U.S. DEPARTMENT OF EDUCATION

NoChild LeftBehind

MOBILIZING *for* EVIDENCE-BASED CHARACTER EDUCATION

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2007

This publication was produced under U.S. Department of Education Contract No. ED-05-PO-2134 with Mary Gawlik (Debbie Kalnasy served as contracting officer's representative); Contract No. ED-04-CO-0072/0001 with Pacific Institute for Research and Evaluation (Rita Foy Moss served as the contracting officer's representative); and Contract No. ED-03-PO-2981 with Caliber Associates (Paul Kesner served as the contracting officer's representative). No official endorsement by the U.S. Department of Education of any product, service or enterprise mentioned in this publication is intended or should be inferred.

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August 2007

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PREFACE

Involving key stakeholders—particularly project directors and evaluators—as partners in the evaluation of character education programs is critical to demonstrating their usefulness and improving their effectiveness. In fact, recognizing the importance of mobilizing—marshalling people and other resources for action in support of a proposal—was a principal outcome of the Listening Session for Evaluation convened on March 11–12, 2004, by the U.S. Department of Education and the Character Education and Civic Engagement Technical Assistance Center (CETAC).[1] Participants at the session agreed that mobilizing a collaborative team to assist in evaluation would enhance each phase of the assessment process and provide greater understanding among all stakeholders, especially with respect to

- ★ the evaluation standards set forth in the *No Child Left Behind Act of 2001* and the Partnerships in Character Education Program (PCEP) grant guidelines;
- ★ unfamiliar evaluation terms (e.g., *data-based decision-making*, *Institutional Review Board*, *contamination*) that presented barriers in communicating with evaluators; and
- ★ key issues in conducting scientifically based evaluations of PCEP grants.

PURPOSE AND DEVELOPMENT OF THE EVALUATION GUIDE

Conducting scientifically rigorous evaluations of character education interventions is complex. The nature of character education compounds the typical challenges of evaluation in particular ways. This evaluation guide is presented as a resource primarily for project directors who are federal grantees embarking on an evaluation of a character education intervention, although it contains useful information that can benefit other education administrators who also are providing these interventions. It offers strategies for working with external evaluators and key stakeholders in planning and implementing a scientifically sound evaluation.

The guide is organized in a logical sequence that reflects the order in which to undertake the eight basic steps of planning and implementing an evaluation. The introduction explores the federal mandate for evaluation and notes the many ways that evaluation can contribute to the improvement, recognition and sustainability of an intervention. In addition to the list of references at the end of this report, there is a list of published resources at the end of each step. The guide also provides appendices with pertinent federal regulations, sample consent letters, a checklist of evaluation activities, examples for displaying data, and a glossary of common evaluation terminology. Finally, all of the Web sites throughout the report were last accessed Aug. 8, 2007.

Knowledge alone is not sufficient to manage an effective evaluation. As Jaeger (1990) has observed, evaluation in an education setting compels stakeholders to focus on the desire for school improvement, to become a part of collegial working relationships, and to be vigilant with details. These, of course, are qualities that many educators naturally bring to the task.

1. In Fiscal Year 2004, the CETAC was operated through a contract awarded to Caliber Associates (Contract No. ED-03-PO-2981). Two subcontractors supported Caliber: the Association for Supervision and Curriculum Development and the Character Education Partnership. In September 2004, the Pacific Institute for Research and Evaluation was awarded the CETAC contract (No. ED-04-CO-0072/0001).

INTRODUCTION

Many educators believe that implementing character education in their schools helps students develop ethically, socially and academically. Character education is an inclusive term embracing all aspects of how schools, related social institutions and parents can support the positive character development of children and adults. The term *character* includes the emotional, intellectual and moral qualities of a person or group as well as the demonstration of these qualities in prosocial behavior. Relevant virtues include honesty, justice and fairness, trustworthiness, responsibility, respect, altruism, patience, perseverance, appreciation of diversity, and courage. The related development of moral reasoning, problem solving and interpersonal skills, a work ethic, empathy, and self-reflection is recognized as essential for optimal character development. For a school to foster character development, it must provide a positive social environment, characterized by leadership; collegiality; a learning orientation among faculty; and ties among school, home and community. Finally, practicing the virtues of civic engagement, civility, and citizenship and embracing the values of democracy are necessary for developing character in both the child and the community.

A BRIEF HISTORY OF THE PARTNERSHIPS IN CHARACTER EDUCATION PROGRAM

The U.S. Congress, recognizing the importance of character education, authorized the Partnerships in Character Education Pilot Projects in 1994. Under this grant program, the secretary of education could make up to 10 grants annually to state education agencies (SEAs) in partnership with one or more local educational agencies (LEAs). Between 1995 and 2001, 46 grants, representing more than $45 million, were awarded to SEAs to help communities organize a character education response to their own most compelling issues. This money (a) supported the development of character education materials and their integration into the broader curriculum; (b) provided professional training for teachers; (c) facilitated the involvement of the parents, students and community in the design and implementation of their grant; and (d) required a comprehensive evaluation of the program. In fiscal year 2002, Congress reauthorized the PCEP as part of the *Elementary and Secondary Education Act of 1965* (*ESEA*), as amended by the *No Child Left Behind Act of 2001*, and funding was expanded from $8 million to $25 million.

EVALUATION REQUIREMENTS OF THE *NO CHILD LEFT BEHIND ACT*

Under *No Child Left Behind (NCLB)*, both SEAs and LEAs are eligible to apply for funding, and the evaluation requirement has taken on a new emphasis. Grant projects are required "to provide information that demonstrates that the program for which the grant is sought has clear objectives that are based on scientifically based research" (*NCLB* Section 5431[e][2][A]). Once funded, programs are required to undergo periodic evaluations to assess their progress. The statute encourages research into the faithfulness of implementation of the project and "evaluation of the success of fostering the elements of character selected by the recipient" (*NCLB* Section 5431[b][1][C]). Funds may also be used to measure the integration of character education into both the curriculum and teaching methods of the school (*NCLB,* Section 5431[b][1][b]), both of which should be evaluated for effectiveness. This guide is meant to help SEAs and LEAs meet the evaluation requirements.

THE CHALLENGE OF SCIENTIFIC EVALUATION

The federal mandate to undertake scientifically rigorous evaluation poses special challenges for the directors and evaluators of character education interventions. First, little precedent has been set in the evaluation world for assessing the types of outcomes that character education promotes: establishing a caring environment among students and teachers as well as instilling a positive moral identity in students. Second, the unfamiliar vocabulary of evaluation has presented a real language barrier in communicating with evaluators and in reviewing resource materials, especially with respect to research methodology, statistical procedures, contamination of data, and data-driven decisions. Last, the Institutional Review Board (IRB) process and requirements (described in Step 4) are not familiar to most project directors. Nevertheless, they agree that high-quality scientific evaluation of character education can be accomplished and that both the processes and the outcomes of evaluation would yield valuable information for strengthening character education interventions.

THE DEPARTMENT OF EDUCATION'S INSTITUTE OF EDUCATION SCIENCES

The *Education Sciences Reform Act of 2002* established within the U.S. Department of Education the Institute of Education Sciences (IES). The mission of IES is to provide rigorous evidence on which to ground education practice and policy (see http://ies.ed.gov).

In 2002, IES established the What Works Clearinghouse (WWC) to provide educators, policymakers, researchers and other interested parties with a central and trusted source of what works in education (see http://www.whatworks.ed.gov).

According to IES, "[S]cientifically based research:

- employs systematic, empirical methods that draw on observation or experiment; involves data analyses that are adequate to support the general findings; relies on measurements or observational methods that provide reliable data; makes claims of causal relationships only in random-assignment experiments or other designs (to the extent such designs substantially eliminate plausible competing explanations for the obtained results);
- ensures that studies and methods are presented in sufficient detail and clarity to allow for replication or, at a minimum, to offer the opportunity to build systematically on the findings of the research;
- obtains acceptance by a peer-reviewed journal or approval by a panel of independent experts through a comparably rigorous, objective and scientific review; and
- uses research designs and methods appropriate to the research question posed" (USED/IES, WWC).

EVALUATION OF CHARACTER EDUCATION PROGRAMS

Program evaluations that are grounded in scientifically based research add to our shared knowledge base and assist in making major advances in improving the effectiveness of American education. In particular, those evaluations may help to

- provide data to determine whether an intervention is accomplishing its desired objectives;
- support decision-making, guide practice and improve programming;
- nurture staff, student, parent and community efforts;
- communicate to parents and the community the purpose of the program and the benefits for the participants during the various stages of its implementation;
- inform funders about the outcomes of their investments;
- influence program and policy decisions; and
- build the knowledge base about what does and does not work in character education.

Now that the why of evaluating character education interventions has been clarified, the next eight chapters detail the eight steps of program evaluation. The following resource listing provides sources of information for understanding character education evaluations that have been completed in recent years.

GENERAL RESOURCES

Publications

Berkowitz, M.W. 1998. *A primer for evaluating a character education initiative.* Washington, D.C.: Character Education Partnership.

Blum, R. 2005. A case for school connectedness. *Education Leadership* (Association for Supervision and Curriculum Development) *62* (7): 16–20.

Blum, R., and H. Libbey, eds. 2004. School connectedness: Strengthening health and education outcomes for teenagers. Special issue, *Journal of School Health* 74 (5). See http://www.jhsph.edu/wingspread/Septemberissue.pdf.

Davidson, M.L. 2000. A special theme section: Action research and character education. *Journal of Research in Education* 10 (1): 32–61.

Laud, L., and M.W. Berkowitz. 1999. Challenges in evaluating character education programs. *Journal of Research in Education* 9 (1): 66–72.

Leming, J. 1993. In search of effective character education. *Educational Leadership* 51 (3): 63–71.

———. 1997. Whither goes character education? Objectives, pedagogy, and research in education programs. *Journal of Education* 179 (2): 11–34.

Mathison, S. 2005. Encyclopedia of evaluation. Thousand Oaks, Calif.: Sage.

National Research Council. 2002. *Scientific research in education.* Washington, D.C.: National Academy Press.

Power, F.C., A. Higgins, and L. Kohlberg. 1989. *Lawrence Kohlberg's approach to moral education.* New York: Columbia University Press. (An example of a single case study.)

Rossi, P.H., M.W. Lipsey, and H.E. Freeman. 2004. *Evaluation: A systematic approach.* 7th ed. Thousand Oaks, Calif.: Sage.

Schaps, E., M. Watson, and C. Lewis. 1996. A sense of community is key to effectiveness in fostering character education. *Journal of Staff Development* 17 (2): 42–47.

Shavelson, R.J., and L. Towne. 2002. *Scientific research in education.* Washington, D.C.: National Academy Press.

Internet Resource

What Works Clearinghouse (WWC)—In particular, see the WWC Intervention Reports in which WWC reviews studies on specific character education interventions. See http://www.whatworks.ed.gov/Topic.asp?tid=12&ReturnPage=default.asp.

STEP 1
PARTNER WITH AN EVALUATOR AND FORM AN EVALUATION TEAM

The first step in the evaluation process—and perhaps the most critical—is forming the evaluation team. Although the team should represent all of the stakeholders, the two key players are the project director and the evaluator. Together, they should agree on and clarify responsibilities as well as establish a working relationship that will facilitate clear, effective communication.

FINDING A SKILLED EVALUATOR

The project director should identify and, if possible, hire an evaluator during the earliest stage of preparing the grant application. This approach enables the evaluator to develop a sound design that includes appropriate outcomes of and methods for assessing the planned program. A well-developed design or plan can then be incorporated into the evaluation section of the proposal.

The project director should consider taking the following steps to identify and hire an evaluator:

Identify the resources and requirements of the SEA or LEA that is sponsoring the character education initiative. In most cases, the project director will have the responsibility for locating and developing a relationship with a qualified external evaluator. However, some project directors will have access to and be required to use internal evaluation resources such as an in-house evaluation department or evaluator. Other project directors may have the option of hiring an external evaluator only through a competitive bid process. In that case, becoming familiar with the organization's policies and procedures for contracting with an evaluator will make the hiring process much more efficient. Regardless of whether the evaluator is external or internal, he or she should be independent, separated from program implementation, and without any vested interests in the results.

Determine desired qualifications. The evaluator should have relevant advanced graduate training in one of the social sciences and evaluation methods and, preferably, experience not only in conducting program evaluation research but also in writing the evaluation section of successful proposals. The evaluator should be knowledgeable about the laws and regulations that can affect the evaluation, including the Department of Education regulations for the Protection of Human Subjects (34 CFR 97), the *Family Educational and Privacy Rights Act* (*FERPA*), and the *Protection of Pupil Rights Amendment* (*PPRA*). Information about *FERPA* and *PPRA* can be found in appendix A.

Identify potential candidates. To identify a qualified evaluator, search the published character education literature, ask for recommendations from other character education projects, or contact a college or university, nonprofit organization, or research firm. The Institute of Education Sciences' What Works Clearinghouse has established a register of education evaluators at its Web site http://www.whatworks.ed.gov. In addition, the American Evaluation Association provides an extensive list of evaluators on its Web site http://www.eval.org.

Contact candidates to assess their expertise, credibility and interpersonal style. Request a curriculum vita or resume from all candidates, references from project directors with whom the candidate has worked in conducting evaluations, and a sample evaluation report. Ideally, identify at least two evaluators who (a) have broad knowledge about evaluation techniques and design, experience in evaluating education interventions, and familiarity with the population to be assessed and (b) demonstrate good interpersonal and communication skills. A helpful tool for comparison shopping among evaluators is the Character Education Evaluation Rating Scale (Posey, Davidson, and Korpi 2003).

Screen and rate candidates. Interview top candidates. Explore the evaluator's track record of providing evaluations on time and on budget, including dealing with IRBs and parent permission forms as well as achieving targeted return rates of data from schools, students, teachers and parents. Be prepared not only to discuss the details of the proposed character education program, including its target population, history, philosophy, content and goals, but also to explore what is needed to develop a sound, feasible and ethical evaluation. Find out whether the evaluator is willing and available to assist you within the time frame needed.

Select the final candidate. Choose the candidate who offers the best combination of evaluation expertise and potential for maintaining a positive working relationship. If you have candidates with comparable qualifications, then choose the one who is most accessible.

Proximity will help you maintain face-to-face contact during the program's implementation.

ASSEMBLING A COLLABORATIVE ADVISORY EVALUATION TEAM

A collaborative team, formed to advise and support evaluation, should include representatives from all stakeholder groups, including not only the school administrators, teachers, parents, students and community members but also the evaluator, project director and program or intervention staff.[2] Involving these stakeholder groups will help them buy into the evaluation activities and will help to focus the evaluation on the program's goals and activities. Collaborating helps engage the stakeholders so they have the opportunity to express their goals for the project and understand how program outcomes and decision-making are connected to the evaluation. A collaborative process gives the stakeholders a more complete understanding of how outcomes are measured, which enables them to make better use of the findings. In fact, the evaluator is responsible for facilitating processes and teaching program staff members about evaluation. Engaging stakeholders in a collaborative process creates a schoolwide culture that is committed to ongoing learning through evaluation.

ROLES AND RESPONSIBILITIES OF THE PROJECT DIRECTOR AND THE EVALUATOR

The project director and the evaluator have distinct functions. The project director is responsible for ensuring that the evaluator understands the program and the context in which it operates by explaining its objectives, the mechanisms by which it achieves objectives, and the populations served. The project director must also support the evaluator and the evaluation by providing ready access to needed data, records, personnel, stakeholders, and so forth. The project director should develop a written contract with the evaluator, which should include a description of evaluation tasks and products, a timeline and a budget.

The evaluator works for the project but is not an advocate for it or for the program chosen. Evaluators have a professional responsibility to be objective about program strengths and weaknesses, to report their findings based on valid and reliable measures and, if necessary, to design questions and methods responsive to unique program goals. In addition, they must represent the interests of all stakeholders, not only program management.

Evaluators bring experience in data analysis, survey development, research design and proposal writing. With this experience, they can help program staff members to (a) identify critical evaluation questions; (b) use evaluation data to make decisions about practices; and (c) communicate the evaluation results to school administrators, the community and potential funders.

The director and evaluator should both be thoroughly familiar with PCEP evaluation and reporting requirements. Each project director and evaluator will need to work together to develop a timeline and specify their respective responsibilities to fit the particular characteristics of the intervention and context. Exhibit 1 presents a typical division of responsibilities between the project director and evaluator; however, individual grant projects may differ and thus require a different breakdown of obligations. Responsibility for the evaluation should remain with the evaluator and, ultimately, with the funding agency.

2. Implementing the program may be done by intervention staff and/or teachers and school personnel.

EXHIBIT 1
RESPONSIBILITIES OF PROJECT DIRECTOR AND EVALUATOR

ROLE	PROJECT DIRECTOR	EVALUATOR
LEADERSHIP	Contract with the evaluator, following required policies and procedures for contracting, and establish a productive working relationship among stakeholders. Communicate program expectations to all stakeholders. Collaborate with evaluator to develop the written program description according to grant application standards. Inform the evaluator about the populations to be served and sensitive issues in implementing the evaluation. Plan for obtaining broad representation of parents and community. Lead and maintain the partnership among key stakeholders. Keep project staff members and control or comparison group participants informed about the evaluation and their responsibilities.	Collaborate with project director to develop the written program description according to grant application standards. Develop evaluation design consistent with program description and grant application standards. Consult with project director to ensure that the evaluation plan is consistent with state and local agency standards. Prepare and submit application for the approval of an IRB. Design and pilot test measures or identify reliable and valid instruments for assessment, including parent and community measures.
MANAGEMENT	Manage project design, staffing and budget. Supervise project staff members to ensure that the intervention is implemented as intended. Coordinate daily activities of the project. Confer with evaluator on sampling and consent procedures. Coordinate data collection procedures. Work with evaluator to supervise evaluation activities of the staff, including data collection and field observations.	Recruit and oversee data collectors; oversee informed consent process. Train project staff members on research ethics and data collection procedures; prepare field observations. Ensure that all data collection procedures adhere to confidentiality requirements and data security. Maintain communication with the project director and attend team meetings as necessary. Implement data management and analysis procedures.
REPORTING	Present progress reports within state or local education agency. Prepare annual performance report. Present findings at local, national and international association meetings, as appropriate. Present findings in regional, national and international journals, as appropriate.	Provide a feedback loop of information to project director in timely progress reports communicated in user-friendly language. Write annual evaluation reports for submission to the project director and funding agency. Present findings at local, national and international association meetings, as appropriate. Present findings in regional, national and international journals, as appropriate.

RESOURCES FOR OBTAINING A QUALIFIED EVALUATOR

American Evaluation Association—A source for locating an evaluator and for obtaining evaluation publications and information published by the association and its membership. See http://www.eval.org.

Registry of Outcomes Evaluators, What Works Clearinghouse—An online database of professional evaluators who conduct research on the effects of educational interventions. See http://www.whatworks.ed.gov/technicalassistance/overview.html.

STEP 2
DEVELOP A COMPREHENSIVE PROGRAM DESCRIPTION

A program is a theory and an evaluation is its test. To organize the evaluation to provide a responsible test, the evaluator needs to understand the theoretical premises on which the program is based.

—Carol Weiss (1998, 55)

Step 2 focuses on what should be included in the program description of a grant application. The program description presents the strengths of the chosen program, how it is expected to foster chosen outcomes, and how it fits with the schools and communities in which it will be implemented. The program description also lays the foundation for the evaluation plan. Writing the grant application proposal is the first important area of collaboration between the project director and the evaluator. The project director, with the collaboration of the evaluator, spells out the assumptions and goals of the program. For instance, the project director may make an assumption that values-based classroom discussions will affect the goal of fostering students' values-based reasoning and problem-solving abilities. Then, the evaluator uses the program assumptions and goals to spell out the evaluation plan, including the research design and the measures that will be used to assess whether and how well the program goals have been met. The discussion here in Step 2 lays out how to think about and write a program description, and Step 3 discusses writing the evaluation plan.

CREATING A CLEAR AND COMPREHENSIVE PROGRAM DESCRIPTION

When writing a grant application proposal to fund an intervention, the project director needs to clearly describe what the program or intervention emphasizes, what it assumes, who its target audience is, and what its goals are. Generally speaking, character education interventions emphasize promoting character development, prosocial behavior and academic achievement in students. These interventions are usually based on the assumption that to accomplish those goals, the school should have a positive climate, the teachers should bring character issues into their teaching, and students should have opportunities to display both their character and academic strengths. The target audience of character education interventions is the students and, secondarily, the teachers, parents and community. The proposal should spell out these aspects of the intervention and how they are incorporated into the evaluation plan that will serve as a guide for data collection and data analysis. In addition, the proposal should specify what will be assessed periodically during the grant period from its beginning until it is completed.

A clear and convincing grant application proposal should describe the issues and problems the intervention seeks to address and why the chosen intervention is an effective way to address them. It should specify program goals and explain how the evaluation design will assess whether and how well the goals are met. The project director and evaluator should collaborate on this task of writing a proposal that includes a detailed description of the program or intervention and an evaluation plan, woven together logically into an effective narrative.

ADDRESSING KEY AREAS IN THE PROGRAM DESCRIPTION

This section offers an organizational structure for writing a program description. The five areas defined here are the usual necessary components of any grant application (although they may be labeled differently for various grants): context, goals, program requirements, broad characteristics, and intervention guidelines. The definitions and specific examples of program details that fall within each area focus on character education. Any one proposal may include some, but not necessarily all, of these areas and will likely also have additional program-specific areas to discuss. Each area lists possible elements to encourage the project director and evaluator to think through the details of the proposed program or intervention carefully.

Context Area: Position the proposed program or intervention in relation to other character education programs and relevant research in character education. The context narrative should review findings about other existing programs that are widely used, demonstrated to be effective by scientifically based research, or both. It should explain how the proposed program is similar to and different from these programs. In addition, it should describe the background of the proposed program and its history of use as well as related research. Because this area lays out the background of the program, all of the following aspects should be addressed, at least to the extent possible:

- ★ Background and history of the proposed program
- ★ The relationship of the program to other programs in character education

- ★ Use of the program by other schools, districts and states
- ★ Research findings about the effectiveness of the program
- ★ Research findings about the effectiveness of similar programs
- ★ Ways in which the proposed program is similar to and different from existing scientifically based programs
- ★ Strengths of the proposed program

Goals Area: Determine the program goals for all stakeholders. The overall purpose and the specific goals of the intervention should be stated in detail. The goals of the intervention specify what it is supposed to do, in other words, what outcomes are expected. The evaluator will use the goals to choose appropriate outcome measures. It is important to define all program goals, not only for students but also for stakeholders other than students, including teachers, parents, administrators and the community, for example:

Goals for Students

- ★ Develop prosocial attitudes
- ★ Cultivate moral and values-based reasoning abilities
- ★ Learn social and prosocial competencies and behaviors
- ★ Build moral identity
- ★ Develop prosocial and moral responsibility
- ★ Develop academic interest, skills and performance

Goals for Teachers

- ★ Foster social and emotional self-regulation in students
- ★ Foster and model prosocial moral responsibility
- ★ Foster school and classroom community
- ★ Foster and model active citizenship
- ★ Foster attachment to school
- ★ Foster and model engagement in learning
- ★ Foster academic skills, including good study habits, and support academic performance
- ★ Promote and model avoidance of risky behaviors

Goals for Schools and Administrators

- ★ Provide a safe and caring environment for all
- ★ Promote a positive school climate and school culture[3]
- ★ Coordinate education of some or all teachers in knowledge and skills needed to implement the proposed character education program
- ★ Promote inclusion and friendships between students in special education and those in regular education
- ★ Decrease disciplinary problems
- ★ Motivate and enable parent involvement
- ★ Encourage and enable community involvement
- ★ Foster values-based class discussions
- ★ Encourage students' character development
- ★ Encourage students to learn and demonstrate prosocial and moral attitudes, behaviors, and competencies listed under student goals
- ★ Promote the fullest social and academic inclusion of students with special needs
- ★ Promote student-centered teaching and learning activities
- ★ Encourage students' positive academic habits and performance

Goals for Parents and Community

- ★ Become involved in schools and school life
- ★ Provide support and encouragement to children and youth for character development
- ★ Be role models for children and youth
- ★ Provide support for character education programs and interventions
- ★ Offer and support continuation activities (e.g., after-school, faith-based and community programs) for further character development of students

In the evaluation plan, each goal will be turned into a measurable outcome. Measurements of outcomes can be done by using one or a combination of techniques: observations, questionnaires, surveys, tests, teacher reports, parent reports, and school records.

3. For an overview of *school climate* and *school culture*, see appendix B.

Program Requirements Area: Know the program requirements and features. The program description should describe in detail what the intervention requires and what is included in it. Particular features of the intervention (i.e., curriculum, activities, rules for behavior), who will be responsible for them (e.g., specially trained teachers, all teachers, student leaders, all students, administrators, school support staff members, outside specialists), and where they will take place (e.g., in classrooms, schoolwide, after-school programs, parent-community meetings) should be included. Fidelity to the planned program, as well as the frequency and intensity of the intervention activities should be monitored and recorded by the project director and evaluator team during implementation. Possible interventions might include the following:

- ★ Professional development of teachers and administrators, including training in intervention techniques, strategies and goals
- ★ Curricular changes; integration of character, moral and values-based content into existing curriculum
- ★ Introduction of a new curriculum
- ★ Integration into existing curriculum of activities to promote prosocial attitudes and skills
- ★ New teaching techniques and strategies or changes in existing ones
- ★ Schoolwide activities
- ★ Classroom activities
- ★ Partnerships with other programs
- ★ Parent education and activities
- ★ Changes in the organizational structure of the school or classroom
- ★ Efforts to involve all students in school activities, including students with special needs
- ★ Service learning curriculum
- ★ Community education

Broad Characteristics Area: Incorporate school, district, and community characteristics. The program description should discuss how the program fits with, and takes into account, particular characteristics of not only the school or district but also the community in which it will be implemented. Specifically, it should include clear descriptions of the implementation sites; their capacity to implement the program; and germane characteristics of the school, district and community. The fit of an intervention or program to a particular school or district is important; therefore, as many as possible of the following aspects should be addressed:

- ★ Urban, suburban, rural
- ★ Existence in the school, the district or both of after-school programs, wraparound services and so forth
- ★ Extent of participation in the free and reduced price school meals program and other government subsidized school programs
- ★ Extent of participation in Honors, Advanced Placement and other high-achievement programs
- ★ Percentage of student body with special needs
- ★ Adequacy and prominence of programs to serve students with special needs
- ★ Percentage of student body using English as a second language
- ★ Adequacy and prominence of remedial and advanced language programs
- ★ Prominence of sports and clubs
- ★ Visible community support for the school, the district or both
- ★ Existence of other character or emotional development, social skills, and leadership training programs in the school or district

Intervention Guidelines Area: Understand local, state and federal guidelines relevant to the intervention. In addition to including characteristics of school and community contexts (Broad Characteristics Area), the proposal narrative should address guidelines and standards from state and local education agencies; school boards and advisory groups; parent and community voices; and federal, state or private funding sources (e.g., the guidelines for Partnerships in Character Education Program grants) that are pertinent to the intervention or program. The project director should understand the guidelines and standards from all levels and include references to them in the proposal narrative. The following are examples of the various intervention guidelines; specific guidelines and standards will vary for each grant application:

- ★ Federal initiatives and guidelines, for example, the PCEP guidelines
- ★ State initiatives and guidelines
- ★ Community standards

- ★ School district guidelines that affect implementation of the intervention
- ★ School guidelines that affect implementation of the intervention

SHARING THE PROGRAM DESCRIPTION WITH STAKEHOLDERS

While the program description is being developed, the project director should seek the opinions and views of key stakeholders in the school system and in the community. Their ideas and perspectives can be crucial in presenting the strongest and clearest picture of the program and how it will serve not only the needs of students and parents but also the aspirations of the schools and the community. Once the program description narrative is complete, it is beneficial to present it to wider groups of stakeholders to inform them and to garner their support.

TRANSLATING THE PROGRAM DESCRIPTION INTO A PROGRAM THEORY OF CHANGE AND LOGIC MODEL

The following chapter, Step 3, discusses how the program description is used by the evaluator to create an evaluation plan. Sometimes evaluators will translate the program description into a program theory of change and logic model as a preliminary step to writing an evaluation plan. Writing a program theory and creating a logic model are becoming more common tasks of evaluators, and some evaluators find those steps to be helpful. However, because writing a clear program description is fundamental and most important, this chapter has been devoted to that topic. Writing a program theory and creating a logic model are at the discretion of each evaluator, so this chapter does not discuss those topics in depth. Nevertheless, resources offered at the end of this chapter give more in-depth ideas about what a program theory of change is and what purposes can be served by a good logic model. In short, however, a program theory of change is a statement of the assumptions about why the intervention should affect the outcomes it is expected to produce. An accompanying logic model would depict a figure showing the relationships between the program requirements and features and the expected outcomes. The five program description areas discussed in this chapter would be used to articulate a program theory of change and logic model.

SUMMARY

Writing a clear and comprehensive description of the program that emphasizes the program's strengths in the five areas described above is the second important step in creating a strong grant application proposal. Each program and proposal will be different, thus not all of the points in each area will pertain to any one program description. The program description is important in its own right because it sets out an intervention's parameters and goals. The program description as well as a program theory and logic model, if you decide to use them, serve as guides for the development of the evaluation plan that is discussed in the next chapter, Step 3.

RESOURCES FOR PROGRAM THEORIES OF CHANGE AND LOGIC MODELS

Publications

Chen, H. 2005. *Practical program evaluation: Assessing and improving planning, implementation and effectiveness.* Thousand Oaks, Calif.: Sage. (See especially pages 12–44.)

Cohen, J. 2006. Social, emotional, ethical, and academic education: Creating a climate for learning, participating in democracy, and well-being. *Harvard Educational Review* 76 (2): 201–37.

Kuperminc, G.P., B.J. Leadbeater, C. Emmons, C., and S.J. Blatt. 1997. Perceived school climate and difficulties in the social adjustment of middle school students. *Applied Developmental Science* 1 (2): 76–88.

Internet Resources

Enhancing Program Performance With Logic Models—A course to help program practitioners use and apply logic models. See http://www.uwex.edu/ces/lmcourse/.

W. K. Kellogg Foundation—A tool kit on program evaluation targeted primarily to those W. K. Kellogg grantees working with outside evaluators, but of potential use to anyone seeking to design an effective, useful evaluation. See http://www.wkkf.org/pubs/tools/evaluation/pub3669.pdf.

STEP 3
PREPARE THE EVALUATION PLAN

Step 3 focuses on how to prepare the evaluation plan using the program description discussed in Step 2. This third step includes formulating evaluation research questions and deciding on the most effective evaluation design (both process and outcome) and procedures. The discussion of research evaluation questions will assist project directors and evaluators in making the decision to use either an experimental or quasi-experimental design or another approved design.

COLLABORATING TO DEVELOP THE EVALUATION PLAN

Conducting a scientifically rigorous evaluation of a character education program or intervention requires planning and continuous communication between the project director and evaluator. The overall evaluation plan, including program assumptions and goals, research questions, study design, and procedures for conducting the evaluation, is developed and written into the proposal application. Some of the details about evaluation procedures might not be feasible to decide before the grant award is made; however, they should be determined as soon as possible afterward so baseline data can be collected before the implementation begins. Step 2 discussed how the team's fundamental understanding of the program and its assumptions about expected outcomes are spelled out in the program description. Step 3 looks more closely at developing the evaluation questions to be addressed, possible research designs, and the procedures for conducting the evaluation.

The written evaluation plan, including its research questions, research design and procedures, should be shared with key stakeholders, just as the program description described in Step 2 was shared. Including all stakeholders' perspectives, especially those of school personnel from both potential intervention and control or comparison schools, will increase the credibility of the evaluation plan and will contribute to a more valid evaluation.

Designing the evaluation plan should be a collaborative effort. The project director and the evaluator as the key team members should pool their expertise about not only what will enable the evaluation but also what may limit or obstruct it. These discussions require an investment of time for assessing details, deliberating and building consensus.

The evaluation questions and the evaluation design are directly informed by the program description. As mentioned in Step 2, the program description spells out the goals and processes of the intervention or program; thus, they serve as a guide for generating the evaluation research questions.

WRITING EVALUATION QUESTIONS

The evaluation questions propose what various users and stakeholders need and want to know about the intervention. Initially, the project director and the evaluator will benefit from discussing the following questions that relate to the Context Area described in Step 2. That discussion will help to generate a useful foundation for the research project.

- ★ What does existing research tell us about effective character education interventions?
- ★ What are the most important elements of those interventions?
- ★ What do you think are the most important elements of your intervention?
- ★ How many of your most important elements are the same as or similar to those in the effective interventions found in the existing research described in the first question?
- ★ How did the schools, students, teachers, families and community change as a result of the interventions found in the existing research mentioned above?
- ★ How should schools, students, teachers, families and communities change as a result of your intervention?
- ★ What determines the extent of the effectiveness of the character education interventions reviewed?

Once the project director and evaluator have discussed the above questions, they are ready to focus on more specific research questions for their own project. Formulating specific research evaluation questions will generate ideas about the kind of information that is needed to address each question, how that information will be gathered, and how it will be analyzed to most directly answer each question. The detailed descriptions of the chosen program's goals and features given in response to the Goals Area and the Program Requirements Area, discussed in Step 2, will provide the information necessary to write appropriate, clear and precise research questions.

EXHIBIT 2
MODEL FOR EVALUATION QUESTIONS WORKSHEET

EVALUATION RESEARCH QUESTION	PURPOSE OF THE QUESTION—WHAT SHOULD THE ANSWER DEMONSTRATE?	WHAT INFORMATION WILL BE NEEDED TO ANSWER THE QUESTION?	WHEN AND HOW WILL THE INFORMATION BE COLLECTED?	HOW WILL THE DATA BE ANALYZED TO BEST ANSWER THE QUESTION?

Source: Adapted from Sanders, 2000.

In addition, the worksheet model shown in Exhibit 2 can be used for structuring initial discussions between the project director and evaluator. Using this model, or one similar to it, will help them formulate questions that will most effectively evaluate the intervention and respond to the grant application guidelines. In the process, it is also important to obtain input from each member of the collaborative advisory team. Different projects will have varying numbers of evaluation research questions. After writing the research questions with the project director and with input from stakeholders, the evaluator will be prepared to decide on the study design.

UNDERSTANDING PROCESS AND OUTCOME EVALUATIONS

In developing an evaluation design, it is important to remember that there are two aspects of an intervention that need to be evaluated: the processes and the outcomes. Exhibits 3, 4 and 5 display key characteristics and examples for evaluating processes and outcomes.

The process evaluation, sometimes known as formative evaluation, is designed to provide information with respect to (a) the fidelity of the implementation to the strategies planned and (b) the frequency and intensity of the various activities. It involves collecting, compiling and analyzing information related to program implementation. The process evaluation is based on the descriptions given in response to the Program Requirements Area discussed in Step 2, and the results describe how well the intervention was implemented. These results can be used for accountability purposes. Most important, a good process evaluation is the foundation for the outcome evaluation.

The outcome evaluation study is designed to determine whether an intervention produced the expected or intended effects. In other words, it determines whether and how well a program met its goals as delineated in the Goals Area; thus, the outcomes study provides important data on how effective the program is as a character education intervention. Outcome evaluations involve (a) collecting data about the districts and schools themselves and (b) using appropriate instruments to collect data from students, teachers, administrators, parents and community members with respect to specified intervention outcomes (the Goals Area).

In summary, the process evaluation determines how well an intervention is put into place, how well it delivers

EXHIBIT 3
KEY CHARACTERISTICS OF PROCESS AND OUTCOME EVALUATIONS

CHARACTERISTIC	PROCESS EVALUATION	OUTCOME EVALUATION
PURPOSE	To determine implementation fidelity (the extent to which intervention strategies and activities are done as planned, including adherence to schedules) To determine the frequency and intensity of the intervention activities To determine the extent to which the delivery of the intervention was achieved May be used to provide feedback to improve an intervention	To determine the extent to which the intervention as implemented achieved its intended goals and addressed the issues and needs it was intended to address
DESIGN	The process evaluation is designed to measure intervention implementation processes. Process evaluation begins at program inception and continues at varying rates throughout an intervention's lifecycle.	The outcome evaluation is designed to determine whether the intervention has met its purpose and goals. Several important design issues must be considered, including how to best determine the results and how to best contrast what happens as a result of the intervention with what happens without the program. Experimental designs use a combination of experimental groups and control groups to obtain the highest quality scientific answer to the question of outcome. Quasi-experimental designs are used when it is impossible to use experimental designs and when some comparison is needed.
REPORTING	Process evaluation findings are reported in lay language to all stakeholders, including the school community and funding agencies.	Outcome evaluation findings are reported as scientific research to SEAs, LEAs, and the professional and research communities through professional presentations, journals, and books as well as in reports to funding agencies, the school community, and other stakeholders.
USE OF FINDINGS	Findings cannot be generalized to future use of the intervention. Findings can be used to define and set new standards for the *present* intervention.	Findings can be used to support using the intervention in other school systems, while being sensitive to contextual differences and necessary adaptations.

its services, and how well it maintains fidelity to the program as designed. Then the outcome evaluation assesses an intervention's effectiveness in achieving its goals for positively affecting stakeholder groups, including students, teachers, schools, parents and the community.

Exhibits 3, 4 and 5 provide more details about process and outcome evaluations. Exhibit 3 presents four key characteristics of both process and outcome evaluations—the purpose, the research design to address the purpose, how the evaluation is reported and to whom, and how its findings can be used.

Exhibit 4 presents examples of research questions, methods, and the value of the results that should be considered when designing a process evaluation.

Exhibit 5 presents examples of questions, methods, and the value of the results for use when designing an outcome evaluation.

EXHIBIT 4
SAMPLE QUESTIONS, METHODS AND VALUE OF RESULTS FOR PROCESS EVALUATIONS

QUESTION	METHOD	VALUE OF RESULTS
To what extent was the intervention implemented as designed?	Compare the amount and range of activities done in the intervention with that prescribed by the program developers.	The comparison gives an indication of the fidelity of the implementation to the planned program and the frequency and intensity of the intervention activities.
What adaptations, additions and omissions were made when the intervention was implemented?	Record, describe and count.	Adaptations, additions and omissions affect the analyzing of data for the outcome evaluation.
To what extent were the character educators (e.g., teachers) trained?	Compare with the standards of optimal training as prescribed by the program developers.	The comparison gives an indication of the potential strength or weakness of the intervention.
To what extent are stakeholders informed and knowledgeable about the intervention?	Maintain records of meetings and presentations to stakeholders as well as questionnaire responses from stakeholders.	The information gives an indication of the range of stakeholders and their knowledge.

Although the content of these examples may be useful, each intervention has its own overall purpose and specific goals, and each evaluation project should capture the specific features related to it. The designs of the process and outcome evaluations should take into account the specific aspects of the intervention as spelled out in the program description developed in Step 2, with attention to local, state and federal guidelines relevant to the intervention.

Because an evaluation design focuses on intentional interventions, measurable outcomes, and procedures for measuring outcomes, the design determines not only what data will be collected but also what procedures will be used for data collection and analysis. The program description and evaluation research questions are the foundations for developing an evaluation plan, especially the research design.

UNDERSTANDING EXPERIMENTAL AND QUASI-EXPERIMENTAL RESEARCH DESIGNS

In an experimental research design, also known as a randomized controlled trial, outcomes are monitored and measured for two similar groups, called samples: (a) the intervention, or experimental, group and (b) the control, or nonexperimental, group. The participants who make up the groups are usually selected from a pool of potential individuals, classrooms or schools who have volunteered to receive services or to participate in an intervention or program. These individuals, classrooms or schools are then randomly assigned to either the experimental or control group.

Because the individuals, classrooms or schools are randomly selected in the exact same way to participate in one of the two groups, any differences between the groups should exist only by chance. All known (i.e., measurable) and unknown (i.e., not measurable) factors should be represented to the same degree in both groups. The unique advantage of random assignment is that it makes it possible for the evaluation process to isolate and determine whether the intervention itself caused the intended outcomes, with no other explanations being possible. The following example was offered in the U.S. Department of Education's publication, *Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User-Friendly Guide*:

> [You] want to test, in a randomized controlled trial, whether a new math curriculum for third-graders is more effective than your school's existing math curriculum for third-graders. You would randomly assign a large number of third-grade students to either an intervention group, which uses the new curriculum, or to a control group, which uses the existing curriculum. You would then measure the math achievement of both groups over time. The difference in math achievement between the two groups would represent the effect of the new curriculum compared to the existing curriculum. (USED/IES 2003, 1).

EXHIBIT 5
SAMPLE QUESTIONS, METHODS AND VALUE OF RESULTS FOR AN OUTCOME EVALUATION

QUESTION	METHOD (USED BEFORE AND AFTER INTERVENTION ON TWO OR MORE OCCASIONS)	VALUE OF RESULTS
Does the intervention affect school culture and targeted aspects of school climate?	Compare the change in school culture and targeted aspects of climate of intervention schools with the school climate of control or comparison schools.	Positive findings suggest that the intervention may be a source of positive school culture and aspects of climate.
Does the intervention positively affect school culture and targeted aspects of school climate? Do school culture and the targeted aspects of school climate affect student outcomes?	Use methods that assess (a) school culture and targeted aspects of school climate and (b) whether changes in the culture and climate of intervention schools are necessary or helpful in promoting positive student outcomes.	Positive findings suggest that the intervention changes school culture and targeted aspects of school climate and that those changes promote positive student outcomes.
Does the intervention promote higher levels of moral and value-based reasoning?	Compare intervention students' levels of moral and values-based reasoning with those of students in control or comparison groups, taking into account other aspects of the schools.	Positive findings suggest that the intervention promotes students' moral and values-based reasoning abilities.
Does the intervention promote more social and prosocial competencies and behaviors by students?	Compare intervention students' levels of social and prosocial competencies and behaviors with that of students in control or comparison groups, taking into account other aspects of the schools.	Positive findings suggest that the intervention increases students' social and prosocial competencies and behaviors.
Does the intervention promote fewer and less serious incidents requiring referrals to administrative offices for discipline?	Compare the occurrence of referrals to an administrator's office for intervention students with those of students in control or comparison groups, taking into account other aspects of the schools.	Positive findings suggest that the intervention results in fewer referrals to an administrator's office for disciplinary problems.
Does the intervention promote students' attachment to school and academic achievement (e.g., grades, test scores, portfolios and other school assignments)?	Compare intervention students' feelings of school attachment and academic achievement with those of students in control or comparison groups, taking into account other aspects of the schools.	Positive findings suggest that the intervention enhances students' feelings of attachment to school and promotes their academic achievement.
Do students perceive their schools as safe and caring?	Compare intervention students' perceptions of school safety and caring with those of students in control or comparison groups, taking into account other aspects of the schools.	Positive findings suggest that the intervention enhances students' sense of being safe and cared for at school.
Does the intervention increase teachers' use of student-centered pedagogies and learning activities?	Compare intervention teachers on their use of student-centered pedagogies and activities with that of teachers in control or comparison groups.	Positive findings suggest that the intervention changes the way teachers teach.
To what extent are parents (or other stakeholders such as school administrators, school support staff members, community members, local businesses and local community agencies) involved in school and school life?	Compare the extent to which parents with children in intervention schools are involved in their schools with the extent to which parents whose children are in the control or comparison groups are involved in their schools and school life.	Positive findings suggest that the intervention affects parent (or other stakeholders') involvement in school and school life.

In a variation on this basic concept, participants may be randomly assigned to a control group and to two or more different intervention groups, which enables one study to measure the effects of different interventions that target the same outcomes. For instance, a number of schools that use Character Education Intervention A might be measured against other schools that use Character Education Intervention B, and both of those groups might be measured against one or more control groups that did not implement any type of character education program.

Quasi-experimental design uses nonrandom procedures to assign students, classrooms or schools to intervention groups and to comparison groups that are assumed to comprise the same factors influencing the outcomes. Quasi-experimental design studies compare outcomes for those taking part in the intervention with outcomes for those in comparison groups. All groups are chosen through some method other than randomization.

Intervention and comparison groups are typically matched on a variety of characteristics. Schools are often matched by size, by grades included in the school, and by teacher and student composition. Classrooms are often matched by subject, learning track, and so forth. Students are usually matched according to background characteristics such as age, gender, and ethnicity as well as by measures of learning such as test scores and learning tracks. However, even groups that are well matched on criteria like these may still be very different with respect to other characteristics that may have an independent effect on the outcomes, especially in character education. Data from quasi-experimental studies are analyzed using statistical techniques that adjust for these other characteristics that (a) are found to be different between the two groups at the beginning of the evaluaton (its baseline) and (b) may independently explain any of the outcomes of interest.

Findings from nonexperimental studies such as quasi-experimental designs should be considered suggestive. There are always unmeasured factors or variables that cannot be studied. In other words, outcomes cannot be claimed to result exclusively from the intervention because they could be attributed to other considerations that either were outside the scope of the study or were never measured. Nevertheless, using some comparison groups that make an effort to match the program group is better than either no comparison or a simple pre–post study design.

For studies in the education field, intervention and comparison groups are often matched closely on characteristics such as the following:

- ★ Prior test scores and other measures of academic achievement, prosocial attitudes and behaviors, and moral and values-based reasoning abilities—preferably, the same measures that the study will use to evaluate outcomes for the two groups
- ★ Demographic characteristics such as age, sex, ethnicity, poverty level, parents' educational attainment, and single- or two-parent family background
- ★ Time period in which the two groups are studied
- ★ Methods used to collect outcome data (e.g., the same test of reading skills administered in the same way to both groups) (USED/IES 2003)

Exhibit 6 presents key characteristics of experimental and quasi-experimental designs, their cost, as well as their advantages and disadvantages.

In 2002, the Department of Education strengthened the priority for outcome evaluations for the Partnerships in Character Education Program as well as for many other programs. The Department expressed interest in evaluations that use rigorous, scientifically based research methods to assess the effect of character education interventions on student achievement or teacher performance. Both experimental designs with randomly assigned groups and quasi-experimental designs with carefully matched comparison groups were encouraged. It is important to note, however, that in 2004, the Department of Education broadened, in some circumstances, the types of evaluation research designs that could be considered scientifically based to include regression discontinuity and single case-study designs (USED/OSDFS 2004). For the purpose of this document, we will focus only on experimental and quasi-experimental designs.

EXHIBIT 6
EVALUATION DESIGN CHARACTERISTICS

DESIGN	CHARACTERISTICS	PERCENTAGE OF OVERALL PROJECT BUDGET[a]	ADVANTAGES	DISADVANTAGES
EXPERIMENTAL DESIGN	Incorporates random assignment of participants to intervention and control groups. The purpose of randomization is to ensure that all possible explanations for changes (measured and unmeasurable) in outcomes are taken into account, randomly distributing participants in both the intervention and control groups so there should be no systematic baseline differences. Intervention and control groups are compared on outcome measures. Any differences in outcomes may be assumed to be attributable to the intervention.	35–55 percent[b]	Most sound or valid study design available Most accepted in scientific community	Institutional policy guidelines may make random assignment impossible.
QUASI-EXPERIMENTAL DESIGN	Involves developing an intervention group and a carefully matched comparison group (or groups). Differences in outcomes between the intervention and comparison groups are analyzed, controlling for baseline differences between them on background characteristics and variables of interest.	35–55 percent[b]	More practical in most educational settings Widely accepted in scientific community	Finding and choosing suitable intervention and comparison groups can be difficult. Because of nonrandom group assignment, the outcomes of interest in the study may have been influenced not only by the intervention but also by variables not studied.

a. An evaluation budget may include, but not be limited to, the following: evaluator's fee, costs associated with acquiring parental consent, cost of IRB review, cost of printing and mailing surveys, cost of hiring and training data collectors.

b. The percentage of funds allocated for evaluation depends on the research design and the scale of the project. Large projects that include several sites (e.g., school districts) with many schools and thousands of participants will need a lower percentage of the overall budget than small-sized projects in one school district.

DECIDING SAMPLE SIZE

The entity—the student, classroom or school—that is to become the study's sample is called the *unit of analysis*. Because most character education interventions involve whole-school activities and school climate change, the entity studied may often be the school or the classroom. Ideally, an evaluation design should include an appropriate number of these units so results are meaningful. The number needed to detect a desired or expected difference in effects between the intervention and control or comparison groups can be determined through a technical statistical procedure called power analysis. The project evaluator should conduct an appropriate power analysis after determining whether the units will be students, classrooms or schools. Power analyses should be done during proposal development and should be included in the grant application narrative. A helpful resource is *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (Cohen et al. 2003). Another helpful resource is a recent paper "Statistical Power for Random Assignment Evaluations of Education Programs" (USED/IES 2005).

Randomly selecting or assigning the appropriate number of schools to intervention and control or comparison groups can make character education evaluation a challenge. The project director and evaluator should develop a plan for recruiting and retaining the sample of schools, classrooms or students throughout the study. It is important that the evaluator specify the sample characteristics and sample size and that the project director advise the evaluator about the feasibility of obtaining the desired number of schools or other units of analysis for the sample. A fully adequate sample, including one that is sufficiently large, is critical if the evaluation is to yield valid and reliable conclusions about the effects of the character education program.

RECOGNIZING THREATS TO VALIDITY

Project directors should be aware of the common issues that can threaten the validity of an evaluation. A valid evaluation study is one that uses sound measures, analyzes the data correctly for the design, and bases its inferences on the study's findings. Threats to the validity of a research evaluation may include the following:[4]

- ***Poor implementation of the intervention or lack of intervention fidelity***—If the implementation deviates from the intervention or program as designed by the developers, then the validity of the outcome evaluation will be compromised. Determining intervention fidelity is a key element of the process evaluation as described earlier in this chapter.
- ***Subject selection bias***—Intervention participants might differ from comparison participants in important ways that may affect the ability to detect the intended intervention effect. Including participants who volunteer to be a part of the evaluation or who are specifically targeted for participation may make it difficult to find comparable comparison groups. Consequently, selected participants in the intervention and comparison groups might not be matched in a balanced way; for example, one group may be more involved in school and after-school activities to begin with.
- ***Subject attrition***—Participants may drop out of the study or move out of the school or school district.
- ***Differential history of participants***—Participants may have different backgrounds that influence attitudes, competencies, and behaviors. This variation is less of a concern in experimental design because of the random assignment of the intervention and control groups.
- ***Problems with outcome measures, including poor validity, poor reliability or instrument reactivity***—Tools or surveys used for measuring outcomes of interest may not meet acceptable scientific standards, for example, instruments may not be field-tested before use in the study. Such problems could lead to design breakdown.

The evaluator should discuss the above issues with the project director during the planning process and should specify procedures to minimize the likelihood of these threats occurring. The best protection against design breakdown depends on well-planned and well-implemented interventions and evaluations that are executed in partnership by an informed and committed project director and evaluator, both of whom are supported by adequate time and resources.

4. You will find more discussion about possible threats to the validity of an evaluation in Step 7, Monitoring for Issues in Data Analysis.

DEVELOPING DATA COLLECTION PLANS AND PROCEDURES

The next component of the evaluation is the plan for data collection. The plan must specify the data needed and the data collection procedures to be used for each outcome identified in the program description. Although the evaluator should guide the development of the data collection plan—which must receive Institutional Review Board (IRB) approval (see Step 4)—the project director and school representatives should contribute substantially to the plan to ensure that data are gathered in a structured and systematic fashion that causes the least disruption to the schools' daily operations. Outlining the data collection procedures in advance is necessary to identify logistical problems; pinpoint how to ensure the collection of essential data; and in some cases, determine whether it is necessary to change the kind or amount of data collected. The data collection plan should include procedures to do the following:

- ★ Specify the data needed initially for the baseline and periodically throughout the time the intervention is evaluated
- ★ Obtain data to verify which and to what extent the purpose and goals were met and outcomes were achieved
- ★ Identify data sources (see Exhibit 7)
- ★ Design or obtain instruments or other means of collecting data (parent or teacher surveys, school attendance records, discipline referral forms, classroom observations, log sheets for parent contacts, activity logs, and interview formats)
- ★ Ensure that obtained instruments are valid (that they measure what they are supposed to measure), are reliable (that they measure what they measure in the same way each time they are used), and are developmentally and culturally appropriate
- ★ Ensure that measures developed for the evaluation (a) are analyzed for validity and reliability on the samples in the study and (b) are developmentally and culturally appropriate for the samples in the study
- ★ Secure (a) full parental consent and child assent for all evaluation-related procedures and (b) consent from all other adults in samples
- ★ Schedule data collection to create the least conflict with the school calendar and to occur at appropriate intervals (before implementation, periodically during the implementation, immediately after the implementation, and six months after the implementation if it has an end point)
- ★ Specify who will collect data (When possible, independent data collectors should be hired by the evaluator; when impossible, the evaluator may, in some cases, use staff members involved in the intervention, school personnel, or a combination.)
- ★ Administer instruments efficiently, being mindful of the length of time needed, materials required, training requirements, and type of administration (group versus individual)
- ★ Develop a data collection manual and training program or other means to collect data in ways that will ensure their validity
- ★ Score, manage and analyze data

Exhibit 7 provides data sources often used to collect the kinds of data usually assessed in evaluations of character education interventions and programs.

EXHIBIT 7
POTENTIAL DATA SOURCES

- School records (e.g., academic and discipline records)
- Program management information systems
- Program reports and documents
- Program and intervention staff members
- Intervention participants
- Family members of participants
- Members of a control or comparison group
- School administrators and teachers
- Experts and records from other agencies (e.g., criminal justice agencies, health agencies)
- Community grant partners

Exhibits 8 and 9 present examples of data collection matrices for process and outcome evaluations. Each matrix is incomplete, giving only a few examples of program components (Exhibit 8) and a few examples of measurable outcomes (Exhibit 9).

EXHIBIT 8
DATA COLLECTION MATRIX FOR PROCESS EVALUATIONS

EXAMPLES OF PROGRAM COMPONENTS	DATA ELEMENTS	DATA SOURCES	MEANS OF COLLECTING DATA	WHEN COLLECTED
Character education integrated into the curriculum	List of traits, values or specific program content and activities Integration into lesson plans Integration into teaching strategies	Curricula Project director's observation notes Lesson plans Intervention staff members Teachers Administrators	Teacher and administrator interviews Teacher self-reports	Throughout the year
Community partnerships	List of traits, values or specific program content and activities Character education priorities, mission or policy statement Meeting dates, times and content	Meeting attendance rosters Meeting minutes Action or strategic plans Parents Community members	Surveys Interviews Observation protocols Focus groups	Mid-year and end of year
Communication	Meeting dates, times and content	Project director Implementers School administrators	Project records of content activity Project director's feedback Evaluator's feedback	Mid-year and end of year

EXHIBIT 9
DATA COLLECTION MATRIX FOR OUTCOME EVALUATIONS

EXAMPLES OF MEASURABLE OUTCOMES	DATA ELEMENTS	DATA SOURCES	MEANS OF COLLECTING DATA	WHEN COLLECTED
Particular level of safety and caring in a school	Student, parent, teacher, administrator perceptions of school safety and school as a caring community	Students, their parents, teachers, and administrators	Surveys of students, parents, teachers, and administrators	Early spring each year
Decreased number and severity of incidents requiring referrals to administrative offices for discipline.	Acts against persons Acts against property Failure to comply with rules Possession of drugs or weapons	School records	Student referral tracking form	Periodically, with periods to be decided based on evaluation purposes
Improved student prosocial attitudes and behaviors, moral and values-based reasoning, social and emotional competencies	Curriculum activities, use of conflict resolution strategies, classroom discussions, community service	All students	Student surveys, observations, teacher reports, parent reports	Periodically, with periods to be decided based on evaluation purposes
Improved levels of achievement in reading, math and writing	Reading scores, math scores and writing scores on standardized tests Student course grades	All assessed students All students	Standardized tests School academic records	Spring each year or whenever standardized test scores become available

SUMMARY

An effective evaluation plan is built on and guided by the program description. It includes research questions, a study design, as well as data collection and analysis procedures. It should be shared with key stakeholders to ensure its credibility and to garner necessary school, district and community support. Finally, as is true for the program description, the evaluation plan should be developed by the evaluator, working closely with the project director.

RESOURCES FOR DEVELOPING EVALUATION PLANS

Publications

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Connell, J., A. Kubisch, L. Schorr, and C. Weiss, eds. 1995. *New approaches to evaluating community initiatives.* Vol. 1, *Concepts, methods and contexts.* Washington, D.C.: Aspen Institute Press.

Connell, J., K. Fulbright-Anderson, and A. Kubisch 1998. *New approaches to evaluating community initiatives.* Vol. 2, *Theory, measurement and analysis.* Washington, D.C.: Aspen Institute Press.

Higgins-D'Alessandro, A., and D. Sadh. 1997. The dimensions and measurement of school culture: Understanding school culture as the basis for school reform. *International Journal of Educational Research* 27 (7): 553–69.

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Shadish, W. R., Cook, T.D., and Campbell, D.T. 2002. *Experimental and Quasi-experimental designs for generalized causal inference.* Boston: Houghton-Mifflin.

U.S. Department of Education, Institute of Education Science (USED/IES). 2005. *Key items to get right when conducting a randomized controlled trial in education.* Prepared by the Coalition for Evidence-Based Policy, in partnership with the What Works Clearinghouse. Washington, D.C.: USED/IES. See http://www.whatworkshelpdesk.ed.gov/guide_RCT.pdf.

Van Houtte, M. 2005. Climate or culture? A plea for conceptual clarity in school effectiveness research. *School Effectiveness and School Improvement* 16 (1): 71–89.

Internet Resources

Building Capacity to Evaluate Group-Level Interventions—A source for Optimal Design software. See http://sitemaker.umich.edu/group-based/optimal_design_software.

Outcome Measurement Resource Network—A Web site maintained by the United Way, which makes resources related to the measurement of program outcomes available to the public. See http://national.unitedway.org/outcomes/library/pgmomres.cfm.

STEP 4
PREPARE AND OBTAIN INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

An Institutional Review Board (IRB) is a board established under federal regulations (34 CFR 97) to approve, request modification of or disapprove research activities, based on compliance with federal human subject regulations. An IRB may be established within a research university, private firm, nonprofit organization or even a school district. Its main charge is to protect human participants in studies by holding organizations and evaluators accountable to federal regulations that safeguard research participants.

If the U.S. Department of Education determines that a proposed project includes nonexempt human subjects research, then the Department will contact the grant applicant to request the materials needed for human subjects clearance. Next, grantees, including PCEP grantees, are required to submit information with respect to the proposed research plan to an IRB for review and approval before the evaluation can begin. The proposal submitted to the IRB should include evaluation protocol, data collection instruments, recruitment materials, consent documents and any other information that the IRB may require. A nonexempt human subjects research study also must have a federalwide assurance (FWA) to abide by federal regulations and an IRB approval for the particular study that is being proposed. Very few PCEP evaluations will be considered exempt from IRB review under the *Federal Policy for the Protection of Human Subjects,* or *Common Rule* (34 CFR 97; also see USED/GPOS 2005b). For the 17 federal agencies that have adopted it, the *Common Rule* governs the use of human subjects in research. In addition, PCEP evaluations must meet *Family Educational and Privacy Rights Act (FERPA)* requirements if student records are used and *Protection of Pupil Rights Amendment (PPRA)* requirements if student surveys are used (more information about these policies are in appendix A).

An FWA is a pledge that the entity will abide by federal regulations for protection of human subjects research (34 CFR 97; also see USED/GPOS 2005b) when conducting nonexempt human subjects research. Because an entity may conduct studies funded by various federal agencies, the Department uses the FWA, which is good for research funded by many federal agencies and can be renewed when it expires at the end of three years. An assurance applies to an organization such as a university. An evaluator affiliated with an organization should request to use its FWA. An FWA form and instructions are available online at http://www.hhs.gov/ohrp/. If an individual evaluator is not affiliated with an organization, then he or she can obtain an Independent Investigator Agreement from theDepartment of Education.[5]

Understanding and coping with the IRB process is new for many educators. This chapter offers an overview of the IRB process and criteria. (See also Step 5, which explores obtaining the consent of participants.) The project director must understand these topics because the human subjects protection that the IRB provides is important and because an evaluation that includes nonexempt human subjects research cannot proceed without IRB clearance.

All project team members and data collectors should understand the requirements for conducting ethical research with human participants. The National Institutes of Health offers a free online course in Human Participant Protections Education for Research Teams that many school-based researchers find useful (see resource list at the end of this chapter). In addition, many universities and other institutions participate in the Collaborative IRB Training Initiative (CITI), online training in protection of human subjects, which includes separate instructional modules for social and behavioral researchers (see resource list at the end of this chapter).

Nearly all research universities, many research firms and nonprofit organizations, and some urban school districts have their own IRBs. Most often, the evaluator handles the IRB submission process. If neither the evaluator nor project director is affiliated with an institution such as a university that has its own IRB, then they can choose from several options such as submitting the application to another entity's IRB, setting up and registering an IRB, or contracting for the services of a commercial IRB.

The evaluator will need to coordinate all the information that is included in the application for approval that is submitted to the IRB. Basically, an IRB will consider all of the elements listed in Exhibit 10 when determining approval for an evaluation.

5. More information about Independent Investigator Agreements can be found on the Department's Web site at http://www.ed.gov/policy/fund/guid/humansub/guidance.html.

EXHIBIT 10
CRITERIA USED BY AN INSTITUTIONAL REVIEW BOARD TO DETERMINE APPROVAL FOR AN EVALUATION

Study design: An IRB application should specify how participants are recruited, selected and assigned to groups; the reliability and validity of measures and data collection instruments; and the methods of data analysis.

Risks and benefits: The IRB evaluates (a) whether the risks to participants are reasonable in relation to the anticipated benefits and (b) the importance of the knowledge reasonably expected to result from the evaluation research.

Equitable selection of participants: The IRB usually (a) considers the purpose of the research and the place in which data will be collected and (b) closely examines any proposed study involving vulnerable subject populations such as children, prisoners, people with cognitive disorders, and economically or educationally disadvantaged people.

Identification of participants and confidentiality: The IRB reviews the researcher's planned methods for identifying and contacting potential participants as well as for ensuring participants' privacy and confidentiality.

Qualifications: The IRB ensures that the research procedures are consistent with sound research design and with protection of human participants. In addition, the IRB considers the adequacy of the facilities and equipment to be used not only in conducting the research but also in maintaining the rights and welfare of the participants.

Consent: The process of obtaining participants' consent to be included in the evaluation study goes to the heart of the matter of ethical research. The IRB often focuses a great deal of attention on the issue of consent.

Source: Adapted from Fink, 2005.

In addition to documentation to meet the criteria shown in Exhibit 10, the IRB application will usually include

- ★ the advance letters that will be sent to the participants in the study, including teachers and the families of students;
- ★ flyers or letters inviting people to participate in the study, if applicable;
- ★ the criteria for including participants in the study;
- ★ consent forms giving all study participants the opportunity to decide freely whether or not to participate (see Step 5 for more in-depth information about obtaining consent); and
- ★ procedures for students who do not want to participate or whose parents do not allow their participation.

The IRB committee then reviews the application to determine (a) whether the risks to participants are minimal and reasonable in relation to anticipated benefits and (b) whether the selection of participants is equitable. The IRB will take one of three actions: (1) approve the application, (2) return it for revision and resubmission, or (3) reject it outright. If the IRB does not approve the submission, it will state why and provide grantees with an opportunity to resubmit with the appropriate documentation or procedural changes.

Only after receiving approval notification from the IRB and after completing the approved participant consent procedures may data collection begin. The IRB approval is good for up to one year. If the research will still be under way at the approval's expiration date, it will need a continuation approval from the IRB.

RESOURCES FOR LOCATING AN IRB AND PROCEEDING THROUGH THE IRB PROCESS

Publications

Fink, A. 2005. *Evaluation fundamentals*. 2nd ed. Thousand Oaks, Calif.: Sage.

Sherblom, S. 2004. Issues in conducting ethical research in character education. *Journal of Research in Character Education* 1 (2): 107–28.

Internet Resources

Collaborative IRB Training Initiative—Online training in protection of human subjects. See http://www.citiprogram.org/citi_information.asp.

Office of Human Research Protections (OHRP), National Institutes of Health (NIH)—A database of registered IRBs, searchable by location, is available online. OHRP also provides information on federal-wide assurances. See http://ohrp.cit.nih.gov/search/asearch.asp.

Office of Human Subjects Research, NIH—This office provides free computer-based training and certification on the use of human subjects in research. See http://ohsr.od.nih.gov.

UCLA Online Training Portal—A source for online training for using human subjects in social and behavioral research. See http://training.arc.ucla.edu.

U.S. Department of Education—Information about protection of human subjects in research. See http://www.ed.gov/about/offices/list/ocfo/humansub.html.

STEP 5
OBTAIN APPROPRIATE CONSENTS TO CONDUCT THE EVALUATION

Step 5 involves meeting the requirements for obtaining consent as required by an IRB for research. The project director and the evaluator must obtain permission for subjects' participation as well as informed (sometimes called "active") consent and waivers of informed consent. They must also appropriately maintain anonymity and confidentiality for participants.

OBTAINING PERMISSION FOR PARTICIPATION

Federal regulations require that all participants in a research study consent to take part. They must be provided the opportunity to decide freely whether to participate—unless the research study uses only curricular-based tests given in the course of teaching (e.g., math and reading tests). Moreover, if the student is a minor and the research is supported by the U.S. Department of Education, then the parents also must have the opportunity to allow or not allow the child's participation. The two types of consent from students, parents and teachers are illustrated in Exhibit 11.

The terms *active consent* and *passive consent* are sometimes heard in discussing evaluations. The *Federal Policy for the Protection of Human Subjects,* or *Common Rule* provisions, use the term *informed consent* for *active consent*, and allow IRBs to waive informed consent under some conditions for minimal risk studies (34 CFR 97; also see USED/GPOS 2005b). In that case, the waiver can allow what is popularly referred to as *passive consent*. For frequently asked questions about this issue, see the NIH Web site http://grants.nih.gov/grants/policy/hs/faqs_applicants.htm.

EXHIBIT 11
TYPES OF CONSENT THAT MUST BE OBTAINED FROM STUDY PARTICIPANTS

TYPE OF CONSENT	REQUIREMENTS	PARTICIPANTS
Waiver of Informed Consent	Inform participants by letter about the study and request that they return the accompanying form only if they *do not wish* to participate.	Teachers Parents Students 18 or older Students younger than 18 (parental notification is needed)
Informed Consent	Participants must give *written consent* to participate in the study	Teachers Parents Students 18 or older Students younger than 18 (parental notification is needed)

Obtaining informed consent, as distinguished from a waiver of informed consent, is preferred. A signed form or another written affirmation definitively establishes informed consent. A waiver of informed consent provides permission by default—that is, consent simply by not saying no. Informed consent from parents will be required by an IRB in most cases of school-based research involving students.

Project directors should be aware that informed-consent procedures have both budget and timeline implications. Baseline data on human participants cannot be collected until after informed consent is obtained, which often can take six to eight weeks to acquire (Sherblom 2004). The costs associated with acquiring informed consent can range from the cost of postage for mailing consent forms to parents to the cost of staff time to reach parents who require multiple, individual follow-up contacts before they will return the consent forms.

While parents must consent to have their children participate in research, the students themselves are encouraged to assent to participate. It is important to make clear to both parents and students that all participation is

voluntary and that no penalty can result from declining to participate in research.

To decide whether or not to consent, participants and the parents of minor students must receive enough information about the evaluation to make an informed choice. The letter explaining the project can be sent on official school or district stationery and should include the elements outlined in Exhibit 12. Appendix C contains sample letters related to obtaining both informed consent and a waiver of informed consent. Letters of consent are also subject to IRB approval and must be included in the IRB application.

EXHIBIT 12
CONTENTS OF LETTERS REQUESTING INFORMED CONSENT

- Purpose of the research
- Who will conduct the evaluation and their contact information
- Study procedures
- Timelines
- Notification that participants can withdraw from the study at any time for any reason
- Potential benefits to the individual and to education
- Potential harm or risk of discomfort to the participant
- Procedures to maintain confidentiality of participants and results
- Information about how to get a copy of the results
- A place for prospective participants or their parents to sign, indicating that they agree to participate and that they understand the purpose of the study

MAINTAINING ANONYMITY AND CONFIDENTIALITY

In addition to obtaining consent, both the school staff members and the evaluator must ensure that all participants are protected so their responses will not jeopardize them legally, emotionally or personally. Anonymity and confidentiality are two strategies for protecting the right of individuals to privacy and for easing any hesitation they may have about participating.

Both confidentiality and anonymity assure participants that any data they provide through surveys, assessment interviews or focus groups cannot be traced back to them. Confidentiality is the promise of the evaluators not to reveal any personal or identifying information, although this information is collected. Each subject is assigned a code number to protect his or her identity. Protection of confidentiality requires that these code numbers, or other indirect identifiers, not be used at any time to indicate personal or identifying information. In other words, the evaluators know the identity of the participants, but do not reveal it in their reporting. This strategy allows the evaluators to track the coded numbers (rather than individually named people) for attrition, participation and long-term outcomes. Although the evaluators can trace the coded number back to the participant, they follow protocols that maintain the person's confidentiality (Posey, Davidson, and Korpi 2003).

With anonymity, however, names or code numbers are not used during the study so even the evaluators cannot identify a participant's data. Anonymity is used to encourage participants to provide more honest and complete answers. The disadvantage of anonymity is that the evaluators cannot follow individuals over time to assess long-term outcomes or participant attrition.

Character education evaluation protocols often involve the collection of information that participants consider sensitive (e.g., dishonest behavior, victimization, bigotry and problem behavior). Even if the information is not sensitive, it is the responsibility of the project director and evaluator to ensure that data are never treated casually. Procedures should be clearly articulated for keeping all evaluation data secure at all points in the collection, management, analysis, reporting and storage process. Procedures for secure storage or destruction and disposal of all data at the specified time after the end of the evaluation should be included in the IRB application. In some instances, the project director, the evaluator, or both may want to maintain and preserve data that have been collected and stored in a manner consistent with informed consent and IRB-approved methods so they can use it for further analysis or to inform future work on character education. Plans such as these should also be included in the IRB application.

RESOURCES FOR ADDITIONAL INFORMATION ABOUT OBTAINING INFORMED CONSENT FROM STUDY PARTICIPANTS

See Internet Resources on use and protection of human subjects at the end of Step 4 on page 29.

STEP 6
COLLECT AND MANAGE DATA

Step 6 involves collecting and managing data, including (a) enlisting and maintaining the participation of support personnel, the intervention implementers, and control or comparison groups; (b) conducting pilot tests; and (c) creating and implementing a data management plan, which includes training the data collectors and monitoring data collection.

ENLISTING AND MAINTAINING PARTICIPATION OF SUPPORT PERSONNEL, THE INTERVENTION IMPLEMENTERS, AND CONTROL OR COMPARISON GROUP STAFF MEMBERS

The initial and ongoing commitment of district and school administrators is critical to the success of evaluating any character education program. Schools are most likely to agree to participate and comply with evaluation design criteria if they (a) have a strong ongoing partnership with the evaluation team, (b) have confidence in the adequacy of the study to provide trustworthy answers to evaluation questions as well as in its feasibility, (c) believe that the study will lead to improvement in their school through implementation of the intervention, (d) believe that the intervention and its positive effects will be sustained beyond the research grant funding, and (e) hear from the project director and evaluator during the evaluation planning phase about efforts to minimize any disruptive impact of the study on the participating school (or schools). These considerations are especially important for control groups that may receive the intervention at a later date, should the study demonstrate effectiveness.

Efficient data collection requires commitment from the intervention staff as well as school administrators and personnel. One way to obtain that commitment is to engage the school personnel and the implementers in helping to plan the logistics for data collection and management. The school personnel—especially teachers—are likely to anticipate logistical problems that the project director, intervention staff members or the evaluator may not have realized. Having this information up front enables the evaluator to adjust the evaluation plan to avoid compromising the study.

The project director is in a unique position to reinforce to school staff members the value of the evaluation. An important message to convey is that evaluation results can help school staff members improve their character education strategies, which may lead to further improving student behaviors and academic performance. The evaluation is much more likely to succeed when schools, intervention staff members and the evaluation group have a sound relationship and a commitment to collecting data of high quality and usefulness.

The project director and evaluator also should develop a strategy for maintaining the commitment of the control or comparison groups and for monitoring their activities so differences between the intervention and control conditions are documented and preserved over the course of the study. Adequate time and resources should be allocated to developing and maintaining a good working relationship with the control or comparison group staff members.

CONDUCTING A PILOT ROUND OF DATA COLLECTION

A pilot round of data collection provides an opportunity to identify and correct any problems with the instruments or procedures before the evaluation begins. The pilot round helps the evaluation team to do the following:

- ★ Estimate the amount of time required for interviews, completing surveys and making observations
- ★ Determine whether participants can complete surveys without assistance from staff members or how much and what kind of assistance they will need
- ★ Identify what data on school records are available, complete and consistently maintained
- ★ Determine whether instruments measure the same phenomenon and take account of likely differences that can be attributed to culture, development and reading levels
- ★ Determine whether valid data can be obtained from instruments that have been translated into languages other than English

Pilot rounds may vary; they may include some or all instruments and participants from only some or all groups. Sometimes piloting is not necessary. The evaluator, in consultation with the project director, should determine its necessity and how extensive it will be.

CREATING A DATA MANAGEMENT PLAN

The evaluator should create a plan for monitoring data quality and the data collection process. If the data collectors have a plan for handling the data, they are better equipped to record and scan it for accuracy and completeness.

The data management plan gives evaluators the information they need to access and understand the data easily. Often, evaluators use several types of data to assess a particular outcome. For example, a program description may state that one goal is to improve students' prosocial behavior. Thus, before the intervention begins, evaluators might collect data on disciplinary referrals, might make in-class and out-of-class observations, and might conduct interviews with teachers, students and administrators, focusing on assessing prosocial behavior. These data may be collected at both the intervention and control or comparison sites. The evaluators would immediately examine these different kinds of data to determine their usefulness for assessing prosocial behavior and would then decide which, or which combination, of them to use.

TRAINING DATA COLLECTORS AND MONITORING THEIR WORK

Before data collection begins, it is important to provide formal training to everyone who will administer the data collection tools. The evaluator should prepare a data collection manual and go over the collection procedures in detail. The evaluator should hold a practice session during which the data collectors complete the instruments themselves and administer the instruments to one another.

After data collection begins, the process should include frequent reviews of the data and meetings with the data collectors to ensure that they are following the procedures consistently and are progressing according to plan. The evaluator or evaluation team members should review completed instruments as they arrive to make sure each is correctly and fully answered.

RESOURCE FOR ADDITIONAL INFORMATION ABOUT COLLECTING AND MANAGING DATA

U.S. Department of Education, Institute of Education Sciences (USED/IES). 2005. *How to conduct rigorous evaluations of math and science partnerships (MSP) projects: A user-friendly guide for MSP project officials and evaluators.* Prepared by the Coalition for Evidence-Based Policy, in partnership with the National Opinion Research Center of the University of Chicago. Washington, D.C.: USED/IES. See http://www.whatworkshelpdesk.ed.gov/sponsor.asp.

STEP 7
ANALYZE AND INTERPRET DATA

In Step 7, evaluators use processes that involve analyses and interpretation of results after the data have been collected, in addition to monitoring for common issues as each round of data is prepared for analysis. When analyzing data, the focus should be on intervention goals and evaluation questions. The evaluation should answer these basic questions:

- ★ Did intervention participants demonstrate the desired levels or changes in knowledge, attitudes, beliefs, behaviors or some combination of these outcomes?
- ★ Did the school demonstrate the desired level or change in its climate or culture (i.e., the school's physical environment, safety, social atmosphere and lessening of discipline problems)?
- ★ Were these observed levels and changes attributable to the character education intervention?
- ★ How can the results and information gained from the intervention be used to guide practice?

ANALYZING DATA ABOUT PROCESS OBJECTIVES

The analysis plan outlines strategies for analyzing, summarizing and reporting data. The analysis plan can include a content analysis of narrative reports, particularly of interview data. The plan should state as precisely as possible how to code, summarize and report narrative data. If the design is quasi-experimental, then the analysis plan also should include *dosage* or *intensity* data—that is, how much of each intervention activity was done, how many people were involved, and how much of each activity was administered to each participant for all outcome variables. In addition, analysis plans should include summaries of the number of times each participant engaged in each activity, the activity's intensity (e.g., 15 minutes or 2 hours), and the activity's duration or frequency (e.g., one Saturday morning or twice a week for 16 weeks). Detailed plans lay out the specific data to be analyzed, thus ensuring that the evaluator analyzes the different kinds of data appropriately.

ANALYZING DATA ABOUT OUTCOME OBJECTIVES

Assuming that the evaluation design includes a control or comparison group, analyses will compare outcome objectives (results) from participants in the character education intervention with the same outcome objectives from those in the control or comparison group. Data analyses will assess the relationship of the intervention to the predicted effects as specified in the evaluation plan, and the evaluation plan should specify a general analytical approach. For example, if the evaluation team specified different outcomes for students, staff members and parents, then the analysis plan would specify separate procedures appropriate for assessing the data from each group.

The evaluation design will also dictate appropriate methods for assessing the outcome data. For example, in quasi-experimental designs in which treatment and comparison groups are selected using chosen criteria, analysis of intervention characteristics—such as training and dosage—is often appropriate and necessary. In contrast, in experimental designs, analysis of training and dosage is often not appropriate. The evaluation plan also determines whether intermediate effects (e.g., the program affects school climate which then affects student outcomes) as well as final outcomes will be examined.

MONITORING FOR ISSUES IN DATA ANALYSIS

In general, the best way to prevent problems in the data is through careful planning during the proposal development phase and continuing teamwork throughout the project. Appendix D offers an Evaluation Checklist to assist the reader in that effort. However, even the best-laid plans can fall victim to unanticipated events that can affect the validity of a study. The evaluation design and team must be flexible if unavoidable changes in circumstances arise and must carefully document the context of and reasons for these changes to ensure that findings can be interpreted appropriately.

The project director should be aware of common issues that can negatively influence the soundness or validity of the study's findings and, as mentioned in Step 3, should work closely with the evaluator during the evaluation design process to specify procedures that will minimize the negative effect of these issues. The project director and evaluator should continue to work together during the data collection process to monitor procedures, and as each round of data is prepared for analysis, it

should be examined for evidence of each of the following common issues:

Lack of intervention fidelity. The process evaluation should determine the fidelity of the intervention. Intervention fidelity means that the program of intervention has been fully implemented as designed by the developers.

Partial treatment and contaminated control and comparison groups. Partial treatment occurs when some groups engage in only part of the intervention because they drop out or are noncompliant. A similar problem can occur in control or comparison groups if for any reason they are exposed to or contaminated by any aspects of the intervention. The most valid way to address these issues is to use an *intent-to-treat analysis.* An intent-to-treat analysis requires that data from all participants who were randomly chosen or assigned to an intervention group be used when examining the effects of the intervention. Intent-to-treat analysis also requires that those data from participants who were assigned to control or comparison groups and who may have received some aspects of the intervention be analyzed along with the other data for those groups. Under these circumstances, such control or comparison groups are considered contaminated. The strength of intent-to-treat analysis is that it gives answers about whether the group that was *targeted* for the intervention, on average, benefited from it. These answers address policy-relevant questions with respect to the benefits, effectiveness and overall cost of an intervention. The problems of partial treatment and of control and comparison group contamination are best solved by keeping in close contact with all groups and knowing what they are doing.

Attrition. The loss of individuals (e.g., students, teachers, parents), classrooms or schools can threaten the evaluation design. Baseline data collected on participants or groups before they dropped out should be compared with the same data for those individuals and groups who remain in the study. Differences should be noted, and in the event the dropped individuals cannot be followed, the study's results should be interpreted in light of the changed samples.

Consent bias. In all studies, it is probable that a group of people will decline to participate and that some will not return the consent form at all. Those who do not participate may have different characteristics from the people who consent to take part. Consent forms should include a choice of declining and a request for minimal background information relevant to the study's objectives. Differences between those who decline and those who participate should be noted. The best way to reduce this bias is to encourage everyone's participation in the study and to conduct random assignment after consent has been obtained.

Differential history of participants. Comparison groups should be chosen to match intervention groups as much as possible in terms of background characteristics. When participants can only be selected by nonrandom procedures (as in quasi-experimental design), the evaluator will need to use statistical techniques to account for the noncomparability between the intervention and comparison groups, but even in these cases, the evaluator cannot be sure that he or she has eliminated all effects of unknown factors on the outcomes.

Design breakdown. The term *design breakdown* refers to the poor or incomplete execution of an evaluation plan. It includes problems such as the replacement of the original randomly chosen or selected schools or classrooms with different ones either at the time data collection begins or during the evaluation study; schools or classrooms that drop out of the study; failure to collect data in the time frame set by the evaluation plan; and failure to collect data appropriately (untrained data collectors, too little time to complete task, etc). To avoid design breakdown, the project director must work with the evaluator to ensure that the full evaluation plan is implemented as designed.

Lack of measurement reliability. An unreliable measure is one that yields different responses depending on differences between interviewers or data collectors. Reliable measures are stable; participants' responses are not dependent on the interviewer or data collector. Results from reliable measures can be compared across different research studies. Lack of reliablity can be minimized by selecting measurement instruments with established reliability. If such measures do not exist, then the project director and evaluator may want to field-test instruments before using them in the actual evaluation study.

Lack of measurement validity. A measure that lacks validity does not assess the outcome it is supposed to measure. A valid measure does assess what it is designed to measure, which allows for comparison of results across studies. Lack of validity can be minimized by using field-tested instruments that have demonstrated reliability and validity. In the early stages of designing the evaluation plan, it is important to select instruments that measure the kinds of outcomes the intervention is expected to produce.

Response bias. The term *response bias* refers to the degree to which a self-report answer may not reflect reality

because of the respondent's misperception or deliberate deception. One type of response bias is social desirability, the tendency of individuals to give the answer that will provide the most favorable impression. A second type is instrument reactivity; that is, an effect that occurs when participants choose to respond differently than they normally would based on their perception of the intended goal of the instrument. Another form of response bias is item nonresponse, which occurs when the participant declines to answer certain questions. Finally, systematic bias occurs when treatment, control or comparison groups are more likely to answer certain kinds of questions than others. Evaluators can use multiple means to reduce the effects of response bias, including *triangulation*—the collection of data from three or more sources and the comparison of those who responded one way with those who responded differently to see whether they differ on demographic indices such as socioeconomic status, ethnicity and race, sex and age. Desirable response rates depend on the intervention and the participants, but generally, a 70 percent or better response rate provides usable data.

Contaminated or incorrect data (values that are out of data range). Before the analysis stage begins, data should be checked to ensure that results will be as accurate as possible. For example, evaluators should thoroughly check the data for values that seem out of place (e.g., a child received services eight days in one week).

DISPLAYING RESULTS OF THE ANALYSES

Although sophisticated statistical analyses are useful in evaluation, results are best displayed in clear, easy-to-understand charts and tables. Bar charts, pie charts, and simple tables often have the most effect on stakeholders, decision-makers, and even the scientific community. However, choosing the most appropriate vehicle through which to display results is key to expressing those results most effectively. Information can actually become more confusing if it is displayed in the wrong way. Appendix E provides guidance about the criteria to consider when choosing a particular type of display.

RESOURCE FOR ADDITIONAL INFORMATION ABOUT ANALYZING AND INTERPRETING DATA

U.S. Department of Education, Institute of Education Science (USED/IES). 2005. *Reporting the results of your study: A user-friendly guide for evaluators of educational programs and practices.* Prepared by the Coalition for Evidence-Based Policy, in partnership with the What Works Clearinghouse. Washington, D.C.: USED/IES. See http://www.whatworkshelpdesk.ed.gov/sponsor.asp.

STEP 8
COMMUNICATE EVALUATION RESULTS

Developing and implementing an effective strategy for communicating evaluation results is extremely important. Simply increasing the quantity and the accessibility of information does not guarantee that stakeholders who are seeking knowledge will find it—or will find it useful. Accessing, absorbing and applying information requires a substantial investment of time, often in short supply among the project directors of character education interventions. The evaluator should report the results to stakeholders and decision-makers in relevant and user-friendly terms (e.g., percentage of change or grade-level gain) so stakeholders can judge the educational significance.

Moreover, to communicate results successfully, the project director and the evaluator must specifically relate information to all of the intervention's various stakeholders. Possible avenues of communicating results include academic journals, newspapers, Web sites, formal reports, testimony to school boards and legislative bodies, and reports to parent-teacher organizations. With the exception of publication in academic journals (and, sometimes, newspapers), the project director is usually in charge of dissemination. The director should consult with the evaluator, particularly to avoid overstating the evaluation findings.

The content of each communication should be tailored to its audience because different aspects of the evaluation will interest some stakeholders more than others. What is communicated should depend on which information has the most meaning and value for a particular audience. Provide the most compelling information at the beginning of the presentation and state clearly any action that the specific audience should take based on the evaluation findings.

Communication should include a coordinated set of media, interpersonal and community-based strategies to influence awareness, attitudes and knowledge about desirable outcomes. The communication strategies and process can shape how the stakeholders use the evaluation results to make substantial and long-term decisions. The following guidelines may be helpful:

- ★ Communication vehicles should be varied and include written information and electronic media that can be disseminated internally among the stakeholders and externally.
- ★ Communications with stakeholders about results should build on a foundation of ongoing communications between the project director and stakeholders during earlier phases (i.e., before and during the intervention process).
- ★ The project director and evaluator must ensure that the information communicated is accurate and meaningful.

RESOURCES FOR COMMUNICATING EVALUATION FINDINGS

Torres, R.T., H.S. Preskill, & M.E. Piontek. 2005. *Evaluation strategies for communicating and reporting: Enhancing learning in organizations.* 2nd ed. Thousand Oaks, Calif.: Sage.

Tufte, E.R. 1983. *The visual display of quantitative information.* Cheshire, Conn.: Graphics Press.

CONCLUSION

Rigorous scientific evaluation of PCEP interventions is essential if character education is to secure a prominent and permanent place in our schools. Rigorous evaluation is the field's best means to achieve the following:

- ★ Acquire trustworthy information by which to continuously improve character education, thus advancing theories and knowledge of how programs work and why they are effective
- ★ Increase our understanding of how character education affects cognitive, emotional and social developmental processes of children and youths, thus enhancing theories of human development
- ★ Increase our understanding of how to create effective collaborations among project directors and staff members, teachers and administrators, evaluators and community stakeholders, thus strengthening development, implementation and support for character education
- ★ Demonstrate character education's effectiveness to policymakers and decision-makers who can commit the necessary time and resources to the adoption and implementation of character education programs in K–12 schools

Rigorously evaluating character education interventions is both possible and worthwhile. Success depends on careful planning, a strong stakeholder partnership, a collaborative team effort, and adequate resources. The U.S. Department of Education is pleased to offer this guide not only to the many current and future grantees funded under the Partnerships in Character Education Program but also to others who are embarking on the task of scientifically based evaluation of their character education projects. Rigorous evaluation will help to ensure that our young people and communities receive the benefit of interventions that have demonstrated effectiveness.

As evaluation becomes a manageable task for collaborative teams and leads to improved evaluation processes, character education programming and its outcomes will be enhanced. The vision is that effective character education programs will create healthier environments in our schools and communities—environments in which children can develop competencies, learn skills, and practice behaviors to become people of excellent character who are motivated to succeed personally, achieve academically and serve their communities.

APPENDIX A: PERTINENT FEDERAL REGULATIONS

This appendix outlines information on two federal regulations that are essential for project directors and evaluators: The *Family Educational Rights and Privacy Act* (*FERPA*) and the *Protection of Pupil Rights Amendment* (*PPRA*).

The Family Educational Rights and Privacy Act (FERPA)

Statute: 20 U.S.C. Section 1232g. Regulations: 34 CFR Part 99.

FERPA provides that an education agency or institution, such as a local education agency (LEA), that receives U.S. Department of Education funds may not have a policy or practice of denying parents the right to do the following:

- ★ Inspect and review their child's education records (34 CFR Section 99.10)
- ★ Seek to amend their child's education records (34 CFR Sections 99.20, 99.21 and 99.22)
- ★ Consent to the disclosure of personally identifiable information from their child's education records except as specified by law (34 CFR Sections 99.30 and 99.31). The consent must (a) specify the records that may be disclosed, (b) state the purpose of the disclosure, and (c) identify the party or class of parties to whom the disclosure may be made. There are, however, certain specific exceptions to FERPA's general consent rule, which will be discussed below.

LEAs must annually notify parents and eligible students of their rights under *FERPA* (34 CFR Section 99.7). These rights transfer to the student when he or she reaches the age of 18 years or attends a postsecondary educational institution at any age ("eligible student").

If the LEA or education institution under the LEA wishes to disclose "directory information" from education records, it is required by *FERPA* (34 CFR Section 99.37) to notify parents and eligible students of the types of information it has designated as directory information and to provide an opportunity for the parent or eligible student to opt out of the disclosure of directory information.

LEAs must also comply with *FERPA*'s redisclosure and recordation provisions, set forth in 34 CFR Sections 99.32 and 99.33, except for disclosures that are specifically exempted.

As noted above, the general rule is that a parent or eligible student shall provide a signed and dated written consent before an LEA may disclose personally identifiable information from education records; there are, however, certain specific exceptions. *FERPA* permits LEAs to make disclosures, without consent, to the following or under the following conditions:

- ★ School officials with a legitimate educational interest (as defined in annual notification)
- ★ Other schools in which the student seeks or intends to enroll
- ★ Federal, state and local *educational* authorities under certain conditions
- ★ Organizations conducting studies on the school's behalf, which the school has authorized, for certain purposes
- ★ To comply with lawfully issued subpoenas or court orders
- ★ Appropriate parties in connection with a health or safety emergency

This list is a partial listing of the disclosures permitted under *FERPA* without consent. For guidance about specific circumstances involving the disclosure of personally identifiable information from students' education records, school officials can contact the Family Policy Compliance Office (FPCO) by sending an e-mail to FERPA@ed.gov. FPCO's Web site is http://www.ed.gov/policy/gen/guid/fpco/index.html.

Protection of Pupil Rights Amendment (PPRA)

Statute: 20 U.S.C. Section 1232h. Regulations: 34 CFR Part 98.

PPRA was amended by the *No Child Left Behind Act of 2001* to give parents more rights with respect to the surveying of minor students and the collection of information from students for marketing purposes and for certain nonemergency medical examinations. Some of the requirements with respect to surveys are mentioned here.

In general, *PPRA* governs the administration to students of any "survey, analysis, or evaluation" that concerns one or more of the following eight protected areas, which covers "information concerning:

1. Political affiliations or beliefs of the student or the student's parent
2. Mental or psychological problems of the student or the student's family
3. Sex behavior or attitudes
4. Illegal, anti-social, self-incriminating or demeaning behavior
5. Critical appraisals of other individuals with whom respondents have close family relationship
6. Legally recognized privileged or analogous relationships such as those of lawyers, physicians and ministers
7. Religious practices, affiliations or beliefs of the student or student's parent
8. Income (other than that required by law to determine eligibility for participation in a program or for receiving financial assistance under that program)" (*PPRA*, 20 U.S.C. Section 1232h).

Local education agencies (LEAs) must provide parents and students effective notice of their rights under *PPRA*.

Additionally, an LEA must "directly" notify, such as through the U.S. mail or e-mail, parents of students who are scheduled to participate in the administration of any survey containing one or more of the eight protected areas of information listed above, regardless of the funding of the survey. The notice must provide parents (a) with an opportunity to review the survey and (b) with an opportunity to opt out of having their child participate in the survey. LEAs must obtain active consent and may not use a passive procedure (e.g., opting out by not responding) before a student is required to participate in such a survey that is funded in whole or in part with U.S. Department of Education funds.

LEAs are also required to adopt policies—in consultation with parents—with respect to privacy issues, including the surveying of students, inspection of instructional material, and the administration of physical examinations or screenings.

For further guidance about specific circumstances involving the administration of surveys or other requirements in *PPRA*, school officials can contact FPCO by sending an e-mail to PPRA@ed.gov. Additional information is on the FPCO Web site: http://www.ed.gov/policy/gen/guid/fpco/index.html.

School officials can find a model of a notice and other helpful information related to *PPRA* and *FERPA* on the Web site of the Family Policy Compliance Office (FPCO): http://www.ed.gov/policy/gen/guid/fpco/doc/pprasuper.doc.

APPENDIX B: OVERVIEW OF *SCHOOL CLIMATE* AND *SCHOOL CULTURE*

School climate is a multidimensional idea encompassing both objective characteristics of the school and perceptions of the school as a place to work and learn. Research on the influence of school climate on student performance and character has focused on various aspects and more often examined perceptions rather than objective indicators. Because it is important for character education evaluation studies to consider school climate and the more specific idea, school culture, detailed definitions are offered here. School climate includes

- ★ Physical, spatial and temporal characteristics related to building structure, size, location, and structure of space and time (e.g., schools within a school, classroom size and arrangements, and length of classes, etc.);
- ★ Social characteristics related to a school's profile, including percentage of students who receive free or reduced price meals; diversity of student body and staff; and teaching staff characteristics (e.g., male to female ratio, age profile, professional degrees and years of experience);
- ★ Changeable characteristics related to a school's profile, including school mission and goals; school leadership; performance indicators (e.g., grades and standardized test scores); safety (e.g., presence of security officers, police officers or both in or around school, and levels of violence and drug abuse); levels of prosocial behaviors; instructional materials and quality; and attractiveness of halls and classrooms; and
- ★ Changeable perceptions of students, teachers, staff and parents about the above three sets of characteristics.

School culture, another changeable aspect of school climate, which includes the values, traditions, norms, shared assumptions and orientations, and social expectations that express a school's distinctive identity. Two particular aspects are

- ★ Indicators of social systems, including student, teacher, staff and parent behavior within and among groups; school rules and policies; school safety; and relationships between the school and the community; and
- ★ Perceptions of social expectations, including students', teachers', administrative staff's and parents' sense of trust and respect for one another; their sense of fairness of rules and policies and responsibility for upholding them; sense of school safety; sense of the school as a place of learning; expectations of student achievement; and feelings of school spirit or pride.

APPENDIX C:
SAMPLE LETTERS TO PARENTS (IN ENGLISH AND SPANISH) AND TO SCHOOL STAFF MEMBERS AS WELL AS SAMPLE STUDENT ASSENT FORM

The following letters are examples of informed consent letters that have been used in projects funded through the Partnerships in Character Education Program. Evaluators will need to customize these examples to fit their particular research design and the intervention context. Additionally, any consent form or letter concerning students must meet the requirements of *PPRA*, and school officials should be aware of these requirements.

SAMPLE LETTER TO PARENTS FOR WAIVER OF INFORMED CONSENT (PASSIVE CONSENT)

[School Letterhead]

[Date]

Dear Parent or Guardian:

[Number of schools] schools in [Name of school district] have been offered the opportunity to work with [University/Evaluator/Implementation Group Name] in implementing the [Name of project], designed to improve schools by providing a more caring environment for students. A partnership of school, home and community, [Name of project] emphasizes positive character traits by integrating them into everyday classroom activities.

Our school is one of the schools selected to participate in this federally funded project. [Number of schools] of the schools are implementing the [Name of project] this year. The remaining schools will be implementing it in subsequent years.

As part of the project, we need to collect information from your child. A voluntary survey will be administered in Feb. to all [Grade levels, for example, 4th, 8th, and 11th] graders at the grant schools. It will take only about 20 minutes to complete. The survey questions will focus on your child's participation in school activities, his or her opinions about how students and teachers cooperate within the school, and his or her feelings toward school.

In January, some parents may also receive a survey in the mail to complete. Should you receive one, it is important that you complete the survey and return it in the stamped envelope to the central location indicated, where it will be processed by an independent third party who will keep any identifying information confidential.

The student and parent survey data will then be summarized along with staff information for use in program planning. All survey information will be compiled in statistical summary form only. No individual survey information will be used.

A copy of the student survey is in the school office and available for you to examine. Should you prefer that your child not take the survey, simply contact the school.

Sincerely yours,

[Principal]

APPENDIX C

SPANISH VERSION OF SAMPLE LETTER TO PARENTS FOR WAIVER OF INFORMED CONSENT (PASSIVE CONSENT)

MUESTRA DE LA CARTA A LOS PADRES DE FAMILIA PARA EL CONSENTIMIENTO PASIVO

[Membrete de la Escuela]

[Fecha]

Estimados Padres o tutores:

A [número de escuelas] escuelas en [nombre del distrito de la escuela] se le ha dado la oportunidad de participar con [Nombre del grupo de Universidad/Evaluador/implementación] en la implementación de [nombre del proyecto], que ha sido diseñado para mejorar las escuelas que proporcionan un ambiente más comprensivo a los estudiantes. [Nombre del proyecto] es una alianza entre la escuela, el hogar, y la comunidad que acentúa los rasgos positivos del carácter, integrándolos en las actividades diarias del aula.

Nuestra escuela es una de las escogidas para participar en este proyecto, lo cual es financiado por el gobierno federal. [Número de escuelas] de las escuelas aplicarán el [Nombre del proyecto] este año. Las escuelas restantes lo harán en años subsiguientes.

Como parte del proyecto, necesitamos pedir información a su niño. Se llevará a cabo una encuesta voluntaria durante el mes de febrero para todos los estudiantes en los grados [por ejemplo, 4, 8, y 11] de las escuelas participantes. La encuesta tomará aproximadamente veinte minutos. Las preguntas de la encuesta se enfocarán en la participación de su de niño en las actividades dentro de la escuela, sus opiniones sobre cómo los estudiantes y los maestros cooperan dentro de la escuela, y sus sentimientos hacia la escuela.

Es posible que en enero algunos padres reciban también una encuesta por correo. Si la recibe, es importante que usted complete la encuesta y la devuelva en el sobre con franqueo pagado al lugar indicado, donde será procesada por una entidad independiente que protegerá sus datos personales.

Se creará un resumen de los datos recibidos de los padres, los estudiantes y la información del personal escolar para asistir en la planificación del programa. Toda información de la encuesta se proporcionará solamente en resumen estadístico. No se proporcionará ninguna información de encuesta individual.

La escuela guarda una copia de la encuesta del estudiante que usted puede examinar. Si prefiere que su niño no tome la encuesta, simplemente comuníquese con la escuela.

Atentamente,

[Director]

SAMPLE LETTER TO PARENTS FOR INFORMED CONSENT (ACTIVE CONSENT) AND PARENTAL CONSENT FORM

[School Letterhead]

[Date]

Dear Parent or Guardian:

Your child has a wonderful opportunity to participate in an innovative program through the [School district name]. This year, your child's school has chosen to be a part of the [Name of Project]. [State purpose and activities of project.]

The *No Child Left Behind Act of 2001*, which emphasizes "safe schools and strong character," encourages just this type of educational program. President Bush has quoted Martin Luther King Jr., who said, "Intelligence plus character—that is the true goal of education." This project is funded by the U.S. Department of Education under the Partnerships in Character Education Program. According to the Department, character education addresses themes such as caring, civic virtue and citizenship, justice and fairness, respect, responsibility, trustworthiness, and giving.

We Need Your Help

An integral part of the project is an evaluation of its effectiveness. [State project goals and research questions.] We need your permission for your child to participate in the evaluation research so we can measure the outcomes.

Your child's participation will involve the completion of a pretest survey at the beginning of the school year and a posttest survey at the end of the school year. Your child will complete this survey along with those in his or her entire class whose parents have given permission to participate. These surveys are available for you to read in the principal's office.

Each survey will take 30 to 45 minutes to complete. Your child's teacher may also complete an observation of your child's behavior at the beginning of the school year and again at the end of the school year. To study changes in student achievement and behavior, we will also be collecting student records, including grades, discipline records and standardized test scores. Finally, we will randomly select some students to participate in small discussion groups. All information collected in this study will remain confidential.

Your child's participation in this research study is completely voluntary. Your decision to allow your child to participate will not affect your child's current or future relationship with his or her teacher, school or after-school program. You are free to withdraw your child from this study at any time.

Questions You Might Have

Why is this research being done? This study is being conducted to measure the effect of a classroom-based character education program on students and teachers. We will also evaluate the effectiveness of the interventions and, later, plan to expand the study to include your entire school and community. We want to ensure that we are providing an intervention that is beneficial to our students, so we are asking approximately [Number] students and their teachers to participate in this initial study during the [200X—200Y] school year.

APPENDIX C

Sample Letter to Parents for Informed Consent (Active Consent) and Parental Consent Form *(continued)*

What is the purpose of this research? We hope to determine that the [Name of project] will result in [Stated intended results such as increased student involvement in schools, increased awareness of character elements and themes, improved student behavior, and increased academic achievement]. If these results are achieved, then we will be able to share character education programs and resources used in the project with more schools in your district and throughout the country.

What procedures are involved? There is no cost for your child to participate in this research. If you agree to your child's participation, then he or she will complete two identical character education surveys. The first survey will be given in the fall, [Month, year], and the second survey will take place in the spring, [Month, year]. In addition, your child may be asked to participate in a small group discussion. All information will be collected by [Name of project or office] staff members.

Are there potential risks and discomforts? We do not anticipate any risks to your child as a result of participating in this study. Your child may feel slight discomfort responding to questions about citizenship, beliefs and practices in personal relationships, integrity, unlawful and antisocial behavior, honesty, ethical behavior, and respect for self and others. Students are *not* required to answer any questions that they do not wish to answer.

What about privacy and confidentiality? Any and all information provided by your child will be kept confidential. All participants will be assigned an ID number for evaluation purposes. This number will *not* be the same as your child's student ID number, and it will not be possible for anyone except the evaluator to identify your child's name through use of this research ID number. The evaluator has promised not to reveal any personal or identifying information; thus, privacy and confidentiality of your child's records will be preserved.

What are the benefits of taking part in the research? The research collected for this study may improve the implementation of both the lessons and character education programs in your child's classroom. This research will also inform and improve future implementation of schoolwide programs in your child's school. Both you and your child can feel satisfaction in knowing that you are contributing to a study that will help us to develop better character education programs that will positively influence student behavior and academic achievement.

Can I remove my child from the study? You can choose whether your child participates in this study. You may withdraw your child from this study at any time without consequences of any kind.

Whom should I contact if I have questions? The researcher conducting this study is [Evaluator's name, Organization name]. If you should have any questions about this research study, you can contact [Evaluator's name] by phone at [Phone number] or through e-mail at [E-mail address].

Remember:

Your consent in this research is voluntary. You may choose to withdraw your child at any time. To allow your child's participation, please sign the attached consent form and return it to your child's teacher.

Sincerely yours,

[Principal]

Parental Consent Form

I/We _____ understand that staff members from the [Organization name] will conduct a research study in my/our child's classroom. The purpose of the research study is to measure changes in students' knowledge, attitudes and behaviors. As a part of this research study, my/our child may be asked questions about citizenship, beliefs and practices in personal relationships, integrity, unlawful and antisocial behavior, honesty, ethical behavior, and respect for self and others.

1. I/We also understand that I/we have the right to inspect all survey instruments before they are administered to my/our child. Copies of the survey instrument and lesson samples may be reviewed in the principal's office.
2. I/We hereby give permission for my/our child _____ to participate in the [Name of Project] research study conducted by the [Name of school].

Date: _____ _____

Print Child's Name

_____ _____

Parent/Guardian Printed Name Parent/Guardian Signature

_____ _____

Parent/Guardian Printed Name Parent/Guardian Signature

APPENDIX C

SPANISH VERSION OF THE SAMPLE LETTER TO PARENTS FOR INFORMED CONSENT (ACTIVE CONSENT) AND PARENTAL CONSENT FORM

MUESTRA DE CARTA A LOS PADRES PARA EL CONSENTIMIENTO INFORMADO (CONSENTIMIENTO ACTIVO) Y PLANILLA DE CONSENTIMIENTO DE LOS PADRES

[Membrete de la escuela]

[Fecha]

Estimados padres o tutores:

Su niño tiene una gran oportunidad de participar en un nuevo e innovador programa a través del [Nombre del distrito escolar]. Este año, la escuela de su hijo participará en [Nombre del proyecto]. [Indique propósito y actividades del proyecto.]

La Ley *Que Ningún Niño se Quede Atrás del 2001*, que enfatiza "la seguridad de las escuelas y el sólido carácter de los estudiantes", estimula este tipo de programa educativo. El Presidente Bush ha recordado una frase de Martin Luther King Jr., quien dijo, "La inteligencia más el carácter—esa es la verdadera meta de la educación". Este proyecto está financiado por el Departamento de Educación de EE.UU. mediante el Programa Alianzas en la Enseñanza del Carácter. Según el Departamento de Educación, la enseñanza del carácter hace énfasis en temas tales como la solidaridad, virtud cívica y ciudadanía, justicia e imparcialidad, respeto, responsabilidad y generosidad.

Necesitamos su ayuda

Una parte esencial del proyecto es una evaluación de su eficacia. [Mencione las metas del proyecto y las preguntas de investigación]. Necesitamos su permiso para que su hijo pueda participar en este estudio y para poder medir los resultados.

La participación de su niño incluirá llenar una encuesta al principio del año escolar y otra al terminar del año. Su niño tomará esta encuesta junto con sus compañeros de clase que han recibido el permiso de sus padres para participar. Las encuestas están disponibles en la oficina del director de la escuela de su hijo para que usted las pueda ver.

Cada encuesta tomará de 30 a 45 minutos. El profesor de su niño también podría evaluar la conducta de su niño al principio y al fin del año escolar. A fin de poder estudiar los cambios en los logros académicos y la conducta de los alumnos, también obtendremos los archivos de cada uno, incluidos las calificaciones, los archivos disciplinarios y los resultados en los exámenes estandarizados. Finalmente, seleccionaremos al azar a algunos de los alumnos para que participen en pequeños grupos de discusión. Toda información colectada en este estudio permanecerá confidencial.

La participación de su hijo en este estudio es completamente voluntaria. La decisión que usted tome no afectará la relación actual o futura de su niño con sus maestros, la escuela o con las actividades después de las horas de clases. Usted puede separar a su hijo del estudio en cualquier momento.

Preguntas que usted podría tener

¿Por qué se está haciendo este estudio? Este estudio se llevará a cabo con el propósito de medir en los estudiantes y los profesores el impacto del programa de enseñanza de carácter que se realiza en el salón de clase. También

evaluaremos la efectividad de las intervenciones y más tarde ampliaremos el estudio hacia toda la escuela y la comunidad en general. En breve, queremos asegurar que estamos proveyendo un programa que beneficie a nuestros estudiantes. Para cumplir con este objetivo, estamos solicitando a aproximadamente [Número] estudiantes y a sus profesores a participar en este estudio durante el año escolar [200X-200Y].

¿Cuál es el propósito de este estudio? Esperamos determinar si [Nombre del proyecto] resultará en [Mencione los resultados deseados tales como el incremento de la participación de los estudiantes en la vida estudiantil, mayor conciencia sobre los elementos del carácter y un mejor desempeño académico]. Si se obtienen estos resultados, entonces podremos compartir los programas de la enseñanza del carácter y los recursos utilizados en el proyecto con más escuelas en su distrito y en todo el país.

¿Cuáles son los procedimientos? No cuesta nada participar en el estudio. Si usted autoriza la participación de su niño en este proyecto, él o ella llenará dos encuestas idénticas sobre la enseñanza del carácter. La primera será administrada en el otoño [mes, año] y la segunda en la primavera [mes, año]. Adicionalmente, se le puede pedir a su hijo que participe en un pequeño grupo de discusión. Toda la información será recolectada por el personal de [Nombre del proyecto].

¿Existen posibles riesgos e incomodidades? No anticipamos ningún riesgo para su hijo como resultado de participar en el estudio. Su hijo puede sentir una ligera incomodidad al responder a preguntas sobre la ciudadanía, las creencias y prácticas en las relaciones personales, la integridad, la conducta antisocial e ilegal, la honestidad, la conducta ética y el respeto por sí mismo y por otros. Los estudiantes *no* tienen que responder a ninguna pregunta a la cual no desean responder.

¿Qué hay sobre la privacidad y confidencialidad? Toda información proveída por su hijo permanecerá confidencial. A todos los participantes se les asignará un número de identificación para los propósitos de la evaluación. Este número será distinto al número de identificación escolar de su hijo, y *no* será posible que nadie, excepto el evaluador, identifique a su hijo a través del código de investigación. El evaluador ha prometido no divulgar ninguna información personal o que pueda identificar a su hijo. Esto garantizará la confidencialidad y privacidad de los documentos de su hijo.

¿Cuáles son los beneficios de este estudio? Las investigaciones recopiladas en este estudio podrían mejorar las lecciones en la clase y los programas sobre la enseñanza del carácter. Este estudio también informará y mejorará la futura implementación de programas muchos más amplios en la escuela de su hijo. Usted y su hijo pueden sentirse orgullosos al darse cuenta que están contribuyendo a un estudio que nos ayudará a desarrollar mejores programas para fortalecer la conducta y el éxito académico.

¿Puedo retirar a mi hijo del estudio? Usted decide si su hijo participa o no en el estudio. Usted puede retirarlo del mismo sin ningún tipo de consecuencia.

¿A quien debo llamar si tengo alguna pregunta? El investigador que conducirá el estudio es [Nombre del investigador y de la organización]. Si usted tiene alguna pregunta sobre el estudio puede comunicarse con [Nombre del evaluador] por teléfono al [Número de teléfono] o puede enviar un mensaje a [dirección electrónica].

Recuerde:

Recuerde que su participación es voluntaria. Usted puede retirar a su hijo en cualquier momento. A fin de permitir la participación de su niño, por favor firme el formulario de consentimiento adjunto y regréselo al profesor de su hijo.

Atentamente,

[Director]

Spanish Version of the Sample Letter to Parents for Informed Consent (Active Consent) and Parental Consent Form
Muestra de carta a los padres para el consentimiento informado (consentimiento activo) y planilla de consentimiento de los padres *(continued)*

Solicitud de consentimiento del padre

Yo/Nosotros_____entendemos que miembros del personal de [Nombre de la Organización] conducirán un estudio en el salón de clase de mi/nuestro hijo. El propósito es medir cualquier cambio en el conocimiento, actitud y conducta de los alumnos. En este estudio se le podrían hacer preguntas a mi/nuestro hijo sobre la responsabilidad como ciudadano, las creencias y prácticas personales, la integridad, la conducta antisocial e ilegal, la honestidad, la ética, y el respeto por sí mismo y por otros.

1. Yo/nosotros también entendemos que tenemos el derecho de inspeccionar todos los materiales a utilizarse en la encuesta antes que sean administrados a mi/nuestro hijo. Una copia de la encuesta, así como ejemplos de tópicos a usarse, pueden ser revisadas en la oficina del Director de la escuela de mi/nuestro niño.
2. Yo/Nosotros, por tanto, damos nuestro consentimiento para que nuestro hijo_____ participe en el estudio de [Nombre del proyecto] conducido por [Nombre de la escuela].

Fecha _____ _____
Escriba el nombre del niño

_____ _____
Escriba el nombre del padre o tutor Firma del padre o tutor

_____ _____
Escriba el nombre del padre o tutor Firma del padre o tutor

SAMPLE LETTER REQUESTING CONSENT FROM SCHOOL STAFF MEMBERS FOR PARTICIPATION IN RESEARCH

Note that this memo would be copied twice. The participants would sign the consent form in one copy and save the other copy for reference. The signed copy would be returned to the organization sponsoring the research. After receiving the signed copy from the participant, the researcher would then sign that copy.

[Research organization letterhead]

To: School Staff Member

From: [Research organization]

Re: Consent and permission for participation in research for [Name of project]

You are being asked to participate in a research study to find out how to help students behave better and achieve more in school. This study is being conducted by [Researcher name] from the [Name of research organization]. *You have been asked to participate because you are an employee of a school that is participating in the study*. We ask that you read this form and ask any questions you may have before agreeing to be in the research study.

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future relations with either your employer or the [Research organization]. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

Why is this research being done? This study is being done because we are interested in finding correlates or predictors of student character, social skills, behavior and academic achievement. To do this, we are asking students, parents, and school staff and administrators to answer [Number of surveys] surveys over the next [Number of years] years. During this time, we will be asking staff, students and parents from [Number of schools] [Geographic area name] elementary schools to complete the surveys. The staff survey should take about 30 minutes to complete.

What is the purpose of this research? If we are able to determine what affects student character, behavior and academic achievement, then we will be able to develop better programs that will help to decrease problem behaviors and increase academic achievement in our schools.

What procedures are involved? If you agree to be in this research, we would ask you to fill out a total of [Number of surveys] surveys in [Number of years] years. The first survey is attached. The other surveys will be distributed in the same manner at the end of the next [Number of years minus 1]. You may complete this paper and pen version or a Web-based version of the staff surveys in your home or any other private location. It will take approximately 30 minutes to complete.

What are the potential risks and discomforts? We do not anticipate any risks from participating in this survey. There is a possibility that you may feel some discomfort when answering the questions about substance use or violence. You do not have to answer any questions that you do not want to answer.

What about privacy and confidentiality? The survey and your answers will be treated privately and confidentially, and the risk of breaking that confidentiality is minimal. All participants will be assigned an ID number for research purposes only. Any information that identifies individuals will not be released or published.

Sample Letter Requesting Consent From School Staff Members for Participation in Research *(continued)*

Are there benefits to taking part in the research? You will receive no direct benefits from your participation in this study. However, you may feel satisfied knowing that you are contributing to a study that will help us develop better programs for reducing school violence, decreasing substance use, and improving academic achievement.

Will I be told about new information that may affect my decision to participate? During the course of the study, you will be informed of any significant new findings (either positive or negative) such as changes in the risks or benefits resulting from participation in the study or new alternatives to participation that might cause you to change your mind about continuing in the study. If new information is provided to you, then we will once again obtain your consent to continue participating in this study.

What are the costs for participating in this research? There are no costs for your participation in this research.

Can I withdraw or be removed from the study? You can choose whether or not to be in this study. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer and still remain in the study.

Whom should I contact if I have questions? The researcher conducting this study is [Evaluator's name]. If you have question about this project, you may contact [Evaluator's name] by phone [Phone number] or by e-mail [E-mail address]. If you have any questions about your rights as a research subject, you may call the local Office for Protection of Research Subjects [Phone number].

Remember:

Your consent in this research is voluntary. You may choose to withdraw at any time. Your decision whether or not to participate will not affect your current or future relations with the university or your school. Whether or not you agree to participate, please sign one copy of the attached consent form and return it to your principal. Keep one complete copy (informational memo and consent form) for your records.

STAFF CONSENT AND PERMISSION FORM FOR PARTICIPATION IN RESEARCH

[Name of Program] Research Project

PLEASE RETURN THIS FORM TO YOUR PRINCIPAL.
[Note that the second copy of this consent form would say PLEASE KEEP THIS FORM FOR YOUR RECORDS.]

Signature of Subject

I have read (or someone has read to me) the above information. I have been given an opportunity to ask questions, and my questions have been answered to my satisfaction.

☐ I AGREE to participate in this research. I have been given a copy of this form.

☐ I DO NOT AGREE to participate in this research. I have been given a copy of this form.

_____ _____

Signature of Subject Date

_____

Printed Name

_____ _____

Signature of Research Staff Member Date

Do NOT put this form with your survey. Return this form to your principal separately.

APPENDIX C

SAMPLE STUDENT ASSENT FORM

(attached to research survey)

[School Letterhead]

PARTICIPANT ASSENT FORM

[LEA or SEA Name] Character Education Study

We are conducting a research study of students' opinions about themselves, their school, and their community. This is a *survey,* not a test. There are no right or wrong answers. It is important that you answer each question honestly. The researchers from [Organization Name] are hoping to learn about students' attitudes toward school and community involvement. The survey will be given in your classroom and will take about 15–20 minutes to complete.

You do not have to participate in the study, and you can stop participating at any time. You can skip a question if you do not want to answer it. If you decide not to participate, there will be no negative consequences. If you have any questions about the survey, please raise your hand, and the person giving the survey will help you. If you have any personal concerns about the survey, you can speak with a school counselor.

Other than the researchers, no one—including students, teachers or your parents—will know your individual answers or be able to link your name with any of the research information. We will make every effort to keep your answers confidential.

Name (please print) _____

Signature _____

Date _____ Age _____

APPENDIX D CHECKLIST OF EVALUATION ACTIVITIES

This checklist summarizes the steps to be taken as discussed in the *Mobilizing for Evidence-Based Character Education* guide.

STEP 1: Partner with an evaluator and form an evaluation team.

- ☐ Find a skilled evaluator.
- ☐ If an outside evaluator is selected, then contract with that person or organization, following required policies and procedures for contracting.
- ☐ Assemble a collaborative advisory evaluation team that includes the program director, the evaluator and key stakeholders.
- ☐ Define roles and responsibilities for the project director and the evaluator (see Exhibit 1, page 9).

STEP 2: Develop a comprehensive program description.

- ☐ Develop the program description as part of the process to write the grant application proposal.
- ☐ Write a clear and comprehensive program description that is a collaborative effort between the project director and the evaluator.
- ☐ Position the proposed program in relation to other character programs and relevant research in character education.
- ☐ Determine the program goals for all involved stakeholders—students, teachers and the schools as well as administrators, parents and the community.
- ☐ Know the program requirements and features.
- ☐ Take into account school, district and community characteristics.
- ☐ Understand local, state and federal guidelines relevant to the intervention.
- ☐ Share the program description with key stakeholders.

STEP 3: Prepare the evaluation plan.

- ☐ Collaborate in developing the evaluation plan and share with all stakeholders.
- ☐ Review character education program research, consider your own program goals and consult with stakeholders before writing evaluation questions.
- ☐ Understand both process and outcome evaluations, and decide what processes and outcomes will be evaluated.
- ☐ Write evaluation questions using the model worksheet (see Exhibit 2, page 16).
- ☐ For outcome evaluations, choose either an experimental or quasi-experimental research design.
- ☐ Decide sample size using a power analysis to aid in the decision.
- ☐ Consider how to prevent or minimize threats to the validity of the evaluation research.
- ☐ Make a data collection plan that describes data sources, instruments and timelines (see Exhibits 8 and 9, pages 24 and 25).

STEP 4: Prepare and obtain Institutional Review Board approval.

- ☐ Understand the criteria used by an Institutional Review Board to determine whether an evaluation may be implemented (see Exhibit 10, page 28).
- ☐ Understand the requirements for conducting research with human participants.
- ☐ Submit the proposed evaluation research to an IRB for review and approval.
- ☐ Obtain a federalwide assurance (FWA) if the project will be engaged in nonexempt human subject research.
- ☐ Refer to *FERPA* and *PPRA* regulations to see whether they are applicable (see appendix A, page 43).

STEP 5: Obtain the appropriate consents to conduct the evaluation.

- ☐ Know the types of consent that must be obtained from study participants (see Exhibit 11, page 31).
- ☐ Include all necessary content in letters requesting informed consent (see Exhibit 12 on page 32 and appendix C on page 46).
- ☐ Maintain the anonymity, confidentiality or both of study participants.

STEP 6: Collect and manage data.

- ☐ Enlist and maintain support and participation of personnel, implementers and evaluation research staff members.
- ☐ Conduct a pilot round of data collection.
- ☐ Create a data management plan.
- ☐ Train data collectors and monitor their work.

STEP 7: Analyze and interpret data.

- ☐ Understand how to analyze data about process objectives.
- ☐ Understand how to analyze data about outcome objectives.
- ☐ Continue to monitor for common problems as data are prepared for analysis.
- ☐ Display results in clear and easy-to-understand charts and tables (see appendix E, page 61).

STEP 8: Communicate evaluation results.

- ☐ Communicate interim and final results to stakeholders.
- ☐ Tailor your message to the needs of each stakeholder group, but provide the context of the total study and results.
- ☐ Use a variety of communication strategies to ensure that findings are presented clearly and that conclusions are solidly based on findings.

APPENDIX E
FORMATS USED TO DISPLAY DATA RESULTS

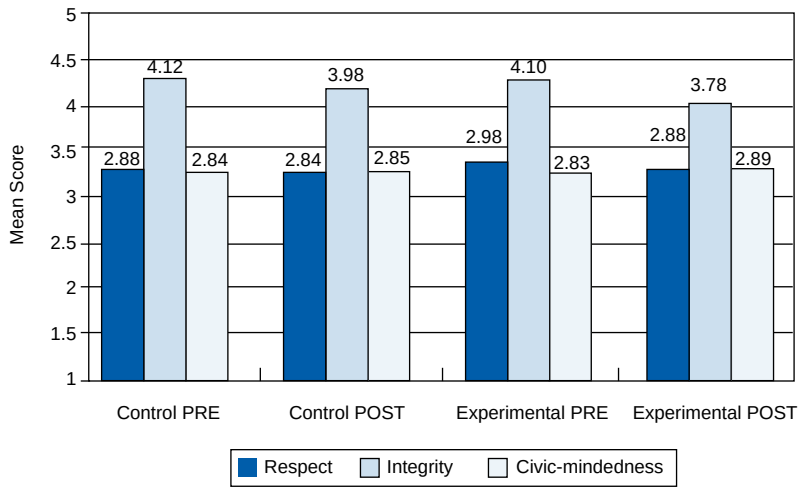
This appendix provides examples of formats frequently used to display data results from evaluating programs. Criteria to consider for using a particular format and key elements to include are accompanied by an example of that format. In addition to these examples, many other formats that clearly display results can also be used.

COMPARISON BAR CHARTS

Comparison bar charts visually highlight differences and similarities between groups at different points in time (see Exhibit E.1). Specific information about variables (such as groups and times) is shown along the horizontal axis of the graph, called the X axis. Groups and times would be defined in a legend, or small box, below the X axis. The vertical sideline, called the Y axis, indicates unit of measurement being used in the chart. The title of a chart should describe what it contains by using elements of the X and Y axes. Bars that are clustered together show a profile of several variables at one time. Be sure to clearly identify the unit of measurement and each variable shown.

EXHIBIT E.1
EXAMPLE OF A COMPARISON BAR CHART

WHAT GRADE 7 STUDENTS THINK:
RANKINGS OF THE IMPORTANCE OF CHARACTER TRAITS*



Source: Adapted by permission from Grove, 2004.

Note: Control group (*n* = 312) comprised students from a middle school, surveyed on September 21, 2004 (before, or PRE, intervention), and on May 15, 2005 (after, or POST, intervention). Experimental group (*n* = 485) comprised students from a middle school, surveyed on September 19, 2004 (before, or PRE, intervention), and on May 23, 2005 (after, or POST, intervention).

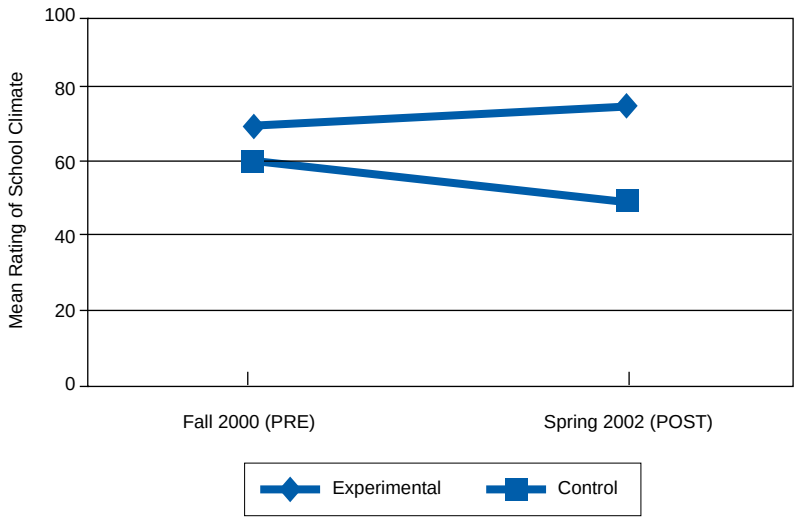
* Each group was asked to rate on a scale of 1 (low) to 5 (high) the importance of the three character traits in the legend.

COMPARISON LINE GRAPHS

Comparison line graphs can be used to highlight the changes in responses from different groups taken at different times (see Exhibit E.2). Comparison line graphs are used to show how the variable—in this case, the group response—changes from one time to another time. Each symbol (box, diamond, etc.) represents the score on the variable for one group at one time. A legend, or small box, below the chart defines groups represented by the symbols. The time span being shown is designated on the horizontal bottom line of the graph (X axis). The unit of measurement for the variable is defined along the vertical side line of the graph (Y axis). The lines link same symbols to show the change in the variable for each group from one time to another. Be sure to clearly define both axes and the symbols being used.

EXHIBIT E.2
EXAMPLE OF A COMPARISON LINE GRAPH

HOW TEACHERS VIEW SCHOOL ENVIRONMENT BEFORE AND AFTER CHARACTER EDUCATION INTERVENTIONS



Source: Adapted by permission from Marshall, Caldwell and Owens, 2003

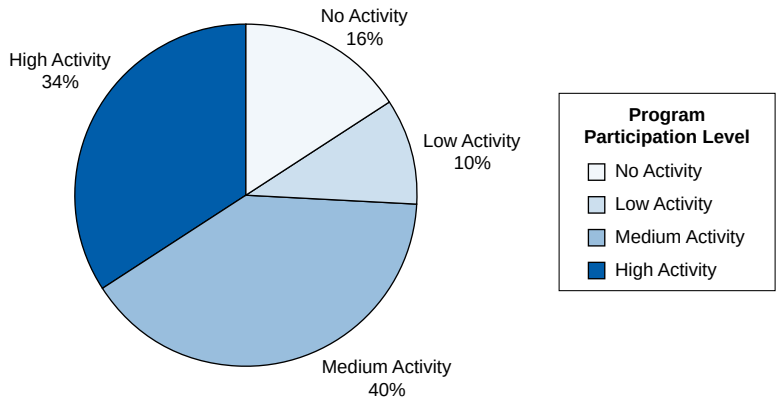
Note: These results are for two matched schools. From the experimental school, 26 teachers were surveyed before intervention (PRE) and 12 teachers were surveyed after intervention (POST). From the control School, 20 teachers were surveyed PRE and 15 teachers surveyed POST. Teachers were asked to rate on a scale of 1 to 5 the school environment on various items including support they received, collaboration for improvement and interpersonal relationships, Ratings were combined to form a factor with possible scores ranging from 0 (low) to 100 (high).

PIE CHARTS

Pie charts are used to show proportions, either in terms of characteristics within group samples and populations or in terms of items or activities (see Exhibit E.3). The legend should identify what the full pie represents and what each wedge represents. Wedges should be easily distinguished from one another, even in a black and white printing design. Be sure to clearly label each pie wedge, including the specific proportion it represents.

EXHIBIT E.3
EXAMPLE OF A PIE CHART

PERCENTAGE OF 57 SAMPLE SCHOOLS AT DIFFERENT LEVELS OF PARTICIPATION IN A NATIONAL CHARACTER EDUCATION PROGRAM: 2003



Source: Adapted by permission from Higgins-D'Alessandro et al., 2004.

Note: The 57 schools that voluntarily participated in the study came from a total of 200 schools invited to participate —100 of which had been designated as *medium-activity* or *high-activity schools* by the above character education program in 2000, and 100 of which were randomly chosen in 2001 from a pool of 800 schools that in previous years had adopted the same program.

APPENDIX E

RESULTS TABLES

Results tables provide the variables that were measured, show specific results found, and indicate whether statistical significance was found for the results (see Exhibit E.4).

EXHIBIT E.4
EXAMPLE OF A RESULTS TABLE

ANALYSIS OF DEGREE TO WHICH GRADE SCHOOL STUDENTS FELT A SENSE OF BELONGING IN RELATION TO DEGREE OF SUCCESS IN IMPLEMENTING A NATIONAL CHARACTER EDUCATION INTERVENTION IN THEIR SCHOOL

BELONGING FACTOR	LEVEL OF IMPLEMENTATION	MEAN*	STANDARD DEVIATION	SIGNIFICANCE OF DIFFERENCES IN MEANS
Students' feelings of belonging (N = 468)	High	*74.83*	11.21	<.01
	Moderate	*72.74*	13.68	
	Low	67.62	17.62	

Source: Adapted by permission from Marshall, Caldwell and Owens, 2004.

Note: During spring 2003, an implementation survey was administered to certified staff in 22 elementary schools participating in a national character education intervention. Schools were classified into three groups based on how well respondents rated the implementation: 7 were classified as high implementation; 11 as moderate; and 4 as low. Also in 2003, students in grades 3 and 4 of the same schools were surveyed on the sense of belonging they felt at school. For each school, a *belonging factor* based on survey responses was developed, and the mean was determined for each of the three groups of schools.

* Means shown in italics are not significantly different ($p \geq .05$) from each other based on Tukey's honestly significant difference (HSD) Test.

Exhibit Reads: These results indicate that there was no significant difference in feelings of belonging for students in high and moderate implementation schools; both groups of students were significantly more positive in their feelings of belonging than students in low implementation schools.

GLOSSARY

This glossary defines terms frequently used in evaluation.

accountability: An obligation to accept responsibility and account for one's actions. For education institutions, accountability means testing and evaluating to measure effectiveness in improving student achievement and in attaining other educational purposes.

affective: Relating to emotions, feelings or attitudes.

analysis: Examination of a body of data and information using appropriate qualitative methods or statistical techniques to produce answers to evaluation and research questions.

assent: The agreement by children younger than the age of 18 to be involved in a research study, requested after parental consent has been obtained. Children agree to participate by signing an assent form.

assessment: Used as a synonym for evaluation. The term is sometimes restricted to approaches that consider or examine a process or factor before an intervention is implemented, commonly referred to as a needs assessment.

assurances: Signed forms that establish the obligation for an entity, such as a school district, to abide by federal regulations (e.g., for the protection of human participants).

attrition: Loss of subjects from a study sample during the course of data collection; also called mortality.

baseline: Data describing the condition or performance level of participants before intervention, treatment or implemented program.

behavioral objectives: Measurable changes in behavior that an intervention is designed to achieve.

benchmark: A point of reference or standard of behavior against which performance is compared.

categorical variable: A variable whose values are simply categories and, therefore, cannot be quantified except by counting the number of cases in each category (e.g., counties or grade levels).

character education: A learning process that enables students and adults in a school and community to understand, care about and act on core ethical values such as respect, justice, civic virtue and citizenship, and responsibility for self and others.

coding: To translate a given set of data or items into descriptive or analytical categories for data labeling, sorting and retrieval.

cognitive domain: The scope of knowledge as well as related skills and abilities that learners need to achieve various types of instructional objectives.

cohort: A particular group in a study that has a statistical factor such as age or membership in common. For example, *the first cohort* would be the first group to have participated in a training program.

comparison group: In a quasi-experimental design, carefully chosen groups of participants who either do not receive the intervention or receive a different intervention from that offered to the primary intervention group.

comparison group study: A quasi-experimental study that compares outcomes for intervention groups with outcomes for one or more comparison groups chosen through methods other than randomization.

confidentiality: The protection of data and information from people other than those authorized to have access.

conflict of interest: A situation in which the private interests of someone involved in the evaluation process (e.g., the interviewer, rater, scorer or evaluator) could or does have an effect, either positive or negative, on the quality of the evaluation activities, the accuracy of the data, or the results of the evaluation.

consent bias: A skewing of the data and results that occurs when the requirement of explicit participant consent in an evaluation design results in the failure to capture the true characteristics of the target population in the sample under evaluation.

contaminated data: Data that threaten the validity of an evaluation and can corrupt the outcomes through unintended influence (e.g., the control group adopts or receives the intervention being studied or another similar intervention).

control group: In an experimental design, a randomly selected group from the same population that does not receive the treatment or intervention that is the subject of the evaluation.

correlation: The degree of relationship between two variables, scores or assessments. Correlations, by themselves, do not imply cause-and-effect linkages between two variables.

criterion (*sing.*), criteria (*pl.*): A standard on which a judgment or decision can be based. In evaluation, outcomes are measured against this standard to determine whether success has been achieved on a variable.

culturally sensitive relevance: The pertinence and soundness of evaluation methods, procedures or instruments when applied to particular cultures and population subgroups.

data: Factual information that can be collected. Examples of data include age, date of entry into a program intervention, reading level, and ratings or scores obtained from an instrument. Sources of data include case records, attendance records, referrals, assessment instruments and interviews.

data-based decision-making: Using results from evaluation research as the basis for choosing an intervention.

data collection instruments: Tools used to collect information for an evaluation, including surveys, tests, questionnaires, interview instruments, intake forms, case logs and attendance records. Instruments may be developed for a specific evaluation or modified from existing instruments.

data collection plan: A written document describing the specific procedures to be used to gather information or data. The plan describes who will collect the information, when and where it will be collected, and how it will be obtained.

data display: A visual format for organizing information (e.g., graphs, charts, matrices or other designs).

data reduction: A process of selecting, focusing, simplifying, abstracting and transforming data collected in the form of written field notes or transcriptions.

data sources: The people, documents, products, activities, events and records from which data are obtained.

database: An accumulation of information, usually computerized, that is systematically organized for easy access and analysis.

design: The process of creating procedures to follow in conducting an evaluation.

design breakdown: A malfunctioning of the evaluation design, which threatens the validity of the evaluation and occurs as a result of an inadequately conceptualized or poorly executed evaluation design.

desired outcomes: The results, defined in measurable terms, that an intervention, process, instructional unit or learning activity is designed to achieve.

directory information: The type of information contained in a student's education record, such as name, address, telephone listing, grade level, honors and awards and participation in officially recognized activities and sports that would not generally be considered harmful or an invasion of privacy if disclosed (34 CFR 99.3 and 99.37; also see USED/GPOS 2005a).

dissemination: The process of communicating information to specific audiences for the purpose of extending their knowledge, sometimes with the goal of modifying policies, practices or attitudes.

dosage: How much of the intervention activity was done, how many people were involved and how much of each activity was administered to each participant, classroom or school over a specified length of time.

effect size: Measurement of the strength of a relationship or the degree of change.

effectiveness: The extent to which an intervention achieves its objectives.

ethical evaluation: Evaluation that is designed and conducted in accordance with a moral code of conduct that respects and values the well-being of the implementer and the study's participants, the good of the institution and its community, and the innate rights of individuals.

evaluation: The process that provides accountability. A systematic method for collecting, analyzing and using information to identify effective and ineffective services, practices, and approaches. Generally speaking, evaluation is grouped in two broad categories—formative and summative evaluation.

evaluation plan: A written document that describes the overall approach or design that will guide the evaluation. The plan includes what evaluation will be done, how it will be done, who will do it, when it will be done, and the purpose of the evaluation. The plan is developed by the evaluator and project director after consultation with key stakeholders, and it serves as a guide for the evaluation team.

evaluator: An individual who is trained and experienced in designing and conducting evaluations and who uses tested and accepted research methodologies.

evaluation team: A group of project staff members that includes, at minimum, the evaluator, the project director, and representatives of key stakeholders and that has the responsibility to oversee the evaluation process.

evidence-based program: An intervention that has been evaluated scientifically and that has been found effective.

experimental design: The random assignment of students, classrooms or schools to either the intervention group (or groups) or the control group (or groups). Randomized experiments are the most efficient and reliable research method available for testing causal hypotheses and for making causal conclusions, that is, being able to say that the *intervention* caused the outcomes.

experimental group: A group of individuals who receive the treatment or intervention that is being evaluated or studied. Experimental groups, also known as treatment or intervention groups, are usually compared to a control or comparison group.

external evaluator: A person conducting an evaluation who is not employed by or closely affiliated with the organization conducting the intervention; also known as a third-party evaluator.

fidelity: The extent to which an intervention or program is practiced and set forth as designed. It is one important focus of a process or formative evaluation.

focus group: A group that is engaged by a trained facilitator in a series of discussions designed to elicit group members' insights and observations on a topic of concern to the evaluation. The members of a focus group are selected because they share a common trait, interest, knowledge, attitude, or experience.

formative evaluation: Sometimes known as process evaluation. See definition for *process evaluation.*

goal: An ideal; a hypothesized, broadly stated outcome. A goal is reached by achieving a set of specific, measurable objectives.

immediate outcomes: Those changes in program participants' knowledge, attitudes or behaviors that occur during the course of an intervention.

implementation fidelity: When evidence that is based on data shows that an intervention has been put into effect as intended.

independent evaluator: An evaluator who is objective about the results of an intervention and who has no authority over program implementation or vested interests in the outcomes.

informed consent: Permission to participate from parents representing minor children and agreement from other participants, which is provided through a signed form after those granting permission or agreement have received detailed information about the collection and use of evaluation data as well as the retention of or access to assessment data and information.

Institutional Review Board (IRB): A committee or organization charged with reviewing and approving the use of human participants in research and evaluation projects. The IRB serves as a compliance committee and is responsible for reviewing reported instances of regulatory noncompliance related to the use of human participants in research. IRB approval is required for federally funded, nonexempt, human participants research.

instrument: A device for collecting data—such as a survey, test or questionnaire—that can be used in process and outcome evaluations. (Also see definition of *data-collection instruments* in this glossary.)

instrument reactivity: A reaction in which participants may modify their behavior based on their perception of the intended goal of the instrument, thus responding differently than they normally would.

intent-to-treat analysis: A type of analysis that includes all randomized individuals in the conditions or groups to which they were originally assigned regardless of (a) the treatment they actually received, (b) their level of adherence, (c) their attrition, or (d) some combination of those factors.

intermediate effects: Results of a program intervention or treatment that occur before the intended final outcomes.

internal evaluator: A staff member or organizational unit who is conducting an evaluation and who is employed by or affiliated with the organization within which the project is housed.

intervention: A program or innovation that is the subject of the evaluation.

logic model: A diagram showing the logic or rationale underlying a specific intervention. A logic model visually describes the link between (a) the intervention, requirements and activities, and (b) the expected outcomes. It is developed in conjunction with the program theory. (Also see definition for *program theory*.)

longitudinal study: An investigation that follows a particular individual or group of individuals over a substantial period of time (three to five years is the norm today) to discover changes that may be attributable to the influences of the treatment or intervention.

measurable terms: Describing project objectives in straightforward language that clearly states a specific area of knowledge, an attitude or a behavior that can be assessed.

measure: (*noun*) An instrument or device designed to collect data that can be used to assess an outcome involving a change in quantity or quality of knowledge, skill level, attitude or behavior, such as student prosocial behavior, academic performance or community involvement. (*verb*) To determine or estimate the quality or quantity of change in knowledge, skill level, attitude or behavior identified as a desired outcome.

methodology: The process, procedures and techniques used to collect and analyze data.

norm-referenced: A scoring interpretation that defines a test score according to the performance of others on the same test.

objective: A clearly identified, measurable outcome that leads to achieving a goal. The most straightforward method for stating objectives is by means of a specified percentage of increase or decrease in knowledge, skill, attitude or behavior that will occur over a given time period (e.g., by the end of the academic year, students will report demonstrating a 20 percent increase in caring behaviors toward their peers).

observation protocols: The process through which trained individuals focus direct, systematic attention on key elements to gather information about the environment or about behavior or demonstrations of knowledge, skills or attitudes.

observer: A trained person who systematically collects evidence and makes notes about what is being observed in classrooms or other settings. The observer does not have to be an evaluator.

outcome evaluation: An evaluation that assesses the extent to which an intervention affects (a) its participants (i.e., the degree to which changes occur in their knowledge, skills, attitudes or behaviors); (b) the environments of the school, community or both; or (c) both the participants and environments as described in (a) and (b).

outcome objectives: The measurable changes in the participants' knowledge, skills, attitudes, behaviors or in the school and community environment that are expected to occur as a result of implementing an intervention.

outcomes: Measurable changes in (a) participants' knowledge, skills, attitudes, and behaviors, or (b) in the schools and communities, that occur as a result of the delivered interventions.

participants: Stakeholders who are engaged in project activities, including evaluation.

percentile rank: A number indicating an individual's performance score or attainment in relation to the distribution of scores of a representative group of individuals. A percentile rank of 95 means that the individual performed as well as or better than 95 percent of the group on which the percentile ranks are based.

pilot test: (*noun*) A preliminary test or study of either a program intervention or an evaluation instrument. (*verb*) To conduct a preliminary study of an intervention or evaluation design to assess appropriateness of components or procedures and make any necessary adjustments. For example, an agency might pilot test new data-collection instruments developed for an evaluation.

posttest: A test or measurement taken *after* a service or intervention has occurred. The results of a posttest are compared with the results of a pretest to seek evidence of the change in the participant's knowledge, skills, attitudes or behaviors or changes in schools or community environments that have resulted from the intervention.

power analysis: A method used by the evaluation team to decide on the number of participants necessary to detect meaningful results.

pre–post study: A study that involves administering the same measurement to study participants before and after the intervention to determine whether participants in an intervention change during the course of that intervention.

pretest: A test or measurement taken *before* a service or intervention begins. The results of a pretest are compared with the results of a posttest to assess change. A pretest can be used to obtain baseline data.

process evaluation: A form of evaluation designed to determine whether the program is being or has been delivered as intended, sometimes referred to as formative evaluation.

program evaluation: Research, using any of several methods, designed to test the influence or effectiveness of a program or intervention.

program implementation activities: The intended steps identified in the plan for the intervention.

program monitoring: The process of documenting the activities of program implementation.

program theory of change: A statement of the assumptions about why the intervention should affect the intended outcomes. The theory includes hypothesized links between (a) the program requirements and activities, and (b) the expected outcomes; it is depicted in the *logic model* (also defined in this glossary).

qualitative data: Nonnumeric data that can answer the how and why questions in an evaluation. These data are needed to triangulate (see definition in this glossary) results to obtain a complete picture of the effects of an intervention.

qualitative evaluation: An evaluation approach that is primarily descriptive and interpretative. Qualitative methods are often used in process evaluation.

quantitative data: Numerical information such as test scores and discipline records.

quantitative evaluation: An evaluation approach that involves numerical measurement and data analysis based on statistical methods.

quasi-experimental design: The nonrandom assignment of students, classrooms or schools to either the intervention group (or groups) or to the comparison group (or groups). Assignment may be based on matching or other selection criteria. Quasi-experiments cannot test causal hypotheses nor make causal conclusions. They identify correlations between the intervention and outcomes.

random assignment: A procedure in which sample participants are assigned indiscriminately to experimental or control groups, creating two statistically equivalent groups.

random selection: A process by which participants are indiscriminately selected from a larger population, ensuring all subjects an equal chance of being chosen.

random sampling: Selecting people or items from a larger population or group in a way that ensures every individual or item has an equal probability of being chosen.

randomization: Assignment of participants in the target population to intervention and control groups in a way that ensures every subject in the target population has the same probability to be selected for either group.

randomized control trial: A study that indiscriminately assigns individuals or groups from the target population either to an intervention (experimental) group or to a control group to measure the effects of the intervention.

recommendations: Suggestions that are derived from evidence-based findings and that propose specific actions.

regression discontinuity: A quasi-experimental design in which participants are placed into treatment and control conditions based on a cutoff score on a quantitative assignment variable such as a test score.

reliability: The extent to which an instrument, test or procedure produces the same results on repeated trials.

replicable: An attribute of assessment, observation system or evaluation, indicating that the process used to obtain the data and evidence is clearly stated and can be repeated. The term also refers to an intervention or a component of an intervention that can be repeated under conditions different from those of the original implementation.

research-based: A descriptor indicating that an educational intervention is grounded in research from psychology, education or other areas of scientific inquiry. Although the term was used previously to refer to an educational intervention that had been scientifically evaluated and found to be effective, now, the terms *evidence-based* or *science-based* are preferred because these terms imply effectiveness rather than an academic inquiry.

response bias: The degree to which a self-reported answer may not reflect reality because of the respondent's misperception or deliberate deception.

results: Relevant information gleaned from the information and data that have been collected and analyzed in an evaluation.

sample: A subset of a total population. A sample should be representative of the population because information gained from the sample is used to estimate and predict the population characteristics under study.

school climate: Multidimensional aspects of a school encompassing both characteristics of the school and perceptions of the school as a place to work and learn.

school culture: The values, traditions, norms, shared assumptions and orientations that give a school its distinctive identity. School culture includes the social systems and social expectations that affect all members.

scientifically based research: Research that involves the application of rigorous, systematic and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs.

secondary data analysis: A follow-up analysis of data using procedures to verify the accuracy of the results of the initial analysis or to answer questions different from the original questions.

self-report measures: Instruments, usually surveys, through which individuals record their own recollections of behaviors, events, feelings, judgments and attitudes.

single-subject study: A study that relies on the comparison of treatment effects on a single participant or group of single participants. Findings based on this design are typically not considered to be generalizable to other members of the population.

stakeholders: Individuals who have an interest in a project. Examples include students, teachers, the project's source of funding, the sponsoring or host organization, internal project administrators, participants, parents, community members and other potential program users.

standardized tests or instruments: Assessments, inventories, surveys or interviews that have been tested with a large number of individuals and have been designed to be administered to participants in a consistent manner. Test results of program participants on a particular standardized test can thus be compared to the test results of other populations on the same test.

statistical significance: A general evaluation term referring to the idea that a difference observed in a sample could not be attributed to chance. Statistical tests are performed to determine whether one group (i.e., the experimental group) is different from another group (i.e., the control or comparison group) on the measurable outcome variables used in a research study.

student learning outcomes: Measures of student achievement in knowledge, skills, and other educational outcomes such as improved student attitudes and behaviors. This term covers the acquisition, retention, application, transfer and adaptability of knowledge, attitudes and skills.

summative evaluation: An evaluation conducted at the end of an intervention to determine whether an intervention achieved the intended outcomes. These evaluations can also be called outcome evaluations.

transferability: The degree to which the knowledge and skills demonstrated in solving a problem related to a task can be used to solve other related problems and real-world activities.

treatment group: Also called an experimental group, a treatment group is composed of a group of individuals receiving the intervention services, products or activities to be evaluated.

triangulation: The multiple use of various sources of data, observers, methods and theories in investigations to verify an outcome finding.

validation: The process of determining the *validity* of an instrument or evaluation study as defined below.

validity: In terms of an instrument, the degree to which it measures what it is intended to measure, also described as the soundness of the instrument. In terms of an evaluation study, the degree to which it uses sound measures, analyzes data correctly and bases its inferences on the study's findings.

variable: An attribute of behavior, skill, quality or attitude being studied or observed that is measurable.

waiver of informed consent: Granting permission by default (in other words, not refusing but also not providing explicit written consent) to participate in the collection, use, retention or access of data and information as part of a study or evaluation.

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ACKNOWLEDGMENTS

This evaluation guide was written in response to grantees seeking guidance in meeting the requirements for scientifically based evaluation. It was initiated and its development directed by Linda McKay, Sharon Burton, Paul Kesner, Rita Foy Moss and staff members in the Office of Safe and Drug-Free Schools, which is responsible for the oversight of the Character Education and Civic Engagement Technical Assistance Center (CETAC). We would like to thank the following project directors, evaluators as well as other national character education experts and stakeholders who provided input toward this effort: Diane Berreth, Amanda DiBart, Dan Flannery, Liz Gibbons, Shelia Koshewa, Ann Landy, Peter Leahy, Bill Modzeleski, William Moore, Donna Muldrew, Marco Munoz, Maureen Murphy, Christine Nardes, David Osher, A. J. Pease, Deborah A. Price, Esther Schaeffer, Eric Schaps, Craig Stanton and Don Workman.

Special acknowledgment goes to Melinda Bier, Ann Higgins D'Alessandro and Doug Grove who, with the added expertise of Mark Lipsey, wrote and revised several drafts of this document. In addition, appreciation goes to Shelley Billig, Sarah Caldwell, Brian Flay and Jon Marshall, who provided examples of charts, data displays, survey questionnaires as well as sample consent form letters for parents, teachers and students. Thanks also go to Ellen Campbell, Kimberly Casey, Phoebe Cottingham, Amy Feldman, Kathy Perkinson, Jeffery Rodamar, Deborah Rudy, and Ricky Takai at the U.S. Department of Education for providing input and reviewing drafts. Members of the CETAC Resource Group who reviewed and provided input on the document include David Addison, Angela Baraquio-Grey, Michele Borba, Cindy Cadieux, Maurice Elias, Stewart Gilman, Phillip Hannam, Michael Josephson, Rushworth Kidder, Tom Lickona, Sandy McDonnell, Pedro Noguera and Terry Pickeral, with special thanks to Margaret Branson who provided invaluable insight.

As with any publication of this size and effort, we are grateful for all the resources of these extraordinary people that came to bear on its completion.