

## THE USE OF COVER, COPY, AND COMPARE TO IMPROVE SPELLING WITH A MIDDLE SCHOOL STUDENT IN A BEHAVIOR INTERVENTION CLASSROOM

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### ABSTRACT

*In this research project we examined the effects of employing the cover, copy, and compare self-management method in spelling. The participant was a seventh grade male with severe behavior disorders. Data were collected in a self-contained special education classroom. We employed a multiple baseline design across three word sets. Overall, our outcomes indicated a statistically significant improvement in spelling when cover, copy, and compare was implemented. The procedures were easy to implement and data collection fitting well into the classroom routines. Both classroom benefits of cover, copy, and compare as evidence-based practice was discussed.*

**Keywords:** cover, copy, compare, behavior disorders, middle school, self-contained classroom, spelling, vocabulary

### INTRODUCTION

Teaching and learning spelling skills is one of the schools important roles. In addition, mastering spelling is essential and a vital skill. Spelling is also one of the most elusive subjects for students to learn and teachers to teach (Wanzek, Vaughn, Wexler, Swanson, Edmonds, & Kim, 2006). Many students struggle throughout their educational career with learning how to spell (McLaughlin, Weber, & Barretto, 2004; Nies & Belfiore, 2006; Templeton, 1986). Numerous strategies have been developed and are being marketed to school districts. Cover, copy, and compare is one strategy cheap, easy to implement and highly effective to teach spelling to children with disabilities (Neis & Belfiore, 2006). In addition, it has been very effective across a wide range of students in both general and special education (Carter, McLaughlin, Derby, Schuler, & Everman, 2011; McLaughlin & Skinner, 1996; McLaughlin et al., 2004; Skinner, McLaughlin, & Logan, 1997).

Cover, copy, and compare is composed of the following specific steps. First, the student looks at a specific academic stimulus and then covers that stimulus so that they are unable to see it. Next, the student makes the appropriate academic response (i. e. for spelling they would write out the covered word). After the academic response is made, the student uncovers the original stimulus to verify whether or not their response is correct. If they spell the word correctly they move to the next item. If they did not spell the word correctly, an error correction procedure is provided (i. e. for spelling, they are required to spell the word correctly three times). After performing the error correction procedure, the student moves to the next item (McLaughlin & Skinner, 1996; Skinner et al., 1997).

The cover, copy, and compare self-management strategy has been used not only spelling but also to teach concepts in science (Smith, Dittmer, & Skinner, 2002), basic skills in math (Becker,

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McLaughlin, Weber, & Gower, 2010; Poff, McLaughlin, Derby, & King, in press; Skarr, McLaughlin, Derby, & Meade, in press; Stading, Williams, & McLaughlin, 1996; Stone, Weber, & McLaughlin, 2002), and terms used in geography (Skinner, Belfiore, & Pierce, 1992). The self-correction aspect of cover, copy, and compare provides the student with increased opportunities to respond correctly. Therefore, it should produce better maintenance and maintenance of skills (Beveridge, Weber, Derby, & McLaughlin, 2004; McAuley & McLaughlin, 1992; Pratt-Struthers, Bartalamay, Williams, & McLaughlin, 1989; Struthers, Bartalamay, Bell, & McLaughlin, 1994).

The purpose of this study was to increase the correct spelling of words with a 7<sup>th</sup> grade boy enrolled in a special self-contained behavior classroom for students with severe behavioral issues. Another purpose was to extend our previous work with cover, copy, and compare (Hubbert, Weber, & McLaughlin, 2000; McAuley & McLaughlin, 1995; Pratt-Struthers et al., 1989; Struthers et al., 1994) and that of Skinner and his colleagues (Skinner et al., 1992; Smith et al., 2002) to middle school students with severe behavior disorders.

## **METHOD**

### **Participant and Setting**

The participant for this project was a 7<sup>th</sup> grade male who was placed in a self-contained behavior intervention classroom in a large urban school district in the Pacific Northwest. The participant had IEP goals in writing, reading, and severe behavior. The participant was a Native and Mexican American male who lived with his aunt, uncle and assorted cousins. He was placed in the self-contained behavior intervention classroom at the request of the administration of his elementary school. His education history included suspensions. His school day had been recently increased to include the entire school day.

The setting for the study was the self-contained behavior intervention middle school classroom. The class enrolled and provided services for 14 7<sup>th</sup> and 8<sup>th</sup> grade students who ranged in age from 12 to 15 years. The classroom was equipped with 12 individual study carrels, which allowed students to work independently. The classroom employed a modified classroom token economy and school wide discipline plan (Alberto & Troutman, 2013). The classroom personnel consisted of a lead teacher, two instructional assistants and the first author. During the afternoon, the students were placed in inclusion settings in science, math, and social studies.

### **Materials**

The materials needed for this study were a Dolch word list, blank paper on which to take the spelling tests, pencils and blank cover, copy, and compare papers (See Carter et al., 2011; Schermerhorn & McLaughlin, 1997).

### **Dependent Variable and Measurement Procedures**

The dependent variable was the number of words spelled correctly. A correctly spelled word was defined as a word that exactly matched the spelling of the word on the list. The number of correctly spelled words was obtained by comparing the spelling test taken by the participant to that of the original spelling list.

### **Data Collection**

Data were collected before school, during lunch, or during a regularly scheduled spelling lesson. Data were collected as often as possible depending on the student's level of aberrant behavior. Since he enjoyed his spelling lessons, some days were sometimes cancelled contingent upon his problem behavior. Data were taken for eight weeks of school. One data point was marked on a scatter plot for each day of data collection.

### **Experimental Design and Conditions**

A multiple baseline design (Kazdin, 2010) across word sets was used. A description of each phase follows.

## Baseline

During baseline, the first author tallied the number of correctly spelled words across all three sets. The student was not provided any feedback on whether or not the words he was writing were correct or incorrect. This condition lasted from 3 to 10 school days.

## Cover, copy, and compare

This consisted of presenting the first set of 10 words on a copy, cover, compare sheet for the student to complete. Following completion of the sheet, the student was presented with the complete test of 30 words. This was done for three sessions. The fourth session was marked by an addition of a second cover, copy, and compare sheet for the second set of 10 words. The seventh session was marked by an addition of a third cover, copy, and compare sheet for the third set of 10 words. The number of sessions ranged from 3 to 10 days.

## Reliability of Measurement and Fidelity of the Independent Variables

Reliability was taken for each lesson. Reliability was conducted by having the completed test sheets regarded by an independent observer. Reliability was 100% for all sessions.

Reliability for fidelity of the independent variable (Gresham, Gnarls, Noell, Cohen, & Rosenbaum, 1993) was taken for a minimum of once per week. This was employed based on the recommendation and suggestions outlined by Gresham, MacMillan, Beebe-Frankenberger, and Bocian (2000). Fidelity was defined as another adult in the classroom as well as the last author observing the classroom and determining whether baseline or cover, copy, and compare were being correctly implemented and with which word set. Agreement for these measures was also 100%.

## RESULTS

The outcomes for each intervention by word set can be seen in Figure 1. During baseline, the total number of correctly spelled words ranged from 5 to 8. The mean for baseline for the first group of words was 5.6. For the second group of words, the mean in baseline was 5.7 words. The third set of words had an arithmetic mean during baseline of 6.3 words.

During cover, copy, and compare with the first group of words, the participant's performance increased to an average of 9.7 words. Improvements were also noted for the second set of words 9.0 and for the last set ( $M = 9.3$ ).

A repeated measures Analysis-of-Variance was carried out between the three baseline phases and the three cover, copy, and compare conditions. There was a significant difference between treatments ( $F = 28.706$ ;  $df = 5$ ;  $p = .0001$ ). Follow up Fisher PLSD tests indicated significance differences between each baseline and cover, copy, and compare condition (PLSD = 1.37;  $p = .05$ ). No significant differences were found between any of the baseline phases or the copy, cover, or compare interventions.

## DISCUSSION

Thus, our intervention helped out participant to increase the number of correctly spelled words across all word lists. The words in this study were all high use words. The school staff also began to observe the participant starting to spell correctly these words in both his special and general education classroom written work as well.

The present outcomes replicate and extend our previous work using cover, copy, and compare with preschoolers (Larsen & McLaughlin, 1997), elementary students with learning disabilities (Struthers et al., 1987), elementary students with behavior disorders (Hubbert et al., 2000; Pratt-Struthers et al., 1989; Struthers et al., 1994), and middle school students with learning disabilities (Bolich, Kavon, McLaughlin, Williams, & Urlacher, 1997) and students in general education (Schermerhorn & McLaughlin, 1997). These outcomes further extend and replicate the work of Skinner and colleagues across a wide variety of subject matter areas and disability designations (cf Skinner et al., 1994; Smith et al., 2002).

A primary strength of this study was the ease in which it was conducted. It was usually very easy to pull the student aside during independent work time or during lunch to conduct the study. The participant was also very eager to work with the author and was excited for the one-on-one attention. In addition, the use of cover, copy, and compare allows student progress to manage the procedure. This should be a strength for teachers wishing to employ this procedure in their classroom for students with and without disabilities.

One limitation should be noted was the small number of words included in the study. This small number of words may have allowed the participant to remember which words he would be tested on and he may have looked the words up in a dictionary while working on a regular classroom assignment. This may account for the increases of 6 to 7 correctly spelled words in baseline for Set 3 words. Another limitation was that on a few select days in which the student's behavioral issues prevented the student from completing or even beginning his spelling. Another weakness was the inclusion of only a single participant. This severely limits the generalizability of the findings. Given the relative ease with which the intervention can be implemented and data can be collected, we should include an additional student to replicate the efficacy of our intervention. This would provide some additional support for the use of cover, copy, and compare for students with EBD. Unfortunately, we were unable to find another student in this room in the present setting.

From all of the work published with cover, copy, and compare, in both general and special education settings as well as in a wide array of subject areas, it appears that this procedure has met the criteria of evidence-based practice. With the recent changes in IDEiA, evidence based practices are going to be required to place students in special education settings. Cover, copy, and compare provide an inexpensive and highly practical set of teaching procedures that can be employed in either special or general education settings. Cover, copy, and compare can be easily incorporated in teacher training programs (McLaughlin, B. Williams, R. Williams, Derby, Peck, Bjordahl, & Weber, 1999) to meet the requirements of IDEiA (U. S. Department of Education, 2004) and external teacher education accreditation agencies such as National Council on the Accreditation of Teacher Education (NCATE).

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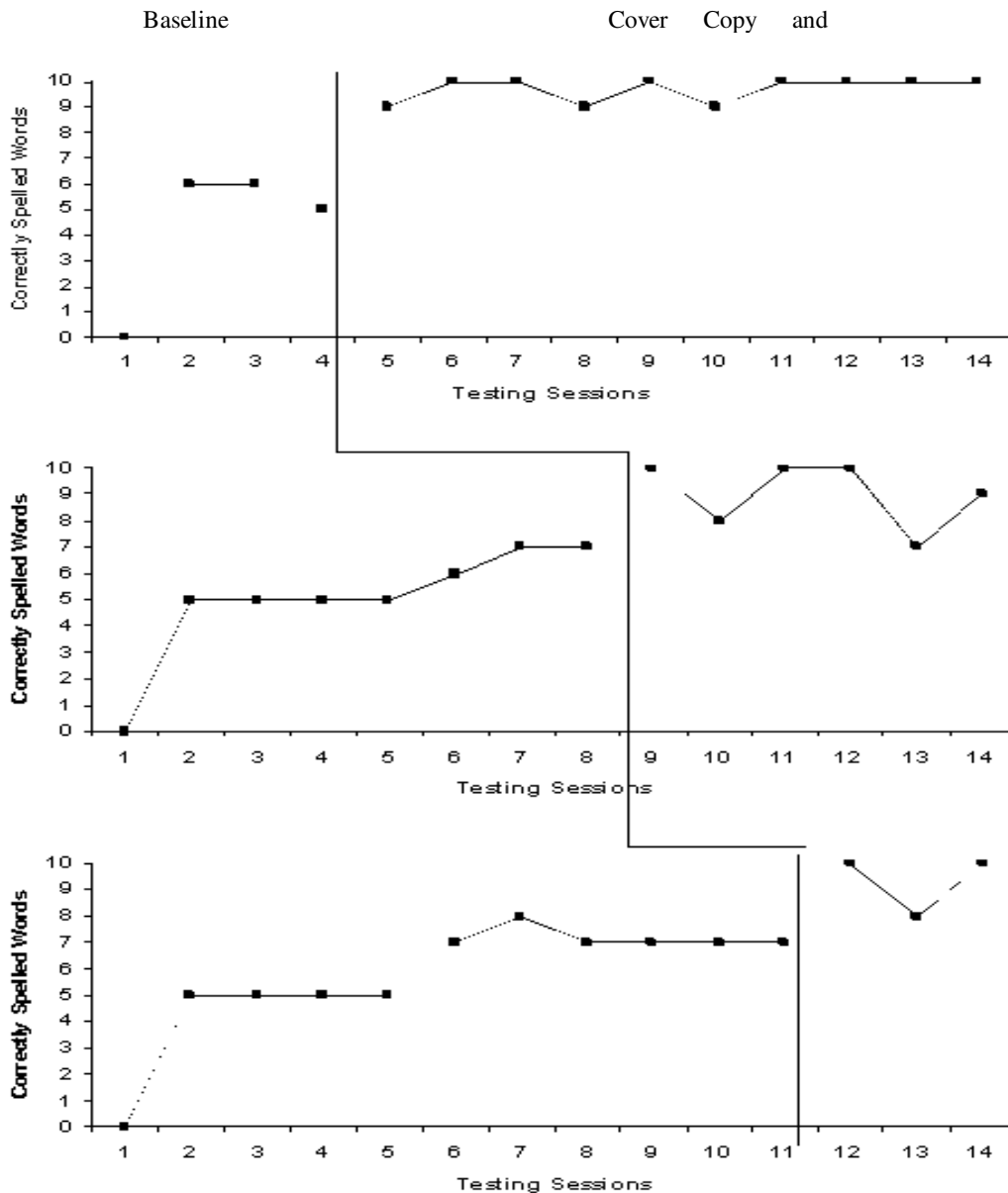


Figure 1. The number of correct spelling words across sets in baseline and cover, copy, compare