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USING GUIDED NOTES, CHORAL RESPONDING, AND RESPONSE CARDS TO INCREASE STUDENT PERFORMANCE

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This paper presents and selectively reviews the data-based literature regarding guided notes, choral responding, and response cards (ASR). These ASR procedures as designed to increase the opportunities for students to respond and improve their academic performance. Each of these procedures were effective in increasing student performance in history, reading, and math. The various unique applications of each of these procedures were outlined and reviewed. Suggestions for classroom applications as well as areas of future research and application were made.

Students with behavior disabilities and needs exceptional teaching need an extra added help to be successful in the classroom. The strategies reviewed in this paper may be used to increase the behavioural environment of all students in the classroom as well as improving academic skills. It has been said that students learn by doing. It follows that if one increases the *doing*, the result is an increase in learning. Opportunity to respond is a term coined in 1977 by Vance Hall and his colleagues at the Juniper Gardens Children's Project (Heward, 2003). This refers to increasing student responses and engagement in a learning activity to increase student performances.

Another term synonymous to opportunity to respond is academic learning time. This refers to the same topic coined by analysts comparing groups or statistical inferences defined as an observable response to an ongoing instruction (Narayan, Heward, Gardner, Courson, & Omness, 1990; & Heward, 1994). There are many data based methods for increasing student responses such as Direct Instruction Gersten, Carnine, & Woodward, 1987), peer tutoring (Greenwood, Delquadri, & Hall, 1984, Greenwood, Hart, & Walker, 1994), computer-assisted instruction (Adams & Fuchs, 1986), Lazarus, 1993), choral responding, and response cards (Heward, 1994). This paper only reviews guided notes, choral responding, and response cards.

Benefits of Increased Opportunity to Respond

Opportunity to respond increases students learning by engaging more time in instruction and alleviating the wasted time (Harmin, 1995). As the present system fares, less than half of a seven hour school day is spent *doing the real work of learning* (Harmin, 1995). We need to decrease inactivity in the classroom. Another study conducted in six inner-city elementary classrooms found that 45% of the school day students spent inactively listening to the teacher and less than 1% actually responding (Hall, Delquadri, Greenwood, and Thurston, 1992). With increasing the responses of each student this time is greatly increased giving students more of an opportunity to be successful in learning (Courson & Omness, 1990).

Major advantages of these procedures also include their cost. They are cost effective both monetarily and teacher time put into starting and implementation of these techniques. This is an added bonus for all teachers (Narayan et al., 1990). It has been found that increasing academic learning time is preferred by both the teacher and students. The brisk pace captures student's

attention and keeps students' interests alive (Narayan et al., 1990). Using choral responding and response cards teachers are able to monitor every students' response and give immediate feedback. This helps students not learn misrules and discern their correct answers (Heward, 1994, 1996).

A major focus of this paper is to examine and present the advantages of increasing student's opportunities to respond by increasing the responses and engaged time in learning. Students benefit academically and behaviourally.

Guided Notes

Guided notes are teacher presented handouts that guide a student through a lecture with standard cues and prepared space in which to write key facts, concepts, and/or relationships (Heward, 1996). This is a skeleton in which students actively respond during class lectures or readings. As well as the main points, guided notes may include key terms or phrases, definitions and related aspects (Lazarus, 1996; Sweeney, Ehrhardt, Gardner, Jones, Greenfield, & Fribley, 1999; White, 1991). The lecture outline may be modified to fit specific needs of students. For example, students with motor deficits may need more information provided yielding less to write, or simpler terms may be used for students with developmental delays. Also, one could employ streaming video and have guided notes available on a students PC so they could watch and take notes at the same time.

Lazarus (1991) examined the effectiveness of guided notes on test scores of 10 students with learning disabilities in a regular-curriculum science class. With guided notes the quiz scores of all 10 students with learning disabilities improved. In addition, the use of guided notes produced gains in all students with learning disabilities and less significant, yet mentionable gains, from a control group of students without disabilities.

Sweeney et al., (1999) with three targeted students, one developmentally disabled, and two English as a second language students in a remedial American History class reported similar findings. The guided notes improved the students daily quiz scores, and note taking accuracy. Hamilton, Seibert, Gardner, R., and Talbert-Johnson, (2000) also found that guided notes improved students quiz scores of nine students of a special classroom for incarcerated juvenile offenders.

A recent study by Mastropieri, Scruggs, Spencer, and Fontana, (2003) compared guided notes to peer tutoring in a high school history class. Fluency in reading, comprehension strategies, and content test scores of 16 students with mild disabilities were measured. Students who were participated in peer tutoring significantly outperformed the students taught by guided notes on exam performance. These data indicated that peer tutoring rather than teacher directed guided notes may provide more opportunities for students to respond which improved their test performance.

Examples of guided notes. An array of guided note formats exist. Columnar notes are used for summary or fill in the blanks with single word or short answers. Skeleton notes are, *an outline that lists the main points of a verbal presentation and provides designated spaces for students to complete as the speaker elaborates the main idea* (Lazarus, 1991). Sweeney's et al., (1999) study used short-form guided notes and long-form guided notes. Short-form consisted of one the three word written responses where the long-form allowed space for four to eight word responses. The modifications made to guided notes are almost endless.

Advantages of guided notes. Guided notes not only provides opportunities for students to respond they also provide students with a summary of the lesson and assist in teaching effective note-taking strategies. Heward (1994) includes many advantages to using guided notes:

- 1.) students must actively respond to and interact with the lesson's content;

- 2.) since the location and number of key concepts, facts, and relationships are cued or highlighted, students are better able to determine if they are *getting it* and therefore seem more likely to ask the teacher to repeat or clarify a point of information;
- 3.) students produce a standard set of accurate notes for subsequent study and review;
- 4.) teachers must carefully plan the lesson or lecture in order to use guided notes; and
- 5.) teachers are more likely to stay *on task* with the sequence and contents of the lesson.

Choral Responding

Choral responding dates back to one room schoolhouses, but unfortunately this recently data based strategy has been abandoned in *modern* times (Heward 1994). Choral responding requires each student to respond in unison when the teacher gives a signal (Wolery, Ault, Gast, & Griffen, 1992). This fast paced method maintains students active engagement and increases student responding (Kamps, Dugan, Leonard, & Daoust, 1994). Choral responding is also employed as part of the teaching techniques in Direct Instruction (Carnine, Silbert, Kameenui, & Tarver, 2003). Choral responding can easily determine which students are correct and those who will need immediate error correction.

Some aspects of choral responding examined by Kamps et al., (1994) were opportunity to respond, student responses, weekly curriculum tests, and systematic observations of small groups. The study found an increased amount of opportunities to respond and gains in weekly post tests when choral responding was used. Along the same lines, Wolery et. al. (1992) evaluated the effectiveness of choral and individual responding in students with moderate mental retardation with sight word reading. Wolery et al. compared the effectiveness and efficiency of choral to individual responding where the number of exposures per stimulus was equal across both conditions but the number of opportunities to respond was greater in the choral conditions. They that the choral responders (with more opportunities to respond) had a greater percent correct or responses. Another study of students attending a special school for students with severe behavior handicaps compared fast and slow paced choral responding. This study revealed that on-task behavior was greater at the faster paced level (Heward, 1994).

Elements of choral responding. Choral responding depends on three criteria. Students must be able to respond with short, one to three word, answers, and only one correct answer is ideal. These criteria make it possible for the teacher to monitor student responses and give corrective feedback (Heward, 1994, 1996). The lesson should also be presented in a brisk pace to ensure attentiveness and participation of all students (Kamps et al., 1994). Small groups also enhance the choral responding by allowing greater teacher monitoring and focus.

Other aspects enhancing the effectiveness of choral responding include the teacher, providing a thinking pause, using a clear signal of when to respond, provide feedback, and from time to time call on individual students. With theses strategies, the teacher is able to monitor and ensure all students are understanding the material presented.

Response Cards.

A response card is any sign which can be held up simultaneously by all students in response to a question by the teacher or another person in the room (Narayan et. al., 1990; & Heward, 1994, 1996, 2003). Response cards may be cards may be preprinted with such things as *yes/true* on one side and *no/false* on the other or they may be made of dry erase material for easily scrawled responses. This is probably the lowest technical way to provide additional opportunities for students to respond.

Narayan et al. (1990) compared hand raising to write-on response cards in a fourth-grade classroom. This study found that the teacher was able to present double the material in response cards and all students were able to respond to the questions. In the response card segments of the study the students made better quiz scores than when implementing the hand raising intervention. Other studies (Gardner, Bullara, Heward, Cooper, & Sweeney, 1993) also replicated the effectiveness of response cards as well. Gardner et al. (1993) found in an inner city general

education fourth-grade classroom during a questioning period, that students were off-task on average 56% and disruptive 33% of the time when hand raising was employed. However, when response cards were used off-task and disruptive behavior decreased to just 6% and 8% respectively. It appears that response cards cannot only improve academic responding by reduce inappropriate social behaviors.

Elements of response cards. Pre-printed response cards may include simple items for example: numbers, colours, or parts of speech. These cards must be easy to read for both the students and the teacher and should be few in number. Write-on response cards allow more flexibility for student answers but may be harder for the teacher to read. It is important when using both types of response cards to keep a brisk pace and consistently use cues to guide students when to respond. It is also vital to constantly monitor and give feedback to the responses given (Heward, 1994).

Conclusions

Based on the data from this review, schools and educators should implement the three methods to increase opportunity to respond and student performance. Also, these procedures can be used to increase on-task behavior and decreasing disruptions. This was found to be a dominant argument for implementing the three teaching strategies at the classroom level. If the teacher spends less time gaining attention and keeping students on the lesson on task more time can be allowed for learning. The ultimate goal of education is to teach each student to become the best student he or she can be. This coincides with using the best strategies, including increased active student responding (Heward, 1994, 2003)

With decreased disruptions and increased time engaged in learning only positive outcomes can be increased. More research needs to be conducted in the areas of opportunities to respond and academic learning time but the present review dealing with three methods to increase opportunities to respond appear quite clear, these procedures if implemented correctly, increase student performance.

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