



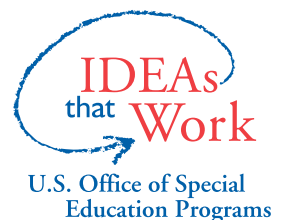
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Classroom Management

Curriculum Enhancement

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Classroom Management

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Introduction

The Question

How is order established and maintained in learning environments? Dollase (1992) and Gordon (1991) contend that this is the biggest challenge student teachers face, and the research reviewed below illustrates that this question also concerns practicing teachers and administrators. The question is complicated because it prompts a series of other questions concerning when and where order is established and whether all students will benefit. Yet, no matter how nuanced or general the solutions may be, establishing and maintaining order is central to what educators do. In the introduction of his 1986 literature review of classroom management, Walter Doyle contends, “Classroom teaching has two major task structures organized around the problems of (a) learning and (b) order” (pp. 394–395). The studies concerning order since the late 1980s highlighted for this review support this notion of the interrelatedness of order and learning. In fact, none of these articles adequately differentiate order from engagement or learning. Instead, the underlying assumption is that classroom order encourages student engagement, which supports learning. Without order a teacher is hard-pressed to promote student learning. As a result, according to Doyle (1986), classroom management results in the coupling of order and learning. The progression of strategies teachers utilize to promote order and student engagement and learning, then, is what Doyle labels “classroom management.”

Definition

It is important to stress why order is the focus of this paper (as it also is in Doyle’s 1986 literature review). For many educators, classroom or—for that matter—school management evokes several terms such as “order,” “discipline,” “cooperation,” and “misbehavior.” These terms are casually mentioned sometimes but are not well defined, often leaving the reader to assume that they are either mere synonyms or antonyms. Doyle’s (1986) literature review concerning classroom management, however, offers some appropriate working definitions that help distinguish each term. First, imagine a hierarchy of concepts where “order” is at the top with “discipline” below. According to Doyle, order prompts engagement whereas a teacher uses discipline to curb misbehavior. The result is cooperation. “Misbehavior,” as Doyle contends, “is any action by one or more students that threatens to disrupt the activity flow or pull the class toward a program of action that threatens the safety of the group or violates norm of appropriate classroom behavior held by the teacher, the students, or the school’s staff (Doyle, 1986; p. 396). Thus, a common assumption is to equate management with discipline, only focusing on an individual student’s misbehavior with the goal of achieving student cooperation. Yet, as Doyle (1986) points out, “‘cooperation’ rather than ‘engagement’ (in the sense of involvement with content) is the minimum requirement for student behavior” (p. 396). In other words, engagement is learning; cooperation is passivity.

The research reviewed below goes beyond this notion of student passivity, focusing instead on “order,” which should not be confused with discipline. No doubt, order in a learning environment does depend to a degree upon passivity from some students; however, as Doyle (1986) contends, “order, in classrooms as in conversations, is achieved with students and

depends upon their willingness to follow along with the unfolding of the event” (emphasis in original, p. 396). In other words, Doyle continues, order is not “absolute silence, or rigid conformity to rules, although these conditions are sometimes considered necessary for specific purposes (e.g., a major test). Order in a classroom simply means that within acceptable limits the students are following the program of action necessary for a particular classroom event to be realized in the situation” (p. 396, emphasis in original). Furthermore, order is much broader than discipline or cooperation. It includes: “organizing classroom groups, establishing rules and procedures, reacting to misbehavior, monitoring and pacing classroom events, and the like” (p. 395).

Scope of the Review

This review of the research concerning how order is established and maintained in learning environments picks up—for the most part—where Doyle’s (1986) classroom management literature review ended, highlighting the broad range of research conducted since the late 1980s to the present. The research Doyle reviewed from the 1970s and early 1980s had isolated the classroom from the school, prompting Doyle to conclude and plead: “Research across the boundary separating classrooms and schools is needed” (p. 425). The research in this review illustrates just how well the studies since the late 1980s heeded this call.

Since establishing and maintaining order in learning environments varies across the range of education contexts, this review uses Walker, Horner, Sugai, Bullis, Sprague, Bricker & Kaufman (1996) four hierarchical systems for its structure. At the top is the school-wide system followed by the specific (i.e., mediating areas such as hallways and common areas), classroom, and individual student systems. Each level or system has both unique and similar rules according to their context; however, the interventions at all levels are meant to foster a system that works toward establishing and maintaining an environment conducive to learning.

Evidence for Effectiveness

School-Wide System

At the top of Walker et al.’s (1996) hierarchy of context interventions is the school-wide system. “[This system] is designed to accommodate the vast majority of students by setting rules and expectations, teaching desired academic and social behaviors, and organizing the activities of all building staff members” (p. 198). In the late eighties and nineties, an increasing number of school shooting incidents at schools greatly concerned policy makers and the American public. It was also during this time that researchers began looking more closely at school intervention policies that were both proactive and reactive. By 1996, Walker et al. concluded, “[These programs] have not been shown, as yet, to actually prevent violence, even though they address directly some of the precursors of violent behavior” (p. 204). Unfortunately, Walker et al.’s reasoning for this conclusion is not well documented, yet one must admit that their generalization captured popular sentiment at the time. For a clearer, more empirical look at research conducted at the level of the school-wide system, eleven studies were chosen to highlight what has and has not worked in schools. Overall, these studies indicate that positive (e.g., Embry, 1997), proactive (e.g., Colvin, Sugai & Patching, 1993), consistent (e.g., Taylor-Green, Brown, Nelson, Longton, Gassman, Cohen, Swartz, Horner, Sugai & Hall, 1997), and coherent (Smylie, 1998) programs have sustained desired student behavior.

A number of factors contributed to the sustainability of the successful school-wide programs that were evaluated. First, actively involving school staff and faculty aids in creating a school-wide program that teachers and administrators consistently enact. In this case, getting faculty and staff actively involved establishes an essential foundation for a school-wide system. Metzler, Biglan, Rusby & Sprague (2001) pointed out several studies supporting this point: “factors that have been shown to promote the adoption of innovative practices in school include availability of teacher time to work on the innovation (Ponti, Zins & Graden, 1988), philosophical acceptance and perception of the importance of the intervention practice (Sparks, 1988), and teachers’ perception of their technical competence and ability to influence student learning (Smylie, 1988)” (p. 450).

Once faculty and staff are “on board,” consistency is further supported through the creation of a coherent program. Thus, teachers and administrators agree upon what issues to address (e.g., establishing rules), how issues will be addressed (e.g., teaching students appropriate social skills), and measurement to evaluate whether or not these issues have impact or change (e.g., the number of discipline referrals in a given month). Thus, the focus of the plan can begin with defining problem behaviors or rules. Throughout this process, the developers and those implementing the program must keep in mind not only how teaching and recognizing appropriate student behavior is more than being proactive, it is also a way to promote a positive environment for learning to take place.

Two studies offer a closer glimpse into how a proactive, positive, coherent, consistent program for a school-wide system is established, implemented and maintained (Walker et al, 1996 & Metzler et al, 2001). In the elementary school plan, Walker et al (1996) examined and identified problem behaviors and possible factors that trigger and maintain the behaviors; intervention strategies were then developed; alternative, more appropriate behaviors were defined; students received instruction concerning appropriate social skills; incentives (e.g., praise, token systems) were established to encourage appropriate behavior; and staff closely monitored students’ behavior and received feedback concerning the implementation of interventions based on a system for measuring the program’s effectiveness (pp. 204-205). The middle school program Metzler et al, (2001) studied began with an Effective Behavior Support (EBS) team—consisting of three teachers, one counselor, three researchers, one administrator, and two EBS experts—creating a clear set of rules and expectations. Four school-wide rules were developed which included: (1) Be Respectful, (2) Put-Ups Not Put-Downs, (3) Cooperate with Others, and (4) Solve Problems Peacefully (p. 455). The team then created lesson plans to teach these skills: “Lessons outlined what students were expected to do, how to teach the expected behavior, how to prevent the problem behaviors from occurring, how to give both positive and corrective feedback to students, and how to review the behavioral expectations with students regularly” (p. 456). Once students were taught appropriate social skills that promoted the school-wide rules, teachers closely monitored their progress via praise and rewards for appropriate behavior and correcting inappropriate behavior. Finally, progress was frequently monitored through summary data concerning students’ behavior. Overall, these two studies illustrate what other researchers have found. Effective and sustainable school-wide management programs establish a small number of clear and concise rules (Mayer, 1995), continuously teach students positive social skills (Colvin, et al, 1993), increasingly recognize and praise appropriate student behavior (Embry, 1997), consistently respond to inappropriate behavior (Taylor-Green et al, 1997), and are continuously evaluated to identify what is and is not working (Tobin, Sugai & Colvin, 1996).

It is important to note, however, that two studies (Lipsey, 1991; Mayer, 1995) and a literature review on the same topic (Lewis, Sugai & Colvin, 1998) indicate what tended to increase negative student behavior. For example, Mayer (1995) pointed out that punitive systems without consequences for positive behavior and teachers and administrators' inconsistency in responses to negative behavior actually augmented students' tendencies to engage in antisocial behavior, including vandalism on school grounds and truancy. Moreover, in a review of 500 studies, Lipsey (1991) concluded: "The least effective responses to violence in schools were counseling, psycho-therapy, and punishment" (Lewis et al, 1998, p. 447).

Whether a program for a school-wide system succeeds or fails, it seems that measuring the effectiveness of a school-wide program is difficult. That is, researchers (e.g., Colvin et al., 2000; Lewis et al., 1998; Metzler et al., 2001) based the success of these programs on data such as the number of students reporting that they felt safer and thought they were recognized for appropriate social behavior. The number of discipline referrals teachers made was another form of data collected for these studies. Thus, a program was declared a success if positive student feelings were high and discipline referrals were low. Critics could point out that these data do not directly measure the success of a program. For instance, there have been school shootings that received considerable media attention because they took place in schools formerly thought to be "safe."

Specific System

The next level is the specific system, mediating areas in a school. According to Walker et al. (1996), "The specific system of a school building provides policies and procedures for the common areas of a school—cafeteria, hallways, bus area, bathrooms, playgrounds, and so forth" (p. 198). Student activity in these areas requires active supervision, ensuring student safety and a productive learning environment with limited interruptions. It seems that this system has gained some attention because as Nelson, Smith, & Colvin, (1995) reveal schools are increasingly using classified staff, instead of certified staff, as supervisors in these areas. Oftentimes, these staff members are not adequately trained in such matters. Thus, establishing a coherent and consistent intervention plan has become even more important.

Though only three empirical studies were found (Colvin, Sugai, Good, & Lee, 1997; Lewis et al., 1998; and Lewis, Sugai, & Colvin, 2000) at this level, elements of their implementation reflect those found in the school-wide programs. For example, Lewis et al. (1998) examined part of a school-wide program's management of elementary students' behavior in the cafeteria, on the playground, and during transitions (e.g., hallways between class periods). With the help of university faculty, the school's staff identified positive/desired behaviors in these mediating areas, created a list of rules, developed lesson plans that taught students appropriate social skills, and monitored student progress. (An example of the rules and positive behaviors this team developed is in Table 1.) Results from this intervention did not completely eliminate problem behaviors; however, it did reduce the number of discipline referrals. Also, discussions with supervisors revealed that only a few students accounted for a majority of the problem behaviors and that student behavior improved overall.

Lewis et al. (2000) focused on an intervention for student behavior on an elementary school playground. Similar to the program described above (Lewis et al., 1998), the staff using this intervention also developed rules, clearly defined inappropriate behavior for students, and taught lessons that modeled acceptable social skills. This intervention also used active supervision strategies—"moving around, scanning, interacting with the students, reinforcing displays of

targeted social skills.” This interaction with students also allowed supervisors to utilize pre-correction strategies. “Pre-correction strategies,” according to Lewis et al. (2000), “are... antecedent manipulations designed to prevent the occurrence of predictable problem behavior and facilitate the occurrence of more appropriate replacement behavior (e.g., reminders, prompts, rehearsals prior to problematic times or settings)” (p. 111). This relatively simple program was proven to “effectively reduce rates of problem behavior across the student body.”

Table 1: School Rules and Example of Positive Behaviors Across Settings
Lewis et al (1998)

Setting	<i>Be Kind</i>	<i>Be Safe</i>	<i>Be Cooperative</i>	<i>Be Respectful</i>	<i>Be Peaceful</i>
Cafeteria	Wait in line in order Use polite words Allow everyone to sit	Walk Keep hands and feet to self in line Watch out for others Open the doors slowly Keep food on your tray	Follow adult directions Sit at assigned table Wait to be dismissed Put ticket in basket	Follow adult directions Only eat your own food Clean up after yourself	Calm voices Eat slowly
Playground	Invite others to join Include all who want to play Accept skill differences/teach rules to others Include others in your activities	Use equipment appropriately Stay in designated areas	Agree on game rules before you play Follow game rules Take turns	Keep game rules the same during the game Use appropriate language (no put downs) Line up when whistle blows	Problem-solve conflicts Return from the playground quietly

Transition	Keep hands and feet to yourself	Walk	Wait for directions before leaving	Walk quietly so other students can continue learning	Walk quietly
	Allow others to work when you enter the classroom	Watch where you are walking	Follow rules without adult reminders Get materials out; be prepared to work as soon as you enter the classroom	Use polite language Follow adult directions	Enter classrooms quietly

Pre-correctives have been successful in other mediating areas as well. For instance, Colvin, et al. (1997) observed an intervention where staff was encouraged to use active supervision and pre-correctives when students were entering the school building, going to the cafeteria, and leaving the classrooms at the end of the day. The researchers found that an increase in supervisors' interactions with students significantly reduced incidents of problem behaviors.

Similar to the studies examining school-wide systems, researchers studying specific systems report that a positive environment where coherent, consistent proactive strategies are implemented yielded *desired* student behavior. For example, the active supervision noted in these specific system studies supports instances where informal recognition of appropriate student behavior can occur. Data from these studies are just as susceptible to the same criticism as that noted for school-wide systems. That is, the research community is not likely to consider the number of discipline referrals and informal discussions with hall monitors (see Lewis et al., 1998) as conclusive data. Nevertheless, these data often serve as effective informal measures for teachers and administrators when evaluating their own programs.

Classroom System

The third tier of school systems for management concerns the classroom system. According to Walker et al. (1996), "Classroom systems are developed by teachers to support the larger school-wide policies and procedures and to manage the academic performance and social behavior of students within instructional environments and arrangements" (p. 198). Studies concerning this context present proactive lesson-planning strategies for whole-class instruction and cooperative learning. In total, 17 studies were found for this review which highlight what researchers have found in this area. Five of these studies (Behets, 1997; Goodsby, 1996; Nelson, Johnson & Marchand-Martella, 1996; Stright & Supplee, 2002; Vasquez-Levy, 1993) concern whole-class instruction, whereas the remaining 12 (Christenson & Serrao, 1997; Hannifin & Clark, 1989 (as cited in Webb, Baxter & Thompson, 1997); Harwood, 1995; Hooper, Ward, Hannafin & Clark, 1989; McManus & Gettinger, 1996; Mulryan, 1995; Mulryan, 1994; Nelson et al., 1996; Sharp et al., 1996; Tudge, 1997; Webb, 1991; and Webb et al. 1997) present cooperative learning strategies.

Again, the principles of effectively establishing order for a learning environment in these studies parallel those found in the previous two systems: the program must be coherent, consistent, positive, and proactive.

The studies which focused on the classroom system reveal an interesting underlying finding, the context in which whole-class versus cooperative learning instruction takes place. Since Doyle's (1986) literature review, research concerning whole-class instruction has left the traditional, or "regular," classroom. That is, the more common context includes instrumental music (e.g., Sharp et al., 1996) or physical education (e.g., Behets, 1997). Whole-class instruction was only studied in a "regular" classroom when compared to cooperative learning (see Stright et al., 2002; Vasquez-Levy, 1993) and in these studies was determined to be less effective. This discrepancy likely explains the lack of whole-class studies in classrooms other than those instances (e.g., teaching students how to play a sport or an instrument) where a "less progressive" teaching strategy is deemed more appropriate.

Unfortunately, the studies with the most respectable methodology (i.e., large sample size, triangulation of data) concerning classroom system lack the richness of detail concerning context and the techniques teachers used in their classroom. Several studies located for this review presented a sound justification for the 'what' of their study, yet lack a thick description of the how. As a means to better illustrate the basic principles these studies reveal concerning the challenges teachers face in the classroom and how they implemented successful strategies, a weaker (methodologically speaking) empirical study (Vasquez-Levy, 1993) was selected for its illustrative description. The experiences of Vasquez-Levy's (1993) lone participant, Abel, serves as an appropriate vignette to help illustrate how lesson planning and the teacher's overall interaction with students can serve as a proactive classroom management strategy.

Prior to intervention, Abel, a secondary English teacher, claimed that he spent more time dealing with student behavior than teaching content. According to Abel, the teacher's primary role was telling students what to do, academically and socially. Thus, student learning in his classroom included teacher-centered lectures and individual seatwork from an assigned text. While his students did their seatwork, Abel stayed at the front of the room, having students come to him for questions. If a student did not know what to do for the assigned task, Able would simply repeat the instructions. For instance, Vasquez-Levy (1993) observed Abel consistently telling students, "Read the directions;" "do it like it says in the book;" "don't do it that way;" "write something down;" and "keep doing it until you get it" (p. 133).

After these observations, Abel was asked to describe and justify his pedagogical decisions and teaching philosophy. According to Abel, managing a classroom included joking with students at the beginning of class to "sort of be their friend," and then making sure that they are on task when instruction began. He also admitted, "I treat students in different ways and make demands of some that I would never make of others" (pg. 134). Vasquez-Levy (1993) found that while Abel desired a disciplined classroom, his expectations for and treatment of students were inconsistent, whereas his teaching style (i.e., lecture and seatwork) did not vary.

Abel was encouraged to read Doyle's (1986) literature review concerning classroom management and to observe other school faculty members teaching. Next, the teacher and researcher began exploring options Abel could implement in his teaching. Abel concluded from the reading that students would be more engaged in tasks designed to suit their interests, that seemed meaningful to their lives, and that were presented with clear goals of what needed to be accomplished. He realized, "[Creating a structured lesson] involves having a clear picture of

what I want to see happen, [and] communicating clear goals for students” (p. 136). Abel also discovered that modeling is a key element of communicating clear goals. Furthermore, Abel realized that he needed to move around the room, coming to students who needed help. Then, he could also randomly ask students questions about their responses to questions and ask why they had come to a particular solution/answer. Finally, he realized that he needed to consciously treat students equally by allowing them to share responsibilities, not only in areas concerning discipline but also academically. Thus, he introduced cooperative learning as a part of his instruction. During a follow-up observation, Vasquez-Levy (1993) noted:

He presented relevant information in his own words instead of reading from a text, checking along the way whether students understood the content and how to accomplish their assignments. When students did not understand, he spent time with them at their desk until they were able to gain understanding and continue their work. He asked students substantive questions that helped them to think and write a little more in depth. Abel moved around the room, interacting with students as they discussed ideas that worked; treated all students with equal respect and fairness; used transition statements; and displayed consistency in his actions with all his students (pp. 136-137).

Though this study did not offer any statistical evidence of improvement in student behavior, Abel and Vasquez-Levy concluded that student engagement and appropriate behavior had increased. Admittedly, the significance of the results of Vasquez-Levy ‘s (1993) study are limited because of its use of a very small sample size (n=1); however, it does serve as a practical vignette that illustrates what other studies reveal: multiple and effective teaching strategies promote student engagement (e.g., Stright et al., 2002); take full advantage of class time (e.g., Goolsby, 1996); established clear expectations for students (Sharpe, Crider, Vyhliidal & Brown, 1996); cooperative learning is a learned skill (e.g., McManus et al., 1996); be consistent (e.g., Webb, 1991); and promote a positive learning environment (e.g., Christenson et al., 1997).

Whole-class instruction. Whole-class instruction includes strategies that encourage student engagement. These strategies usually implement direct instruction, a teaching progression that begins with the teacher modeling a skill that students then practice through guided and independent practice. Though these studies reveal that student engagement varies during direct instruction, it is important to note that they do not differentiate engagement and learning. In other words, it seems, for these researchers engagement is learning. In a study of 51 third graders, Stright et al. (2002) contend, “Students were significantly less likely during teacher-directed instruction [e.g., demonstration, guided, and independent practice] than during small group or seatwork to attend to instructions...monitor [their own] progress or to seek help” (p. 9). Stright and Supplee attribute these behaviors to students possibly perceive[ing] teacher-directed instruction as an inactive time in the classroom” (p. 12). Direct instruction should not be regarded as completely ineffective, however. Nelson et al (1996) observed four third graders labeled with Emotional-Behavioral Disorders (EBD) in various general classroom settings. They found that these students were more on task and less disruptive during teacher directed instruction. Thus, these students performed best when instruction was well structured and followed a stringent sequence of teacher demonstration, guided practice, and independent practice.

Studies that observed whole-class instruction in instrumental music and physical education classes reported strategies that are applicable in traditional classrooms. For instance, Goolsby (1996) observed 30 band teachers (10 student teachers, 10 novice teachers, and 10 experienced teachers) and found that the teachers with the most experience and least discipline problems

started class quicker; spent less time talking; allotted more time for actual student performance; and used more nonverbal cues for instruction, modeling, and discipline. Behets (1997) observed nine high school physical education instructors, noting that effective teachers prompted more active learning time with fewer interruptions, actively observed students from the middle of the gym, and were more likely to use nonverbal corrective feedback through the use of encouragement. For these teachers, eye contact was used most for nonverbal communication.

Sharp et al. (1996) observed six urban elementary physical education teachers. Half of these teachers implemented a pro-active intervention that defined appropriate behavior for students, taught students skills needed to resolve disputes without teacher intervention, used a rotating class roster to assign student leaders and referees in charge of organizing daily activity, and reported students' progress exhibiting seven "prosocial characteristics (i.e., good winners, good losers, peer respect, enthusiasm, content effort, conflict resolution, and peer helping)" (p. 444). The other three teachers served as the control group. They merely stated their expectations concerning the seven pro-social characteristics, but did not implement lessons teaching these skills. Sharp et al. (1996) states, "[The experimental group exhibited] a greater percentage of leadership behavior resulting in teacher-independent conflict resolution," while the control group exhibited little change. Furthermore, the researchers conclude, "This [study] provides secondary support for the view that pro-social skills are a complex set of behaviors which take time to learn" (p. 451). There are a multitude of programs and plans that are implemented at the whole class level for managing classroom behavior with the consistent goal of optimal student learning. The common characteristics include proactive plans that also include positive, purposeful and consistent implementation.

Cooperative learning. A second well-funded management plan at the classroom level is cooperative learning. Cooperative learning typically involves a small group of students—usually no larger than four—who are positively dependent upon each other when completing an assigned task. Researchers have demonstrated time and again (McManus et al., 1996; Mulryan, 1994; and Mulryan, 1995) that cooperative learning can successfully be applied across subject areas (e.g., mathematics, social studies, science, language arts). From a survey of 26 third-grade teachers, McManus et al. (1996) found that cooperative learning was used the most for reading and the least during spelling (p. 18). Overall, the studies reviewed here indicate that students generally stayed on task when in cooperative learning groups. Mulryan (1989; cited in Mulryan, 1994) observes, "Students manifested more time-on-task in the cooperative small-group setting than in the whole-class mathematics and reading-group settings" (p. 282). In a later study, Mulryan (1995) again concluded, "Students' engagement was much greater in the small-group than in the whole-class setting and...students were more activity engaged in the small-group setting" (p. 306). Yet, of the 26 midwestern, suburban, third-grade teachers McManus et al. (1996) interviewed, 15% expressed concerns that students' on-task behavior actually declined during cooperative learning activities (p. 21). This may be attributed as the varied interpretations of "on task" behavior to talking while working in cooperative groups. Nelson et al. (1996) found similar results for four EBD students. These students were less on task during cooperative learning when compared to direct instruction that followed a sequence of teacher modeling, guided practice, and independent practice. Though these findings reveal that only some of the students may benefit from more structured lessons, teachers should not be discouraged from using cooperative learning, especially when noting the potential academic benefits for students who are heterogeneously grouped.

One option for teachers to consider when forming cooperative groups is to arrange students based on ability. For instance, heterogeneous groups would consist of low, middle and high achievers (based on achievement tests and teacher ranking). For high-achieving and -ability students, there are advantages and disadvantages to this clustering. Christenson, et al. (1997) pointed out that high-achieving students were those who did a bulk of the work in heterogeneous groups (p. 147). There are several studies, however, that point to the benefits of this arrangement. Hooper, et al. (1989) found that high-achieving students are not held behind because of heterogeneous grouping since their performance proved equally strong in heterogeneous and homogeneous groups. Furthermore, Webb (1991) concludes that higher-ability students benefited from heterogeneous grouping because it allowed them the opportunity to adopt teacher roles. Mulryan's (1994) study reveals, "High achievers engaged in significantly more high-level, on-task behavior than did low achievers in cooperative small groups. High achievers spent 5% of their time in cooperative small groups off task; low achievers were off task 13% of the time" (p. 282). Many of the above challenges noted by teachers when implementing cooperative learning groups may be a result of instruction and implementation of the structure. Students need to be taught how to take roles and interact in the groupings. Additionally, teachers must monitor and support students when in cooperative learning groups.

Mulryan's (1994) observations also seem to indicate that high-achieving students' perceptions of cooperative learning differed from that of low-achieving students: "'Giving and receiving help and information' was perceived by more high achievers (n=15) than by low achievers (n=7) as being important expected behaviors in cooperative small groups" (p. 285). Yet, her findings do seem to comply with Christenson et al.'s (1997) observation that high-achievers do more work: "High achievers manifested more time-on-task and also more quality involvement than did low achievers in cooperative small groups. High achievers were also more active participants than low achievers were in these groups" (Mulryan, 1994, p. 289).

Studies concerning how much low-ability students benefit from this arrangement vary. For example, Hannafin & Clark (1989, cited in Webb et al., 1997) found heterogeneous groups to be no more effective than homogeneous groups for low-ability or low-achieving students. Tudge (1989) disagrees, claiming that low-achieving or low-ability students benefited from being in heterogeneous groups because high-achieving or high-ability students were able to explain information and concepts.

Webb et al. (1997) is the only study reviewed here that directly addresses how teachers handle disruptive students during cooperative learning. This team of researchers found that in a group of thirty urban fifth-grade teachers, the benefits of cooperative learning did not outweigh the importance of classroom order. Thus, behavior-problem students were excluded and often worked alone. Those unable to work in groups were oftentimes low-achieving students who—according to researchers (e.g., Tudge, 1989)—could have benefited from working with their high-achieving peers.

Though these studies disagree about the benefits of cooperative learning for various types of students, they do agree that the successful cooperative learning in classrooms requires students who are trained in these skills, activities that are engaging and require higher-order thinking, and expectations that are explicit and clear to the students. In other words, cooperative-learning activities should not be applied for in the classroom until students are taught to accomplish their role and have a clear understanding of expectations. Thus, the first step is to prepare students for

this learning strategy. For example, though the article consists of little more than two teachers discussing their success with cooperative learning, Christenson, et al. (1997) claim what other studies also observed: “The key to our success with any of these activities was developing a cooperative classroom structure before planning specific activities.” For one, this structure includes students who are well versed in cooperative skills; they know that “acceptable routines and noise and activity levels can make the difference between a productive and nonproductive learning environment” (p. 155). Empirical studies with larger sample sizes (e.g., observing more than one classroom) support this claim. For instance, after observing the classrooms of 26 third-grade teachers, McManus et al. (1996) concluded, “Students who work in cooperative groups may require training and direct instruction in conflict resolution techniques” (p. 21). Harwood’s (1995) observations of elementary students engaging in global issues over the course of 11 classes led Harwood to contend, “Although many young children already possess the beginnings of the basic skills needed for developmental discussion and decision-making, they are not often aware of how and when to use them in the peer group context.” Therefore, it is crucial that teachers model and help students develop cooperative learning skills, including “listening, questioning, challenging, supporting, giving explanations and evidence, summarizing, and checking for consensus” (p. 609).

The second key ingredient for successful cooperative learning environments is the inclusion of engaging activities that require higher-order thinking. For instance, Mulryan (1994) found hands-on and complex activities effective in upper-elementary mathematics lessons: “Most students noted that tasks that worked best in cooperative small groups were those that involved work with shapes (29%) and those that involved the use of manipulatives (25%). Next in order of preference were tasks that needed many contributions (15%) [i.e., positive dependence] and tasks that could be divided among members of the group (10%)” (p. 286). Harwood (1995) found the most successful social studies activities appropriately engaged and challenged students: “Children’s contributions during the recorded sessions, whether with or without the teacher, were overwhelmingly ‘on task,’ indicating that the children were motivated by the activities, which were usually broadly within their level of cognitive competence” (p. 608). Unfortunately, however, none of the studies reviewed here reveal what was motivating or appropriately challenging about these activities.

The authors of these studies also indicate that students should know exactly what is expected of them during cooperative learning. Mulryan (1994) noted that in cooperative learning environments that were successfully structured, several “students (56%) noted that they were expected to work with peers rather than by themselves in cooperative small groups.” Thirty-one percent commented, “Talking about the tasks with others was [another] important expected behavior in cooperative groups” (pp. 284–5). Indeed, cooperative learning has proven to be an engaging teaching and learning strategy. However, it is a skill for students and teachers, and this appears to be what the researchers have emphasized the most.

What cannot be repeated enough throughout this review is the alignment of principles researchers have found in each system. Thus, it bears restating that researchers observing classroom systems report—as those who studied the school-wide and specific systems did—that successful programs establish clear goals, teach skills/expectations, are consistent, and implement these components in a supportive, positive environment.

Individual Student Systems

The final step of Walker et al.'s (1996) hierarchy of systems is the individual student: "The individual student system provides established policies and procedures for responding to students who present the most severe forms of problem behavior" (p. 198). Research in this area (e.g., Nelson et al., 1996) has found that students with special needs are more likely to be off-task during individual work. For these students at the preschool level Zanolli, Daggett, & Pestine (1995) reported that three students identified as having trouble staying on task "spent more time engaged in the activities when they received individual attention from their teachers at a rapid pace than when an equal amount of teacher attention was given at a slow pace" (pp. 352–353). This use of "Rapid Attention" included giving students praise for proper behavior, a high five, or an opportunity to respond an average of once every 15 seconds during the first two minutes of an activity. The students "received no further attention for the remaining three minutes of the session" (p. 347).

Three studies (Dunlap & Kern, 1996; Dunlap, Foster-Johnson, Clarke, Kern & Childs, 1995; and Kern, Dunlap, Clark & Childs, 1994) report the use of information gathered from interviews with students with behavioral disorders to determine how instruction could be modified to encourage academic engagement. Dunlap, et al. (1996) outlines this process. First, teachers gather information that includes when appropriate behavior does and does not occur (e.g., during music, academic times, etc.). Next, teachers test hypotheses for possible solutions (e.g., assignments given in smaller increments). Finally, the intervention started and is evaluated for success. In this particular study, a severely emotionally disturbed student's curriculum was successfully modified when several large assignments were divided into smaller tasks and blended together. Horner, Day, Sprague, O'Brien, & Heathfield (1991) argue that a similar process, interspersed requests, lessened three severely retarded students' likelihood of become aggressive during difficult tasks. Interspersed requests are smaller, less difficult tasks that prompt immediate praise when completed and are used to break up more difficult tasks. Kern et al. (1994) reveal another example in which a student's interests were incorporated in his handwriting lessons. For example, instead of copying sentences in a workbook, this student was able to copy the directions for his favorite video games. Dunlap et al. (1995) also reveal examples of students' engagement in academic tasks increasing because their curriculum was modified based on their interests. For instance, another student also needing help with handwriting skill was given the task of writing captions for a family album. Though the above studies only concern students with special needs, it is likely that similar strategies could be used for creating lessons that are engaging for all students.

Overall, these studies offer several helpful strategies educators could consider in a wide variety of situations. Unfortunately, the research at this level is most frequently involved with a deficit model for learning. That is, the research questions for this area focuses upon "problem" students, establishing strategies that work for a select few. As is evident in these studies, a student's lack of academic ability becomes the focus for these interventions. Instead of these studies concentrating on the types of individual attention a teacher could offer all students, these studies focus on preventing a predetermined few from demanding all of the teacher's time.

Conclusion

The studies reviewed above illustrate how researchers have heeded Doyle's (1986) call for examining student management programs that extend beyond the classroom. Overall, these studies reveal that strategies used in the school-wide system are also appropriate in the specific, classroom, and individual systems. Successful programs for establishing and maintaining order in all systems include four proactive principles:

1. Develop a coherent list of expected behaviors (usually only four or five rules).
2. Equip students with the skills needed to execute appropriate behavior.
3. Continually assess the success of an implementation.
4. Create and sustain a positive environment in which all of this can take place.

These researchers have provided helpful lists (e.g., Table 1) of what these rules and appropriate behaviors are, however they do not adequately reveal examples of how teachers prepared students with these needed skills. Since these studies conclude that teaching students social skills is key, these findings would be more useful for administrators and teachers if researchers revealed examples of these lessons. For the most part, these studies utilized adequate methodologies; yet, their lack of rich description concerning how teachers adhere to these proactive principles (e.g., what does a lesson on the skills needed for cooperative learning look like?). Of course, these researchers are rarely afforded the space in journals to expand on these practices. Thus, it is in these cases when a detailed description of practice often found in less methodologically rigorous (e.g., small sample size, informal conversations) work can aid in the applicability of these findings, making them more applicable and thus more relevant to other teachers, administrators, and researchers.

Classroom Management Internet Resources

General Education Classroom

Classroom Management

<http://www.intime.uni.edu/model/teacher/teac3summary.html>

“Classroom Management” is a web site which clearly identifies three major fundamentals of teaching; i.e., content, conduct, and covenant management. Such guidelines will enable the teacher to focus on curriculum (content), discipline (conduct), and relationship management (covenant), thus creating three overall components in applying effective teaching skills.

The Teacher's Guide: Classroom Management

<http://www.theteachersguide.com/ClassManagement.htm>

This web site provides the teacher with constructive information regarding all facets of discipline occurring within the classroom. Various links provide beneficial and acceptable practices in assuming and maintaining control of the classroom.

Georgia Department of Early Care and Learning

<http://dec.al.ga.gov/>

This web site, established in 1993 by the State of Georgia, describes effective and successful approaches in establishing high quality pre-school experiences to better prepare these children for kindergarten and beyond. It introduces developmental skills for the child to progress both intellectually and socially.

Classroom Management: discipline & organization

<http://www.canteach.ca/elementary/classman.html>

This unique web site offers a variety of approaches in encouraging students to become more inventive by offering a diverse range of challenges and objectives such as pledges and fundraising projects. Further, it contains initiatives for the teacher to incorporate students in promoting a well-organized classroom setting.

Teachervision.com: Classroom Management

<http://www.teachervision.fen.com/page/5776.html>

A resourceful web site sponsored by teachervision.com with a variety of links to assist teachers in creating an organized and efficient classroom. It also provides tools to develop personalized techniques, as well as to implement an effective and significant teacher-parent relationship.

Clarity Connect, Inc.: Classroom Management

<http://terri.clarityconnect.com/classmanagement.html>

This web site written by a teacher describes her working experience. Techniques offered by this teacher introduce approaches to simplify teaching practices by identifying and enhancing strengths while improving upon weaknesses. It further offers a self-evaluation to clarify your teaching structure and effectiveness.

Unit 3: Organization and Management of the Classroom

<http://para.unl.edu/legacy/Organization/Intro.php>

“Organization and Management of the Classroom” is a well-defined lesson plan for today’s teacher in achieving their goals and objectives. This lesson plan includes a test whereby the teacher is tested and scored to determine strengths and weaknesses. Completion of this plan will allow one to evaluate himself/herself and take the necessary steps to develop and improve upon his/her teaching methods and techniques.

Center for Enhanced Teaching and Learning: Hong Kong University

<http://www.ust.hk/celt/ta/taguide/skills/manage.htm>

This web site is a part of a Teaching Resource Guide for Teaching Assistants. This direct link to classroom management information is one of many topics listed as TA Skills. The contents of this management page include tips for classroom organization, classroom rules and expectations, classroom structure, problem solving, and a resource listing.

Eric Digest: Managing Inappropriate Behaviors in the Classroom

<http://www.ericdigests.org/1995-1/behavior.htm>

The information in this digest is taken from “Managing Inappropriate Behaviors in the Classroom” by Thomas C. Lovitt, Reston, VA: The Council for Exceptional Children, 1978, 44 pp. (ED 157 255). Major topics covered in this material include preventing misbehavior, establishing rules, student motivation, decreasing undesirable behavior, punishment, individual and group management methods, and guidelines for management.

Education World

http://db.educationworld.com/perl/browse?cat_id=1846

Education World, a commercial site, has created this resource with many educational topics for teachers and administrators. This link will connect the user to the topic of classroom management. On this page, there are numerous annotated links to web sites about management, rules, organization, rewards, and challenges around management in the classroom.

Shambles: The Education Project of Asia

<http://www.shambles.net/pages/staff/classmanag/>

This web site was designed to support the international school communities (*teachers, support staff, administrators, students and families*) in 17 countries in South East Asia. This URL will take the user to links and information specifically related to classroom management and challenge of behavior managements. Each link is titled and contains a brief description of contents. This site is created by Shambles and sponsored by several commercial groups.

Managing classrooms with diverse students

Association for Supervision and Curriculum Development: Classroom Management

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

ASCD is a membership accessed web site. This URL will connect the user directly to ASCD's home page. A search using the term "classroom management" will return several links to explore the topic and find additional articles, books, and book chapters on the topic of classroom management. Those published by ASCD may be purchased online.

Talented Students

Center for Talented Youth: Classroom Management

<http://www.jhu.edu/gifted/teaching/classroom.htm>

This web site is created by The Johns Hopkins University Center for Talented Youth. Classroom Management is one of several links for users to find information about teaching students identified as academically talented. The focus of this page on classroom management is to create and maintain a safe, supportive, and challenging learning environment for students.

Technology

Classroom Management Technology Tools

<http://jc-schools.net/tutorials/classroom/management.htm>

This web site has been created by the Jefferson County Schools in Dandridge, Tennessee. This URL will take the user directly to the web page about Classroom Management Technology Tools. The site contains a listing of web resources and information links organized by a proactive structure for teachers to consider when planning classroom management. These structures are: (a) coordinate, (b) communicate, (c) check, (d) coach, (e) consistency, and (f) additional resources. Links include materials created and written by the sponsor site and links to articles, materials, and information created by others and available on the web.

List of Resources

The Really Big List of Classroom Management Resources—Hosted by Tripod

<http://drwilliampmartin.tripod.com/classm.html>

This web site is a collection of classroom management and discipline web sites, noted as possibly the largest on the web. Links are available to view information on classroom management techniques for elementary and secondary education, discipline ideas for new and experienced teachers, tips for handling special education, suggestions for getting organized, strategies for preventing behavior problems, sample classroom rules, ways of creating a caring community, and information on new products and services.

ProTeacher Web Directory

<http://www.proteacher.com/030000.shtml>

The ProTeacher Web Directory is a commercial web site with multiple topics. On this site there are multiple links with frequent updates on topics for teachers. This URL will take the user directly to the topic of Classroom Management. Several links will connect the user to the ProTeacher community in which one may read testimonials from teachers regarding particular management issues and ideas. Additionally, there are summaries of links that are topic specific.

References

Behets, D. (1997). Comparison of more and less effective teaching behaviors in secondary physical education. *Teaching and Teacher Education, 13*(2), 215-224.

The author reports the research on behavior interactions of high school physical education teachers and their students. Strategies of more—and less—effective teachers are examined in relation to student behavior. Behets found that more-effective teachers spent more time observing students participating/trying out in a new skill versus time on actual instruction.

Christenson, M. & Serrao, S. (1997). Cooperative learning in a hostile environment. *Teaching and Change, 4*(2), 137-156.

In this research, the authors studied the implementation and effects of cooperative learning in two urban second grade classrooms. Students were divided into groups and each was given a job within the group. An accountability system was implemented and students viewed videotapes of themselves while working in order to evaluate and discuss their effectiveness as a group. Results are presented and discussed, and recommendations are provided by the authors.

Colvin G. & Fernandez, B. (2000). Sustaining effective behavior support systems in an elementary school: Keeping the plan operating for almost a decade. *Journal of Positive Behavioral Intervention, 2*(4).

The authors of this article describe the critical factors and procedural steps that an elementary school utilized to establish a proactive school-wide discipline plan and implement effective behavior support systems. Areas to be addressed include; (a) establishing and maintaining the need, (b) forming and maintaining a leadership team, (c) clarifying roles and expectations for all faculty, (d) developing a data system that is systematically used for decision making, (e) sustaining a focus to address all components in the system, (f) maintaining a focus to meet evolving needs, (g) access to consultation from outside support systems, and (h) increasing emphasis on academic support.

Colvin, G., Sugai, G., Good, R. & Lee, Y. (1997). Using active supervision and precorrection to improve transition behaviors in an elementary school. *School Psychology Quarterly, 12*, 344-363.

Students' social behavior in transition settings (i.e., entering/exiting school, in cafeteria) is examined in relation to a school-wide intervention plan for problem behavior. The researchers report their findings, in brief, problem behavior in transition settings decreased and active supervision and precorrection by staff members increased as a result of the intervention plan.

Colvin, G., Sugai, G. & Patching, W. (1993). Precorrection: An instructional approach for managing predictable problem behaviors. *Intervention in School and Clinic, 28*, 143-150.

In this article, the authors discuss the differences between instructional and behavior management in common practices. Seven specific correction and precorrection steps are presented. "Precorrection" is one instructional strategy typically used for addressing academic errors, however its underpinnings can be carried over to the issue of addressing chronic behavior problems.

Dollase, R. H. (1992). *Voices of Beginning Teachers*. New York: Teachers College Press.

This book presents the 38 new secondary teachers' perceptions of teaching. Topics include classroom management, curriculum, the mentoring process, and these teachers' continual struggle to define and practice "good" teaching. For further analysis of the teaching experience, the author traces the evolution of four of these classroom teachers' philosophies of education.

Doyle, W. (1986). Classroom organization and management. In Merlin C. Wittrock (Ed.) *Handbook of Research on Teaching, 4th Edition*. New York: MacMillan Publishing.

Doyle discusses the importance of classroom management and its function in teaching. This book chapter details the nature of the classroom environment—from organization and physical design, to how academic tasks impact order. Additionally, he provides a detailed look at the classroom and how organization and management are constructed and the impact. Common themes are described as well as descriptions of areas where further research is necessary.

Dunlap, G., Foster-Johnson, L., Clarke, S., Kern, L. & Childs, K. (1995). Modifying activities to produce functional outcomes: Effects on the disruptive behaviors of students with disabilities. *Journal of the Association for Persons with Severe Handicaps, 20(4)*, 248-58.

This article illustrates what happens when a teacher modified curricular activities for three students with special learning needs. The students' disabilities are identified as autism, mental retardation, and emotional/behavioral disorder. When learning was adapted to meet these students' individual interests, engagement increased and "problem behavior" decreased.

Dunlap, G. & Kern, L. (1996). Modifying instructional activities to promote desirable behavior: A conceptual and practical framework. *School Psychology Quarterly, 11(4)*, 297-312.

The authors outline a model of curriculum modifications which have resulted in improved student behavior. Research supporting the influence of these instructional modifications is summarized and a practical model of functional assessment is provided. Practical issues and limitations of this framework of modifications are also discussed in relation to desirable student behavior.

Embry, D. (1997). Does your school have a peaceful environment? Using an audit to create a climate for change and resiliency. *Intervention in School and Clinic, 32*, 217-222.

This article presents a school-wide evaluation for violence prevention based on the Peace Builders Program. Central to this auditing tool is alignment, ensuring that administrators, teachers, and students share a common language. Built into the Peace Builders Program are several forms of positive reinforcement that include daily rewards for individuals and groups. The author also stresses the importance of school faculty modeling and teaching positive social skills.

Goolsby, T. (1996). Time use in instrumental rehearsals: A comparison of experienced, novice, and student teachers. *Journal of Research in Music Education, 44(4)*, 286-303.

Music teachers' uses of time are compared using different variables. Different groups of teachers are compared during rehearsals and during the time students spend doing an

activity. Variables such as preparation time, time in warm-up and breaks, among others, are explored. Overall it was found that the group of music teachers who spent the most time talking and the least amount of time allowing students to play instruments were the student teachers.

Gordon, S. (1991). *How to help beginning teachers succeed*. Alexandria, VA: Association for Supervision and Curriculum Development.

The author uses research concerning the challenges beginning teachers face as a basis for Beginning Teacher Assistance Programs (BTAPs). As a systematic, formal system of support, BTAPs are a set of strategies that aid new teachers during the induction process. The author stresses the importance of selecting and preparing mentors (veteran teachers). Equally important is the criteria used for matching these mentors with new teachers so that professional relationships may grow.

Harwood, D. (1995). The pedagogy of the world studies 8-13 project: The influence of the presence/absence of the teacher upon primary children's collaborative group work. *British Educational Research Association*, 21(5), 587-611.

Students' participation in a collaborative setting is analyzed in relation to the presence or absence of the teacher. Although groups with no teacher present were found to be on task, they did not display a significant amount of listening and or questioning skills and answers were not always justifiable. On the contrary the presence of the teacher showed improvement overall in collaborative group work. The resulting idea that the presence of the teacher, modeling and support is crucial in early stages of education is discussed.

Hooper, S., Ward, T., Hannafin, M. & Clark, H. (1989). The effects of aptitude composition on achievement during small group learning. *Journal of Computer-Based Instruction*, 16, 102-109.

In this article, the authors focus on two studies examining group composition effects on high school students. Group aptitudes are discussed in relation to the student small group learning. Aptitude groups were both hetero- and homogeneous and are described along with incidents of individual mastery.

Horner, R., Day, H., Sprague, J., O'Brien, M. & Heathfield, L. (1991). Interspersed requests: A nonaversive procedure for reducing aggression and self-injury during instruction. *Journal of Applied Behavior Analysis*, 24(2), 265-278.

Three students with severe disabilities and aggressive and self-injurious behavior were studied by the authors. Typically these students responded aggressively to difficult instructional situations. However, using the described non-aversive procedure, the researchers found that these students were more responsive to instructions, and engaged in problem behavior less frequently, if simple commands were intermingled with the more challenging instructions.

Kern, L., Dunlap, G., Clark, S. & Childs, K. (1994). Student assisted functional assessment interviews. *Diagnostic*, 19, 29-39.

The article's authors stress the importance and positive outcomes of soliciting students' thoughts on classroom instruction and learning. One way to collect this data is the use of assessment interviews. The use of these interview protocols allows the teacher to modify instruction to best fit his or her students' perceived needs.

Lewis, T., Sugai, G. & Colvin, G. (2000). The effects of pre-corrective and active supervision on the recess behavior of elementary students. *Education and Treatment of Children, 23*(2), 109-121.

Pre-correction and active supervision strategies were examined for effectiveness in relation to problem behavior in an elementary setting. After a school-wide intervention program consisting of three specific strategies was implemented, problem behavior declined, however, a desired increase in active supervision was not found. Results and practical implications of these findings are provided by the authors.

Lewis, T., Sugai, G. & Colvin, G. (1998). Reducing problem behavior through a school-wide system of effective behavioral support: Investigation of a school-wide social skills training program and contextual interventions. *School Psychology Review, 27*(3), 446-459.

Effects of a school-wide attempt to reduce the amount of problem behavior in an elementary school were explored in this research. A specific social skill program and a direct intervention strategy were applied in three settings within the school to reduce problem behaviors. The researchers found that problem behavior declined when these strategies were implemented in these settings.

Lipsey, M. (1991). The effect of treatment of juvenile delinquents: Results from meta-analysis. In F. Losel, D. Bender & T. Bliesener (Eds.), *Psychology and Law*. New York: Walker De Gruyter, 131-143.

This meta-analysis of quantitative studies concerning treatment for juvenile delinquents refutes the claim that “nothing works.” Instead, the author argues that data reveal that youth labeled “delinquent” are positively influenced by structured intervention. Overall, the literature points to increased school participation among those youths receiving treatment.

Mayer, G. (1995). Preventing antisocial behavior in the schools. *Journal of Applied Behavior Analysis, 28*, 467-478.

Correlates and factors of antisocial behavior are reviewed within the context of the home, community, and school. Factors of major contribution to antisocial behavior are found within specific settings of the school, along with a few factors also found in the home. In order to enhance the safety of the school environment increased attention to these settings is encouraged.

McManus, S. & Gettinger, M. (1996). Teacher and student evaluations of cooperative learning and observed interactive behaviors. *The Journal of Educational Research, 90*(1), 13-22.

The authors investigated teachers’ use and assessment of cooperative learning, students’ responses to working in groups, and students’ oral interactions throughout the cooperative learning activities. The teachers and the students said that cooperative learning takes place in their classrooms almost daily and leads to many positive academic, social, and attitude results. The authors’ observations demonstrated that the majority of student interactions had direct relationships with the teaching and learning.

Metzler, C., Biglan, A., Rusby, J. & Sprague, J. (2001). Evaluation of a comprehensive behavioral management program to improve school-wide positive behavior support. *Education and Treatment of Children, 24*(4), 448-479.

The research objective was to evaluate a consultative approach to facilitating the implementation of empirically based school-wide behavior management practices in middle

schools. The authors assessed The Effective Behavior Support program by utilizing records of rewards given, discipline referrals, and recurrent student surveys. They found effects on increased positive reinforcement for appropriate social behavior and on decreased aggressive social behavior among students. Additionally, they found significant increases in student perceptions of school safety as well as significant decreases in seventh-graders' discipline referrals and for harassment among males.

Mulryan, C. (1995). Fifth and sixth graders' involvement and participation in cooperative small groups in mathematics. *The Elementary School Journal*, 95(4), 297-310.

This study is an analysis of 48 fifth- and sixth-grade students' responses in cooperative small group activities in mathematics. The author found that students tended to spend more quality time on-task in small-groups as opposed to in whole-class contexts and that students were much more active contributors in small-group settings than whole-class.

Mulryan, C. (1994). Perceptions of intermediate students' cooperative small-group work in mathematics. *Journal of Educational Research*, 87(5), 280-291.

The author conducted a study examining student thought-processes in the context of cooperative small-group instruction in mathematics. Fifth- and sixth-grade students and teachers were asked about how they perceived general facets of cooperative small-group instruction. The author then compared the students' and the teachers' answers as well as high and low achievers' responses and boys' and girls' responses. The author found that although students' and teachers' opinions were fairly well aligned, there were some significant differences which the author presents.

Nelson, J., Johnson, A. & Marchand-Martella, N. (1996). Effects of direct instruction, cooperative learning, and independent learning practices on the classroom behavior of students with behavioral disorders: A comparative analysis. *Journal of Emotional and Behavioral Disorders*, 4(1), 53-62.

The authors conducted a comparative analysis of the effects of direct instruction, cooperative learning, and independent learning instructional methods on the behavior in the classroom of students with behavioral disorders. They found marked differences in the classroom behavior of students in the direct instruction condition, where these individuals exhibited higher rates of on-task behavior and lower rates of troublesome behavior in comparison to the other two conditions. The authors concluded that the instructional system underlying direct instruction practices reduces the disruptive behavior of students and that instructional methods can serve as aversive stimuli in classrooms.

Nelson, R., Smith, D. & Colvin, G. (1995). The effects of a peer-mediated self-evaluation process on the recess behavior of students with behavior problems. *Remedial and Special Education*, 16(2), 117-126.

The authors examined the effects of a self-evaluation process on the recess behavior of students with behavior problems as well as to ascertain whether the utilization of peers in the procedure aids the generalization of behavioral improvements. The authors found that peer-mediated self-evaluation procedure led to clear advances in the recess behavior of target students. Additionally, they found improvements were sustained throughout all experimental conditions and as the self-evaluation procedure was methodically faded and the effects generalized to afternoon recess also.

Ponti, C., Zins, J. & Graden, J. (1988). Implementing a consultation-based service delivery system to decrease referrals for special education: A case study of organizational consideration. *School Psychology Review, 17*, 89-100.

The authors of this article describe the systems-level activities involved in employing a consultation-based service delivery system meant to decrease referrals for special education. This approach is meant to facilitate the use of alternative interventions for students with mild learning and/or behavioral problems in general education classrooms. The authors provide a case example to illustrate the execution of this type of system in an elementary school as well as the outcome data. Additionally, the authors talk about factors that facilitate the implementation of this type of system.

Sharpe, T., Crider, K., Vyhldal, T. & Brown, M. (1996). Description and effects of prosocial instruction in an elementary physical education setting. *Education and Treatment of Children, 19*(4), 435-457

The authors describe the developmental effects of an elementary school physical education teacher's proactive method of teaching pro-social behaviors. The authors assess this tactic through the use of an A-B-A design together with a control group comparison across six coordinated physical education classes in urban settings. They found positive cross-grade trends on student leadership and teacher independent problem resolution behaviors, significant decreases over time in students' exhibition of off-task behavior, a steady move from teacher- to student-directed gymnasium organization, and an ascending percentage of time dedicated to the subject matter of the activity.

Smylie, M. (1988). The enhancement function of staff development: Organizational and psychological antecedents to individual teacher change. *American Educational Research Journal, 25*, 1-30.

This study was conducted to explore the relationships among schools and classrooms, teachers' psychological states, and a change in individual teacher's practice through a staff development not associated with the school or the district's innovation. The teachers included in the study volunteered to participate in the staff development program meant to enrich individual teachers' routines. The author found evidence of indirect influences on individual changes of teachers' confidence about their practices, the concentration of low-achieving students in teachers' classrooms, and the interactions that the teachers have with their colleagues about their instructional methods.

Sparks, G. (1988). Teachers' attitudes toward change and subsequent improvements in classroom teaching. *Journal of Educational Psychology, 80*, 111-117.

The author investigated the relationship between teachers' attitudes toward teaching practices introduced in in-service training and the ensuing use of these practices. Three groups of middle school teachers attended a series of five workshops on effective teaching. Each group received different between-workshop activities. The author used pre- and post-training observations, questionnaire, and interviews to evaluate behavior changes and attitudes. She found that improving teachers diverged from non-improving teachers in their readiness to try out different strategies in their classrooms and in their increase in self-efficacy. Those teachers who did not improve were likely to defend their normal teaching

style, to not experiment in their classrooms, and to have low expectations for themselves and their students. The author concludes that staff developers must address philosophical acceptance, self-efficacy, and the significance of suggested practices during in-service training.

Stright, A. & Supplee, L. (2002). Children's self-regulatory behaviors during teacher-directed, seat-work, and small-group instructional contexts. *The Journal of Educational Research*, 95(4), 235-246 (electronic copy from <http://infotrac.galegroup.com>).

The authors conducted a study to explore the differences between children's self-regulating behaviors in three different instructional contexts: teacher-directed, seat work, and small group. They observed 51 third-grade students during math and science lessons throughout the year. They found that during teacher-directed instruction although students were more likely to be organized than in the other two contexts, students were less likely to listen to instructions, examine their work, and ask for help than during seat work and small-group instruction. Additionally, they found that during small-group instruction, students were more likely to talk about their thoughts than during the other two contexts.

Taylor-Green, S., Brown, D., Nelson, I., Longton, J., Gassman, T., Cohen, J., Swartz, J., Horner, R., Sugai, G. & Hall, S. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education*, 7, 99-112.

This article offers a number of strategies school faculty can use to promote a safe and academically productive school environment. The authors emphasize the importance of consistency of concise rules, positive reinforcement of desired behavior, and that socially desirable behavior is strengthened when faculty take the time to teach these skills. The authors also offer examples of school-wide rules.

Tobin, T., Sugai, G., & Colvin, G. (1996). Patterns in middle school discipline records. *Journal of Emotional and Behavioral Disorders*, 4, 82-94.

The authors performed two studies to ascertain patterns found in the discipline referral records of middle school students. Using data from the first study, the authors created criteria for identifying students with chronic discipline problems and took a measure of the concentration of the students' behavior problems. They then created two differing groups in order to develop hypotheses about which term events in sixth grade predicted repeated behavioral problems. The second study compared discipline patterns for violent and nonviolent behaviors for students with severe discipline problems from three different middle schools. The authors concluded by discussing the utilization of school discipline referral patterns as a way to check for further assessments to improve their grasp of students' problem behavior and how to better create preventative interventions.

Tudge, J. & Putnam, S. (1997). The Everyday Experiences of North American Preschoolers in Two Cultural Communities: A Cross-level Analysis. In J. Tudge, M. J. Shanahan, & J. Valsiner (Eds.), *Comparisons in Human Development* (pp. 252-281). Cambridge University Press.

This book chapter focuses on the socio-cultural aspects of student interactions among preschoolers from two different communities of learning. The authors provide a description of variations in teacher and student behaviors in these settings as well as interpretations based on theoretical structures of social sciences.

Tudge, J. (1989). When collaboration leads to regression: Some negative consequences of socio-cognitive conflict. *European Journal of Social Psychology*, 19, 123-138.

This article presents the findings from a study of low-achieving students working in cooperative groups. Data suggest that these students work best in heterogeneous groups based on achievement, especially when they are able to discuss projects with their peers or have higher-achieving students clarify these tasks. The author points out, however, that not all students benefited from these arrangements, and teachers should consider the needs of each student before using heterogeneous grouping for the whole class.

Walker, H., Horner, R., Sugai, G., Bullis, M., Sprague, J., Bricker, D. & Kaufman, M. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4(4), 194-209.

In this concept article, the authors recommend that schools adopt the role of coordinating intervention efforts with students who display antisocial behavior patterns. Additionally they advocate the collaboration with social services and the families of these students. Finally, the authors propose a three-level approach to organizing certain interventions for attaining prevention goals and outcomes and suggest interventions or tactics for each prevention level.

Webb, N., Baxter, G. & Thompson, L. (1997). Teachers' grouping practices in fifth-grade science classrooms. *The Elementary School Journal*. 98(2), 91-113.

In this study, grouping practices for hands-on science activities of 30 fifth-grade teachers from a large urban school district were observed. The authors found that while the composition of the groups differed, both among teachers and within classrooms, the teachers tended to form heterogeneous groups while when the students were allowed to form their own groups, they tended to pick homogeneous groups with respect to sex and ethnicity. Additionally, they found that composition of classrooms often inhibited some teachers' grouping students which led these teachers to form groups in ways counter to the recommended methods. The authors also discuss the implications of their findings for teachers' practice.

Webb, N. (1991). Task-related verbal interaction and mathematics learning in small groups. *Journal for Research in Mathematics Education*, 22, 366-389.

This is an analysis of studies based on task-related verbal interactions among students in mathematics classrooms working in small groups and their connections to the students' achievements in mathematics. The author evaluates factors that have been shown to predict peer interactions in math groups and presents various methods for shaping group interactions. Student ability, gender, and personality, and makeup of the group are all predictors of group interaction on ability and gender. Furthermore, the author suggests that using specific group compositions, changing the reward structure, supplying training in desired verbal behavior, and designing the group activity in a way that it requires students to explain various things to one another are all ways to further effective small-group interactions.

Zanolli, K., Daggett, J. & Pestine, H. (1995). The influence of the pace of teacher attention on preschool children's engagement. *Behavior Modification, 19*(3), 339-356.

The authors compare the effects of equal amounts of teacher attention given at a fast or slow pace for three preschool children who had been identified as having trouble staying engaged with group or independent learning activities. They reported that rapid attention led to more engagement time than slow or no attention for all three children. The authors conclude that rapid-paced teacher attention can be effective in facilitating young children's engagement in activities.