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Effective strategies for general and special education teachers

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Today's teachers are asked to educate ALL students using research-based strategies in inclusive classrooms. The following review will include three research based instructional strategies and one teaching model all of which are elements that can increase the success of students at risk for learning problems. Instructional strategies explored in this review are class-wide peer tutoring, direct instruction and the behavioral strategy of self-monitoring. The teaching model is known as co-teaching, a model which is becoming the norm in schools in southeast Michigan. It is hypothesized that concrete knowledge of research based instructional methods that can be used in co-teaching situations may reduce rates of teacher frustration and attrition, and will improve academic and behavioral performance of students in a variety of settings.

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Effective Strategies for General and Special Education Teachers

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EFFECTIVE STRATEGIES FOR GENERAL AND SPECIAL EDUCATION
TEACHERS

By

Heather A. Martel

A Senior Thesis Submitted to the

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Honors College

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Approved at Ypsilanti, Michigan, on this date _____

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Effective Strategies for General and Special Education Teachers

Introduction

On January 8, 2002, President Bush signed the No Child Left Behind Act (NCLB) into law. It is designed to ensure that “From this day forward all students will have a better chance to learn, to excel, and to live out their dreams.”

(www.whitehouse.gov/infocus/achievement/chap12.html). NCLB states that all teachers are to be highly qualified in the core subjects in every classroom, to use proven, research-based instructional methods, and timely information and options for parents. Under NCLB, states are working to close the student achievement gap and make sure all students achieve academic proficiency, including those who are disabled and disadvantaged. A vital element in raising achievement scores of students involves using evidence-based teaching practices. As a result, educators are being asked to successfully teach ALL students, and to accommodate students who need it (U.S. Department of Education, 2007).

To meet the requirements put out by NCLB, an increasing number of schools are moving towards educating students in inclusive classes, where classrooms contain a rich mix of students who are capable learners and also those at risk (with disabilities, English language learners, and from low SES backgrounds). In order to teach to students with such diverse abilities and backgrounds, accommodations need to be made. The background of the general education teachers for knowing how to make these accommodations as well as teach to the high standards of NCLB can be an issue. When accommodations are not made, struggling students fall behind academically and may exhibit behavior problems. As a result, teachers may become overwhelmed. Reactive

and adverse teaching methods result in teacher frustration and can cause the teachers to withdraw from their position as an educator (Baker, 2005). However, teachers who are trained to use various research-based teaching methods, both instructional and behavioral, are better prepared to educate in diverse learning environments (Baker, 2005).

Literature Review

Research-Based Teaching Methods

The federal government recently allocated funding for research into evidence based educational practices that have effectively improved student performance (www.ed.gov/nclb/overview/intro/4pillars.html). In reading, for example, NCLB supports scientifically based instruction programs in the early grades under the Reading First program and in preschool under the Early Reading First program. The U.S Department of Education holds strict requirements for programs to qualify as being research-based. Studies must take a scientific approach, form a hypothesis, and then try to prove/disprove the hypothesis. Practices and strategies must be generalizable to students beyond those involved in the original research. Studies need to show a high level of effectiveness (www.ed.gov/nclb/overview/intro/4pillars).

Teachers can find the results of this research by reading professional journals, taking classes at universities, attending conferences, and also by using the internet. The internet has come to provide the easiest way for teachers to keep abreast of research-based best practice. Three of the best websites for instructional and behavioral strategies to use in schools include: www.teachingLd.org which provides trustworthy and up-to-date resources designed to teach students with learning disabilities; www.k8accesscenter.org offers resources which focus on core content areas, as well as

learning and instructional strategies for students with disabilities; and

www.whatworks.ed.gov, established by the U.S. Department of Education, offers information on effective teaching methods in education. Teachers can use these sites to find effective strategies for specific behavioral or learning issues in their classroom.

The purpose of this study is to introduce and explain three research-based strategies that can be used as a tool for teachers who work in inclusive classrooms. It is also to share a teaching model where general education and special education teachers can work together in order to be successful with ALL the children in their classrooms.

There are three desired outcomes for this paper.

1. To introduce and clearly define three instructional strategies that are evidence-based, and can have positive effects on all students. Also to share one teaching model that when done well can enhance the learning of all students in a classroom.
2. To define key components for achieving successful implementation of each strategy. Teachers who have a clear understanding of the important details before using a strategy result in higher student achievement (Greenwood, Delquadri, & Carta, 1997).
3. To provide an example for each strategy that will aid in connecting the strategy with “real world” scenarios. These lessons will allow teachers to connect key ideas with usefulness in the classroom. Once teachers have developed a clear understanding of the strategies, they can use sample lessons to reference before beginning implementation.

Strategies introduced in this study were chosen based on success rates and ease of implementation. Correct use of each strategy will improve student achievement, allow teachers to have a wider range of instructional alternatives, promote diversified learning methods for a wide range of student abilities, and help integrate students with special needs into the general education classroom. Teachers who are equipped with instructional choices are less frustrated and more productive in the classroom (Baker 2005).

ClassWide Peer Tutoring

Overview.

ClassWide Peer Tutoring (CWPT) is an instructional strategy designed to effectively teach specific information to students with a variety of skill levels. In CWPT, students work together to learn a specific set of information. CWPT uses a combination of instructional components that include partner pairing, systematic content coverage, immediate error correction, frequent testing, team competition and point earning (Greenwood et al., 1997). Every student in the classroom is involved in the learning process with CWPT, which allows them to practice basic skills in a systematic and fun way (Terry, 2008). CWPT is conducted in a way that encourages positive student interaction by using partner pairing and peer tutoring. In CWPT, students are taught by peers who are trained to present a weekly set of information where they can provide immediate feedback for correct and incorrect responses. Daily lessons allow each partner to take the role of both the tutor and the tutee (Greenwood et al., 1997). CWPT uses immediate-response feedback, error correction, and a specific tutoring technique that benefits both the tutor and tutee. When structured correctly, CWPT allows teachers to

actively engage all students in the classroom, while simultaneously monitoring process through daily and/or weekly assessments (Maheady, Harper & Mallette, 2003).

Background of strategy.

Research and implementation of ClassWide Peer Tutoring began around 1980. It was first developed at the Juniper Gardens Children's Project (JGCP) in Kansas City, by collaborations of researchers and teachers who were seeking to find a successful instructional method for integrating children with special needs into general education settings. In 1997 researchers from the JGCP (Greenwood et al., 1997) published a CWPT model designed to simplify the process by including reproducible charts and student handouts specifically designed for easy and accurate implementation and record keeping.

Two similar class-wide models have emerged: Peer Assisted Learning Strategies (PALS) (Fuchs, Fuchs, Mathes, & Simmons, 1996), and Reciprocal Peer Tutoring (RPT) (Fantuzzo & Ginsburg-Block, 1998). PALS is approved by the U.S. Department of Education's Effectiveness Panel for Inclusion on effective education practices. PALS for grades 2-6 has proven effective for increasing the reading performance of English proficient students with learning disabilities in general education classrooms (Fuchs, Mathes, & Fuchs, 1997; Simmons, Fuchs, Fuchs, Hodge, & Mathes, 1994; Simmons, Fuchs, Fuchs, Mathes, & Hodge, 1995). PALS offers specific programs for math and reading. Reading PALS is available for grades preschool through twelfth grades. Math PALS is available for Kindergarten through sixth grade. RPT is similar to PALS and CWPT in that it has a structured format where "students prompt, teach, monitor, evaluate and encourage each other" (Fantuzzo, King, Heller, 1992, p. 332). In RPT students are

responsible for lesson planning, monitoring, and evaluating student performance. The idea of RPT is to increase student's interdependence by allowing freedom of choice within group settings (www.k8accesscenter.org/index.php/category/peer-tutoring: Using Peer Tutoring to Facilitate Access).

Research findings.

CWPT has been proven effective with students from pre-school to high school levels, and has been used in both general and special education classroom settings. CWPT was initially designed for students in grades 1-6, with diverse skill levels, including students with learning disabilities, limited English proficiency, and other mild disabilities. It has since been expanded to include newer models that can be used at any grade level with proper modification. New uses include "higher order" skills such as asking thought provoking questions in math and science, and combining class-wide tutoring components with self-management (King, Staffieri, & Adalgais, 1998). CWPT has also been used to teach health and safety information to students with mental disabilities, and improve academic, linguistic, and social competence of English language learners (Maheady et al., 2003).

Studies on the effectiveness of CWPT have demonstrated an increase in math, reading, social studies, spelling, and vocabulary skills on students with mild disabilities and students who are low-achieving (Harper, Maheady, Mallette, & Karnes, 1999). Results of a study conducted by Veerkamp, Baldwin, Kamps, & Cooper (2007) demonstrated improved performance on middle-school students' weekly vocabulary tests under CWPT conditions compared with teacher-led instruction. Findings from this study showed that CWPT can improve the reading skills of urban middle school students. In

another middle-school study, students with emotional or behavioral disorders used peer tutoring to teach paragraph summarization (Spencer & Mastropieri, 2003). In this study, students scored higher on their social studies content tests and showed higher levels of on-task behavior during the tutoring compared to traditional instruction. Research has also indicated strong outcomes for peer tutoring for students with average to low achievement levels, and students with learning disabilities (Fuchs et al., 1997; Simmons et al., 1994, 1995).

With proper implementation of CWPT, students who are advanced, average, low achieving or students with disabilities can increase their mastery of academic skills (Maheady et al., 2003). Using CWPT can help students raise their achievement levels, retain information learned in the process and use the information learned for other tasks (Greenwood et al., 1997).

At least 25 studies have been found showing CWPT to be more effective than teacher-led instruction (Greenwood, Arreaga-Mayer, Utley, Galvin, & Terry, 2001). It has also been successful in aiding the inclusion of students with autism into general education classrooms. Information on the success of CWPT has shown a high degree of success.

Studies have found lowered student outcomes have attributed to a reduction in time spent to learn CWPT lessons, low quality peer tutoring, and using unchallenging student materials (Greenwood et al., 1997). Additional research is needed in early childhood and high school levels due to current research focus on grades 1-6. Other areas where additional research would benefit would be the role of specific curricula,

appropriate methods for training teachers to use CWPT, and ways to align instruction with appropriate grade level content standards and benchmarks (Maheady et al., 2003).

Implementing CWPT.

The object of CWPT is for students to learn weekly information that is presented and to demonstrate their understanding of this information on assessments. Students will measure success by their scores on the assessments. In the CWPT presented here, there can also be a class game format used, so that student can also measure success by the number of points earned by themselves and their team.

To begin, teachers use pre-tests to measure students' knowledge of information to be taught in the week ahead. Typically, knowledge would be low (e.g., 20-40% correct) on the pretest and increase to 90-100% correct (average) on the posttest (Greenwood et al., 1997). If the pretest indicates items on the list are too easy or hard, the list should be modified.

In Greenwood et al's (1997) CWPT, a class is divided into two teams. Students in each team are paired with a partner from the same team for the week. Pairing can be set up randomly or by a student's skill level. In spelling and math, students may be placed randomly with a partner as tutors are given answers to help monitor and make corrections. When using CWPT for reading, partners should be placed in pairs with contrasting skill levels. High-skill level readers are able to help those who are lower-skilled. Teachers should monitor pairing and make appropriate adjustments (Greenwood et al., 1997).

Once paired, each partner will take a turn tutoring the other partner by giving a word to be spelled, a math fact, or by listening to literature being read. The tutors give

points for correct answers, while immediately correcting and recording errors. In addition, the teacher can provide award points to students for good behavior. The two teams compete for points and social reinforcement.

In CWPT, students spend approximately 30 minutes per day for four days, engaged in tutoring with the weekly lesson. The fifth day is used for assessment and pre-testing for the following weekly lesson. In the first 10 minutes of each daily lesson, one student plays the role of tutor and the other as the tutee. For the next 10 minutes the roles are exchanged. The tutor is responsible for presenting each item on a weekly tutoring list (Appendix A.2). Two points are to be rewarded for correct answers. If the tutee answers incorrectly, the tutor makes an immediate correction and later in the lesson allows the tutee a second chance to answer and practice the correct response, using boxes 1-3 of the tutoring worksheet (Appendix A.4). At this point, if the student's answer is correct, the tutee earns one point. If the answer is still incorrect, no points are awarded for that particular item. After ten minutes, the tutor and tutee will exchange jobs. If the tutoring pairs finish prior to the ten minute buzzer, tutors are to start the list again. If either member from a pair has a question, that student should raise the help sign for teacher assistance. During partner work, the teacher should tour the classroom, awarding 1-5 bonus points for appropriate behavior.

Students grade their partner's assessment test and points are awarded for correct answers. When all points have been reported, the winning team is announced a positive verbal reinforcement is given or a celebratory round of applause. The winning team should also be directed to appropriately congratulate the other team for their efforts. Partners and teams change the following week (Greenwood et al., 1997).

Steps for setting up CWPT.

Effective implementation training for the student is given by the teacher and is necessary for effective use of CWPT. Before beginning training, teachers should clearly understand the process and teach it to their students. It is key that students clearly understand the importance of being respectful throughout the entire process. The following steps show the suggested instructions for student training of CWPT.

Day 1. Introduce the CWPT strategy, establish goal of increasing skills, establish expectations for teams and points, winning & losing, and good sportsmanship.

Day 2. Explain procedures for partnering, who will move or stay in their seat.

Day 3. Explain the use of the tutoring worksheets, first with teacher led practice, then two student practice, finally whole class practice.

Day 4. Discuss point earning and reporting procedures.

Day 5. Demonstrate how to calculate total points, practice praise, and review entire process.

Steps for running CWPT.

After spending a week setting up the expectations for CWPT, it is time to begin. The monthly subject list allows teachers to organize content materials. That content can then be transferred onto the weekly tutoring list (Appendix A.1 & A.2). The teacher should have set up the subject (e.g., spelling, reading, or math) and expectations, based on a pretest given to the class. Then pairs and teams should be assigned, with the teacher determining and displaying which students will move and which will stay in their seat. A sample move/stay chart that may be posted in the classroom (see Appendix A.3).

Students stay in their seat until the teacher gives the direction to move. Moving should be quick and quiet.

On the first day of the week, teachers should distribute the CWPT worksheets. This includes a weekly tutoring list (Appendix A.2), providing one per pair; a tutoring worksheet (Appendix A.4), giving one per student; the tutoring point sheet (Appendix A.5), giving one to each student; and finally giving each pair a “help sign” (Appendix A.8) to raise if they need the teacher’s help. Point sheets may be laminated for reuse. Simple instructions for the tutoring worksheet and tutoring point sheet are written directly on each worksheet. Worksheets may need to be modified accordingly for younger students or for students with more severe disabilities. The teacher should take a few minutes to review CWPT worksheets prior to starting the 30 minute peer tutoring session. Students can also be reminded of the opportunity of 1-5 bonus points each round for good behavior.

Student pairs then begin the tutoring sessions. The tutors record points and do error correction. At the end of the 30 minutes, total numbers are recorded on the team point chart (Appendix A.6). When all students have reported points, team totals should be calculated and the winning team announced. Social skill training is important at this point, encouraging clapping for the “winning team” and also for the great effort of their opposition. It is also important to check for student understanding or questions about CWPT. This procedure continues for 4 days of working on the CWPT skill for the week. On the fifth day, teachers should administer a post-test. The posttest measures each student’s level of mastery. Post-test scores should be charted on the pre/post test point chart in Appendix A.7, to show student progress. If adequate progress is not achieved,

the teacher should review information being taught and more closely monitor tutoring sessions (Greenwood et al., 1997). The strength of this strategy is in keeping track of student growth on the skills and adjusting as necessary.

Example CWPT lesson.

Choose the information that students should practice (eg. Spelling or math facts).

Figure 1: Weekly Tutoring Spelling List

Tutor: _____ Tutee: _____

1. dance	6. snap
2. happy	7. mouse
3. house	8. circle
4. race	9. pretty
5. clap	10. smart

1. Pre-test. The teacher reads words from the weekly tutoring list as students record answers on a sheet of paper. These may be graded by the teacher or by other students. Record scores on the pre/posttest score chart.

Figure 2: Pre/Posttest Score Chart

AB= Absent MS= Missing ☺ = 100%	WEEK 1 11/18/2008		WEEK 2 ___/___/___	
STUDENT	PRE	POST	PRE	POST
Michael	20%	90%		
Sarah	35%	☺		
Matthew	15%	85%		

1. Establish peer partners and teams. Give out the weekly tutoring list (Appendix A.3), the tutoring worksheet (Appendix A.4), the tutoring point sheet (Appendix A.5), and the help sign (Appendix A.8).
2. The tutor reads a word aloud. The tutee spells the word aloud and writes it on the tutoring worksheet. If a word is misspelled, the tutor says the word again and spells it correctly. The tutee correctly spells the word and writes it three times on the worksheet.

Figure 3: Tutoring Worksheet

Tutee Name: _____ Date: _____

	1	2	3
1. dance			
2. hapie	Happy	Happy	happy
3. pretty			

3. Allow 30 minutes a day for peer partners to practice the skills and teach them how to record their partner's success each day. Teach students to record their daily points (Appendix A.5). For correct answers on the first try, the tutee earns two points. Correct answers on the second try earn the tutee one point. If the tutee makes an error on the second try, he/she will not earn any points for that word. At the end of the daily lesson, the teacher calls on each student to report their point earnings and records findings on the Team Point Chart (Appendix A.6).

Figure 4: Tutoring Point Sheet

Student: _____ Date: _____ Subject: _____

Number of times practiced: 1 2 3 4 5 6 7 8 9 10

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36

4. Post-test and analysis. The teacher reads each word aloud, while all students write the word on a piece of paper. Students or the teacher grades the post-tests and records the scores on the Pre/Posttest Score Chart. When all results have been turned in, the teacher compares the Pretest scores with the posttest scores and congratulates students for their hard work and progress (Appendix A.1).

5. Repeat.

Class wide peer tutoring uses a student-centered learning approach that transfers the teaching and learning responsibilities from teacher to student. The main role of the teacher is to teach initial instruction and monitor progress of the tutoring environment. Another research validated instructional approach called direct instruction (DI) presents ideas which are contrasting to CWPT. Direct Instruction uses a teacher-centered approach, in which learning is dependent on the quality of presentation by the teacher.

Direct Instruction

Overview.

Direct instruction (DI) is a scientifically-based instructional approach that has proven results for students with disabilities. The DI approach uses detailed teaching procedures that are presented in a specific order (Tarver, 1999). It is built around the concept that every child can learn if we teach them carefully and teachers can be successful with effective instructional delivery techniques. In DI, it is the teacher who is

responsible for student learning. A common phrase that refers to DI is, "If the learner hasn't learned, the teacher has not taught" (Tarver, 1999). There are three main components to the design and delivery of DI programs which include program design, organization of instruction, and teacher/student interactions (Marchand-Martella, Slocum, & Martella, 2004).

Program design focuses on careful content design that allows students to make generalizations about a topic. The wording and timing are important part of clear communication in instruction. Sequencing of information taught is important in building upon information the students should already know. Teachers need to focus on basic skills before moving to more advanced ideas. All information taught using DI should be repeated multiple times to ensure a concrete understanding of information from students. DI encourages clear instructional formats that provide specific directives of teacher and student dialogue.

The organization of materials should include groups of information based on current skill levels. Teacher flexibility with regards to timing allows students to perform for longer periods of time with a higher success rate. Assessments of this success is measured continuously.

Teacher-/student interactions include immediate student response, choral responses from students, and timed signaling from the teacher. The pacing of instruction is crucial in successful teaching. The focus of DI is on student mastery of information that is taught by the teacher. DI follows a specific correction procedure where the teacher models the procedure, leads the class in instruction, provides an assessment, and re-tests the information presented in each lesson (Marchand-Martella et al., 2004).

Background.

Direct instruction has been proven in the largest educational study to date called Project Follow Through. DI was first developed by preschool teacher Siegfried (Zig) Engelmann. He began research and experimentation with direct instruction in 1963. Zig first began using his strategies with his 3year old twin sons. When his sons were age four, Zig had taught them multi-digit multiplication, addition of fractions with like and unlike denominators, and basic algebraic concepts using only 20 minutes a day. Seeing his son's rapid achievement, Zig thought he might be able to accomplish the same results with any child, especially children of poverty. He theorized that children would quickly improve performance levels by using carefully engineered instruction, rather than waiting for them to learn through random experience.

Around 1966, Wes Becker became the director of the preschool department at the school where Zig worked. Wes and Zig became the Engelmann-Becker team and joined Project Follow Through (FT) under the sponsorship of the University of Illinois in 1967. Project FT began in 1967 as part of President Johnson's War on Poverty and continued until the summer of 1995, having cost about a billion dollars. Project FT was a concentrated effort to break the cycle of poverty through improved education. Zig began sharing his expertise with other teachers in the form of the Direct Instruction System for Teaching Arithmetic and Reading (DISTAR or Direct Instruction). His rapid progress with disadvantaged students began gaining attention. DI was officially introduced in 1968, based on the work of Siegfried Engelmann, currently a professor at the University of Oregon and Director of the Association for Direct Instruction (Grossen, 1996).

Data from Project FT showed superior results for DI when compared to other models of instruction on measures of basic skills, cognitive-conceptual skills, and affective skills (Tarver, 1999). FT showed large gains for both general and special education, as well as both elementary and secondary students (Adams & Engelmann, 1996). It also showed lasting advantages through high school for students taught with DI in grades K-3 (Meyer, 1984). A high level of student achievement has been reported by individual research studies, research reviews, and technical reports (Tarver, 1999).

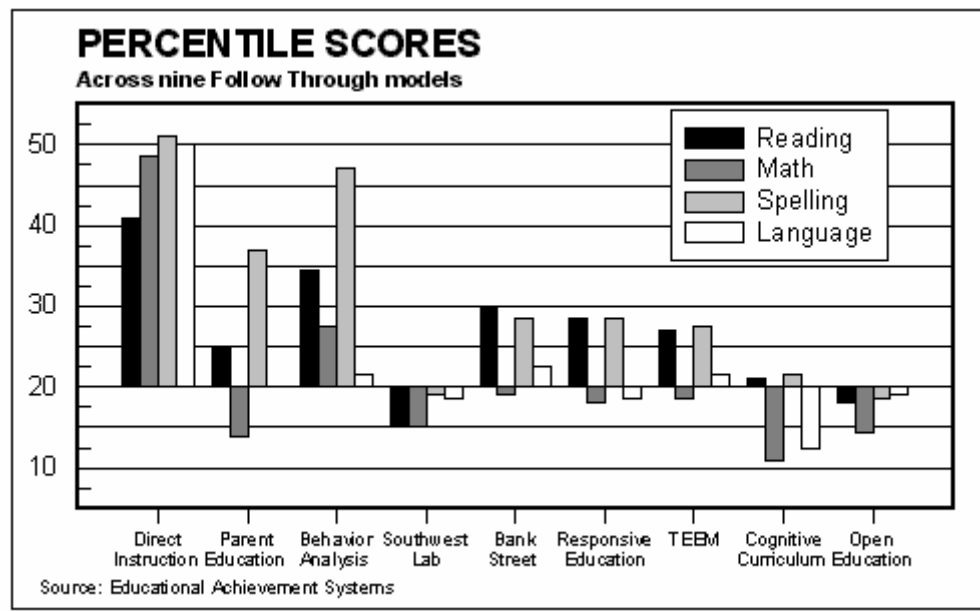
Research findings.

Direct instruction is supported by more research than any other instructional program (Watkins & Slocum, 2004). Extensive research specifically shows positive outcomes for at-risk and special education populations (Marchand-Martella et al., 2004). In fact, Forness, Kavale, Blum, and Lloyd (1997) conducted an analysis of various intervention programs for students receiving special education services and found DI to be one of seven interventions with strong evidence of success.

DI has been proven to be an effective instructional strategy for teaching reading, language arts, spelling, and math ([www.k8accesscenter.org/documents/Instructional Methods and Practices](http://www.k8accesscenter.org/documents/Instructional-Methods-and-Practices)). In 1999, the American Institutes of Research (AIR) reported that out of twenty-four studies they conducted, DI was one of three programs that presented solid and positive evidence of student achievement (Vukmir, 2002). Figure 5 shows Reading, math, spelling and language achievement for nine models of teaching (Coombs, 1998; also in Appendix A.9). Scores above the horizontal line indicate a positive effect of the program on achievement in that skill area compared with the "control" students who did not participate in the project. Scores below the horizontal line

indicate a negative effect, compared with control groups (Coombs, 1998). Models of instruction that took a direct instruction approach achieved the greatest gains observed in the area of thinking and problem-solving skills. DI offers the idea that the best way to improve a child's school performance is to focus on basic skills. Proponents of DI state that higher thinking and problem-solving and heightened self-esteem, result from mastery of the basic skills (Johnson & Layng, 1992).

Figure 5: Comparative analysis of nine Project Follow Through models.



The Washington Times

Implementation of direct instruction.

Information presented in DI is carefully scripted before the lesson begins. Teachers give instruction using rapid fire responses combined with immediate error correction. Students respond on average at a rate of about 10 responses per minute. Students respond as a group (chorally) or sometimes individually. DI is fast paced and its success depends on lesson design, and the action and reactions of the teacher (modeling).

Teachers provide frequent positive feedback or corrections. Lessons should offer opportunities for students to practice using skills that are taught on multiple occasions. Information taught should be repeated over time to reinforce learning. In DI repetition is a key factor of concrete learning.

Sample direct instruction lesson.

The following is an example of a social skill lesson using a direct instruction approach. This lesson is adapted from Kostewicz, Ruhl, and Kubina, 2008.

Objective: Students will be able to repeat the rule “Raise your hand before talking” and be able identify two examples and two non-examples with 100% accuracy.

Rationale: “Raising you hand before talking is very important in the classroom. It allows all students to have a chance to answer questions being asked. Now we are going to practice appropriate responses when questions are asked.”

Lesson:

Teacher: “The appropriate response for answering a question is to raise your hand before talking. What is the correct way to answer a question? Get ready.”

Signal

Class response: “Raise your hand before talking”

Teacher: “Excellent. What is the right way to answer a question? Get ready.”

Signal

Class response: “Raise your hand before talking.”

Teacher: “Good. Now we are going to practice some times that people do and do not raise their hand before talking. Class, am I raising my hand before talking when sit quietly in my seat with my hand raised in the air? Get ready.” *Signal*

Class response: “Yes.”

Teacher: “Good. Am I raising my hand before talking when I jump up and down saying “ooh, ooh, ooh, pick me, pick me”? Get ready.” *Signal*

Class response: “No.”

Teacher: “Good listening. Am I raising my hands before talking when I am sitting on the group carpet, staring at the teacher, and holding my hand in the air? Get ready.” *Signal*

Class response: “Yes.”

Teacher: “Yes. How about if I am clapping to get the teacher attention? Get ready.” *Signal*

Class response: “No.”

Teacher: “Your turn, can someone tell me a time when they raised their hand before talking? (Take two responses and briefly discuss.)

Teacher: “Great job, everyone. I am going to act out a few situations and ask you each time: Am I raising my hand before talking?” (Possible ask for student helpers, act out 2 examples and 2 non-examples, and a response from the class each time.)

Teacher: “Great job everyone! Remember, raise your hand before talking, even when answering a question that was asked.”

Lesson practice should occur repeatedly to ensure students clear understanding.

Direct instruction takes only a small amount of time to practice, but shows impressive progress by students. Teachers who use this type of teaching strategies along with others

are more effective in the classroom. Self-Monitoring is another tool used by teachers to promote academic and behavioral success.

Self-Monitoring

Overview.

Self-monitoring is a behavior management strategy, effective for helping students improve their academic performance and attention behaviors (Mitchum, Young, West, & Benyo, 2001). It is a student-centered strategy that can be used to increase on-task behavior of students by encouraging them to monitor their own behavior. Students with behavioral and academic difficulties typically have limited awareness and understanding of their own behavior and its effects on others. Self-monitoring interventions equip students to recognize and keep track of their own behavior (Hoff & DuPaul, 1998; Rhode, Morgan, & Young, 1983). Using these strategies, students can learn to identify and increase positive, pro-social behaviors. Self-monitoring interventions are among the most flexible, useful, and effective strategies for students with academic and behavioral difficulties (Mitchum, et al., 2001). The intervention encourages independent functioning, which allow individuals with disabilities to rely less on prompts from teachers (Koegel, Koegel, Harrower, & Carter, 1999).

Background.

Self-monitoring has been used successfully with individuals with a variety of disabilities, including autism, cognitive impairments, learning disabilities, and attention deficit hyperactivity disorder and is effective in addressing both academic and social behaviors (Maag, 2004). Self-monitoring has been used successfully in both general and special education classrooms and has been shown to improve behaviors in individuals

with both mild and severe disabilities (Ganz & Sigafoos, 2005). One recent study examined the effects of self-management and found that all participants involved increased their use of targeted social skills and decreased their off-task behavior after self-management was implemented (Peterson, Young, Salzberg, West, & Hill, 2006).

Proper implementations of self-monitoring techniques can result in reduced teacher frustration and will insure greater academic absorption by students. Self monitoring can be especially helpful for students with ADHD. Studies have shown 3-5% of elementary students in the United States are diagnosed with ADHD (Harris, Friedlander, Saddler, Frizzle, & Graham, 2005). Students with this disorder may work at slower rates, produce work that is below their level of capability, and/or have trouble staying on task. This is not due to lower brain functioning; it is a result of difficulties with inhibitory control. Eighty percent of students with ADHD have been found to exhibit academic performance problems due to their lack of self-monitoring ability (Barkley, 1990; Davies & Witte, 2000; Frick, Kamphaus, Lahey, Loeber, Christ, Hart, 1991; Reif, 1993). When teachers are able to properly implement student-centered self-monitoring strategies, performance rates increase significantly, resulting in higher levels of achievement both academically and behaviorally. Students with attention disorders function better when presented with feedback (Barkley, 1990). When using self-monitoring strategies, students are able to independently provide themselves with feedback, taking away the need for negative attention from teachers, family members, or others and allows attention for positive behavior.

Implementation of self-monitoring.

There are ten steps needed to properly implement a self-monitoring program.

1. Identify the specific behavior

The first step to changing an undesired behavior is identifying and defining the specific behavior. For example, if the student is calling out multiple times and also getting out of his seat, and also speaking rudely, identify one behavior that you want to target, such as speaking rudely. Next define what that will look and sound like, so you are consistent in how you keep track of it. Will it include only swearing, or will it include talking back? Will it include refusing to work? Once you have defined it, it will be easier to track and to talk to the student about. . Identified behaviors can be academic, social, or attention to task. The student may help choose the target behavior when appropriate.

2. Collect baseline data.

Once the specific inappropriate or appropriate behaviors have been defined, it is important to identify the common times the behavior is occurring. A scatter plot records the number of times the student's target behavior occurs during all periods of the day (Appendix A.11). This will help you pick one time of the day when the behavior occurs the most, and might help you identify a pattern to when/why the behavior is occurring. Once you pick the class period to focus on, spend several days counting how often (frequency), or how long (duration), or how severe (intensity) the target behavior is occurring. For example, if the target behavior is to reduce speaking rudely, you could count the frequency of times that the student speaks rudely in this class period for several days. The results are then recorded on a simple line graph (Appendix A.12) so you can track the progress of your plan over the next few weeks. . Baseline data

is collected before the start of the intervention. Simple instructions on recording behavior frequency data into a line graph are included in the Appendix (Appendix A.12).

3. Teach a replacement behavior.

After defining and measuring a specific target behavior, the appropriate replacement behavior should be clearly defined and recorded. Teaching the student to engage in the desired behavior in place of an undesirable one will help to reduce or eliminate the undesired behavior (Marquis, Horner, Carr, Turnbull, Thompson, Behrens, Magito-McLaughlin, McAtee, Smith, Anderson, & Doolabh, 2000). Positive behaviors can be modeled by the student to show understanding of the change in behavior.

4. Select or design a self-monitoring chart.

The goal in designing self-monitoring charts or graphs is to fit the need of the student. They should be designed for the student to record his/her own positive behaviors. The majority of the responsibility of this record system is on the student and reinforced by the teacher. The most effective self-monitoring systems require minimal time. There are 3 examples of possible self-monitoring charts or graphs available in the Appendix (Appendix A.13, 14 & 15).

5. Teach the student to use the system.

When all systems have been set up, teachers hold a confidential conference with the student to explain how to use self-monitoring charts or graphs. Students can review the charts to provide input about any potential problems with the system. In the beginning of implementation, teachers should

keep a close watch on student's correct use of the chart. Repeat conferencing as necessary to ensure the student understands the process (Vanderbilt, 2005).

6. Reinforce positive behavior.

Students should consistently receive immediate positive feedback for successful improvement of targeted behaviors. Praise is encouraged, but students also benefit from a well chosen reinforcement that is meaningful to the specific student. This will increase the chance of the student using the new, appropriate behavior. Possible reinforcements can be time with the teacher, extra computer time, time with a friend, or other appropriate rewards. Teachers can consider students hobbies, favorite games, or other areas of pleasure when making suggestions for rewards. The student and teacher can work together to determine the reward.

7. Monitor the students' progress.

The student will be keeping track of his/her new replacement behavior on the self monitoring chart. The teacher, though, should continue to record student progress on the same line graph used to collect baseline data. This will help the teacher watch the direction of the change to determine if the self monitoring system is helping the student. If the target behavior (inappropriate behavior) is decreasing, then the self monitoring and reinforcement are working. If the behavior is not improving, then the teacher should check if the reinforcement is important enough for the student to determine to change his/her behavior.

8. Fade the role of the adult in the intervention.

As the student becomes consistently successful using the self-monitoring system, the teacher should gradually increase behavior expectations while at the same time decreasing immediate reinforcement. The target outcome of self-monitoring is for the student to independently monitor his/her own behavior without constant teacher intervention (Vanderbilt, 2005). Progress continues to be measured by the teacher and the student to positively reinforce improved behavior.

9. Teach Maintenance.

As behavior improves, interventions change to accommodate a less restrictive method of measurement. Student-teacher behavior progress conferences are conducted at a time where other students are not able to observe. Students can keep charts on their desk or in a binder or daily planner in order to easily remember keeping record of their behavior (Vanderbilt, 2005). Self-monitoring record sheets can be kept discreet to avoid embarrassment.

Figure 5: Example self-monitoring chart.

Name: _____ Date: _____

Goal: The student will work quietly for 10 minutes per subject

Note: The student will be able to color in the boxes for minutes spent working. A meaningful reinforcement can be earned if the student succeeds at 70% of every 10 minutes. The teacher will prompt the student 1x by tapping on the chart. If the student is off task even after a prompt, the number 10 will be crossed out, followed by other numbers for additional minutes where there is no working quietly.

Subject	Color in 1 box per minute									
1. Math	1	2	3	4	5	6	7	8	9	10
2. Science	1	2	3	4	5	6	7	8	9	10

Appropriate rewards should be pre determined to provide positive reinforcement for success. Support and advice from special education teachers can help with proper design and implementation of self monitoring activities. It is often helpful for special education and general education teachers to work together. Co-teaching is also an option for regular and general education teachers who are willing to work together to use their talents in the classroom.

Co-Teaching

Overview.

Co-teaching is a teaching model used to support inclusion of students with disabilities in general education settings. In this model, one general education teacher and one special education teacher share all instructional responsibilities within one single classroom. It can potentially bring the best of teacher talents together to benefit all students. Co-teaching is an alternative to resource room or pull-out special education services. The general education teacher can bring his/her training regarding the structure, content, and pacing of curriculum. The special education teachers can identify unique learning needs of individual students and enhance curriculum and instruction to match these needs (Zigmond & Magiera, 2001).

There are three main objectives of co-teaching. The first is to include a wider range of instructional alternatives. Students who are taught using various teaching styles may better grasp information presented in the classroom. Second, co-teaching is intended to enhance participation of students with disabilities. Thirdly, it is intended to improve

performance outcomes for special education students. In co-teaching, both teachers are working together to deliver instruction within one classroom. The determination of who does the different jobs is decided by both the general and special education teachers in order to avoid misunderstandings or conflicts about the role of each teacher. Researchers have emphasized that co-teachers should volunteer for this type of teaching assignments and that it should include planning time at least once a week. Proper distribution of responsibilities has been critical to having successful co-teaching outcomes (Walther-Thomas, Bryant, & Land, 1996).

Research findings.

The Individuals with Disabilities Education Act (IDEA) mandated that special education teachers need to be highly qualified in core content areas (Council for Exceptional Children, 2008). Co-teaching is an option that can work without requiring that every special educator be certified in multiple core content areas. Co-teaching allows general education students to work with and better understand students with various ability levels. It provides opportunities for leadership and growth within the least restrictive environment and enhances a student's sense of responsibility (Dover, 1994). When teachers are able to combine their expertise in content knowledge, learning strategies, and classroom management, then more students can achieve to higher levels of proficiency (Friend and Hurley-Chamberlain, 2007). Research on the effectiveness of co-teaching is limited due to the newness of the delivery model (Zigmond, 2003). Researchers have found that co-teaching can aid in the social development of students with learning disabilities and can increase reading achievement of at-risk students and students with disabilities (Vaughn, Elbaum, Schumm, and Hughes, 1998).

Students in a co-taught classroom benefit by having a second teacher who can assist with the learning of all students. Having a special educator in classrooms may help identify students specific learning needs. Co-teaching is most often used for assisting with the inclusion of students with mild mental retardation, behavior disorders, and learning disabilities. It has been used by all grade levels k-12, but is most recommended for elementary and middle school age classrooms (Zigmond & Magiera, 2001). It is at the discretion of the teachers which subjects might be taught using the co-teaching delivery model.

Implementation of co-teaching.

There are five common approaches to co-teaching. These approaches include parallel teaching, station teaching, alternative teaching, team teaching, and one teaching/one drifting. These approaches could be used according to classroom demographics and situations as well as teacher preference.

In parallel teaching, teachers share the responsibilities of planning and instruction. The class is split into groups and the same information is taught to both groups, so both teachers need to be proficient in the content being taught. Content is the same, but teaching methods may be different.

In station teaching, students rotate between both teachers, who repeat instruction using various methods of learning. Each teacher will work with every student. Planning and teaching responsibilities are shared.

Alternative teaching suggests that the class is taught as a whole for parts of the lesson. Some students work in a small group for pre-teaching, enrichment, re-teaching, or other individualized instruction. This approach allows for highly individualized

instruction to be offered. Teachers should be careful that the same students are not always pulled aside.

When team teaching, teachers work as a team to introduce new content, work on developing skills, clarify information, and facilitate learning and classroom management. This requires the most mutual trust and respect between teachers and requires that they be able to mesh their teaching styles.

Finally there is one teaching/one drifting. One teacher plans and instructs, while at the same time the other teacher provides adaptations and additional support as needed. This method requires little joint planning, but should be used sparingly due to student distraction and uneven participation from both teachers.

When using co-teaching, teachers should consider students' grade level, ability level, significance of disabilities represented, climate of the educational setting, and administrative support. It is important to consider the appropriate scenarios and handouts to instructional settings, modification of activities, support activities, and assistive technologies. An example organizational chart for determining responsibilities is displayed in Appendix B.1 & B.2. Responsibilities are defined and displayed so that both teachers understand their role and conflicts are avoided.

Quick guide for co-teaching approaches.

The following guide is designed for teachers to view an easy interpretation of the similarities and differences in co-teaching approaches.

Parallel teaching:

1. Divide students into two small groups. Groups may be formed strategically by student needs.

2. Teacher 1 and 2 teach all objectives to their own group.
3. There is an opportunity for students to participate in small group or class discussions.

Station teaching:

1. Divide students into two groups.
2. Each teacher plans and teaches information at each station.
3. Students rotate between teachers.

Alternative teaching:

1. Teachers plan instruction together.
2. General education teacher instructs the large group.
3. Special education teacher takes students who need additional help or accommodations.

Team teaching:

1. Teachers plan instruction and present together.
2. Teachers work together to ensure appropriate and effective learning.

One teaching/one drifting:

1. One teacher designs and presents the lesson.
2. The second teacher tours the classroom, providing support by answering questions, re-explaining key concepts, and assisting with behavior management.

All strategies and the teaching model can be used as a single tool for improving student success in the classroom, or they can be used in combination with other strategies. This review provides a foundation for teachers. Further research and training opportunities are always beneficial to the professional development of educators.

Method

This honors experience is one that I chose for the purpose of seeking a deeper understanding of effective teaching. Over the course of my honors studies I have reviewed topics which have given me a broader view of all students. One study examined the correlation between depression and television watching. Another project involved taking a deeper look into effective teaching of reading and comprehension strategies. The overall intent for these honors projects was to understand and teach students with academic and behavioral difficulties.

The purpose for this final honors project was to add another level of understanding students with academic and behavior difficulties by learning about key research-validated strategies that can enhance the teaching of all students. It was also to turn that information into a booklet to share with other teachers at some point, in order to assist them in effectively teaching to ALL students. With the increase in the use of co-teaching arrangements in schools, this booklet may be something that can be shared so that both general education and special education students may profit by the strategies the teachers will use.

The method involved in this project involved conducting a literature review to summarize the key points of three strategies and one instructional style and then to present these findings in both an academic manner as well as in a more easily read document for teachers. Practical worksheets were designed and included in the Appendix to help teachers visualize the important steps and begin using these strategies.

Conclusion

Teachers must be equipped with the skills that are necessary for improved student achievement in order to successfully teach and accommodate the needs of all children. Classrooms are intended to be positive, supportive environments where there is a deep understanding of students social, emotional, and physical well being. And it is important to recognize, nurture, and strengthen the talents found in each student. Teachers who are trained to use various evidence-based teaching methods, both instructional and behavioral, are better prepared to educate in these diverse learning environments and will naturally excel as an educator (Baker, 2005).

Understanding and using specific strategies will allow teachers to improve student achievement levels, provide a wider range of instructional alternatives, and promote diversified learning methods for any degree of student ability. It is a teacher's awareness of the various tools and resources that builds a bridge across educational achievement gaps. Becoming experts on these useful strategies is a concrete way to ensure that "all students have a better chance to learn, excel, and live out their dreams".

References

- Adams, G.L., & Engelmann, S. (1996). *Research on Direct Instruction: 25 years beyond DISTAR*. Seattle, WA: Educational Achievement Systems.
- Baker, P.H. (2005). Managing Student Behavior: How ready are teachers to meet the challenge? *American Secondary Education*, 33 (3), 51-64.
- Barkley, R.A. (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis treatment*. New York: Guilford Press.
- Coombs, M. K. (1998). Honest follow-through needed on this project. *The Washington Times*, March 24, 1998. Also retrieved December 04, 2008 from:
<http://www.mathematicallycorrect.com/honestft.htm>
- Council for Exceptional Children. (2008). The new IDEA: CEC's summary of significant issues. Retrieved November 11, 2008 from. <http://www.cec.sped.org>
- Davies, S., & Witte, R. (2000). Self-management and peer-monitoring within a group contingency to decreased uncontrolled verbalizations of children with attention-deficit/hyperactivity disorder. *Psychology in Schools*, 37, 135-147.
- Dover, W. (1994) *The Inclusion Facilitator*. The Master Teacher, Inc. Retrieved from www.vclld.org/pages/newsletters/00_01_spring/advant.htm
- Fantuzzo, J., & Ginsburg-Block, M. (1998). Reciprocal Peer Tutoring: Developing and testing effective peer collaborations for elementary school students. In K. Topping & S. Ehly (Eds.), *Peer Assisted Learning*, (pp. 121-144). Mahwah, NY: Erlbaum.
- Fantuzzo, J.W., & Rohrebeck, C.A. (1992). Self-managed groups: Fitting self-management approaches into classroom systems. *School Psychology Review*. 21(2), 225-264.

- Fantuzzo, J.W., King, J.A., & Heller, L.R. (1992). Effects of reciprocal peer tutoring on mathematics and school adjustment: A component analysis. *Journal of Educational Psychology*, 84(3), 331-339.
- Forness, S. R., Kavale, K. A., Blum, I. M., & Lloyd, J. W. (1997). Mega-analysis of meta-analysis: What works in special education. *Teaching Exceptional Children*, 19(6), 4-9.
- Frick, P.J., Kamphaus, R.W., Lahey, B.B., Loeber, R., Christ, M.A.G., Hart, E.L. (1991). Academic underachievement and the disruptive behavior disorders. *Journal of Consulting and Clinical Psychology*, 59, 289-294.
- Friedlander, B.D., Frizzle, R., Draham, S., Harris, K.R., Saddler, B. (2005). Self-Monitoring of Attention Versus Self-Monitoring of Academic Performance: Effects among students with ADHD in the general education classroom. *Journal of Special Education*, 39 no3, 145-56.
- Fuchs, D., Mathes, P. G., & Fuchs, L. S. (1997). *Peer-assisted learning strategies: Reading methods for grades 2-6*. Nashville, TN: Vanderbilt University.
- Fuchs, D., Fuchs, L.S., Mathes, P.G., & Simmons, D.C. (1996). *Peer-assisted learning strategies in reading: A manual*. (Available from Box 328, Peabody College, Vanderbilt University, Nashville TN 37203).
- Fuchs, D., Fuchs, L.S. (2002). *Learning accommodations for individuals with special needs*. Nashville, TN: Vanderbilt University. John F. Kennedy Center on Human Development.
- Ganz, J. B., & Sigafos, J. (2005). Self-monitoring: Are young adults with MR and autism able to utilize cognitive strategies independently? *Education and Training in Developmental Disabilities*, 40(1), 24-33.

- Greenwood, C. R., Delquadri, J. C. & Carta, J. J. (1997). *Together We Can: Classwide peer tutoring to improve basic academic skills*. Longmont, CO: Sopris West.
- Greenwood, C.R., Arreaga-Mayer, Utley, C.A., Galvin, K.M., & Terry, B.J. (2001). ClassWide Peer Tutoring Learning Management System. *Remedial and Special Education, 22*, 34-37.
- Grossen, B. (1996). The story behind project follow through. *Effective School Practices*, 15. Retrieved from <http://darkwing.uoregon.edu> on October 28, 2008.
- Harper, G. F., Maheady, L., Mallette, B., & Karnes, M. (1999). Peer tutoring and the minority child with disabilities. *Preventing School Failure, 43*, 45-51.
- Harris, K.R.; Friedlander; B.D.; Saddler, B.; Frizzle, R.; Graham, S. (2005). Self-Monitoring of Attention Versus Self-Monitoring of Academic Performance: Effects Among Students with ADHD in the General Education Classroom. *The Journal of Special Education, 39*, 145-56.
- Hoff, K. E., & DuPaul, G. J. (1998). Reducing disruptive behavior in general education classrooms: The use of self-management strategies. *School Psychology Review, 27*, 290-303.
- Johnson, K.R., & Layng, T.V.J. (1992). Breaking the structuralist barrier: Literacy and numeracy with fluency. *American Psychologist, 47*, 1475-1490.
- Koegel, L. K., Koegel, R. L., Harrower, J. K., & Carter, C. M. (1999). Pivotal response intervention I: Overview of approach. *Journal of the Association for Persons with Severe Handicaps, 24*(3), 174-185.

- King, A., Staffieri, A., & Adalgais, A. (1998). Mutual peer tutoring: Effects of structuring tutorial interaction to scaffold peer learning. *Journal of Educational Psychology*, 90, 134-153.
- Maag, J. W. (2004). *Behavior management: From theoretical implications to practical applications (2nd ed.)*. Belmont, CA: Wadsworth/Thomson Learning.
- Maheady, L., Harper, G., Mallette, B. (2003). Class Wide Peer Tutoring. *Current Practice Alerts*, 8. Retrieved from <http://www.TeachingLD.org>
- Marchand-Martella, N. E., Slocum, T. A., & Martella, R. C. (2004). Boston, MA: Allyn and Bacon.
- Marquis, J. G., Horner, R. H., Carr, E. G., Turnbull, A. P., Thompson, M., Behrens, G. A., Magito-McLaughlin, D., McAtee, M. L., Smith, C. E., Anderson Ryan, K., Doolabh, A. (2000). A meta-analysis of positive behavior support. *Contemporary special education research: Syntheses of knowledge base on critical instructional issues*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Meyer, L.A. (1984). Long-term effects of the Direct Instruction Project Follow Through. *Elementary School Journal*, 84, 380-394.
- Mitchum, K. J., Young, K. R., West, R. P., & Benyo, J. (2001). CSPASM: A classwide peer assisted self-management program for general education classrooms. *Education and Treatment of Children*, 24, 111-140.
- Peterson, L. D., K. Young, R., Salzberg, C., West, R., and Hill, M. (2006). Using self-management procedures to improve classroom social skills in multiple general education settings. *Education & Treatment of Children*.

- Reif, S.F. (1993). *How to reach and teach Add/Adhd children: Practical techniques, strategies and interventions for helping children with attention problems and hyperactivity*. West Nyack, NY: Center for Applied Research in Education.
- Rhode, G., Morgan, D.P., & Young, K.R. (1983). Generalization and maintenance of treatment gains of behaviorally handicapped students from resource rooms to regular classrooms using self-evaluation procedures. *Journal of Applied Behavior Analysis, 16*, 171-188.
- Simmons, D. C., Fuchs, D., Fuchs, L. S., Hodge, J. P., & Mathes, P. G. (1994). Importance of instructional complexity and role reciprocity to classwide peer tutoring. *Learning Disabilities Research and Practice, 9*, 203-212.
- Simmons, D. C., Fuchs, L. S., Fuchs, D., Mathes, P., & Hodge, J. P. (1995). Effects of explicit teaching and peer tutoring on the reading achievement of learning-disabled and low-performing students in regular classrooms. *Elementary School Journal, 95*, 387-408.
- Spencer, V. G., Scruggs, T. E., & Mastropieri M. A. (2003). Content area learning in middle school social studies classrooms and students with emotional or behavioral disorders: A comparison of studies. *Behavioral Disorders, 28*, 77-93.
- Tarver, S. (1999). Direct Instruction. *Current Practice Alerts*, issue 2. Retrieved from <http://www.TeachingLD.org>
- Terry, B. (2008). An Introduction to ClassWide Peer Tutoring. *Special Connections*, Retrieved September 18, 2008, from <http://www.specialconnections.ku.edu>
- U.S. Department of Education, Building on Results: A blueprint for strengthening the left behind act, Washington D.C., 2007.

- Vanderbilt, A. (2005). Designed for Teachers: How to implement self-monitoring in the classroom. Retrieved August 23, 2008 from www.ccbd.net/documents/bb/Fall2005vol15no1pp21-24.pdf
- Vaughn, S., Elbaum, B.E., Schumm, J.S. and Hughes, M.T. (1998) Social outcomes for students with and without learning disabilities in inclusive classrooms. *Journal of Learning Disabilities*, 31, 428-436.
- Veerkamp, M., Baldwin, Kamps, D., and Cooper, L. (2007). The effects of Classwide Peer Tutoring on the reading achievement of urban middle school students. *Education & Treatment of Children*, 30.2. 21(31). Educator's Reference. Gale. Eastern Michigan University. 9 Nov. 2008.
- Vukmir, Leah. (2002). Direct Instruction: A quiet Revolution in Milwaukee Public Schools. Wisconsin Interest, p. 41-50.
- Walther-Thomas, C., Bryant, M., & Land, S. (1996). Planning for effective co-teaching: The key to successful inclusion. *Remedial and Special Education*, 17. 255-263.
- Watkins, C. & Slocum, T. (2004). The components of Direct Instruction. In N. E. Marchand-Martella, T. A. Slocum, & R. C. Martella (Eds.), *Introduction to Direct Instruction* (pp. 28-65). Boston, MA: Allyn & Bacon.
- Zigmond, N. & Magiera, K. (2001). Co-Teaching. *Current Practice Alerts*, issue 6. Retrieved from <http://www.TeachingLD.org>
- Zigmond, N. (2003). Where should students with disabilities receive special education services? Is one place better than another? *Journal of Special Education*, 37, 193-199.

Web Resources

John F. Kennedy Center for Research on Human Development, 1999. Available at

<http://kc.vanderbilt.edu/Kennedy/PALS>

The Access Center: Improving Outcomes for All Students K-8. Available at

<http://www.K8accesscenter.org>.

<http://www.TeachingLD.org>

<http://www.worksheetlibrary.com/teachingtips/directinstruction.html>.

Retrieved October 28, 2008.

<http://www.ed.gov/nclb/methods/whatworks>. Retrieved November 11, 2008.

www.whatworks.ed.gov

Friend, M. & Hurley-Chamberlain, D. (2007). Is Co-Teaching Effective? *Council for*

Exceptional Children. Retrieved from www.ccc.sped.org on November 18, 2008.

Appendix A

Teacher Booklet for Strategies

Effective Strategies for Teachers

A comprehensive booklet of modern instructional strategies for the classroom.

By: Heather A. Martel



Chapter 1

ClassWide Peer Tutoring



What is ClassWide Peer Tutoring?

The perfect Way to let your students practice key skills like spelling words, math facts, reading.

Why would I use it?

Research shows that this strategy of having your students work on their skills in pairs every day, in a systematic way, is actually better than you teaching to the whole class! It is proven to work for both general education and special education students!

How does it work?

First you pre-test your students on the skill, so you know how each student is already doing. Then you teach your students how to help each other practice using a game-like format, where they can earn points. If they make a mistake, the partner corrects them right away and they practice doing it correctly several times. They do this for 30 minutes for four days each week, then they get assessed on the fifth day! You get to walk around and give bonus points for good working pairs, or kind words being used, or whatever skill you want to reinforce.

So what should I do?

Follow along with the sample pages that follow. This will teach you the way to set it up, and how you can manage the process from day to day.

* Tables in Appendix A, Chapter I. are adapted from Charles R. Greenwood, Joseph C. Delquadri, and Judith J. Carta. Together We Can: ClassWide Peer Tutoring to Improve Basic Academic Skills (1997).

Day 1	Introduce the CWPT strategy, establish a goal for increasing skills, set up expectations for teams and points, define winning & losing, and clearly explain good sportsmanship.
Day 2	Explain procedures for partnering, who will move or stay in their seat.
Day 3	Explain the use of the tutoring worksheets, first with teacher led practice, then two student practice, finally whole class practice.
Day 4	Discuss point earning and reporting procedures.
Day 5	Demonstrate how to calculate total points, practice praise, and review the entire process.

Implementing CWPT

- Plan Lesson Information (A.1&A.2)
- Pre-Test
- Assign Seating (A.3)
- Hand out Materials (A.2, A.4, A. 5, A.8)
- Begin CWPT, Record points on Tutoring Point sheet (A.6)
 - Tutor one:10 minutes
 - Tutor two: 10 Minutes
- Record Points for pairs and teams on Team Point Sheet (A.7)
- Post-Test, Display Team Scores
- Congratulations to both teams!

If adequate progress is not achieved, review content information and more closely monitor tutoring sessions. The strength of this strategy is in keeping track of student growth on the skills and adjusting as necessary.



Teachers Monthly Subject List



Month: _____

Subject: _____

	Week 1	Week 2	Week 3	Week 4
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

Appendix A.2

Weekly Tutoring List



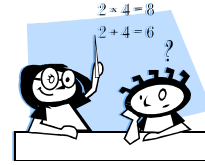
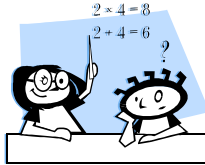
Tutor: _____ Tutee: _____

1.	21.
2.	22.
3.	23.
4.	24.
5.	25.
6.	26.
7.	27.
8.	28.
9.	29.
10.	30.
11.	31.
12.	32.
13.	33.
14.	34.
15.	35.
16.	36.
17.	37.
18.	38.
19.	39.

- Move only when the teachers says “ready, move”.

Appendix A.4

Tutoring Worksheet



Tutee Name: _____ Date: _____

	1	2	3
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			

19.			
20.			

Appendix A.5



Tutoring Point Sheet



Student: _____ **Date:** _____ **Subject:** _____

Number of times practiced: 1 2 3 4 5 6 7 8 9 10

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81	82	83	84
85	86	87	88	89	90	91	92	93	94	95	96
97	98	99	100	101	102	103	104	105	106	107	108
109	110	111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130	131	132
133	134	135	136	137	138	139	140	141	142	143	144
145	146	147	148	149	150	151	152	153	154	155	156
157	158	159	160	161	162	163	164	165	166	167	168
169	170	171	172	173	174	175	176	177	178	179	180

Appendix A.8

Sign May be Cut out and pasted to poster board and popsicle sticks.



Adapted from Charles R. Greenwood, Joseph C. Delquadri, and Judith J. Carta. Together We Can: ClassWide Peer Tutoring to Improve Basic Academic Skills (1997).

Chapter 2

Direct Instruction



What is Direct Instruction?

A fast paced, teacher lead, carefully scripted lesson that provides immediate feedback from the teacher.

Why would I use it?

DI is supported by more research than any other instructional program. Studies show advantages that last through high school for students taught with DI.

How does it work?

Three main components of the design and delivery of DI programs are program design, organization of instruction, and teacher/student interactions. The fast pacing of instruction is crucial in successful teaching. Teachers give students the opportunity give feedback by allowing choral responses from the entire class. The organization of instruction focuses on:

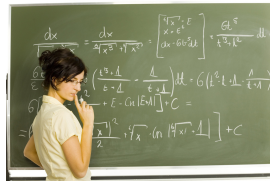
- Information grouping
- Amount of time engaged in learning.
- Continuous assessments.

So what should I do?

Information presented should be carefully scripted before the lesson begins. Students respond as a group or sometimes individually. All responses are cued by the teacher at a fast pace with frequent positive feedback or corrections. Students respond on average at a rate of about 10 responses per minute. Take a look at Appendix A.10 for an example DI lesson.

Appendix A.10

Sample Direct Instruction Lesson



Objective: Students will be able to repeat the rule “Raise your hand before talking” and be able identify two examples and two non-examples with 100% accuracy.

Rationale: “Raising you hand before talking is very important in the classroom. It allows all students to have a chance to answer questions being asked. Now we are going to practice appropriate responses when questions are asked.”

Lesson:

Teacher: “The appropriate response for answering a question is to raise your hand before talking. What is the correct way to answer a question? Get ready.”
Signal

Class response: “Raise your hand before talking”

Teacher: “Excellent. What is the right way to answer a question? Get ready.”
Signal

Class response: “Raise your hand before talking.”

Teacher: “Good. Now we are going to practice some times that people do and do not raise their hand before talking. Class, am I raising my hand before talking when sit quietly in my seat with my hand raised in the air? Get ready.” *Signal*

Class response: “Yes.”

Teacher: “Good. Am I raising my hand before talking when I jump up and down saying “ooh, ooh, ooh, pick me, pick me”? Get ready.” *Signal*

Class response: “No.”

Teacher: “Good listening. Am I raising my hands before talking when I am sitting on the group carpet, staring at the teacher, and holding my hand in the air? Get ready.” *Signal*

Class response: “Yes.”

Teacher: “Yes. How about if I am clapping to get the teacher attention? Get ready.” *Signal*

Class response: “No.”

Teacher: “Your turn, can someone tell me a time when they raised their hand before talking? (Take two responses and briefly discuss.)

Teacher: “Great job, everyone. I am going to act out a few situations and ask you each time: Am I raising my hand before talking?” (Possible ask for student helpers, act out 2 examples and 2 non-examples, and a response from the class each time.)

Teacher: “Great job everyone! Remember, raise your hand before talking, even when answering a question that was asked.”

This lesson is adapted from Kostewicz, Ruhl, and Kubina, 2008.

Chapter 3 Self-Monitoring



What is Self-Monitoring?

Self-monitoring is a strategy that can be used to increase on-task behavior of students by encouraging them to monitor their own behavior.

Why would I use it?

Self-monitoring interventions equip students to recognize and keep track of their own behavior. When teachers are able to properly implement self-monitoring strategies, student performance rates increase significantly. Eighty percent of students with ADHD exhibit academic performance problems due to their lack of self-monitoring ability.

How does it work?

It encourages independent functioning, which allow individuals with disabilities to rely less on prompts from teachers. Students keep track of their own behavior, while teachers monitor progress and provide reinforcements.

So What should I do?

1. Identify the specific behavior
2. Conference with the student
3. Collect baseline data

4. Teach a replacement behavior
5. Select or design a self-monitoring chart (A.13-A.15)
6. Teach the student to use the system
7. Fade the role of the adult in the intervention
8. Reinforce positive behavior
9. Monitor the students' progress (A.11 & A.12)
10. Teach Maintenance

Figure 5: Example self-monitoring chart.

Name: _____ Date: _____

Goal: To work quietly for 10 minutes per subject

Subject	Color in 1 box per minute									
1. Math	1	2	3	4	5	6	7	8	9	10
2. Science	1	2	3	4	5	6	7	8	9	10

This chart is set up for the teacher to determine a specific 10 minute window of self-monitoring. The teacher informs the student of a start time and a stop time in which students are challenged to work quietly. For this time period the students' job is to work quietly. If the student uses an inappropriate behavior during that period, the teacher simply walks to the students' desk and crosses off one box. At the end of the ten minutes the student is allowed to color in boxes that are un-marked by the teacher. Appropriate rewards should be pre-determined to promise positive reinforcement for success.

Appendix A.11

Target Behavior Scatter Plot



Target behavior: Student gets out of seat out raising his/her hand.

Target Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:15					
9:15-9:30					
9:30-9:45					
9:45-10:00					
10:00-10:15					

--	--	--	--	--	--

*Place a tally mark in the appropriate section immediately following selected target behavior.

Appendix A.12

Data Collection Suggestion

Provided by: Dr. Karen J. Carney
 Special Education-EI, EMU
 Coursework for Behavior Change Plan, FA 08

Baseline: Observe the behavior at least 5 times before intervening in a new/different manner, in order to establish baseline data.

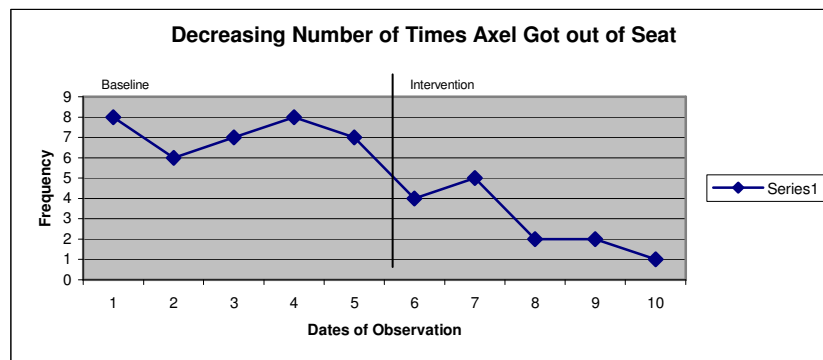
- Determine if you are counting frequency, duration, or intensity.
- Determine a fixed time period for observing, e.g., math, free time, mornings.
- If variables differ, be sure to measure a percentage of the time student follows directions, so scores can be systematically compared.

* I am going to count _____, and measure it by

- a. Frequency b. Duration c. Intensity

I will define my behavior target as:

Put data into a line graph. Label the x axis as the days recorded. Label the Y axis as the frequency, duration, or intensity of your target behavior.



Intervention: Continue keeping count of the data collection for at least five periods. Make a fun chart for students to monitor their own behavior.












Convert information to a line graph. Line graphs are used in professional journals, so it is wise to use them.

1. Open excel spreadsheet
2. Record your data down column A
3. Highlight your data in column A
4. Click on the chart icon in the menu bar; then click on "line graph", then click "next"
5. Fill in title, x-axis label and y-axis label, then click "finish"
6. Add a line from the drawing tool bar to mark baseline/intervention
7. Add a textbook from drawing tool bar to label baseline and intervention

Appendix A.13

Self-Monitoring Chart

Goal: To stay on task for 10 minutes without getting out of your seat.

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning					
Lunch					
Afternoon					
Daily Average	Great 3	Good 2	1	Good 2	Great 3

This chart is designed for lower elementary students. It requires minimal effort and can be easily determined. I would recommend teachers use stamps or stickers, to make charts fun for students. Rewards should be age appropriate.

Reinforcement: (e.g. Ten minutes of free drawing time at the end of the day) is given if 2 or more smiley faces per day.

Appendix A.14



Self-Monitoring Chart



Goal: To raise hand before speaking.

Target time: Reading/Writing

Target Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:15	1. Y N	1. Y N	1. Y N	1. Y N	1. Y N
	2. Y N	2. Y N	2. Y N	2. Y N	2. Y N
9:15-9:30	1. Y N	1. Y N	1. Y N	1. Y N	1. Y N
	2. Y N	2. Y N	2. Y N	2. Y N	2. Y N
9:30-9:45	1. Y N	1. Y N	1. Y N	1. Y N	1. Y N
	2. Y N	2. Y N	2. Y N	2. Y N	2. Y N
9:45-10:00	1. Y N	1. Y N	1. Y N	1. Y N	1. Y N
	2. Y N	2. Y N	2. Y N	2. Y N	2. Y N
Average Daily Progress	# of Yes'	# of Yes'	# of Yes'	# of Yes'	# of Yes'
	Of 6 possible	Of 6 possible	Of 6 possible	Of 6 possible	Of 6 possible

*This table measures student behavior using a yes or no choice list. The student should self-assess their performance for each period. This chart would be appropriate for middle school students. The desired daily outcome (goal) should be pre-determined.

Reinforcement: (e.g. If student earns 30/40 Yes' in a week, Michael gets to spend one afternoon of lunch and recess in the gym.)

Appendix A.15



Self-Monitoring Chart



Student Name: _____ Date: _____

*Circle each section of class (start, middle & end) where target behavior was achieved.

	Monday	Tuesday	Wednesday	Thursday	Friday
	Target Behavior:	Target Behavior:	Target Behavior:	Target Behavior:	Target Behavior:
	e.g. Increase time working independently to 10 minutes.				
Science 12:30-1:40	Start Middle End	Start Middle End	Start Middle End	Start Middle End	Start Middle End
Social Studies 1:45-2:35	Start Middle End	Start Middle End	Start Middle End	Start Middle End	Start Middle End

*This table is designed for junior high or high school students. After conferencing with the teacher, students should be able to decide on their own daily behavior

goal for each day. Students should circle a number for each occurrence of the positive goal or target behavior. Be sure to provide reinforcement for improvement.

Reinforcement:

If 2/6 are earned: *Good!* Five minutes of choice free time at the end of the day.

If 4/6 are earned: *Great!* Fifteen minutes time at the gym.

If 6/6 are earned: **SCORE!** Free pizza lunch party for you and two friends.

Appendix B

Co-Teaching

Co-Teaching



What is Co-Teaching?

One general education teacher and one special education teacher share all responsibilities within one single classroom.

Why would I use it?

It can potentially bring the best of teacher talents together to benefit all students. Co-teaching is an alternative to resource room or pull-out special education services. The general education teacher can bring his/her training regarding the structure, content, and pacing of curriculum. The special education teachers can identify unique learning needs of individual students and enhance curriculum and instruction to match these needs.

How does it work?

There are five common approaches to co-teaching. These include parallel teaching, station teaching, alternative teaching, team teaching, and one teaching/ one drifting. These approaches should be used according to classroom demographics and situations as well as teacher preference. Details on these approaches are described on the following page.

So what should I do?

One important factor in co-teaching is the willingness and organizational methods of the teachers. Responsibilities should be clearly defined and displayed so that both teachers understand their role and conflicts are avoided. Appendix B.1 & B.2 provides

example organizational tools for determining teacher responsibilities.

Five Common Approaches to Co-Teaching

Parallel teaching:

1. Divide students into two smaller groups. Groups may be formed strategically by student needs.
2. Teacher 1 and 2 teach all objectives to their own group.
3. There is an opportunity for students to participate in small group or class discussions.

Station teaching:

1. Divide students into two groups.
2. Each teacher plans and teaches information at each station.
3. Students rotate between teachers.

Alternative teaching:

1. Teachers plan instruction together.
2. General education teacher instructs the large group.
3. Special education teacher takes students who need additional help or accommodations.

Team teaching:

1. Teachers plan instruction and present together.
2. Teachers work together to ensure appropriate and effective learning.

One teaching/one drifting:

1. One teacher designs and presents the lesson.
2. The second teacher tours the classroom, providing support by answering questions, re-explaining key concepts, and assisting with behavior management.

Appendix B.1

Collaborative Teaching Decisions

Who will be responsible for ...	General Education	Special Education	Shared
Identifying goals and objectives for the class?			
Designing IEP objectives for the special education students?			
Planning instructional activities to achieve the goals?			
Selecting and organizing instructional materials?			
Teaching specific class content?			
Teaching study skills and learning strategies?			
Collecting data on student performance?			
Establishing and implementing a classroom management plan?			
Maintaining home contact?			
Modifying curriculum and materials as necessary?			
Designing tests, homework assignments, etc?			
Providing individual assistance to students?			
Taking care of daily routines, (attendance, lunch counts, etc)?			
Directing para-educators, parent volunteers, and/or other support personnel?			
Communicating to all appropriate parties			

regarding the special education students?			
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Taken from Anne M. Beninghof. Ideas for Inclusion: the School Administrators Guide (1995).

Appendix B.2

Sample Co-Teaching Lesson Plan



General Ed: _____ Special Ed: _____

Style:

- 1. Parallel
- 2. Station
- 3. Alternative
- 4. Team
- 5. Teaching/ Drifting

Subject: _____

Class Period: _____

Day/ Time: _____

Responsibilities:	General Educator	Special Educator
Planning		
Goals, standards & benchmarks		
Instruction		
Activities		

Assessments		
Accommodations		