

I. Title Page

Title

The effectiveness of teachers' universal classroom management practices on disruptive student behavior

Reviewers

Regina M. Oliver, Daniel Reschly, and Joseph Wehby
Vanderbilt University, Department of Special Education
#328 Peabody
230 Appleton Place
Nashville, TN 37208 USA
Tel: 615-322-8150
Fax: 615-343-1570
Email: regina.m.oliver@vanderbilt.edu

Mark Lipsey
Peabody Research Institute
Vanderbilt University
Peabody 181, 230 Appleton Place
Nashville, TN 37203-5721 USA
Tel: (615) 343-2696
Fax: (615) 322-0293
Email : mark.lipsey@vanderbilt.edu

Sources of Support

Preparation of this manuscript was funded in part by the National Comprehensive Center for Teacher Quality (S283B050051), Institute of Educational Sciences Grant (H324P040013), and the Office of Special Education Programs Leadership Training Grant (H325D020022). The opinions expressed in this article are those of the authors and do not necessarily reflect those of the funding agency.

Submitted:

March 16, 2009

**Protocol for a Systematic Review of the
Effectiveness of Teachers' Universal Classroom Management Practices on
Disruptive Student Behavior**

Regina M. Oliver

II. Background for the Review

Concerns regarding the increasing rate of disruptive behaviors in schools have been echoed by parents and school personnel alike for several years (U.S. Surgeon General 2001). The single most common request for assistance from teachers is related to behavior and classroom management (Rose & Gallup, 1999). Classrooms with frequent disruptive behaviors have less academic engaged time and students tend to have lower grades and do poorer on standardized tests (Shinn, Ramsey, Walker, Stieber, & O'Neill, 1987). Furthermore, attempts to control disruptive behaviors cost considerable teacher time which comes at the expense of academic instruction.

School discipline issues such as disruptive behavior and violence also have an increased effect on teacher stress and burnout (Burke, Greenglass, Schwarzer, 1996; Smith & Smith, 2006). There is a significant body of research attesting to the fact that classroom organization and behavior management competencies significantly influence the persistence of new teachers in teaching careers (Ingersoll & Smith, 2003). New teachers typically express concerns about effective means to handle significant disruptive behavior (Browsers & Tomic, 2000). Teachers who have significant problems with behavior management and classroom discipline often report high levels of stress and symptoms of burnout and are frequently ineffective (Berliner, 1986; Browsers & Tomic, 2000; Espin & Yell, 1994). The ability of teachers to organize classrooms and manage the behavior of their students is critical to achieving positive educational outcomes and teacher retention.

Effective classroom management is also related to prevention efforts. Children's behavior is shaped by the social context of the environment during the developmental process (Kauffman, 2005). Many behavioral disorders begin with or are made worse through behavioral processes such as modeling, reinforcement, extinction, and punishment (Kauffman, 2005). The classroom context plays a significant role in the emergence and persistence of aggressive behavior. Early intervention and treatment for students at-risk for emotional and behavioral disorders (EBD) is essential to prevent more serious behaviors (Kauffman, 2005; Greer-Chase, Rhodes, & Kellam, 2002). The progression and malleability of maladapted behaviors is effected by classroom management practices of teachers in the early grades (Greer-Chase et al., 2002). For example, classrooms with high levels of disruptive, aggressive behavior place children at-risk for more serious behavior problems and EBD. Research has indicated that aggressive students in aggressive, disruptive classroom environments are more likely to be aggressive in later grades (Greer-Chase et al., 2002). Research-based approaches to classroom management are necessary to improve both academic and behavioral outcomes for students.

Part of the problem with determining research-based approaches to classroom management is coming up with a definition. Classroom management can be defined as broadly as any action a teacher takes to create an environment that supports and facilitates both academic and social-emotional learning (Evertson & Weinstein, 2006). This would include instructional management procedures as well as behavioral management procedures. Although instructional management procedures are admittedly important and preventive classroom management procedures, there is also a vast separate research base associated with that topic not included in this review. Studies employing single subject methodology examining class-wide and individual behavior management techniques also exist in the literature. For example, use of behavioral procedures such as specific, contingent praise, reinforcement, token economies, and group contingencies are well documented strategies to increase appropriate behavior (Stage & Quiroz, 1997; Brophy, 2006). Historically, these procedures have been analyzed in isolation or in various combinations with each other using single subject methodology. However, universal classroom management is a set of procedures used with all students in the class rather than behavior management techniques individualized to meet the needs of a few or one student in the class. For the purpose of this review, teacher-mediated universal classroom management practices can be defined as: classroom procedures implemented by teachers in classroom settings with all students for the purposes of teaching prosocial behavior and reducing inappropriate behavior.

Although William Chandler Bagley wrote possibly the first book on classroom management in 1907, systematic research on the topic did not begin until the 1950's (Brophy, 2006). The early research addressed teachers' attitudes and concerns about classroom control. Teacher leadership style studies were prominent in the 1950's and 1960's describing the leadership styles of teachers that were considered "better" classroom managers. With the influence of behavioral research came more specific methods to examine specific classroom management practices that would change behavior like reinforcement and punishment. Research then moved in the direction of identifying specific teacher behaviors and student-teacher interactions that prompted appropriate behavior and reduced inappropriate behavior (Brophy, 2006).

Over the past 50 years or more, a variety of classroom management paradigms have been studied including behavioral approaches (Landrum & Kauffman, 2006), process-outcome approaches (Gettinger & Kohler, 2006), ecological approaches (Doyle, 2006), classroom discourse (Morine-Dershimer, 2006), critical theory perspective (Brantlinger & Danforth), and student and teacher perspectives (Hoy & Weinstein, 2006). Emmer and Stough (2001) reviewed research on classroom management and found that effective classroom management included (a) a focus on preventive rather than reactive approaches; (b) identifying and teaching desirable behaviors and explicitly teaching expectations; (c) establishing and teaching classroom rules and routines; (d) monitoring student behavior to provide frequent feedback about appropriate and inappropriate behavior (pp. 105). Slight differences were found between grade levels based on the developmental level of the students. For instance, an elementary classroom expectation

may be “use your own work” whereas a secondary expectation would be a higher level concept such as “Integrity” (Sprick, R., 2006).

The components of effective classroom management are important in several ways. For example, focusing on preventive rather than reactive procedures establishes a classroom environment that is positive in which the teacher is focusing on students who are appropriate (Lewis & Sugai, 1999). Rules and routines are powerful preventative components to classroom organization and management plans because they establish the behavioral context of the classroom including what is expected, what will be reinforced, and what will be rethought if inappropriate behavior occurs (Colvin, Kame’enui, & Sugai, 1993). This prevents problem behavior by giving students specific, appropriate behaviors to engage in. Monitoring student behavior allows the teacher to acknowledge students who are engaging in appropriate behavior and prevent misbehavior from escalating (Colvin, Kame’enui, & Sugai, 1993).

In studies of classroom management, typical behaviors that were targeted for intervention were disruptive, aggressive behaviors. Examples of these types of behaviors include noncompliance, verbal disruption, teasing others, out of seat, taking others’ property, damaging property, or attacking others; typically measured with observations or teacher reports (Kellam, Ling, Brown, & Ialongo, 1998). Reductions in these types of individual student’s behaviors also reduce the overall classroom level of aggression. Identifying changes in student behavior is important in determining the effects of classroom management procedures.

Recent reviews of evidence

A meta-analysis by Wilson, Gottfredson, and Najaka (2001) examined the effects of school-based prevention of crime, substance use, dropout, nonattendance, and other conduct problems. A wide variety of interventions were considered in the analysis including individual counseling, behavior modification, and broader school procedures such as environmental changes or changes to instructional practice. The authors’ analysis found differences in effects based on type of intervention with approaches that use cognitive-behavioral approaches showing positive effects compared to non-cognitive-behavioral counseling, social work, or other therapeutic interventions. Because the inclusion criteria was broad enough to cover any school-based intervention, it included more than classroom-based, teacher implemented interventions.

Wilson, Lipsey, and Derzon (2003) extended the work by Wilson et al. (2001) on the effects of school-based intervention programs on aggressive behavior. Wilson, Lipsey, and Derzon (2003) found similar effects of school-based prevention programs on problem behavior with one notable outcome. Nearly all of the studies were demonstration sites rather than typical school-based sites with routine environments.

One meta-analysis by Stage and Quiroz (1997) examined specific individual interventions to decrease disruptive behaviors in schools. Results of this analysis indicate

an overall reduction on disruptive behavior across studies with group contingencies producing stronger outcomes. Studies included in the meta-analysis had a wide range of approaches although most studies were single subject methodology. The authors' procedures for calculating effect sizes with single subject data and combining effect sizes from group and single subject data produce questionable results however. Other reviews have addressed broader topics of social skills (Beelmann, Pfingsten & Lösel, 1994; Gresham, 1998) and mental health programs (Durlak & Wells 1997; Durlak & Wells, 1998).

A final meta-analysis by Wilson and Lipsey (2006) examined school-based programs for universal information processing and found decreases in aggressive disruptive behavior for students in treatment conditions. Based on these reviews, school-based programs are an important part of prevention efforts. Classrooms are a primary context for prevention efforts and therefore determination of effective classroom behavioral management procedures are also required.

Contributions of this review

Current research syntheses have not addressed the question of the effectiveness of teacher-mediated universal classroom management programs in reducing disruptive classroom behavior and preventing more significant behavior concerns. In fact, no such synthesis had been conducted.

This proposed synthesis will add to the literature in two important ways. First, no such synthesis on teacher-mediated universal classroom management programs exists. Second, this proposed review will analyze studies that have implemented a specific class-wide strategy and compared it with some type of control condition. This will provide information on what types of approaches to classroom organization and behavior management appear to produce better results.

III. Objectives of this Review

Despite historical acknowledgement of the benefits of classroom management, these benefits have not been systematically analyzed across studies. Important questions still need to be addressed. Specifically:

- 1) How effective are teacher-mediated universal classroom management practices, specifically to reduce disruptive, aggressive, inappropriate behaviors?
- 2) To the extent that there is variation, what are the components of effective universal classroom behavior management practices and interventions (e.g., praise, rules and routines)?
- 3) What are additional moderators besides classroom management components that differentiate more or less effective classroom management components (e.g., treatment integrity, length of treatment)?

A systematic review and analysis of empirical studies on classroom management will provide policy makers, school administrators, and teacher preparation programs with important answers to these questions. It will also identify areas of additional research that are lacking. Recommendations for future research and evaluation to improve policy, school administration, and teacher preparation will be provided.

IV. Methodology

Inclusion Criteria

This review addresses the effects of teacher implemented universal interventions and management procedures in the classroom on classroom levels of problem behavior. Problem behavior is defined broadly as **any intentional behavior that is disruptive, defiant, or intended to harm or damage persons or property, and includes off-task classroom behavior**. To be eligible for coding, a study must use an eligible intervention, report data that permits calculation of a numeric effect size for at least one eligible outcome variable, deliver the intervention in the classroom with school-aged participants (ages 5-19) in primary and secondary school, and employ an eligible research design. Studies examining children in early childhood settings or classrooms with children who are younger than the typical mandatory age for education (e.g., pre-kindergarten in the U.S.) will not be included because these settings are typically not part of the standard education system. Eligible studies with outside components will be included although only classroom-based treatments will be analyzed.

A. Interventions

There must be an intervention, broadly defined, which involves actions performed by the teacher (a) in the classroom, (b) administered to the entire class, and (c) with the expectation that these procedures will reduce classroom levels of problem behavior. Studies that use an intervention with the classroom teacher (e.g., teacher training in classroom management) but targets student problem behavior as an outcome are eligible.

Exceptions:

1. Interventions which are provided to recipients by an implementer other than the classroom teacher or not provided in the recipient's primary classroom are NOT eligible. These include pull-out group interventions, one-on-one counseling, clinic-based interventions, or classroom-based interventions which are provided by someone other than the teacher like the guidance counselor, school psychologist, or a peer.
2. Interventions that are administered to individual students within the classroom and are not administered to the entire class are NOT eligible. Examples include self-monitoring or self-management. Self-monitoring or self-management could be

eligible IF every student in the class used the intervention as a class-wide management strategy.

B. Outcomes

The study must assess intervention effects for at least one variable, measured on students, representing problem behavior measured in the classroom defined below. Outcomes must be measured on all children in the classroom or a smaller representative sample as a proxy for the entire class. This representative sample must be typically developing children (i.e., not diagnosed with ADHD).

1. Outcome variables

Qualifying outcome variables are those that fall in the following categories including any that are substantially similar to those listed:

Problem behavior

- Disruptive behavior (e.g., acting out, temper tantrums, walking around and out of seat without permission, talk outs)
- Inappropriate behavior (e.g., spitting, laughing, pushing)
- Aggressive behavior (e.g., behavior that is intended to harm or damage persons or objects)

Ineligible outcomes:

The following outcomes do not qualify a study as eligible for coding. A study reporting only these and other ineligible outcomes is not eligible for coding. However, if a study contains at least one eligible outcome and qualifies for coding, all outcomes reported in the study should be coded including those listed below.

- Internalizing problems/symptoms, e.g., depression, suicidal ideation, anxiety, low self-esteem.
- School attitude/performance (e.g., truancy, GPA, standardized academic tests)
- Teacher behaviors (e.g., opportunities to respond, classroom management procedures)
- Locus of control
- Substance use (illicit drug use, alcohol, tobacco use)
- Criminal behaviors (e.g., crimes against persons, sexual offenses, property crimes, status offenses, recidivism, assault, violent crimes)

2. Outcome data

- a. Quantitative data must be reported for at least one qualifying outcome variable for which treatment vs. control effect size can be derived (or potentially available from the author via correspondence).
- b. The outcome data must be measured on the students whose problem behavior the intervention is attempting to change. Parent reports of child behavior alone are insufficient. Outcome data collected by the teacher or other observers in the

classroom are relevant as long as they describe child or adolescent problem behavior.

- c. Outcomes data based on the overall incidence of certain events (e.g., total number of suspensions for a group of participants, without any information regarding the number of suspensions per subject or the proportion of participants who were suspended) are not eligible.

C. Participants

1. The majority of participants must be school aged (5-19) and attending a public or private school.
2. Participants attending a day-treatment, clinical, or residential school are not eligible.
3. Studies that include school-aged children ages 5-19 but also report younger children in other classrooms will not be coded for those younger child outcomes.

D. Research Design

The study must use an experimental or quasi-experimental design. These are designs that compare subject groups receiving one or more identifiable treatments with one or more control conditions. Control conditions may be “no treatment,” “treatment as usual,” or any other similar condition that serves as contrast to the treatment condition and is not expected to produce change in the outcomes of interest. To be eligible as an experimental/quasi-experimental design, a study must meet at least one of the following criteria:

- a. Participants were randomly assigned to treatment and control conditions or assigned by a procedure plausibly equivalent to a randomization, e.g., arbitrarily assigned wait-list.
- b. Participants in the treatment and control conditions were matched and the matching variables included a pretest for at least one qualifying outcome variable (see above) or statistical control using ANCOVA procedures.
- c. If participants were not randomly assigned or matched, the study must have both a pretest and a posttest on at least one qualifying outcome variable (see above) with sufficient statistical information to derive an effect size or to estimate initial group equivalence from statements of statistical significance. Posttest only non-equivalent comparisons (not randomized or matched) are not eligible.

NOTES:

Minimum number of groups. Any design with less than two classrooms per treatment or comparison is not eligible. Single subject designs are also not eligible.

Cohort designs. Cohort designs that measure different participants at pretest and post test are not eligible. However, cohort designs that collect longitudinal data on the same participants are eligible.

E. Study Setting

The study can be set in other countries besides the U.S. providing the country has an established education system with the structure of classrooms within schools.

F. Date of Publication

The date of publication or reporting of the study must be 1950 or later even though the research may have been conducted prior to 1950. If, however, there is evidence in the report that the research was actually conducted prior to 1945 (more than five years before the 1950 cutoff date), then the study should be excluded.

Literature search strategy for identification of appropriate studies

Database searches

The databases that will be searched include ERIC, PsychINFO, Wilson Education Abstracts, Proquest Dissertations, and Proquest for the past 59 years (1950 until present). Keyword searches will include the following terms and will be restricted to studies with empirical outcomes:

- classroom management
- classroom organization
- classroom discipline

AND

- behavior
- evaluation, outcomes, effects, experimental

Author searches will also be conducted in the above databases to identify potential articles by key researchers in the field of classroom management. Author searches include:

- Brophy, Jere
- Canter, Lee
- Evertson, Carolyn
- Kellam, Sheppard
- Kounin, Jacob
- van Lier, Pol

Prior reviews and reference lists

Prior meta-analysis on behavior management or reviews of classroom management will be identified and the reference lists searched. Other studies that may be eligible for study

Campbell Collaboration Protocol:

The effectiveness of teachers' universal classroom management practices on disruptive student behavior

inclusion will be identified and obtained. In addition, the citation list for all studies identified through searches will be reviewed and potential eligible studies identified and obtained. Reference books that synthesize classroom management research will be identified and searched. Citations lists from all studies included in the reference book will be searched.

Websites and internet searches

Searches of relevant websites will be conducted to identify research that may not be published in journals. For example, the Classroom Organization and Management Program (COMP) website will be searched to identify studies. Additional relevant websites will be identified through search engines such as google.com.

Hand searches

Hand searches of journals will be conducted for the past 5 years to identify potential studies that were not identified through other methods. Journals will include:

- Behavior Disorders
- British Journal of Educational Psychology
- Journal of Applied Developmental Psychology
- The Journal of Emotional and Behavioral Disorders
- The Journal of Educational Psychology

Contacting authors

The primary researcher for the Classroom Organization and Management Program (COMP), Carolyn Evertson, will be contacted after the literature review process and asked to provide additional studies not yet identified.

Selection of Studies

The primary reviewer will review the abstracts of all studies that may be eligible and will retrieve only those studies that appear to meet the above inclusion criteria. Any studies that appear to be questionable will be retrieved by default. Studies initially identified as possibly eligible but not coded will be read by a second reviewer to determine if any studies labeled ineligible would meet eligibility requirements. The percentage of disagreements before discrepancies were resolved will be reported.

Study Coding Strategies

A detailed description of dimensions that will be coded to extract data from studies can be found in Appendix A. Studies will be coded initially by the primary reviewer and reliability will be ensured through double coding with a second researcher. Coding reliability will be assessed for all included studies based on point-by-point agreement.

Resolution of discrepancies in coding will be resolved by meeting and discussing contested items.

Data Analysis and Effect Sizes

Effect sizes will be calculated based on the available data in the study, most typically treatment mean and control mean on post-test data with standard deviations. An issue arises when classroom levels of the dependent measure based on child level variation produces nested data. These nested data require adjustments to the standard errors of the effect sizes and, correspondingly, the inverse variance weight based on those standard errors (Hedges, 2007)). Studies that report aggregate level data (classroom level means and standard deviations) will be transformed to student level effect sizes using an intraclass correlation coefficient of .10 so that equivalent effect sizes will be used prior to analysis. This ICC was selected based on the Department of Education’s What Works Clearinghouse conventions for the interclass correlation of behavioral measures and classroom outcomes. The standardized mean difference effect size statistic (the difference between means divided by pooled standard deviation) will be used unless there is insufficient data to calculate this effect size statistic (Lipsey & Wilson, 2001).

The following formulas with definitions will be used for effect sizes, transformations, and weighting, with additional adjustments as described above when needed for studies that assign classrooms or schools to conditions or report classroom or school-level aggregate statistics.

Effect Size Statistic	Standard Error	Inverse Variance
-----------------------	----------------	------------------

$$ES_{sm} = \frac{\bar{X}_{G1} - \bar{X}_{G2}}{s_p} \quad SE_{sm} = \sqrt{\frac{n_{G1} + n_{G2}}{n_{G1}n_{G2}} + \frac{(ES'_{sm})^2}{2(n_{G1} + n_{G2})}} \quad w_{sm} = \frac{2n_{G1}n_{G2}(n_{G1} + n_{G2})}{2(n_{G1} + n_{G2})^2 + n_{G1}n_{G2}ES_{sm}^2}$$

$$ES'_{sm} = \left[1 - \frac{3}{4N - 9} \right] ES_{sm}$$

$$ES_{clusteradj} = ES_{aggregate}(\sqrt{.10})$$

Term	Definition
ES _{sm}	Standardized mean difference effect size
\bar{X}_{G1}	Posttest mean of group 1
\bar{X}_{G2}	Posttest mean of group 2
S _p	Pooled standard deviations of group 1 and 2
SE _{sm}	Standard error of the effect size
n _{G1}	Number of studies in group 1

n_{G2}	Number of studies in group 2
ES'_{sm}	Effect size corrected for small sample bias
$ES_{aggregate}$	Effect size standardized on aggregate (e.g., classroom) standard deviations
$ES_{clusteradj}$	Effect size adjusted to correct for aggregate standard deviations

When group means are not provided but other information is provided to allow for calculation of effect sizes (e.g., exact P values, or effect sizes), these data will be used to determine effects. Both SPSS and Comprehensive Meta-Analysis (from Biostat) software will be used for the analysis.

Fixed versus Random Effects

Although every effort will be made to identify eligible studies, there will likely be studies that were not published in any written form and therefore not accessible. Also, studies identified for this review will not include the entire population of classrooms. Therefore, a random-effects model will be used for all meta-analysis calculations (Lipsey & Wilson, 2001) to increase the generalizability of findings. This will be implemented by adding a random effects component to the fixed effects standard error and inverse variance terms shown above. That random effects component and the associated standard errors and weights will be computed via the software used in the analysis—the Comprehensive Meta-Analysis (CMA) program and the SPSS macros developed by David Wilson (Lipsey & Wilson, 2001).

Treatment of Qualitative Studies

Qualitative studies will not be included in this synthesis.

V. Anticipated Timeframe

<u>Task</u>	<u>Anticipated completion</u>
Literature search	March, 2009
Identification and retrieval of studies	June, 2009
Pilot testing of study codes	July, 2009
Extraction of data from studies	July, 2009
Analysis	August, 2009
Preparation of report	August, 2009
Submission of final report	September, 2009
Response to review comments	Upon receipt

VI. Plans for Updating the Review

The review will be updated as warranted, pending future relevant studies and synthesis.

VII. Statement Concerning Conflict of Interest

The reviewer has not conducted any previous empirical research on classroom management that could potentially be included in this review. There is no conflict of interest expected in preparing this review.

References

- Beelmann, A., Pfingsten, U., & Lösel, F. (1994). Effects of training social competence in children: A meta-analysis of recent evaluation studies. *Journal of Clinical Child Psychology, 23*, 260-271.
- Brantlinger, E., & Danforth, S. (2006). Critical theory perspective on social class, race, gender, and classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 157-179). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Brophy, J. (2006). History of research in classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 17-43). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Colvin, G., Kame'enui, E. J., & Sugai, G. (1993). Reconceptualizing behavior management and school-wide discipline in general education. *Education and Treatment of Children, 16*, 361-381.
- Doyle, W. (2006). Ecological approaches to classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 97-125). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Durlak, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. *American Journal of Community Psychology, 25*, 115-152.
- Durlak, J. A., & Wells, A.M. (1998). Evaluation of indicated preventive intervention (secondary prevention) mental health programs for children and adolescents. *American Journal of Community Psychology, 26*, 775-802.
- Gettinger, M., & Kohler, K. (2006). Process-outcome approaches to classroom management and effective teaching. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 73-95). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Greer-Chase, M., Rhodes, W.A., & Kellam, S.G. (2002). Why the prevention of aggressive disruptive behaviors in middle school must begin in elementary school. *The Clearing House, 75*(5), 242-245.
- Hedges, L. V. (2007). Effect sizes in cluster-randomized designs. *Journal of Educational and Behavioral Statistics, 32*, 341-370.

- Hoy, A. W., & Weinstein, C. S. (2006). Student and teacher perspectives on classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 181-219). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Kauffman, J.M. (2005). *Characteristics of Emotional and Behavioral Disorders of Children and Youth* (8th ed.). Upper Saddle River, New Jersey: Pearson Education, Inc.
- Landrum, T. J., & Kauffman, J. M. (2006). Behavioral approaches to classroom management. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 47-71). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive schoolwide management. *Focus on Exceptional Children*, 31, 1-24.
- Morine-Dersheimer, G. (2006). Classroom management and classroom discourse. In C. Evertson & C. Weinstein (Eds.), *Handbook of Classroom Management: Research, practice, and contemporary issues* (pp. 127-156). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Rose, L. C. & Gallup, A. (1999). The 31st annual Phi Delta Kappa/Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 81(1), 41-56.
- Shinn, M. R., Ramsey, E., Walker, H. M., Stieber, S., & O'Neill, R. E. (1987). Antisocial behavior in school settings: Initial differences in an at-risk and normal population. *The Journal of Special Education*, 21, 69-84.
- Sprick, R. S. (2006). *Discipline in the secondary classroom*, (2nd ed). San Francisco, CA: John Wiley & Sons, Inc.
- Stage, S., & Quiroz, D. (1997). A meta-analysis of interventions to decrease disruptive behavior in the public education setting. *School Psychology Review*, 26, 333-368.
- Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2001). School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology*, 17, 247-272.
- Wilson, S. J., & Lipsey, M. (2006). The effects of school-based information processing interventions on aggressive behavior: Part I universal programs. Center for Evaluation Research and Methodology. Nashville, TN: Vanderbilt University.

Appendix A

Details of Study Coding Strategies

The following fields will be used to code and extract data from each article.

A. Study Identifiers

- Study author(s) (lastname, first)
- Year of publication (four digits)
- Country in which study was conducted
 1. USA
 2. Canada
 3. Britain
 4. other English speaking
 5. other non-English speaking
 9. cannot tellother: _____
- Type of publication
 1. book
 2. journal article
 3. book chapter (in an edited book)
 4. thesis or dissertation
 5. technical report
 6. conference paper
 7. other
 9. cannot tell

B. Study Context

- Study setting
 1. public school
 2. private school
 3. both
 9. cannot tell
- Study location
 1. urban
 2. suburban
 3. rural
 4. other: _____
 5. mix
 9. cannot tell

C. Sample and Assignment procedures

Record the number of participants that participated in the treatment condition under “Observed N Tx” column and the number of participants that participated in the control condition under the “Observed N Control” column. The observed number constitutes the number of participants that actually completed each condition after attrition. If the specific subgroup categories were not broken down by treatment and control condition, record ‘999’ under the columns for treatment and control and the total number under the “Observed Total” column.

	Observed N Tx	Observed N Control	Observed Total
<i>Total Sample:</i>			
<i>By subgroup:</i> (code 999 if not identified specifically)			
Gender			
Male			
Female			
Race/Ethnicity			
African American			
Latino			
White			
Asian/Pacific Islander			
Mixed			
Unknown			
Free/Reduced Lunch			
Other demographic factor: _____			

- Participants’ mean Age
 1. _____ (e.g., 11.5)
 9. cannot tell

- Unit of assignment
 1. individual
 2. classroom
 3. school
 9. cannot tell

- Sampling procedure
 1. convenience sample
 2. random sample
 3. self-identified

- 4. other: _____
- 9. cannot tell

- Assignment procedure
 1. random assignment
 2. quasi-random
 3. non-equivalent
 4. matching on pretest only
 9. cannot tell
- How much attrition was evident in the study?

Original (prior to treatment) N = _____

Observed (completed treatment) N = _____

Percentage of attrition _____%

999 cannot tell

D. Conditions

Control or Comparison Group

- Characteristic identified in study
 1. treatment as usual
 2. other: _____

Characteristics of Focal Treatment

- Describe the treatment based on the description from the study as closely as possible:
- Characteristics of focal treatment
 - ___ behavioral strategies (e.g., group contingency, positive reinforcement)
 - ___ cognitive strategies (e.g., problem solving)
 - ___ interpersonal/social skills (e.g., communication, refusal skills)
 - ___ a combination of strategies
 - ___ Good Behavior Game (GBG)
 - ___ Classroom Organization and Management Program (COMP)
- Location of treatment (i.e., where treatment is delivered)
 1. regular classroom
 2. special education classroom
 3. both
 9. cannot tell
- Type of program for treatment
 1. Research or demonstration project that involves a high level of involvement from the researcher(s).

2. Evaluation of “real-world” or routine program (Practice/treatment that is initiated and implemented by school although researcher is involved with collecting data and evaluation.).
- Treatment agent (code general or special education teacher even if teachers were the “participants” of the study and initially trained by researcher)
 1. general education teacher
 2. special education teacher
 3. both
 - Duration of treatment. Approximate or actual number of weeks. Divide days by 7; multiply months by 4.3; round to whole number. Code 999 if cannot tell. _____
 - Additional treatments provided (identify all that apply and code yes=1 or no=0)
 1. parent training
 2. school structural changes
 3. medication
 4. counseling/therapy
 5. academic
 6. other: _____
 - Was the treatment implemented with fidelity?
 1. Yes
 2. Maybe
 3. No
 4. can't tell

E. Dependent Variables

At least one dependent variable *must* measure disruptive, inappropriate, or aggressive behavior **in** the classroom.

- The name of the measure as identified in the study should be written under each measure.
- The construct being measured should be identified for each measure (i.e., disruptive behavior, aggressive behavior, classroom level behavioral climate, inattentive, internalizing behavior, externalizing behavior).
- How the measure was administered should be identified for each dependent variable (i.e., parent report, teacher report, observation data, interview, standardized).
 1. parent report
 2. teacher report
 3. observation data
 4. standardized test
 5. interview

8. cannot tell

		<u>Measure 1</u>	<u>Measure 2</u>	<u>Measure 3</u>	<u>Measure 4</u>	<u>Measure 5</u>	<u>Measure 6</u>
Name of Measure							
Construct being measured							
Control	Pre						
	Post						
	SD						
	N						
Tx	Pre						
	Post						
	SD						
	N						
ES (type)							
Exact P value							
Reliability Coefficient							
Type of Reliability Coefficient							
How was measure administered?							

Note: The treatment and control total N is also recorded in the “C. Sample and Assignment Procedures” section above

- Overall confidence in computing effect size
 1. Very Low (Little Basis)
 2. Low (Best Estimate)
 3. Moderate (Weak Inference)
 4. High (Strong Inference)
 5. Very High (Explicitly Stated)