What Works Clearinghouse

INSTITUTE OF EDUCATION SCIENCES

Positive Action

Program description

Positive Action, a K–12 program, aims to promote a positive self-concept, character development, healthy behavior, and social-emotional skills and to reduce disruptive and problem behavior. The curricula for elementary and middle school students each have seven units per kit, with nine kits per grade level. The high school curriculum has six units per kit, with four kits per grade level. But the overall number of lessons may vary by grade level. All lessons are scripted and use classroom discussion, role-playing, games, songs, and activity sheets or text booklets. Optional components that may or may not be implemented as part of the program are: climate development; drug education for grade 5 and middle school; conflict resolution plan; community, parent, and family classes; and counselor components.

Research

One study of *Positive Action* met the What Works Clearinghouse (WWC) evidence standards, and one study met standards with reservations. The studies included 56 elementary schools in Florida and Hawaii. Both studies examined results on students' behavior and academic achievement.

Effectiveness

Positive Action was found to have potentially positive effects on elementary school students' behavior and academic achievement.

	Behavior	*Knowledge, attitudes, and values*	*Academic achievement*
Rating of effectiveness	Positive effects	Not reported	Positive effects
Improvement index[2]	Average: +19 percentile points Range: –12 to +36 percentile points	Not reported	Average: +15 percentile points Range: +8 to +36 percentile points

1. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.
2. These numbers show the average and range of improvement indices for all findings across the two studies.

Additional program information

Developer and contact

Positive Action, Inc. 264 4th Avenue South, Twin Falls, ID 83301. Web: http://www.positiveaction.net. E-mail: info@positiveaction.net. Telephone: (800) 345-2974. Fax: (208) 733-1590.

Scope of use

The *Positive Action* program was created and first implemented in four school sites in Idaho from 1979–81. Positive Action, Inc. was founded in 1982. Since then, more than 11,000 schools in 2,500 school districts and 2,000 community groups and agencies in all 50 states have adopted the program. *Positive Action* may have changed since the studies were conducted. The WWC recommends asking the developer for information about the most current version of this curriculum and taking into account that student demographics and school context may affect outcomes.

Teaching

The *Positive Action* curriculum for each of the elementary school grades averages 140 lessons taught four days a week, organized into six teaching units and a seventh review unit, presented in a consistent order. Units 1–3 and a summary of units 4–7 are taught in grade 7, totaling 81 lessons, while units 4–7 and a summary of units 1–3 are taught in grade 8, totaling 75 lessons. The high school curriculum is composed of four kits. Each kit covers one school year but can stand on its own or be used in a different order. Each kit, with six teaching units and a review unit, has approximately 132 lessons. Kit IV, however, has two options, each with its own curriculum, so the possible number of lessons doubles for that kit. In each of the elementary, middle, or high school grade levels teachers may implement the entire set of lessons or choose a partial implementation of at least 20 lessons per grade level. There are *Levels of Implementation Plans* for the Bronze, Silver, Gold, and Platinum Levels, which guide users on how to choose lessons for the highest level of effectiveness. In all grade levels a typical lesson lasts about 15 minutes.

The *Positive Action* program consists of a core curriculum and optional components that may or may not be implemented as part of the program—sitewide climate development; drug education for grade 5 and middle school; conflict resolution; counselor, parent, and family classes; and community/coalition development. The program philosophy, "You feel good about yourself when you think and do positive actions, and there is a positive way to do everything," underlies the content of the program units. Kits for the core curriculum and the supplemental components may include instructor's manuals, group materials, activity booklets or activity sheets, text booklets, posters, song CDs with lyrics, game boards, and teaching aides (stickers, index cards, medals, puppets, flannel boards and figures, bean bags, and visual aids).

Cost

The cost of a *Positive Action* classroom kit varies by grade level. Kindergarten kits cost $460; grades 1–8 cost $360; high school kits I, II, and III cost $360; and high school kit IV costs $460. The cost of the drug education supplemental kits also varies by grade level, ranging from $250 to $360. The optional community kit costs $550, the counselor kit $125, and the family kit $75. Family classes cost $360 and parenting classes $160. Some of the kits are available in Spanish. Combo kits (at reduced prices), refresher kits, and kit parts are also available for varied prices.

An orientation training workshop that includes curriculum; climate development; and counselor, family, and community components costs $200 a school type (elementary, middle, or high school). Ongoing training workshops and media training workshops cost $250 each. Workshops that combine orientation, ongoing training, and media training for grades K–12 cost $900.

Research

Thirteen studies reviewed by the WWC investigated the effects of the *Positive Action* program. One study of the impact of *Positive Action* on elementary school students met WWC evidence standards, and one study met standards with reservations. One study (Flay, Acock, Vuchinich, & Beets, 2006) was a randomized controlled trial. The second study (Flay & Allred, 2003) used a

Research *(continued)*

quasi-experimental design. The remaining 10 studies did not meet WWC evidence screens.

Flay and Allred (2003) included 36 elementary schools in a large Southeastern school district. The study compared outcomes for students participating in the *Positive Action* program with the outcomes for students in schools that did not use this program. The study focused on *Positive Action* as implemented schoolwide.

Effectiveness

Findings

The WWC review of character education addresses student outcomes in three domains: behavior; knowledge, attitudes, and values; and academic achievement.

Behavior. Flay and colleagues (2006) reported statistically significant differences favoring the intervention groups on students' suspension rates, use of alcohol, being drunk, and use of tobacco and illegal drugs. The study also reported statistically significant differences favoring the intervention group on serious violence among boys but not among girls. The average effect size across all behavior outcomes in this study was statistically significant.[3]

Flay and Allred (2003) reported statistically significant differences favoring the intervention group on students' violent behavior and suspension rates. In addition, the average effect size was statistically significant.

Academic achievement. Flay and colleagues (2006) reported, and the WWC confirmed, statistically significant differences favoring the intervention groups on students' grade retention rates. The study also examined the impact on state standardized test scores in reading and math but found no statistically significant differences. In addition, the average effect size was statistically significant.

Flay and Allred (2003) reported, and the WWC confirmed, statistically significant differences favoring the intervention group on total scores of the Florida Comprehensive Aptitude Test (FCAT). The authors reported no statistically significant impacts on absenteeism. The average effect size across the two outcomes in this domain was statistically significant.

Rating of effectiveness

The WWC rates interventions 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 (as calculated by the WWC), the size of the difference between participants in the intervention condition and the comparison condition, and the consistency in findings across studies (see the WWC Intervention Rating Scheme).

The WWC found *Positive Action* to have positive effects on both behavior and academic achievement of elementary school students

Improvement index

For each outcome domain, the WWC computed an improvement index based on the effect size (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 versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analysis. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results. The improvement index

3. 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. For an explanation, see the WWC Tutorial on Mismatch. See the Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate the statistical significance. In the case of *Positive Action,* corrections for both clustering and multiple comparisons were needed.

for behavior is +19 percentile points, with a range of –12 to +36 percentile points. The improvement index for academic achievement is +15 percentile points, with a range of +8 to +36 percentile points.

Summary

The WWC reviewed 13 studies on *Positive Action.* One study met WWC evidence standards, and one study met standards with reservations. Both studies assessed elementary school student outcomes in the behavior and academic achievement domains. When the WWC aggregated the results in each of these domains, the average effect sizes were statistically significant. So the WWC rated the program as having positive effects on both behavior and academic achievement. Character education, an evolving field, is beginning to establish a research base. The evidence presented in this report is limited and may change as new research emerges.

References

Met WWC evidence standards

Flay, B., Acock, A., Vuchinich, S., & Beets, M. (2006). Progress report of the randomized trial of Positive Action in Hawaii: End of third year of intervention. Available from Positive Action, Inc. 264 4th Avenue South, Twin Falls, ID 83301.

Met WWC evidence standards with reservations

Flay, B. R., & Allred, C. G. (2003). Long-term effects of the Positive Action program. *American Journal of Healthy Behavior, 27*(1), 6–21.

Did not meet WWC evidence screens

Allred, C. G. (1984). *The Positive Action program: An evaluation. Royal School, Honolulu School District, HI.* Twin Falls, ID: Positive Action, Inc.[4]

Burcham, S. (1992). Improving the academic self-esteem of elementary students. Unpublished doctoral dissertation, Nova University, Fort Lauderdale-Davie, FL.[5]

Flay, B. R., & Ordway, N. (1999). *Effectiveness of the Positive Action program: Changes in school-level percentile achievement rankings and disciplinary report.* Twin Falls, ID: Positive Action, Inc.[5]

Flay, B. R. (2001). *An intensive case study of the Positive Action program as a comprehensive school reform demonstration program: Year 2 results.* Twin Falls, ID: Positive Action, Inc.[5]

Additional citation

Flay, B. R. (2000). *An intensive case study of the Positive Action® program as a comprehensive school reform demonstration program.* Twin Falls, ID: Positive Action, Inc.

Flay, B. R., Allred, C. G., & Ordaway, N. (2001). Effects of the Positive Action program on achievement and discipline: Two matched control comparisons. *Prevention Science, 2*(2), 71–88.[6]

Flay, B. R., & Slagel, M. (2006, July). The Positive Action Family Program: A pilot randomized trial. Available from the Positive Action, Inc., 264 4th Avenue South, Twin Falls, ID 83301.[7]

Heuer, L. G. (1995). Behavior, attitudes, and knowledge related to drug and alcohol prevention curricula in North Dakota seventh through twelve grade students. *Dissertation Abstracts International, 56*(10), 3826. (UMI No. 9605472).[5]

Hoyer-Rufner, C. S. (1994). The Positive Action curriculum for fifth graders: An exploratory study of accuracy of self-perceptions and self-esteem. *Dissertation Abstracts International, 54*(7), 2513A. (UMI No. 9333361).[5]

4. 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.
5. Does not use a strong causal design: the study did not use a comparison group.
6. Does not use a strong causal design: the study, which used a quasi-experimental design, did not establish that the comparison group was equivalent to the treatment group at the baseline
7. The sample is not appropriate to this review.

References *(continued)*

Waggoner-Weir, M. S. (1991). The Positive Action program and self-esteem of 6th-grade students. *Dissertation Abstracts International, 52*(07), 2417. (UMI No. 9136806).[4]

West, B. G. (1997). The effects of improving the self-esteem on academic performance of fourth-grade students in a rural elementary school. *Dissertation Abstracts International, 58*(03), 691. (UMI No. 9726368).[8]

Woodward, J. R. (1996). Improving academic achievement of fourth-grade students through a program of self-concept enhancement activities. Unpublished doctoral dissertation, Nova Southeastern University, Jacksonville, FL.[8]

For more information about specific studies and WWC calculations, please see the WWC *Positive Action* Technical Appendices.

8. Complete data are not reported: the WWC could not compute effect sizes.

Appendix

Appendix A1.1 Study characteristics: Flay, Acock, Vuchinich, & Beets, 2006 (randomized controlled trial)

Characteristic	Description
Study citation	Flay, B., Acock, A., Vuchinich, S., & Beets, M. (2006). Progress report of the randomized trial of Positive Action in Hawaii: End of third year of intervention. Available from Positive Action, Inc. 264 4th Avenue South, Twin Falls, ID 83301.
Participants	The study tracked students who started grades K–1 in the 2001–02 academic year. The report reviewed by the WWC examined the outcomes of 2,666 third- and fourth-grade students at the end of the third year of program implementation. These outcomes included students who had remained in the school since the beginning of the study as well as new students in the school. About 25% of the students surveyed each year were new to the school. The students were enrolled in 20 elementary schools that were randomly assigned into conditions. A small percentage of the students were white (13.40% in the intervention school and 17.94% in the comparison). Among the remaining students the following ethnic groups were represented: Hawaiian, Filipino, Asian (other), Japanese, Samoan, Hispanic, Chinese, Black, and Portuguese. About 60% of the schools in the sample were Title I schools.
Setting	The study was conducted in 20 K–5 or K–6 schools in Hawaii. Five pairs of matched participating schools were from Oahu, three pairs were from Maui, and two pairs were from Molokai.
Intervention	The program consisted of the *Positive Action* curriculum and additional components that involved school principals, counselors, parents, and community members. The components addressed school and classroom management, school climate, family and community involvement, and skills and knowledge related to core values.[1] The report reviewed by the WWC presented findings for the end of the third year of program implementation. The authors report that by the third year, two schools were still implementing at a very low level, three at a moderate-to-high level, and five at a high level. But even the high-implementation schools were still not implementing at the level the program developer would expect for high-implementation schools. For example, few schools implemented the family- or community-involvement programs.
Comparison	The comparison schools were drawn from the same school districts as the intervention schools and were matched on demographic characteristics, student behavior, and academic achievement. Comparison schools did not implement the *Positive Action* program. The comparison schools had other types of character education activities they regarded as business-as-usual, which were also practiced (although to a lesser extent) in the intervention schools.[1]
Primary outcomes and measurement	The study examined students' outcomes in the academic achievement and behavior domains.[2] Outcomes in the academic achievement domain included percent proficient on the reading and math sections of a state standardized test and daily absences. Outcomes in the behavior domain included students' reports of use of alcohol, tobacco, and illegal drugs. (See Appendices A2.1 and A2.2 for more detailed descriptions of outcome measures.)
Teacher training	Prior to each school year, the program developer, Dr. Allred, provided teacher/staff training to each intervention school. The training lasted 3–4 hours the first year and 1–2 hours each of the subsequent years. In addition, Dr. Allred visited each school at least once each year to provide an in-service session (usually 30–50 minutes). Finally, 5–6 representatives from each intervention school participated each winter in a mini-conference to obtain further training on the schoolwide components of the program and to share experiences.

1. Schools in the intervention and comparison groups implemented additional character and behavior programs at the time of the study, which they regarded as business-as-usual. These programs include the Hawai'i State Department of Education (HIDOE) mandated General Learner Outcomes (GLO), TRIBES, Lions Quest, and additional programs related to school management and organization and drug and violence prevention, such as Positive Behavioral Support, D.A.R.E., Red Ribbon Week, Peace Builders, and Peace Week. The study authors informed the WWC that these schools had some of the additional programs in place before the time of pretest. Because the same practices took place in both study conditions, and because greater time dedicated to those additional practices was reported for the comparison group than for the intervention group, this study was reviewed. The WWC cautions that interaction effects between *Positive Action* and the additional programs may have enhanced the program effects.
2. The study also examined students' attitudes and values and additional teacher-reported outcomes in the behavior domain. But, since complete statistical information was not available, these outcomes were not reviewed.

Appendix A1.2 Study Characteristics: Flay & Allred, 2003 (quasi-experimental design)

Characteristic	Description
Study citation	Flay, B. R., & Allred, C. G. (2003). Long-term effects of the Positive Action program. *American Journal of Healthy Behavior, 27*(1), 6–21.
Participants	The study included 36 elementary schools. About 62% of the students in the intervention group participated in the free or reduced-price lunch program compared with 67% in the comparison group. About half of the students were white (50.59% in the intervention group and 44.66% in the comparison group). About one-fourth of the students were African-American (24.61% in the intervention group and 28.48% in the comparison group). About one-fifth of the students were Hispanic (20.71% in the intervention group and 23.23% in the comparison group). Because schools in the intervention and comparison conditions were matched, there were no statistically significant differences in demographic characteristics between the two groups.
Setting	The participating schools were from one large Southeastern school district. The school district was characterized by a large number of school sites (about 65) that have implemented *Positive Action* for four or more years.
Intervention	The program consisted of the *Positive Action* curriculum and additional activities that involved school principals, parents, and community members. The components addressed school and classroom management, learning climate, and skills and knowledge related to core values.[3]
Comparison	The comparison schools were drawn from the same school district as the intervention schools and were matched on demographic characteristics. Comparison schools did not implement the *Positive Action* program.
Primary outcomes and measurement[4]	The study measures in the behavior domain included violence and suspensions rates. The study measures in the academic achievement domain included the Florida Comprehensive Aptitude Test (FCAT) and grade retention rates. (See Appendices A2.1 and A2.2 for more detailed descriptions of outcome measures.)
Teacher training	No information on teacher training was provided.

3. Half of the schools in the intervention group implemented additional character and behavior programs at the time of the study. The study authors informed the WWC that these schools had the additional programs in place before the time of pretest. That is, the *Positive Action* program was the only new addition between the pretest and the posttest. The WWC cautions that interaction effects between *Positive Action* and the additional programs may have enhanced the program effects.
4. Flay and Allred (2003) also investigated the long-term impact of *Positive Action* on students in middle and high schools. The study conducted school-level analyses comparing three categories of schools: less than 60%, between 60% and 79%, and between 80% and 100% of the student population with exposure to the elementary school *Positive Action* program. But, because those analyses did not use a comparison group, they were not reviewed in this WWC report.

Appendix A2.1 Outcome measures in the behavior domain

Outcome measure	Description
Violence rates	School-level archival data that consist of disciplinary referrals for incidents of violence per 100 students (as cited in Flay & Allred, 2003).
Suspensions rates	School-level archival data that consist of percent of students who received out-of-school suspensions (as cited in Flay & Allred, 2003).
Tobacco use	One item rated on a three-point scale on which students indicate if they have ever smoked cigarettes (as cited in Flay et al., 2006).
Alcohol use	One item rated on a three-point scale on which students indicate if they have ever drunk alcoholic beverages (as cited in Flay et al., 2006).
Being drunk	One item rated on a three-point scale on which students indicate if they have ever been drunk (as cited in Flay et al., 2006).
Illegal drug use	One item rated on a three-point scale on which students indicate if they have ever used illegal drugs (as cited in Flay et al., 2006).
Violent behavior	A self-report survey that measures level of engagement in five serious behaviors: carried a knife or razor to use to hurt someone, threatened to cut or stab someone, cut or stabbed someone on purpose to hurt them, carried a gun, and shot at someone (as cited in Flay et al., 2006).
Suspensions	School-level archival data that consist of the rates at which students were suspended during the school year (as cited in Flay et al., 2006).

Appendix A2.2 Outcome measures in the academic achievement domain

Outcome measure	Description
The Florida Comprehensive Aptitude Test (FCAT)	This standardized test contains two basic components: criterion-referenced tests (CRT), measuring selected benchmarks in mathematics, reading, science, and writing from the Sunshine State Standards (SSS); and norm-referenced tests (NRT) in reading and mathematics, measuring individual student performance against national norms. Total score for the grade 4 FCAT was used in the reviewed study (as cited in Flay & Allred, 2003).
The Hawaii Content and Performance Standards test (HCPS)	A state standardized academic achievement test. Fifth-grade test scores on the reading and math subtests were used in this study (as cited in Flay et al., 2006).
Absentee rates	School-level archival data that consist of percent of students absent for 21 or more days during the school year (as cited in Flay & Allred, 2003).
Retention in grade	School-level archival data that consist of the number of students retained in the same grade level (as cited in Flay et al., 2006).

Appendix A3.1 Summary of study findings included in the rating for the behavior domain[1]

Outcome measure	Study sample[3]	Sample size (students/ schools)	Author's findings from the study: Mean outcome (standard deviation[2]) — *Positive Action* group	Author's findings from the study: Mean outcome (standard deviation[2]) — Comparison group	WWC calculations: Mean difference[4] (*Positive Action* – comparison)	WWC calculations: Effect size[5]	WWC calculations: Statistical significance[6] (at α = 0.05)	WWC calculations: Improvement index[7]
Flay et al., 2006 (randomized controlled trial)								
Suspensions	Grade 5	2,660/20	1.63 to 1,000 students	6.2 to 1,000 students	0.01	0.81	Statistically significant	+29
Tobacco use	Grade 5	2,660/20	3.33 (na)	4.78 (na)	1.45	0.23	Statistically significant	+9
Alcohol use	Grade 5	2,660/20	9.63 (na)	14.83 (na)	5.20	0.30	Statistically significant	+12
Being drunk	Grade 5	2,660/20	0.74 (na)	3.35 (na)	2.61	0.93	Statistically significant	+32
Illegal drug use	Grade 5	2,660/20	0 (na)	2.39 (na)	2.39	1.08	Statistically significant	+36
Serious violence (boys)	Grade 5	1,330/20	10.8 (na)	23.5 (na)	12.70	0.56	Statistically significant	+21
Serious violence (girls)	Grade 5	1,330/20	5.8 (na)	3.6 (na)	–2.20	–0.30	ns	–12
Average[8] for behavior (Flay et al., 2006)						0.52	Statistically significant	+20
Flay & Allred, 2003 (quasi-experimental design)								
Violence rates	Grades 1–6	36 schools	3.83 (nr)	12.11 (nr)	8.28	0.75	Statistically significant	+27
Suspensions rates	Grades 1–6	36 schools	2.72 (nr)	4.09 (nr)	1.37	0.25	Statistically significant	+10
Average[8] for behavior (Flay & Allred, 2003)						0.50	Statistically significant	+19
Domain average[8] across studies						0.51	na	+19

ns = not statistically significant
nr = not reported
na = not applicable

(continued)

Appendix A3.1 Summary of study findings included in the rating for the behavior domain[1] *(continued)*

1. This appendix reports findings considered for the effectiveness rating and the improvement index.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes.
3. Flay and Allred (2003) also investigated the impact of *Positive Action* on secondary schools, but this study did not meet WWC evidence screens because it did not use a comparison group.
4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The sign for the direction of effect for outcomes indicating problem behavior was reversed, to indicate a positive effect that is associated with a small rate of problem behavior in the intervention schools.
5. Effect sizes for all outcomes in the behavior domain were calculated using the odds ratio formula. For an explanation of the effect size calculation, please see the Technical Details of WWC-Conducted Computations.
6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. 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. For an explanation about the clustering correction, see the WWC Tutorial on Mismatch. See the Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate statistical significance. In the case of *Positive Action,* corrections for both clustering and multiple comparisons were needed.
7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition and that of the average student in the comparison condition. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results.
8. The WWC-computed average effect sizes are simple averages rounded to two decimal places. The average improvement indices are calculated from the average effect sizes.

Appendix A3.2 Summary of study findings included in the rating for the academic achievement domain[1]

Outcome measure	Study sample[3]	Sample size (students/ schools)	Author's findings from the study: Mean outcome (standard deviation[2]) — *Positive Action* group	Author's findings from the study: Mean outcome (standard deviation[2]) — Comparison group	WWC calculations: Mean difference[4] (*Positive Action* – comparison)	WWC calculations: Effect size[5]	WWC calculations: Statistical significance[6] (at α = 0.05)	WWC calculations: Improvement index[7]
Flay et al., 2006 (randomized controlled trial)								
The Hawaii Content and Performance Standards test (HCPS)—math (percentage reaching proficiency)	Grade 5	20/2,660	26.00 (na)	21.00 (na)	5.00	0.17	ns	+7
The Hawaii Content and Performance Standards test (HCPS)—reading (percentage reaching proficiency)	Grade 5	20/2,660	52.00 (na)	44.00 (na)	8.00	0.19	ns	+8
Grade retention	Grade 5	20/2,660	1 to 1,000 students	6 to 1,000 students	0.01	1.09	Statistically significant	+36
Average[8] for academic achievement (Flay et al., 2006)						0.48	Statistically significant	+19
Flay & Allred, 2003 (quasi-experimental design)								
The Florida Comprehensive Aptitude Test (FCAT)	Grade 4	36 schools	290.90 (nr)	278.40 (nr)	12.50	0.28	Statistically significant	+11
Absentee rates	Grades 1–6	36 schools	10.79 (nr)	12.36 (nr)	1.57	0.25	ns	+10
Average[8] for academic achievement (Flay & Allred, 2003)						0.27	Statistically significant	+11
Domain average[8] across studies						0.38	na	+15

ns = not statistically significant
nr = not reported
na = not applicable

1. This appendix reports findings considered for the effectiveness rating and the improvement index. One additional finding based on a subtest of the Florida Comprehensive Aptitude Test (FCAT) was not used for rating purposes because of an overlap with total FCAT score, but is presented in Appendix A4.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes. For the calculation of an effect size for the FCAT outcome, the school-level standard deviations reported in the original article were converted to student-level standard deviations. Standard deviations by condition were not reported in the study; therefore, pooled standard deviations were used for effect size calculation.
3. Flay and Allred (2003) also investigated the impact of *Positive Action* on secondary schools, but this study did not meet WWC evidence screens because it did not use a comparison group.

(continued)

Appendix A3.2 Summary of study findings included in the rating for the academic achievement domain[1] *(continued)*

4. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group. The sign for the direction of effect for absentee rates was reversed, to indicate a positive effect that is associated with smaller absentee rates in the intervention schools.
5. Effect sizes for all outcomes reviewed for the Flay and Allred (2003) study, except for students scores on the FCAT, were calculated using the odds ratio formula. For an explanation of the effect size calculation, please see the Technical Details of WWC-Conducted Computations.
6. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. 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. For an explanation about the clustering correction, see the WWC Tutorial on Mismatch. See the Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate statistical significance. In the case of *Positive Action,* corrections for both clustering and multiple comparisons were needed.
7. The improvement index represents the difference between the percentile rank of the average student in the intervention condition and that of the average student in the comparison condition. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results.
8. The WWC-computed domain average effect size is a simple average rounded to two decimal places. The domain improvement index is calculated from the average effect size.

Appendix A4 Summary of additional study findings for the academic achievement domain[1]

Outcome measure	Study sample	Sample size (students/ schools)	Author's findings from the study: Mean outcome (standard deviation[2]) — *Positive Action* group	Author's findings from the study: Mean outcome (standard deviation[2]) — Comparison group	WWC calculations: Mean difference[3] (*Positive Action* – comparison)	WWC calculations: Effect size[4]	WWC calculations: Statistical significance[5] (at α = 0.05)	WWC calculations: Improvement index[6]
Flay & Allred, 2003 (quasi-experimental design)								
Florida Reading Test	Grade 4	36 schools	105.90 (nr)	73.10 (nr)	32.80	1.29	Statistically significant	+40

nr = not reported

1. This appendix presents an additional finding that falls in the academic achievement domain. This is a subtest of the Florida Comprehensive Aptitude Test (FCAT). Findings for total score on the FCAT are presented in Appendix A3.2.
2. The standard deviation across all students in each group shows how dispersed the participants' outcomes are: a smaller standard deviation on a given measure would indicate that participants had more similar outcomes. For the calculation of an effect size pooled standard deviations, which were converted to student-level standard deviations, were used.
3. Positive differences and effect sizes favor the intervention group; negative differences and effect sizes favor the comparison group.
4. For an explanation of the effect size calculation, please see the Technical Details of WWC-Conducted Computations.
5. Statistical significance is the probability that the difference between groups is a result of chance rather than a real difference between the groups. 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. For an explanation about the clustering correction, see the WWC Tutorial on Mismatch. See the Technical Details of WWC-Conducted Computations for the formulas the WWC used to calculate statistical significance. In the case of *Positive Action,* a correction for clustering was needed.
6. The improvement index represents the difference between the percentile rank of the average student in the intervention condition and that of the average student in the comparison condition. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results.

Appendix A5.1 *Positive Action* rating for the behavior domain

The WWC rates an intervention's effects for a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.[1]

For the outcome domain of behavior, the WWC rated *Positive Action* as having positive effects. The remaining ratings (potentially positive effects, mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered, because *Positive Action* was assigned the highest applicable rating.

Rating received
Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.
• Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.
Met. *Positive Action* had two studies, one of which met WWC evidence standards for a strong design. Both studies showed statistically significant positive effects.
• Criterion 2: No studies showing statistically significant or substantively important *negative* effects.
Met. The WWC analysis found no statistically significant or substantively important negative effects in this domain.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain level effect. The WWC also considers the size of the domain level effect for ratings of potentially positive effects. See the WWC Intervention Rating Scheme for a complete description.

Appendix A5.2 *Positive Action* rating for the academic achievement domain

The WWC rates an intervention's effects for a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative.[1]

For the outcome domain of academic achievement, the WWC rated *Positive Action* as having positive effects. The remaining ratings (potentially positive effects, mixed effects, no discernible effects, potentially negative effects, and negative effects) were not considered, because *Positive Action* was assigned the highest applicable rating.

Rating received
Positive effects: Strong evidence of a positive effect with no overriding contrary evidence.
• Criterion 1: Two or more studies showing statistically significant *positive* effects, at least one of which met WWC evidence standards for a strong design.
Met. *Positive Action* had two studies, one of which met WWC evidence standards for a strong design. Both studies showed statistically significant positive effects.
• Criterion 2: No studies showing statistically significant or substantively important *negative* effects.
Met. The WWC analysis found no statistically significant or substantively important negative effects in this domain.

1. For rating purposes, the WWC considers the statistical significance of individual outcomes and the domain level effect. The WWC also considers the size of the domain level effect for ratings of potentially positive effects. See the WWC Intervention Rating Scheme for a complete description.