Character education is a fairly new and rapidly evolving topic for curriculum interventions. It is also broad, often overlapping with other program areas.

Character can encompass such moral and ethical values as respect, fairness, and caring—as well as responsibility, trustworthiness, and citizenship. And it can refer to the demonstration of these values in behavior, reasoning, and emotions.

Some character education programs integrate activities in social studies, English, and math. Some create communities of students, teachers, and parents to foster respect and caring. And some use in-class stories, games, songs, and activity books to encourage the acceptance of other cultures.

To set some bounds on this evolving topic, the WWC identified programs that deliberately attempt to develop students’ character by teaching core values and that had most if not all of their lesson plans or prescribed activities directly related to instilling those values. Most programs did not enter our review because of this criterion. For programs that did, most had only one or two small studies that met our evidence standards. For these studies, student outcomes were measured in three domains: behavior, academic achievement, and knowledge, attitudes, and values.

We looked at 93 studies of 41 programs that qualified for our review. Of these, 18 studies of 13 programs met our evidence standards, 7 without reservations, and 11 with reservations. (The identification of eligible programs ended in September 2005, and that of eligible studies, in July 2006.)

In looking at the three outcome domains for the 13 programs:

- **Positive Action** had positive effects on behavior and on academic achievement.
- **Too Good for Drugs and Violence** had positive effects on knowledge, attitudes, and values.
- **Too Good for Violence** had potentially positive effects on behavior and on knowledge, attitudes, and values.

Six other programs had potentially positive effects in one domain. Five had no discernible effects in any domain.

**Character education in practice**

**Setting schoolwide principles.** The School Improvement Committee at Davis Elementary, comprising the parents, teachers, administrators, and the school principal, supervises practices that promote the school’s values—such as cultural awareness and interpersonal respect. Ms. Lopez, a fourth grade teacher, helps her class reflect on their decisionmaking and behavior, drawing on students’ personal experiences. After each lesson, the class agrees on rules of respectful and culturally sensitive behavior. Throughout the year, the students deepen their understanding of these concepts through class discussion, art projects, and schoolwide events.

**Character education in practice**

**Integration into the curriculum.** Teachers at Oaks High School work to infuse moral problem-solving and ethical thinking into the curriculum. In history and social studies, students explore the ethical values found in the Declaration of Independence. In language arts, students write essays that focus on moral dilemmas. In math, students learn how to interpret statistical results from a survey about moral attitudes. In additional small-group discussions, facilitated by trained teachers and senior students, students talk about dilemmas in their personal life and how to resolve them.
Intervention Ratings for Character Education

Each character education program that had at least one study meeting WWC standards (with or without reservations) received a rating of effectiveness in at least one outcome domain: behavior, knowledge, attitudes, and values, and academic achievement. The rating aims to characterize the existing evidence in a given domain, taking into account the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and comparison conditions, and the consistency in findings across studies.

The research evidence can be rated as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative (see the WWC Intervention Rating Scheme). Table 1 shows the effectiveness ratings for the 13 programs in the three domains (empty cells indicate that no evidence was reported).

Table 1 Effectiveness ratings for 13 programs in three domains

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Behavior</th>
<th>Knowledge, attitudes, values</th>
<th>Academic achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Decision Skills ([link])</td>
<td>😊</td>
<td>🟢</td>
<td>🟢</td>
</tr>
<tr>
<td>Caring School Community™ ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Connect with Kids ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Facing History and Ourselves ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Heartwood Ethics Curriculum ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Lessons in Character ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Positive Action ([link])</td>
<td>😊</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Skills for Action ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Skills for Adolescence ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Too Good for Drugs™ ([link])</td>
<td>😊</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Too Good for Drugs and Violence ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Too Good for Violence ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Voices Literature and Character Education ([link])</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

Note: Two programs had research findings in all three domains; five programs had research findings in two domains; and six programs had research findings in one domain. WWC intervention reports describe each program and provide information on the students, the cost, and the scope of use. To view the intervention reports please click on the program name or go to www.whatworks.ed.gov. Following each program name is the developer’s website address. The research evaluated addresses some but not all grade levels targeted by these interventions. Grade levels are related to student age and may affect outcomes. For a comparison of targeted grade levels and grade levels in the studies reviewed by the WWC see Appendix A2. The rating for Building Decision Skills pertains to Building Decision Skills combined with Service Learning.
Average improvement indices for each domain

The WWC computes an average improvement index for each domain and each study as well as a domain average improvement index across studies of the same intervention (see the Technical Details of WWC-Conducted Computations).

The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. It can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group. Unlike the rating of effectiveness, which is based on four factors, the improvement index is based only on the size of the difference between the intervention and the comparison conditions.¹

Behavior

The behavior domain includes observed or reported student behavior outcomes that may be regarded as indicators of socially responsible character (such as participating in community service and supporting peers) or of the lack of it (such as aggressive or delinquent behavior). We reviewed outcomes in this domain for nine character education programs, and the average improvement index ranged from +0 to +19 percentile points (figure 1).

Knowledge, attitudes, and values

The knowledge, attitudes, and values domain includes student outcomes that center on moral and ethical reasoning, as well as attitudes, feelings, predispositions, and self-perceptions that are associated with pro-social character (such as democratic values and empathy) or the lack of it (such racism, positive attitudes toward aggression). We reviewed outcomes in this domain for 10 character education programs, and the average improvement index ranged from +0 to +16 percentile points across programs (figure 2).

Academic achievement

The academic achievement domain includes measures of academic achievement (such as standardized test scores) and measures of academic persistence or

---

1. To enable comparisons across interventions, improvement indices are calculated from student-level findings only. In the case of Positive Action findings in the behavior and academic achievement domains and in the case of Caring School Community findings in the knowledge, attitudes, and values domain, the average improvement index does not represent all the findings reviewed by the WWC, as some findings were reported on the classroom or school level, and student-level improvement indices could not be computed. For further details please see Technical Details of WWC-Conducted Computations.

2. Ethical conduct includes honest, fair, rule-abiding, and respectful behavior toward children and adults during cooperative and competitive activities.
participation (such as attendance, retention, and graduation rates). We reviewed outcomes in this domain for three programs, and the average improvement index ranged from +0 to +16 percentile points (figure 3).

**Figure 3  Academic achievement: average improvement**

Outcomes may include:
- Higher test scores
- Higher graduation rates

### Character education in practice

**Role models and service learning.** The character education program at Lowell high school combines in-class activities with service learning. This year, the ninth-graders decided to contribute to the appearance of their downtown area. The students researched the type of plants most appropriate for this area, prepared a budget, and presented an action plan to the city council, which approved the plan. With the help of teachers and parents, they raised the money for the equipment and supplies. The students wrote about their experiences in language arts classes and discussed the moral and ethical values that they felt they developed through the service learning. Towards the end of the semester, the school principal met with student representatives to listen to their feedback about the character education and service learning efforts in the school.

**Character education in practice**

**A comprehensive focus on caring.** In Jefferson middle school, teachers and school administrators model caring behavior during class hours and school breaks and acknowledge students’ acts of kindness. Parents receive the school newsletter, which shares what the school does to promote a caring school community and invites families to take part in the school’s projects and special events. Teachers’ assessments of students’ caring behavior is included in report cards. A school climate survey, administered to students as part of the school’s self-assessment, has a scale on whether students experience faculty and their fellow students as being caring.

**Note:** The character education practices present hypothetical scenarios based on elements recommended by the Office of Safe and Drug-Free Schools and the Character Education Partnership.
### Table 2  Programs reviewed with no studies meeting WWC evidence screens

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Developer's Website Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Celebration of Character</td>
<td><a href="http://www.kkconsult.com/celebration.htm">http://www.kkconsult.com/celebration.htm</a></td>
</tr>
<tr>
<td>Building Esteem in Students Today (BEST)</td>
<td>(no website available)</td>
</tr>
<tr>
<td>The Caring Habits Experience</td>
<td><a href="http://www.jeffersoncenter.org/index.html">http://www.jeffersoncenter.org/index.html</a></td>
</tr>
<tr>
<td>Character Building &amp; Reading Mastery</td>
<td><a href="http://www.kkconsult.com/readitheedit.htm">http://www.kkconsult.com/readitheedit.htm</a></td>
</tr>
<tr>
<td>Character First!</td>
<td><a href="http://www.characterfirst.com">www.characterfirst.com</a></td>
</tr>
<tr>
<td>CHARACTERplus</td>
<td><a href="http://characterplus.org/">http://characterplus.org/</a></td>
</tr>
<tr>
<td>Community of Caring</td>
<td><a href="http://communityofcaring.org/AboutCofC/overview.html">http://communityofcaring.org/AboutCofC/overview.html</a></td>
</tr>
<tr>
<td>ESSENTIAL Curriculum/ Project Essential</td>
<td><a href="http://www.teelinstitute.org/home.htm">http://www.teelinstitute.org/home.htm</a></td>
</tr>
<tr>
<td>Living Values: Educational Program</td>
<td><a href="http://www.livingvalues.net/">http://www.livingvalues.net/</a></td>
</tr>
<tr>
<td>Pathways to Character</td>
<td><a href="http://www.epicforchildren.org/">http://www.epicforchildren.org/</a></td>
</tr>
<tr>
<td>Resolving Conflicts Creatively Program</td>
<td><a href="http://www.essential.org">http://www.essential.org</a></td>
</tr>
<tr>
<td>Smart and Good</td>
<td><a href="http://www.cortland.edu/character/highschool/">http://www.cortland.edu/character/highschool/</a></td>
</tr>
<tr>
<td>Success through Accepting Responsibility</td>
<td><a href="http://www.jeffersoncenter.org/jcenter/STAR.htm">http://www.jeffersoncenter.org/jcenter/STAR.htm</a></td>
</tr>
</tbody>
</table>

**Note:** Following each program name is the developer’s website address.

For more information about studies reviewed and WWC methodology, please see the [WWC Character Education Technical Appendices](#).
### Appendix A1  Extent of evidence

<table>
<thead>
<tr>
<th>Intervention name</th>
<th>Number of studies</th>
<th>Sample size (schools/students)</th>
<th>Extent of evidence</th>
<th>Number of studies</th>
<th>Sample size (schools/students)</th>
<th>Extent of evidence</th>
<th>Number of studies</th>
<th>Sample size (schools/students)</th>
<th>Extent of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Decision Skills + Service Learning</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>1</td>
<td>1/283</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Caring School Community™</td>
<td>2</td>
<td>16/2,336</td>
<td>Moderate/large</td>
<td>2</td>
<td>10/2,303</td>
<td>Moderate/large</td>
<td>2</td>
<td>16/3,000+</td>
<td>Moderate/large</td>
</tr>
<tr>
<td>Connect with Kids</td>
<td>1</td>
<td>12/800</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Facing History and Ourselves</td>
<td>1</td>
<td>5/346</td>
<td>Small</td>
<td>1</td>
<td>5/346</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Heartwood Ethics Curriculum</td>
<td>1</td>
<td>4/870</td>
<td>Small</td>
<td>1</td>
<td>4/858</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Lessons in Character</td>
<td>1</td>
<td>7/141</td>
<td>Small</td>
<td>2</td>
<td>22/433</td>
<td>Moderate/large</td>
<td>1</td>
<td>7/141</td>
<td>Small</td>
</tr>
<tr>
<td>Positive Action</td>
<td>2</td>
<td>56/4,000+</td>
<td>Moderate/large</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>2</td>
<td>56/4,000+</td>
<td>Moderate/large</td>
</tr>
<tr>
<td>Skills for Action</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>1</td>
<td>25/1,800</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Skills for Adolescence</td>
<td>1</td>
<td>34/7,426</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Too Good for Drugs™</td>
<td>1</td>
<td>6/1,051</td>
<td>Small</td>
<td>2</td>
<td>12/1,995</td>
<td>Moderate/large</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Too Good for Drugs &amp; Violence</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>2</td>
<td>27/504</td>
<td>Moderate/large</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Too Good for Violence</td>
<td>1</td>
<td>10/999</td>
<td>Small</td>
<td>1</td>
<td>10/999</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
<tr>
<td>Voices Literature and Character Education</td>
<td>0</td>
<td>0</td>
<td>na</td>
<td>1</td>
<td>5/98</td>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>na</td>
</tr>
</tbody>
</table>

na = not studied

**Note:** All the programs that received a rating of moderate/large had at least four schools in each of the studies reviewed. A rating of “moderate to large” requires at least two studies and two schools across studies in one domain and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the rating is “small.”
### Targeted population

<table>
<thead>
<tr>
<th>Program name</th>
<th>Targeted students (grades)</th>
<th>Students in studies reviewed (grades)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Decision Skills + Service Learning</td>
<td>7–12</td>
<td>12</td>
</tr>
<tr>
<td>Caring School Community™</td>
<td>K–6</td>
<td>K–6</td>
</tr>
<tr>
<td>Connect with Kids</td>
<td>3–12</td>
<td>3–12</td>
</tr>
<tr>
<td>Facing History and Ourselves</td>
<td>6–12</td>
<td>8</td>
</tr>
<tr>
<td>Heartwood Ethics Curriculum</td>
<td>K–6</td>
<td>1–6</td>
</tr>
<tr>
<td>Lessons in Character</td>
<td>K–8</td>
<td>4–5</td>
</tr>
<tr>
<td>Positive Action</td>
<td>K–12</td>
<td>1–6</td>
</tr>
<tr>
<td>Skills for Action</td>
<td>9–12</td>
<td>9–12</td>
</tr>
<tr>
<td>Skills for Adolescence</td>
<td>6–8</td>
<td>6–8</td>
</tr>
<tr>
<td>Too Good for Drugs™</td>
<td>K–8</td>
<td>3, 4, 6</td>
</tr>
<tr>
<td>Too Good for Violence</td>
<td>K–8</td>
<td>3</td>
</tr>
<tr>
<td>Too Good for Drugs and Violence</td>
<td>9–12</td>
<td>9–12</td>
</tr>
<tr>
<td>Voices Literature and Character Education Program</td>
<td>K–12</td>
<td>6–7</td>
</tr>
</tbody>
</table>

**Note:** This table presents a comparison of targeted grade levels and the grade levels in the studies reviewed by the WWC. Grade levels are related to student age and may affect outcomes due to differences in the students’ developmental stages as well as differences in school size and organization.
## Appendix A3  Summary of statistically significant\(^1\) or substantively important\(^2\) positive findings

<table>
<thead>
<tr>
<th></th>
<th>Behavior(^3)</th>
<th>Knowledge, attitudes, and values(^3)</th>
<th>Academic achievement(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistically significant findings</td>
<td>Statistically significant findings</td>
<td>Statistically significant findings</td>
</tr>
<tr>
<td></td>
<td>Behavior across outcomes</td>
<td>Knowledge across outcomes</td>
<td>Academic achievement across outcomes</td>
</tr>
<tr>
<td>Building Decision Skills + Service Learning</td>
<td>na</td>
<td>Ethical perspective</td>
<td>na</td>
</tr>
<tr>
<td>Leming 2001 (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Caring School Community</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Ramon Study (randomized controlled trial with confounding problems)</td>
<td>Spontaneous prosocial behavior</td>
<td>ns, ns</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Supportive, friendly, &amp; helpful behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Six-District Study (quasi-experimental design)</td>
<td>ns</td>
<td>ns, nsi</td>
<td>ns</td>
</tr>
<tr>
<td>Connect with Kids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page &amp; D'Agostino 2005 (quasi-experimental design)</td>
<td>Interpersonal behavior survey</td>
<td>Statistically significant, substantively important</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>na</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facing History and Ourselves</td>
<td>Schultz, Barr, &amp; Selman 2001 (quasi-experimental design)</td>
<td>ns, nsi</td>
<td>na</td>
</tr>
<tr>
<td>Heartwood Ethics Curriculum</td>
<td>Leming 2000 (quasi-experimental design)</td>
<td>ns, nsi</td>
<td>ns</td>
</tr>
</tbody>
</table>

\(\text{na} = \text{not studied}\)
\(\text{ns} = \text{not statistically significant}\)
\(\text{nsi} = \text{not substantively important}\)

---

1. According to WWC criteria, if a program finds a statistically significant effect, then there is less than a 5% chance that this difference is due to chance. The level of statistical significance was calculated by the WWC and, where necessary, corrects for clustering within classrooms or schools, and for multiple comparisons. For an explanation about the clustering correction, see the [WWC Tutorial on Mismatch](https://www.whatworks.gov). For the formulas the WWC used to calculate the statistical significance, see the [Technical Details of WWC-Conducted Computations](https://www.whatworks.gov).

2. For rating purposes, the WWC considered the statistical significance of the findings and the magnitude of the effect, also called the effect size. An average effect size is the sum of all the effect sizes of the student outcomes in a study in a single domain divided by the number of those outcomes. The WWC considers an average effect size across all student outcomes in one study in a given domain to be substantively important if it is equal to or greater than 0.25.

3. No studies showed statistically significant or substantively important negative findings in the domain. For a detailed description of the outcome measures, see Appendix A2 in the WWC intervention reports at [www.whatworks.ed.gov](http://www.whatworks.ed.gov).
## Appendix A3  Summary of statistically significant\(^1\) or substantively important\(^2\) positive findings (continued)

<table>
<thead>
<tr>
<th></th>
<th>Behavior(^3)</th>
<th>Knowledge, attitudes, and values(^3)</th>
<th>Academic achievement(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistically significant positive findings</td>
<td>Behavior across outcomes</td>
<td>Statistically significant positive findings</td>
</tr>
<tr>
<td><strong>Lessons in Character</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dietsch, Bayha, &amp; Zheng 2005 (randomized controlled trial)</td>
<td>ns</td>
<td>ns, nsi</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Lions Quest—Skills for Action</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laird, Bradley, &amp; Black 1998 (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Lions Quest—Skills for Adolescence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eisen, Zellman, &amp; Murray 2003 (randomized controlled trial)</td>
<td>Binge drinking</td>
<td>ns, nsi</td>
<td>na</td>
</tr>
<tr>
<td><strong>Positive Action</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flay et al. 2006 (randomized controlled trial)</td>
<td>Suspensions</td>
<td>Statistically significant, Substantively important</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>Tobacco use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alcohol use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Being drunk</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illegal drug use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Serious violence (boys)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flay &amp; Allred 2003 (quasi-experimental design)</td>
<td>Violence rates</td>
<td>Statistically significant, Substantively important</td>
<td>na</td>
</tr>
<tr>
<td></td>
<td>Suspension rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Too Good for Drugs(^™)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bacon 2000 (randomized controlled trial)</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>Bacon 2003 (randomized controlled trial)</td>
<td>ns</td>
<td>Statistically significant, Substantively important</td>
<td>na</td>
</tr>
</tbody>
</table>

na = not applicable  
ns = not statistically significant  
nsi = not substantively important
Appendix A3  Summary of statistically significant\(^1\) or substantively important\(^2\) positive findings  (continued)

<table>
<thead>
<tr>
<th>Study</th>
<th>Behavior(^3)</th>
<th>Knowledge, attitudes, and values(^3)</th>
<th>Academic achievement(^3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistically significant positive findings</td>
<td>Behavior across outcomes</td>
<td>Statistically significant positive findings</td>
</tr>
<tr>
<td><strong>Too Good for Drugs and Violence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bacon 2001a (randomized controlled trial)</td>
<td>na</td>
<td>na</td>
<td>Perceptions of social and resistance skills</td>
</tr>
<tr>
<td>Bacon 2001b (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>Perceptions of social and resistance skills</td>
</tr>
<tr>
<td><strong>Too Good for Violence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hall &amp; Bacon 2005 (randomized controlled trial)</td>
<td>Teacher checklist of student behaviors (20 week follow-up)—total score</td>
<td>Statistically significant, Substantively important</td>
<td>ns</td>
</tr>
<tr>
<td><strong>Voices Literature and Character Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demetriades-Guyette 2002 (quasi-experimental design)</td>
<td>na</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

\(^1\) na = not applicable
\(^2\) ns = not statistically significant
\(^3\) nsi = not substantively important
Ninety-three studies provided data on 41 character education programs and were classified for the strength of their design. To be fully reviewed, a study had to be a randomized controlled trial or a quasi-experimental design.

**Eligibility for review**
Quasi-experiments eligible for review include those equating through matching or statistical adjustment, regression discontinuity designs, and single-case designs. No studies based on the latter two types of designs were identified for the character education review. We are currently developing evidence standards for regression discontinuity designs and single-case designs.

The review considered the properties of measurement instruments, the percentage of students, classrooms, or schools in the study sample that were not included in the reported results, and any sample characteristics or events that might serve as alternative explanations for the observed effect. For details please see the WWC Evidence Standards. Long-term outcomes were preferred over immediate outcomes for inclusion in our analysis of program effects.

The research evidence for programs that have at least one study meeting WWC evidence standards with or without reservations is summarized in individual intervention reports posted on the WWC website. See [http://www.whatworks.ed.gov](http://www.whatworks.ed.gov). So far, 18 studies of 13 character education programs have met evidence standards with or without reservations. The lack of evidence for the remaining programs does not mean that those programs are ineffective; some programs have not yet been studied using a study design that permits the WWC to draw any conclusions about their effectiveness. And for some studies, not enough data were reported (such as descriptive statistics of the findings) to enable us to confirm statistical findings.

**Rating of effectiveness**
Each character education program that had at least one study meeting WWC standards with or without reservations received a rating of effectiveness in at least one outcome domain. The rating of effectiveness aims to characterize the existing evidence base in a given domain. The intervention’s effects based on the research evidence can be rated as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.

The rating of effectiveness takes into account four factors: the quality of the research design; the statistical significance of the findings; the size of the difference between participants in the intervention and the comparison conditions; and the consistency in findings across studies (see the WWC Intervention Rating Scheme).

The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. Because of these corrections, the level of statistical significance as calculated by the WWC may differ from the one originally reported by the study authors. For an explanation, see the WWC Tutorial on Mismatch. For the formulas that we used to calculate statistical significance, see Technical Details of WWC-Conducted Computations. If the average effect size across all outcomes in one study in a single domain is at least 0.25, it is considered substantively important, contributing toward the rating of effectiveness. See the technical appendices of the character education intervention report for further details.

**Extent of evidence**
The evidence base rating represents the size and number of independent samples that were assessed for the purposes of analysis of the program effects. A “moderate/large” evidence base requires at least two studies and two schools across studies within one domain, and a total sample size across studies of at least 350 students or 14 classrooms. Otherwise, the evidence base is considered to be “small.” The WWC is currently working to define a “large” evidence base. This term should not be confused with external validity, as other facets of external validity, such as variations in settings, important sub-groups of students, implementation, and outcomes measures, were not taken into account for the purposes of this rating.
Appendix A4  Methodology (continued)

Improvement index
The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each domain and each study as well as a domain average improvement index across studies of the same intervention (see the Technical Details of WWC-Conducted Computations). The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. The improvement index can take on values between –50 and +50, with positive numbers denoting results favorable to the intervention group. Unlike the rating of effectiveness, the improvement index is based only on the size of the difference between the intervention and the comparison conditions.
Appendix A5
References

Studies that met WWC standards

**Lessons in Character**


**Additional citation for this study:**


**Lion’s Quest—Skills for Adolescence**


**Additional citation for this study:**


**Positive Action**


**Too Good for Drugs and Violence**


**Too Good for Drugs™**


**Too Good For Violence**


**Additional citation for this study:**


Studies that met WWC standards with reservations

**Building Decision Skills**


**Connect with Kids**

Caring School Community™
San Ramon Study


Six-District Study


Appendix A5

References (continued)


**Facing History and Ourselves**


**Heartwood Ethics Curriculum**


**Additional citations for this study:**

Leming, J. S., & Silva, D. Y. (2001). A five year follow-up evaluation of the effects of the Heartwood Ethics Curriculum on...
the development of children’s character. (Available from the Heartwood Institute, http://www.heartwoodethics.org/docs/Heartwood_5_Year_Report.pdf.)


Lessons in Character

Lion’s Quest—Skills for Action

Additional citation for this study:

Positive Action

Too Good for Drugs and Violence

Additional citation for this study:

Voices Literature and Character Education

Studies that did not meet evidence screens
Acquiring Ethical Guidelines for Individual Self Governance (AEGIS)

Additional citation for this study:

Building Esteem in Students Today (BEST)

Caring School Community™ (CSC)

Changing Lives
Character Counts!


Additional citations for this study:


Community of Caring®


Facing History and Ourselves (FHAO)


Tollefson, T., Barr, D. J., & Strom, M. S. (n.d.). *Facing History and Ourselves.* (Available from Facing History and Ourselves, 16 Hurd Road, Brookline, MA 02445)

Giraffe Heroes

Appendix A5
References (continued)

**Heartwood Ethics Curriculum**

**Learning for Life**
Ryan, K. (n.d.). *Character building with Learning for Life: A research study.* Irving, TX: Learning for Life.2

**Lions Quest—Skills for Action**
**Additional citation for this study:**

**Lions Quest—Skills for Adolescence**


**Additional citations for this study:**
Buscemi, M. (n.d.). *Lions-Quest Skills for Adolescence evaluation.* (Available from Quest International, 537 Jones Road, PO Box 566, Grandville, OH 43023)

**Open Circle**

**Pathways to Character**

**Positive Action**
Appendix A5
References


Project Wisdom


Additional citation for this study:


Resolving Conflict Creatively Program™ (RCCP)


Additional citations for this study:


**Additional citation for this study:**


**The ESSENTIAL Curriculum™**


**Tribes TLC®**


Chesswas, R. J. D., Davis, L. J., & Hanson, T. (2003, July). *Evaluation of the implementation and impact of Tribes TLC.* (Available from CenterSource Systems, LLC, 7975 Cameron Drive, Building 500, Windsor, CA 95492.)


Davis, L. J., Hanson, T., & Chesswas, R. J. D. (2004, January). *Year 2 evaluation: School context and structures in Tribes TLC schools.* (Available from CenterSource Systems, LLC, 7975 Cameron Drive, Building 500, Windsor, CA 95492.)

Dworkin, R. J., & Griffith, A. (1999). *An evaluation of the Tribes program.* Houston, TX: Spring Branch Independent School District, Department of Assessment and Research.


**Voices Literature and Character Education (Voices LACE)**


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1. Complete data are not reported: the WWC could not compute effect sizes based on the data reported.
2. Does not use a strong causal design: this study, which used a quasi-experimental design, did not establish that the comparison group was equivalent to the intervention group at baseline.
3. Does not use a strong causal design: this study did not use a comparison group.
4. Does not use a strong causal design: this study administered the initial measurement (pretest) after the intervention began.
5. Does not use a strong causal design: this study did not use a quantitative design to assess student outcomes.
6. The outcome measures are not shown to be valid or reliable.
7. The outcome measures are not relevant to this review: The parameters for this WWC review specified student outcome measures but this study did not focus on students.
8. Does not use a strong causal design: there was only one intervention and one comparison unit, so the analysis could not separate the effects of the intervention from other factors.
9. The sample is not appropriate to this review.
10. The outcome measures are not relevant to this review: The parameters for this WWC review specified student outcome measures but this study did not focus on students.
11. Does not use a strong causal design: this paper is a review and summary of other research.
12. Does not use a strong causal design: this study used a qualitative approach to report findings.