to assignment directions and doing assignments neatly were academic-related skills that many D or F students needed in order to improve their performance.

Data Collection

Data were collected on the completeness, accuracy, and neatness of students' creative writing assignments for one week prior to the beginning of the study and at the end of every week during the study. The experimenter and an independent rater counted the number of words on a page,

the number of incomplete sentences, and the number of neatness errors in creative writing assignments submitted by students not involved in the study until 80% agreement on the three dependent measures. Interrater agreement between the experimenter and the independent rater was calculated for all assignments handed in during the study by dividing the smaller score for each measure on each assignment by the larger score. The mean percentage of interrater agreement for completeness, accuracy, and neatness of writing assignments was 94.8, 86, and 87.4%, respectively.

To insure the full and appropriate implementation of the three direct instruction lessons, data were collected on the accuracy of administration. Each lesson for each participant was tape recorded, and an independent rater compared the administrations to scripts of the lessons. Data on the accuracy of the administration of the direct instruction lessons were recorded by checking a circle next to the corresponding section of the lesson if it occurred. There was 100% agreement on Lessons 1 and 3, and 90% agreement on Lesson 2.

Experimental Conditions

A multiple baseline design across participants was used to determine the effect of the self-management training procedures on the completeness, accuracy, and neatness of assignments.

Baseline. One week before the training began, students were given a creative writing assignment. On the Monday of that week, students were told by the experimenter that she wanted to get an idea of their writing style. She asked them to write five creative writing compositions based on different pictures. They were asked to hand in the five stories on the following Friday.

Training. The training component consisted of three lessons. Each lesson consisted of (a) a review of previously covered material, (b) an introduction and rationale for learning and using the skill targeted on the lesson, (c) five discrimination trials, (d) role plays, (e) a written mastery test, and (f) a homework assignment.

During lesson 1 students were taught to identify the antecedents and consequences of their behavior, specifically with respect to completing independent seat work or homework assignments.

During lesson 2 students were taught to perform the first three steps represented in the WATCH acronym. Students used a WATCH assignment planner to execute each step. The questions "Do I understand the assignment?" and "Do I need help?" appeared on the assignment planner as cues for the self-instruction component of this lesson.

During lesson 3 students were taught the performance standards for completeness, accuracy, and neatness of their writing assignments and how to evaluate their work according to each standard. These standards corresponded with the operational definitions of the dependent measures described above. The acronym C/A/N appeared on the assignment planner as a cue for students to ask themselves whether they had checked the task for completeness, accuracy, and neatness. They were also instructed to award points for each task listed on the WATCH assignment planner according to how complete, accurate, and neat the task was. Point values for each task ranged from 4 indicating that the task met all of the performance standards to 0 indicating that the task was not handed in. (Transcripts of the lessons, specific criteria for points, and copies of the WATCH assignment planner are available upon request from the first author.)

The three 30-minute lessons were presented on consecutive days. On the Monday following the presentation of the three lessons to D.C., the experimenter gave him a creative writing assignment to be completed by the following Friday. At this time, the experimenter began teaching the lessons to H.D.

Phase 1/matching condition 1. During the matching phases of the experiment, the experimenter rated how well the student (a) followed the steps of the strategy, and (b) met the performance criteria for the assignment. The students assigned points for the task, and recorded it on their assignment planner. The experimenter then recorded her rating, and the two ratings were compared.

If students matched exactly with the experimenter they received the number of points plus one bonus point. If the number of points they awarded themselves was within one point of the experimenter's rating (a "next door" match), the student received the experimenter's point value. If the ratings were more than one point apart, the student received no points for that day.

Phase 1/matching condition 2. When students achieved exact or next door matches of 3 or 4 on 3 consecutive school days, the second matching condition was initiated. In this condition, the experimenter matched with the students on Wednesdays and Fridays. Every task that had been planned to the date of the rating was assessed; for example, if the rating occurred on Wednesday, tasks that were scheduled for Monday, Tuesday, and Wednesday were checked for completeness, accuracy, and neatness, and the WATCH planner was checked to assess whether the student had completed it appropriately.

Phase 2. After D.C. had been matching on Wednesdays and Fridays for 2 weeks, and H.D. had been matching every day for 2 weeks, the data were reviewed, and it was decided to change the rating procedure. The students were taught to use a new evaluation procedure where each dependent measure was rated separately instead of assigning a composite rating for each assignment. Matching for Phase 2 occurred on Wednesdays and Fridays.

RESULTS AND DISCUSSION

Visual inspection of the data in Figure 1 revealed that the students' use of the WATCH procedure was effective in increasing the levels of completeness of D.C.'s and H.D.'s written compositions. During the training condition, both D.C.'s and H.D.'s data showed an increase in the level of percentage complete.

During the first matching condition of Phase 1, the data on D.C.'s compositions showed a marked increase from 22 to 87% in the level of percentage of completeness. The data on H.D.'s assignments showed an initial increase from 62 to 89% in level of percentage complete. During this condition, the completeness of H.D.'s compositions increased on the first 2 days, and then decreased on the next 4 days. This was due to an increase in the length of spaces between words and consequently a decrease in the number of words in her compositions. The number of words increased in the last composition included in this condition when the trainer called attention to the spacing errors.

During the second matching condition of Phase 1, the trend of D.C.'s data showed a continued increase in the percentage correct of his writing assignments. During Phase 2, when the rating procedure was changed to require the students to attend to each individual dependent measure, the trend reverses and there is a slight decrease in the level of percentage complete of his compositions. This trend levels off for the last three compositions.

H.D. did not participate in the second matching condition of Phase 1 because it was decided to move her directly to the more sensitive rating procedure in Phase 2. The data for H.D. during Phase 2 show that the percentage complete of her compositions remained at the same level as the last four data points in the previous condition. The school year ended at this point and it was not possible to determine if this trend would have continued.

Visual inspection of the data in Figures 2 and 3 suggests that the use of the WATCH procedure had an effect on the levels of the accuracy and neatness of each student's writing assignments. D.C.'s data during training show an increasing trend toward more accuracy and neatness as training progressed. The levels of accuracy and neatness for assignments during both phases are variable but remains between 83 and 100%, with three outlying accuracy data points falling below 70%. H.D.'s data show an immediate increase in the levels of accuracy and neatness when she began to hand in her writing assignments. These data remained variable across both phases, with a range of 60 to 100%.

The data from this study indicate that students' use of the WATCH procedure resulted in improvements in the completeness, accuracy, and neatness of their creative writing homework assignments. However, these results should be interpreted with the following cautions.

First, there is a social validity concern about the use of accuracy and neatness as dependent

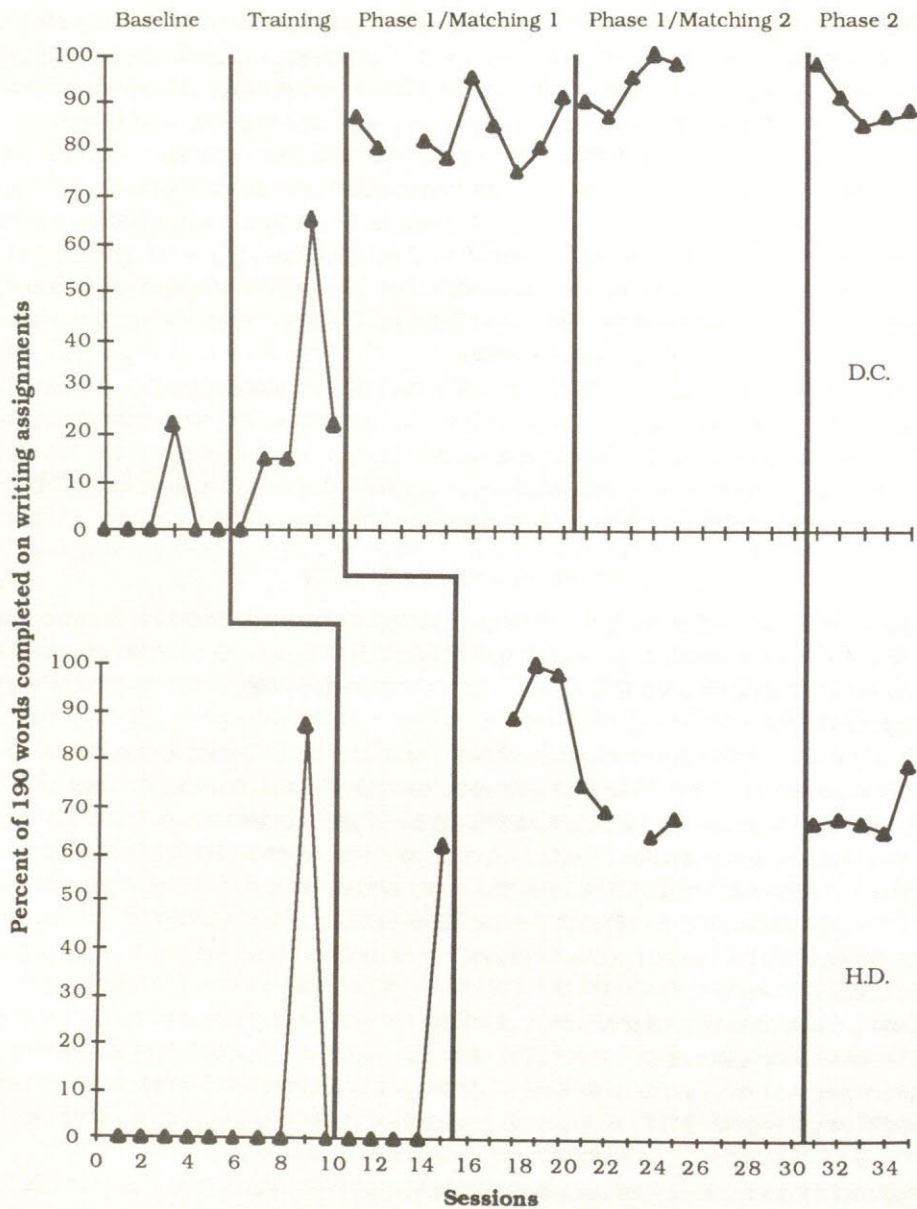


Figure 1. Percentage of 190 words completed in creative writing assignments

variables in this study. The results of a survey conducted at this high school during the previous fall trimester indicated that regular classroom teachers perceived completing work on time, attending accurately to assignment directions and doing the assignment correctly, and neatness to be three significant deficiencies for virtually all of the low achieving students in their classes. In the present study, data indicated that when D.C. and H.D. handed in written compositions, they were accurate and neat. Two possible explanations are offered for this discrepancy. The directions given each week for the writing assignments used in this study were brief, and contained the same basic information. The degree to which students had to attend to these directions may not have been taxing enough to test the issue of accuracy. A second possible explanation that incorporates neatness is that regular classroom teachers may have preconceived notions about the characteristics of low achieving, mainstreamed learning disabled and behaviorally disordered students, and these preconceived notions may not reflect what low achieving students are actually doing. The real issue appears to be that these students don't hand work in at all, not that they hand assignments in partially completed or that their assignments are done incorrectly or sloppily.

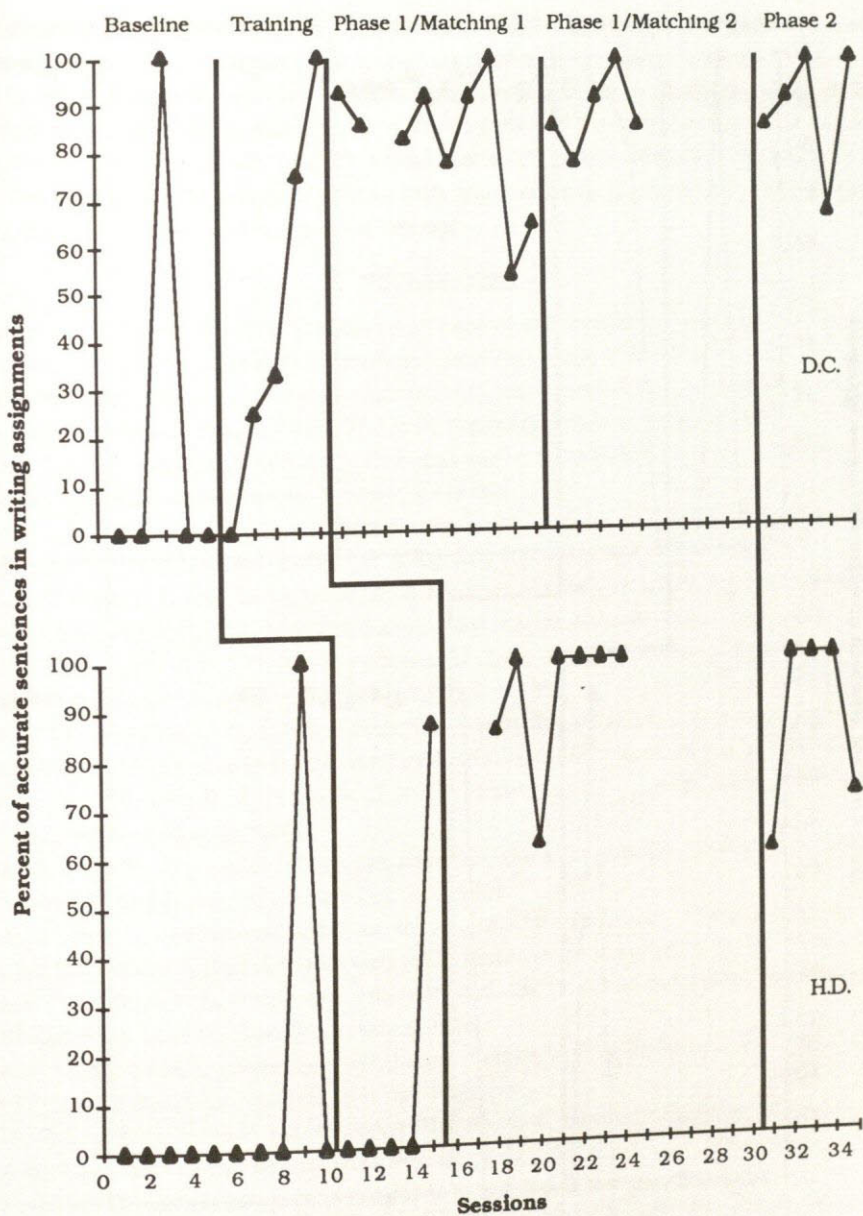


Figure 2. Percentage of accurate sentences in writing assignments

Second, D.C.'s and H.D.'s attendance during the study relative to their attendance in other classes provides a possible alternative explanation for their improved performance on the writing assignments. Both D.C. and H.D. were counted absent for approximately 60% of the total school days during the trimester the study took place, although their attendance at the training and matching sessions was high. D.C. reported on several occasions that there was no reason for him to attend other classes because he was "in special ed and would probably get Fs." He also reported that none of his family members had graduated from high school, and since he was now 16, it was time for him to do the same. When H.D. met with the experimenter, she made frequent comments about her work such as "You're going to think this is stupid" or "You'll probably think this is too sloppy." For both D.C. and H.D., participating in an individualized activity with the experimenter may have in and of itself provided a powerful reinforcer for completing the work.

The results from this study support our original thesis that using the self-management strategies in the WATCH procedure, particularly the goal planning and implementation strategy and the self-evaluation and matching strategy, can be employed successfully with secondary-aged stu-

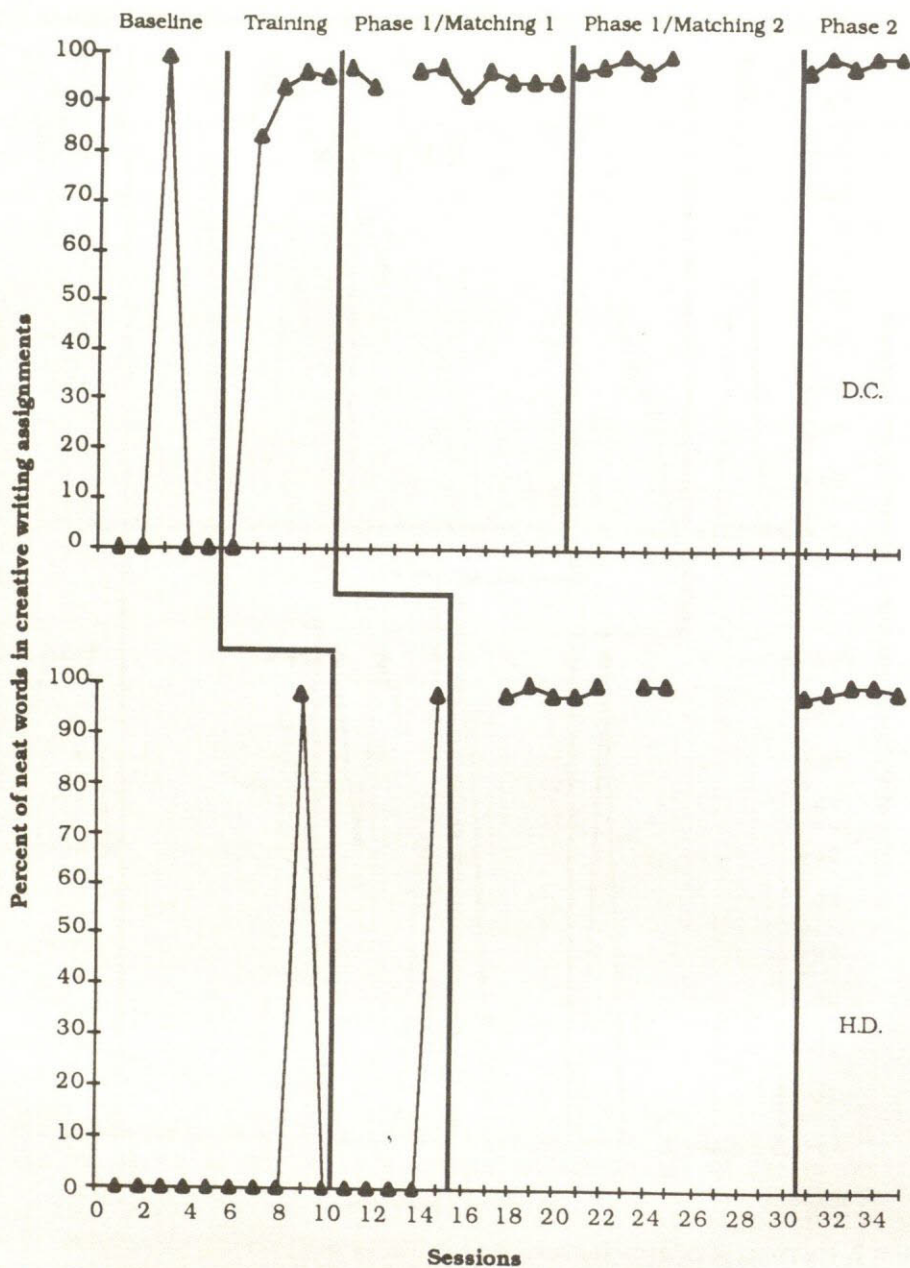


Figure 3. Percentage of neat words in creative writing assignments

dents to improve their performance on creative writing homework assignments. This finding extends the research on the use of these techniques with other dependent variables. With respect to the concerns raised in the section above, it is recommended that future research in this area include the following considerations:

1. Future studies should be conducted in regular classrooms. Assignments used should be those assigned by the regular classroom teacher, and the dependent variables should correspond to the actual assignment requirements. The regular classroom teacher should be trained to implement the self-evaluation training so that using these skills becomes a natural component of the mainstream environment for both the students and the teachers.

2. More time should be spent on training students to "trace their own failures to a lack of effective strategies" (Paris & Oka, 1986, p. 106). In studies on the alleviation of learned helplessness in children, it has been observed that low achieving, learning disabled students attributed their academic failure to an innate inability and not to a lack of effort, persistence, or knowledge about

the task at hand (Cullen & Boersma, 1982; Dweck, 1975). "Failure coping strategies" should be considered as possible prerequisites when training students to complete their work.

3. In order for academic self-management strategies to become a natural part of the student's academic repertoire, training should occur at the beginning of the school year and be monitored and reinforced throughout the year. This would allow for "failure attribution" retraining to take place if necessary, longer periods of time for matching conditions, and time to assess the maintenance and generalization of the use of the strategy.

REFERENCES

- Bandura, A., & Perloff, B. (1967). Relative efficacy of self-monitored and externally imposed reinforcement systems. *Journal of Personality and Social Psychology*, 7, 111-116.
- Beare, P. L. (1985). *Regular classroom teacher's attitudes towards mainstreaming the emotionally disturbed: Can they be changed?* (ERIC Document Reproduction Service No. ED 253 981)
- Bolstad, O. D., & Johnson, S. M. (1972). Self-regulation in the modification of disruptive classroom behavior. *Journal of Applied Behavior Analysis*, 5, 443-454.
- Brigham, T. (1982). Self-management: A radical behavioral perspective. In P. Karoly & F. Kanfer (Eds.), *Self-management and behavior change* (pp. 32-59). New York: Pergamon.
- Brigham, T., Hopper, C., Hill, B., deArmas, A., & Newsom, P. (1985). A self-management program for disruptive adolescents in the school: A clinical replication analysis. *Behavior Therapy*, 16, 99-115.
- Cullen, J. L., & Boersma, F. J. (1982). The influence of coping strategies on the manifestation of learned helplessness. *Contemporary Educational Psychology*, 7, 346-356.
- Davis, R. W., & Hajicek, J. O. (1985). Effects of self-instructional training and strategy training on a mathematics task with severely behaviorally disordered students. *Behavioral Disorders*, 10, 275-282.
- Drabman, R. S., Spitalnik, R., & O'Leary, K. D. (1973). Teaching self-control to disruptive children. *Journal of Abnormal Psychology*, 82, 10-16.
- Dweck, C. S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology*, 31, 674-685.
- Filipzak, J. (1979). *Assessing teacher skill maintenance after behavior training: Multi-year follow-up*. Silver Spring, MD: Institute for Behavioral Research. (ERIC Document Reproduction Service No. ED 179 525)
- Harris, K. R., & Graham, S. (1985). Improving learning disabled students' composition skills: Self-control strategy training. *Learning Disability Quarterly*, 8, 27-36.
- Kanfer, F. H., & Gaelick, L. (1986). Self-management methods. In F. H. Kanfer & A. P. Goldstein (Eds.), *Helping people change* (pp. 283-345). New York: Pergamon.
- Kazdin, A. E. (1974). Reactive self-monitoring: The effects of response desirability, goal setting, and feedback. *Journal of Consulting and Clinical Psychology*, 42, 704-716.
- Kazdin, A. E. (1982). *Single-case research designs*. New York: Oxford University Press.
- Kiburz, C. S., Miller, S. R., & Morrow, L. W. (1984). Structured learning using self-monitoring to promote maintenance and generalization of social skills across settings for a behaviorally disordered adolescent. *Behavioral Disorders*, 10, 47-55.
- Leon, J. A., & Pepe, H. J. (1983). Self-instructional training: Cognitive behavior modification for remediating arithmetic deficits. *Exceptional Children*, 50(1), 54-60.
- Leung, E. K., & Carr, G. T. (1984). *When teachers speak, teacher educators listen: For relevance in teacher education*. New Orleans, LA: 13th annual meeting of the Mid-South Educational Research Association. (ERIC Document Reproduction Service No. ED 252 503)
- Meichenbaum, D. H., & Goodman, J. (1971). Training impulsive children to talk to themselves: A means of developing self-control. *Journal of Abnormal Psychology*, 77, 115-126.
- Paris, S. G., & Oka, E. R. (1986). Self-regulated learning among exceptional children. *Exceptional Children*, 53(2), 103-108.
- Rhode, G., Morgan, D., & Young, K. R. (1983). Generalization and maintenance of treatment gains from a resource room to regular classrooms using self-evaluation procedures. *Journal of Applied Behavior Analysis*, 16, 171-188.
- Robertson, S. J., Simon, S. J., Pachman, J. S., & Drabman, R. S. (1979). Self-control and generalization

- procedures in a classroom of disruptive retarded children. *Child Behavior Therapy*, 4, 347-362.
- Tollefson, N., Tracy, D. B., Johnson, E. P., & Chatman, J. (1985). Teaching learning disabled students goal implementation skills. *Psychology in the Schools*, 23, 194-205.
- Turkewitz, H., O'Leary, K. D., & Ironsmith, M. (1975). Generalization and maintenance of appropriate behavior through self-control. *Journal of Consulting and Clinical Psychology*, 43, 577-583.
- Warrenfeltz, R. B., Kelly, W. J., Salzberg, C. L., Beegle, C. P., Levy, S. M., Adams, T. A., & Crouse, T. R. (1981). Social skills training of behaviorally disordered adolescents with self-monitoring to promote generalization to a vocational setting. *Behavioral Disorders*, 7, 18-27.
- Young, K. R., Smith, D. J., West, R. P., & Morgan, D. P. (1987). A peer mediated program for teaching self-management strategies to adolescents. In S. Braaten, R. B. Rutherford, Jr., & J. Maag (Eds.), *Programming for adolescents with behavioral disorders* (Vol. 3, pp. 34-47). Reston, VA: Council for Children with Behavioral Disorders.

Nancy Glomb, Research Assistant and Doctoral Candidate, Department of Special Education, Utah State University, Logan, Utah 84322-6500

Richard P. West, Director of Interdisciplinary Training, Developmental Center for Handicapped Persons and Associate Professor, Department of Special Education, Utah State University, Logan, Utah 84322-6800

Received 8 November 1988

Initial acceptance 20 March 1989

(Final acceptance 24 June 1989)