

Pathway to Academic Success Project

Intervention Report | English Learners Topic Area

WHAT WORKS CLEARINGHOUSE™

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English learners (ELs) bring valuable cultural and linguistic knowledge and experiences with them to school. Yet these students face the unique challenge of simultaneously learning English and other academic content, which can lead to lower scores in reading and writing in English compared to their non-EL peers.¹ Despite the additional challenges faced by ELs, teachers receive little training in how to effectively teach this population of students.²

The *Pathway to Academic Success Project* trains teachers to improve the reading and writing abilities of ELs who have an intermediate level of English proficiency by incorporating cognitive strategies into reading and writing instruction. The cognitive strategies include goal setting, tapping prior

knowledge, asking questions, making predictions, articulating and revising understanding of text, and evaluating writing.³

This What Works Clearinghouse (WWC) intervention report, part of the WWC’s English Learners topic area, explores the effects of the *Pathway to Academic Success Project* on writing quality, writing conventions, and literacy achievement for ELs. The WWC identified five studies of the *Pathway to Academic Success Project*. Three of these studies meet WWC standards. The evidence presented in this report is from these three studies on ELs—with a sample in which 94% of students are Hispanic—in grades 6 to 12 in three urban and three suburban school districts.

What Happens When English Learners Participate in the *Pathway to Academic Success Project*?⁴

The evidence indicates that implementing the *Pathway to Academic Success Project* has potentially positive effects on writing quality, writing conventions, and literacy achievement, compared with business-as-usual professional development and English language arts instruction.

Findings on the *Pathway to Academic Success Project* from three studies that meet WWC standards are shown in Table 1. The table reports an effectiveness rating, an improvement index, and the number of studies and students that contributed to the findings. The effectiveness rating is based on the quality of the designs used in studies, whether the findings are favorable or unfavorable for the intervention, and the number of studies that tested the intervention. See Box 1 for more information on interpreting effectiveness ratings.

In order to help readers judge the practical importance of an intervention’s effect, the WWC translates findings across

studies into an “improvement index” by averaging findings that meet WWC standards within the same outcome domain. The improvement index can be interpreted as the expected change in percentile rank for an average comparison group student if that student had received the intervention. For example, an improvement index of +16 means that the expected percentile rank of the average comparison group student would increase by 16 points if the student received instruction from a *Pathway to Academic Success Project* teacher instead of the instruction provided to the comparison group. A positive improvement index does not necessarily mean the estimated effect is statistically significant. Results for each individual outcome measure within domains are shown in Table 4.

The evidence presented in this report is based on available research. Findings and conclusions could change as new research becomes available.

Table 1. Summary of findings on the *Pathway to Academic Success Project* from studies that meet WWC standards

| Outcome domain | Effectiveness rating | Study findings | Evidence meeting WWC standards (version 4.0) | |
|----------------------|------------------------------|---------------------------------------|----------------------------------------------|--------------------|
| | | Improvement index (percentile points) | Number of studies | Number of students |
| Writing quality | Potentially positive effects | +16 | 2 | 444 |
| Writing conventions | Potentially positive effects | +3 | 1 | 2,721 |
| Literacy achievement | Potentially positive effects | +3 | 1 | 2,726 |

Note: For more information about outcome measures, see study descriptions in Tables 6, 8, and 10. The effects of the *Pathway to Academic Success Project* are not known for other outcomes within the English Learners topic area, including alphabets, reading fluency, reading comprehension, writing productivity, English language proficiency, mathematics achievement, science achievement, and social studies achievement.

BOX 1. HOW THE WWC REVIEWS AND DESCRIBES EVIDENCE

The WWC evaluates evidence based on the quality and results of reviewed studies. The criteria the WWC uses for evaluating evidence are defined in the [Procedures and Standards Handbooks](#) and the [Review Protocols](#). The studies summarized in this report were reviewed under WWC Standards (version 4.0) and the English Learners topic area protocol (version 4.0).

To determine the effectiveness rating, the WWC considers what methods each study used, the direction of the effects, and the number of studies that tested the intervention. The higher the effectiveness rating, the more certain the WWC is about the reported results and about what will happen if the same intervention is implemented again. The following key explains the relationship between effectiveness ratings and the statements used in this report:

| Effectiveness Rating | Rating interpretation | Description of the evidence |
|--------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Positive (or negative) effects | The intervention is <i>likely</i> to change an outcome | Strong evidence of a positive (or negative) effect, with no overriding contrary evidence |
| Potentially positive (or negative) effects | The intervention <i>may</i> change an outcome | Evidence of a positive (or negative) effect with no overriding contrary evidence |
| No discernible effects | The intervention <i>may result in little to no change</i> in an outcome | No affirmative evidence of effects |
| Mixed effects | The intervention <i>has inconsistent effects</i> on an outcome | Evidence includes studies in at least two of these categories: studies with positive effects, studies with negative effects, or more studies with indeterminate effects than with positive or negative effects |

How Is the *Pathway to Academic Success Project* Implemented?

The following section provides details of how districts and schools can implement the *Pathway to Academic Success Project* intervention. This information can help educators identify the requirements for implementing the intervention and determine whether implementation would be feasible in their districts or schools. Information presented in this section comes from the studies that meet WWC standards (Kim et al., 2011; Olson et al., 2016, 2020) and from correspondence with the intervention developer.

- **Goal:** The *Pathway to Academic Success Project* trains teachers to improve the reading and writing abilities of ELs who have at least an intermediate level of English proficiency by incorporating cognitive strategies into reading and writing instruction.
- **Target population:** The *Pathway to Academic Success Project* is designed for grades 6 to 12 general education English language arts (ELA) teachers who have ELs in their classrooms. The target student population is ELs in general education classrooms who have an intermediate level of English proficiency. Students with an intermediate level of English proficiency are proficient in colloquial English, but are still building skills in academic language, reading, and writing in English.
- **Method of delivery:** Teachers receive the *Pathway to Academic Success Project* training through professional development and coaching offered by experienced *Pathway to Academic Success Project* teachers. Teachers then implement the strategies during their regular ELA class time.
- **Frequency and duration of service:** Teachers participate in 46 hours of professional development per year, over the course of 2 years. This training includes five or six full-day meetings and five after-school meetings throughout each school year. Teachers are also encouraged to meet in professional learning communities to discuss implementation for at least 1 hour each week. The instructional time teachers spend working with students on the *Pathway to Academic Success Project* strategies varies from teacher to teacher. However, most teachers report spending at least 60 hours of their class time using *Pathway to Academic Success Project* strategies with students during each school year.
- **Intervention components:** The key components of the *Pathway to Academic Success Project*, which are teacher professional development, coaching, and instructional materials and supplies, are described in Table 2.

Comparison condition: In the three studies that contribute to this intervention report, students in the comparison group were taught by teachers who did not receive *Pathway to Academic Success Project* training. Teachers received the regular professional development offered by their schools or school districts.

Table 2. Components of the *Pathway to Academic Success Project*

| Key component | Description |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Teacher professional development | The <i>Pathway to Academic Success Project</i> includes 2 years of professional development sessions focused on training in literary response and analysis, comprehension and analysis of informational nonfiction texts, synthesis of multiple texts, and development of clear, coherent, focused essays. Teachers are trained to use a cognitive strategies toolkit that includes reading and writing strategies such as setting goals, tapping prior knowledge, asking questions, making predictions, interpreting texts, articulating and revising understanding of text, and evaluating and revising their writing. Teachers are also provided a curricular approach and instructional strategies for demonstrating the cognitive strategies in the toolkit to students, including direct instruction, modeling, and guided practice. Teachers are also trained on how to use a student writing assessment to determine individual student needs and strengths and then provide tailored writing instruction. Districts may also opt to have the <i>Pathway to Academic Success Project</i> identify a guest speaker to present to teachers during the professional development sessions. |
| Coaching | Teachers receive ongoing support on how to integrate cognitive strategies into their schools' English language arts (ELA) curriculum from coaches who are typically experienced <i>Pathway to Academic Success Project</i> teachers. Coaches may be teachers selected by district leadership or retired National Writing Project teachers who are trained to coach by the <i>Pathway to Academic Success Project</i> . Coaches conduct informal visits to participating classrooms and provide written feedback to teachers. They also attend the professional development with teachers and assist teachers in implementing the <i>Pathway to Academic Success Project</i> cognitive strategies approach into their standard ELA curricula. District literacy specialists also provide support by serving as liaisons between <i>Pathway to Academic Success Project</i> staff and district and school staff. |
| Instructional materials and supplies | Throughout the school year, teachers receive classroom materials that they can use to enhance their instruction of cognitive strategies, such as wall posters with visuals representing cognitive strategies, preprinted class sets of readings and handouts, and bookmarks and lists of cognitive sentence starters for students. Teachers also receive materials for helping students apply cognitive strategies to revise their pretest writing assessment into a finished essay, as well as supplies for students to implement the strategies such as highlighters and binders. Finally, teachers receive model lessons to use in their classrooms. These model lessons are based on texts that are culturally relevant to students and that teachers have used during professional development. |

What Does the *Pathway to Academic Success Project* Cost?

This preliminary list of costs is not designed to be exhaustive; rather, it provides educators an overview of the major resources needed to implement the *Pathway to Academic Success Project*. The program costs described in Table 3 reflect the costs for an individual school district to participate in the *Pathway to Academic Success Project* and are based on information available as of June 2021. The developer reported that the typical cost including both required and optional cost ingredients in Table 3 is \$65 per

student directly served by the *Pathway to Academic Success Project*, assuming 175 students per teacher in a district with 8 schools and 8 teachers participating in each school. The total cost per district in this scenario is \$728,000 for both years. Without the optional costs, the per-student cost is \$33.38 and cost per district in this scenario is \$373,800 for both years. The cost will vary based on the number of teachers and students served and whether the district includes the optional elements described in Table 3.

Table 3. Cost ingredients for *Pathway to Academic Success Project*

| Cost ingredients | Description | Source of funding |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personnel | <p>Teachers receive in-person training during 10 full-day meetings and 10 after-school meetings over the course of 2 school years. A full-day meeting costs \$4,500 and an after-school meeting costs \$1,500. The cost includes the trainer, and the trainer is typically a <i>Pathway to Academic Success Project</i> staff member. However, the intervention developer may provide training to district staff so they can independently deliver <i>Pathway to Academic Success Project</i> training. The cost of the training is the same but allows the district to deliver its own training in the future.</p> <p><i>Pathway to Academic Success Project</i> coaches receive a \$1,500 stipend each year and usually serve three to six teachers. District literacy specialists receive a \$2,500 stipend each year. Districts may also opt to provide teachers a stipend for participation (\$1,000 per teacher per year).</p> <p>Guest speakers at trainings are optional and cost \$500 to \$2,000, depending on the speaker. Districts may also pay for optional essay readers to read and score student essays. Essay readers cost \$200 per class section; costs will vary depending on the number of class periods and whether district staff or <i>Pathway to Academic Success Project</i> staff read the essays.</p> | School districts or schools pay for personnel costs as part of <i>Pathway to Academic Success Project</i> . |
| Facilities | Standard meeting facilities are included in the meeting costs, and schools and districts may reduce the cost of facilities by providing their own or using donated facilities. | School districts or schools pay for facility costs as part of <i>Pathway to Academic Success Project</i> or can provide their own or use donated facilities for training. |
| Equipment and materials | <p><i>Pathway to Academic Success Project</i> materials, which are provided in the first year, typically cost \$2,000 per teacher when purchased in bulk for at least 60 teachers. The materials include model lessons and classroom materials to support instruction, as well as supplies such as bookmarks, highlighters, and binders. Districts may opt to provide participating teachers with a \$1,500 stipend across both school years to purchase a classroom library to support <i>Pathway to Academic Success Project</i> instruction. General office supplies and copying cost an additional \$6,400 per year.</p> <p><i>Pathway to Academic Success Project</i> staff also customize materials for the after-school meetings to address a participating district's specific needs; for example, designing a session on adapting the cognitive strategies approach for the district's adopted textbook. Customizing the after-school meeting materials costs an additional \$5,000 per year (\$1,000 per meeting).</p> | School districts or schools pay for equipment and materials as part of <i>Pathway to Academic Success Project</i> . |

For More Information:

About the *Pathway to Academic Success Project*

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About the cost of the intervention

The developer provided information about the *Pathway to Academic Success Project* costs.

Research Summary

The WWC identified five studies that investigated the effectiveness of the *Pathway to Academic Success Project* (Figure 1):

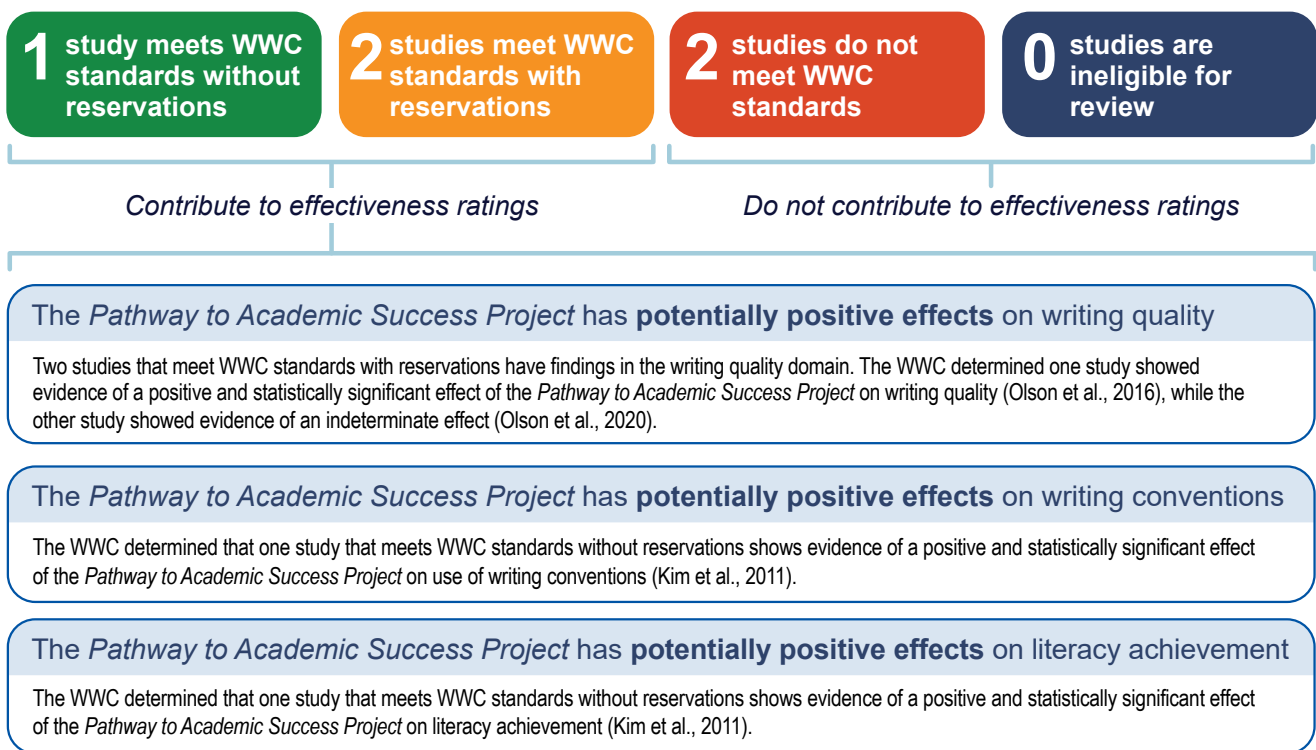
- 1 study meets WWC standards without reservations
- 2 studies meet WWC standards with reservations
- 2 studies do not meet WWC standards

The WWC reviews findings on the intervention’s effects on eligible outcome domains from the three studies that meet standards, either with or without reservations. Based on this review, the WWC generates an effectiveness rating, which summarizes how the intervention impacts, or changes, a particular outcome domain.

The three studies of the *Pathway to Academic Success Project* that meet WWC standards reported findings on writing quality, writing conventions, and literacy achievement. No other studies or findings meet WWC standards within any outcome domain included in the English Learners topic area.⁵ Citations for the five studies reviewed for this report are listed in the References section, which begins on page 13.

The WWC reports additional supplemental findings, such as those the study authors reported for subtests or subgroups, on the WWC website (<https://whatworks.ed.gov>). These supplemental findings and findings from studies that do not meet WWC standards do not contribute to the effectiveness ratings.

Figure 1. Effectiveness ratings for *Pathway to Academic Success Project*



Main Findings

Table 4 shows the findings from the three studies of the *Pathway to Academic Success Project* that meet WWC standards. The table includes WWC calculations of the performance of the intervention group relative to the comparison group in terms of the mean difference and effect size. The effect size is a standardized measure of the effect of an intervention on outcomes, representing the average change expected for all individuals who are given the intervention (measured in standard deviations of the outcome measure). For the mean difference and effect size values, a positive number favors the intervention group and

a negative number favors the comparison group. A positive or negative improvement index does not necessarily mean the estimated effect is statistically significant.

Based on findings from the three studies that meet WWC standards, the effectiveness rating for writing quality, writing conventions, and literacy achievement is *potentially positive effects*. The findings in the writing quality domain are based on 444 students. The findings in the writing conventions and literacy achievement domains are based on 2,721 and 2,726 students, respectively.

Table 4. Findings by outcome domain from studies of the *Pathway to Academic Success Project* that meet WWC standards

| Measure (Study) | Study sample | Sample size | Mean (standard deviation) | | WWC calculations | | | p-value |
|---------------------------------------------------------------------------------------------------|-----------------------------------------|-------------|---------------------------|-------------------|------------------|-------------|-------------------|----------------------------------|
| | | | Intervention group | Comparison group | Mean difference | Effect size | Improvement index | |
| Researcher-developed Academic Writing Assessment (Olson et al., 2016) ^a | English learner students in grades 7–12 | 233 | 5.55 (1.56) | 4.40 (1.52) | 1.15 | 0.77 | +28 | < .01 |
| Analytic Writing Continuum for Literary Analysis (Olson et al., 2020) ^b | English learner students in grades 7–12 | 211 | 3.31 (1.11) | 3.21 (1.17) | 0.10 | 0.03 | +1 | >.05 |
| Outcome average for writing quality across all studies | | | | | | 0.40 | +16 | Statistically significant |
| California Standards Test: English language arts, Writing subtest (Kim et al., 2011) ^c | English learner students in grades 6–12 | 2,721 | 0.04 (0.97) | -0.05 (1.03) | 0.09 | 0.09 | +3 | <.05 |
| Outcome average for writing conventions (Kim et al., 2011)^c | | | | | | 0.09 | +3 | Statistically significant |
| California Standards Test: English language arts composite (Kim et al., 2011) ^c | English learner students in grades 6–12 | 2,726 | 328.48 (41.02) | 325.60 (43.74) | 2.88 | 0.07 | +3 | <.05 |
| Outcome average for literacy achievement (Kim et al., 2011) | | | | | | 0.07 | +3 | Statistically significant |

^a The Academic Writing Assessment is a measure of analytical writing skills developed by the authors in collaboration with other researchers for the *Pathway to Academic Success Project*.

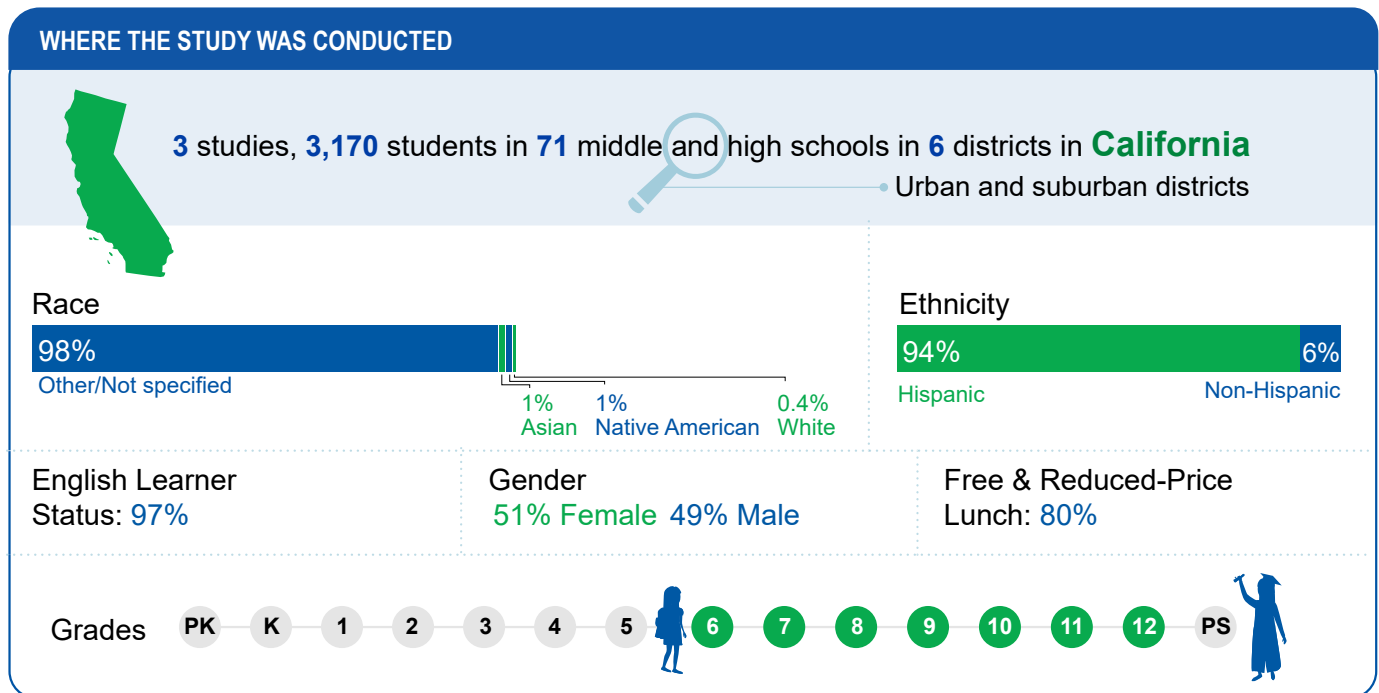
^b Intervention group means presented for this study were provided in response to an author query. The Analytic Writing Continuum for Literary Analysis is a measure of student writing and literary analysis skills, with a focus on developing English learners' writing skills.

^c The California Standards Test English language arts, writing subtest is a subtest of the California Standards Test English language arts composite score. The writing subtest measures students' performance on written and oral English language conventions and writing strategies. The English language arts composite score consists of the reading and writing subtests and measures students' mastery of the English language arts content standards.

In What Context Was the *Pathway to Academic Success Project* Studied?

The following section provides information on the setting of the three studies of the *Pathway to Academic Success Project* that meet WWC standards, and a description of the participants in the research. This information can help

educators understand the context in which the studies of the *Pathway to Academic Success Project* were conducted, and determine whether the program might be suitable for their setting.



Details of Each Study that Meets WWC Standards

This section presents details for three studies of the *Pathway to Academic Success Project* that meet WWC standards. These details include the full study reference, findings description, findings summary, and description of study characteristics. A summary of domain findings for each study is presented below, followed by a description of the study characteristics. These study-level details include contextual information about the study setting, methods, sample, intervention group, comparison group, outcomes, and implementation details.

Research details for Kim et al. (2011)

Kim, J. S., Olson, C. B., Scarcella, R., Kramer, J., Pearson, M., van Dyk, D., Collins, P., & Land, R. E. (2011). A randomized experiment of a cognitive strategies approach to text-based

analytical writing for mainstreamed Latino English language learners in grades 6 to12. *Journal of Research on Educational Effectiveness*, 4(3), 231-362. <https://eric.ed.gov/?id=EJ932553>

For additional information, readers should refer to the original studies. Findings from Kim et al. (2011) show evidence of a statistically significant positive effect of the *Pathway to Academic Success Project* on use of writing conventions and on literacy achievement (Table 5).⁶ The findings and research details summarized for this study come from two related citations, including the primary study listed above. See the References section, which begins on page 13, for a list of all related publications.

Table 5. Summary of findings from Kim et al. (2011)

| Outcome domain | Sample size | Meets WWC Group Design Standards Without Reservations | | |
|----------------------|----------------|-------------------------------------------------------|-------------------|---------------------------|
| | | Average effect size | Improvement index | Statistically significant |
| Writing conventions | 2,721 students | 0.09 | +3 | Yes |
| Literacy achievement | 2,726 students | 0.07 | +3 | Yes |

Table 6. Description of study characteristics for Kim et al. (2011)

| | |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WWC evidence rating | Meets WWC Group Design Standards Without Reservations. This is a randomized controlled trial with low attrition. For more information on how the WWC assigns study ratings, please see the WWC Procedures and Standards Handbooks (version 4.0) and WWC Standards Briefs , available on the WWC website. |
| Setting | The study took place in 15 secondary schools (9 middle schools and 6 high schools) in the Santa Ana Unified School District, an urban school district in California, during the 2007–08 and 2008–09 school years. |
| Methods | The authors first randomly assigned teachers within grade levels and schools to the <i>Pathway to Academic Success Project</i> group or the comparison group and then randomly assigned eligible English learners (ELs) to teachers' general education English language arts (ELA) classrooms, which were a mix of ELs and native English speakers. When an intervention or comparison group teacher had multiple classes eligible for the study, authors selected one classroom with the highest percentage of ELs scoring at or above the intermediate proficiency level on the California English Language Development Test because <i>Pathway to Academic Success Project</i> materials were designed for these students. Authors randomly assigned 1,664 ELs to a <i>Pathway to Academic Success Project</i> classroom and 1,591 ELs to a comparison classroom. The sample loss after random assignment (attrition) was within the acceptable threshold for review: the overall attrition rate was 16% and the differential attrition rate was 3%. |
| Study sample | The study consisted of 52 <i>Pathway to Academic Success Project</i> teachers and 51 comparison group teachers. The sample included 2,726 ELs in grades 6 to 12. For this sample, all students were ELs, 95% of students were Hispanic, and Spanish was the first language for 88% of students. Forty-nine percent of students were male, and 79% of students were eligible for free or reduced-price lunch. |
| Intervention condition | <i>Pathway to Academic Success Project</i> training occurred over 2 years, although the findings that contribute to the effectiveness rating in this intervention report were measured after the first year of training. During each school year, <i>Pathway to Academic Success Project</i> teachers participated in 46 total hours of training, including six full-day sessions (6 hours each) and five after-school sessions (2 hours each). Developers of the <i>Pathway to Academic Success Project</i> led the training with support from district literacy coaches who were experienced <i>Pathway to Academic Success Project</i> teachers. The first two professional development days focused on introducing teachers to the cognitive strategies toolkit and instructional strategies for teaching students to use the toolkit. Throughout the year, teachers received curriculum materials that modeled approaches to using the cognitive strategies and described strategies for implementing them within the schools' ELA curricula using direct instruction, teacher modeling, and guided student practice. In the third and fourth professional development days, teachers focused on analyzing students' performance on a writing assessment to determine strengths and areas for growth, and received further training on the implementation of cognitive strategies to enhance interpretive reading and analytical writing. In the fifth and sixth professional development days, teachers analyzed students' post-test writing, reflected on students' growth in writing, and made plans for year 2. Throughout implementation, <i>Pathway to Academic Success Project</i> teachers had access to the district literacy coaches who supported them in integrating into the ELA curriculum a cognitive strategies approach to writing. <i>Pathway to Academic Success Project</i> teachers also received 26 hours of business-as-usual professional development, as described below for teachers in the comparison group. |
| Comparison condition | Comparison group teachers received 26 hours of business-as-usual professional development that focused on the teacher's guide for using the district's ELA textbook (<i>Holt Elements of Literature series</i>). The textbook contained instruction in cognitive reading strategies and included questions throughout reading selections to aid students' comprehension, but focused more on cognitive strategies in reading than writing. The professional development included sessions on interpreting test data, using test data to improve students' California Standards Test scores, improving students' summarizing strategies while reading, creating professional learning communities, and understanding how to teach the ELA textbook. Comparison group teachers did not receive coaching support, but did receive resources, such as classroom library books. |
| Outcomes and measurement | <p>Study authors reported findings for ELs on two measures from the California Standards Test. The California Standards Test: English language arts, writing subtest score was reviewed in the writing conventions domain and measures students' performance on written and oral English language conventions and writing strategies. The California Standards Test: English language arts composite score, which consists of the reading and writing subtests, was reviewed in the literacy achievement domain and measures students' mastery of the ELA content standards. Authors also reported results from the California Standards Test: English language arts, reading subtest, and these findings were considered supplemental in this review because they involve a subtest and are in the same domain of the California Standards Test: English language arts composite. Supplemental findings do not factor into the intervention's rating of effectiveness but are available on the WWC website (https://whatworks.ed.gov).</p> <p>Study authors also reported findings from the Assessment of Literacy Analysis outcome measure, but findings on this outcome measure do not meet WWC group design standards because there is high attrition and the analytic intervention and comparison groups do not satisfy the baseline equivalence requirement.</p> <p>The study presents findings for two cohorts of students, but only the first cohort findings meet WWC group design standards. Outcomes for the year 1 cohort of students were measured after teachers received the first year of <i>Pathway to Academic Success Project</i> training. Outcomes for the year 2 cohort of students were measured after teachers received the second, and final, year of <i>Pathway to Academic Success Project</i> training. Findings for the year 2 cohort of students did not meet WWC group design standards because the amount of attrition is unknown and the analytic intervention and comparison groups do not satisfy the baseline equivalence requirement.</p> |
| Additional implementation details | The study authors conducted observations of <i>Pathway to Academic Success Project</i> implementation and comparison classrooms at the end of the first year of implementation. Authors found no differences in the use of specific <i>Pathway to Academic Success Project</i> reading or writing activities during classroom observations between intervention and comparison classrooms. Study authors also surveyed <i>Pathway to Academic Success Project</i> and comparison group teachers about their classroom instruction. Nearly twice as many <i>Pathway to Academic Success Project</i> teachers reported devoting time to writing skills compared with comparison group teachers. |

Research details for Olson et al. (2016)

Olson, C. B., Matuchniak, T., Chung, H. Q., Stumpf, R., & Farkas, G. (2016). Reducing achievement gaps in academic writing for Latinos and English learners in grades 7-12. *Journal of Educational Psychology, 109*(1), 1-21. <https://eric.ed.gov/?id=EJ1125530>

Findings from Olson et al. (2016) show evidence of a statistically significant positive effect of *Pathway to Academic Success Project* on writing quality (Table 7).

Table 7. Summary of findings from Olson et al. (2016)

| | | Meets WWC Group Design Standards Without Reservations | | |
|-----------------|--------------|-------------------------------------------------------|-------------------|---------------------------|
| Outcome domain | Sample size | Study findings | | |
| | | Average effect size | Improvement index | Statistically significant |
| Writing quality | 233 students | 0.77 | +28 | Yes |

Table 8. Description of study characteristics for Olson et al. (2016)

| | |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WWC evidence rating | Meets WWC Group Design Standards With Reservations. This is a randomized controlled trial with compromised random assignment because the analysis did not account for unequal probabilities of assignment to the intervention and comparison groups. Baseline equivalence of the intervention and comparison groups is established. |
| Setting | The study took place in 16 secondary schools (eight middle and eight high schools) in the Anaheim Union High School District, an urban school district in California, during the 2012–13 and 2013–14 school years. |
| Methods | The authors first randomly assigned students (both mainstreamed English learners [ELs] and native English speakers) to teachers' general education English language arts (ELA) classrooms, then randomly assigned teachers to either the <i>Pathway to Academic Success Project</i> or comparison group. Teachers were stratified by school and grade for random assignment, with half of teachers assigned to the <i>Pathway to Academic Success Project</i> and half to the comparison group. In grade levels with an odd number of teachers, the additional teacher was assigned to the <i>Pathway to Academic Success Project</i> group. Finally, for both conditions, one class per teacher was selected for the study, except for three <i>Pathway to Academic Success Project</i> teachers for whom two classes were selected. Selected classes had the greatest percentage of ELs and students with the English proficiency skills needed to benefit most from the program. At the start of the study, 1,493 students were assigned to <i>Pathway to Academic Success Project</i> classes, and 1,705 students were assigned to comparison group classes. |
| Study sample | Ninety-five teachers participated in the study, with 49 teachers in the <i>Pathway to Academic Success Project</i> group and 46 teachers in the comparison group. Because three <i>Pathway to Academic Success Project</i> teachers had two classrooms participating in the study, a total of 52 <i>Pathway to Academic Success Project</i> classes and 46 comparison group classes were in the study. The findings reviewed in this report are based on the subsample of 233 EL students in grades 7 to 12. For this sample, all students were ELs, 80% of the students were Hispanic, 9% were Native American, 6% were Asian, 4% were White, and less than 1% were Black. Fifty-three percent of students were male, and 90% of students qualified for free or reduced-price lunch. |
| Intervention condition | <i>Pathway to Academic Success Project</i> training generally followed the same format and topics used in Kim et al. (2011), described in Table 6. Teachers in Olson et al. (2016) also engaged in professional learning communities within their school to discuss how to implement lessons from the training in their classrooms. Throughout year 1, teachers received coaching support from a retired teacher with previous experience with <i>Pathway to Academic Success Project</i> . This teacher conducted three informal classroom observations and provided detailed written feedback to teachers. During year 2, a lead ELA teacher within each school provided coaching support. In addition to classroom observations, coaches attended professional development sessions with teachers from their assigned school and assisted teachers in integrating <i>Pathway to Academic Success Project</i> strategies into their lessons. <i>Pathway to Academic Success Project</i> teachers also received business-as-usual professional development provided by the school district, as described below for teachers in the comparison group. |
| Comparison condition | Comparison group teachers participated in business-as-usual professional development and used the district ELA textbook and novels for teaching. District professional development during years 1 and 2 included one full-day session led by district curriculum specialists on protocols for reviewing district benchmark assessments. In year 2, district curriculum specialists also led professional development on text complexity. |
| Outcomes and measurement | <p>Study authors reported findings for two cohorts of students. Outcomes for the year 1 cohort of students were measured after teachers received the first year of <i>Pathway to Academic Success Project</i> training. Outcomes for the year 2 cohort of students were measured after teachers received the second, and final, year of <i>Pathway to Academic Success Project</i> training. The finding that contributes to the effectiveness rating in this intervention report are for ELs on the Academic Writing Assessment outcome in year 2. This researcher-developed assessment measures students' analytical writing skills using a timed, on-demand essay where students write in response to prompts based on one of two short stories. Students' essays were scored using a rubric adapted from rubrics used to evaluate essays for the California High School Exit Exam, California STAR 7 Direct Writing Assessment, and the National Assessment of Educational Progress. This outcome was reviewed in the writing quality domain.</p> <p>The study also reported outcomes that meet WWC group design standards for other student subpopulations across both year 1 and year 2 where at least half the students were ELs. These outcomes are considered supplemental findings and, in addition to the findings for year 1 students, include findings by grade, gender, ethnicity, and EL status. Summaries of supplemental findings are available on the WWC website (https://whatworks.ed.gov). The supplemental findings do not factor into the intervention's rating of effectiveness.</p> <p>The writing quality outcome for ELs in year 1 does not meet WWC group design standards because random assignment was compromised and the study did not establish baseline equivalency between the intervention and comparison groups. Study authors also reported effects in the literacy achievement domain on grade 10 students' passing rate on the California High School Exit Examination in ELA. This outcome does not meet WWC group design standards because random assignment was compromised, and data were not available to establish baseline equivalence between the intervention and comparison groups.</p> <p>The study authors also reported outcomes for student populations that were not eligible for review because they did not include at least 50% ELs. These include outcomes for White students, Black students, and students who were not eligible for free or reduced-price lunch. Ineligible outcomes and outcomes that do not meet WWC group design standards are not included in the intervention report.</p> |
| Additional implementation details | Trained observers conducted observations of <i>Pathway to Academic Success Project</i> implementation and comparison classrooms and rated implementation using the <i>Pathway to Academic Success Project</i> Quality Checklist. Authors found that <i>Pathway to Academic Success Project</i> teachers implemented <i>Pathway to Academic Success Project</i> -specific strategies and activities at a higher rate than comparison group teachers at the final observation in the spring of year 2. <i>Pathway to Academic Success Project</i> teachers and comparison group teachers did not differ in their implementation of these strategies and activities in earlier observations. Similarly, authors found differences in the extent to which students demonstrated effective use of <i>Pathway to Academic Success Project</i> strategies in the final observation, but not in earlier observations. |

Research details for Olson et al. (2020)

Olson, C. B., Woodworth, K., Arshan, N., Black, R., Chung, H.Q., D’Aoust, C., Dewar, T., Friedrich, L., Godfrey, L., Land, R., Matuchniak, T., Scarcella, R., & Stowell, L. (2020). The Pathway to Academic Success: Scaling up a text-based analytical writing intervention for Latinos and English learners in secondary school. *Journal of Educational Psychology*, 4(1), 701-717. <https://eric.ed.gov/?id=EJ1249837>

Findings from Olson et al. (2020) show evidence of an indeterminate effect of *Pathway to Academic Success Project* in the writing quality domain (Table 9). The findings and research details summarized for this study come from two related citations, including the primary study listed above. See the References section, which begins on page 13, for a list of all related publications.

Table 9. Summary of findings from Olson et al. (2020)

| | | Meets WWC Group Design Standards Without Reservations | | |
|-----------------|--------------|-------------------------------------------------------|-------------------|---------------------------|
| Outcome domain | Sample size | Study findings | | |
| | | Average effect size | Improvement index | Statistically significant |
| Writing quality | 211 students | 0.03 | +1 | No |

Table 10. Description of study characteristics for Olson et al. (2020)

| | |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WWC evidence rating | Meets WWC Group Design Standards With Reservations. This is a randomized controlled trial with high attrition. Baseline equivalence of the intervention and comparison groups is established. |
| Setting | The study took place in 40 schools serving grades 7 to 12 within four public school districts in urban and suburban areas of southern California during the 2014–15 and 2015–16 school years. Participating districts were associated with one of four National Writing Project (NWP) sites. |
| Methods | <p>The authors randomly assigned teachers recruited for the study and their associated classroom to either the <i>Pathway to Academic Success Project</i> or comparison group. Teachers were stratified by school and grade for random assignment. Before random assignment, authors selected one “focal class” for each teacher and collected rosters of students enrolled in that class. At the start of the study, 113 teachers and 3,105 students were assigned to <i>Pathway to Academic Success Project</i> classes and 117 teachers, and 3,202 students were assigned to comparison group classes.</p> <p>The main finding that meets WWC group design standards was measured for students who had been in the study in year 1 and continued in year 2, after <i>Pathway to Academic Success Project</i> teachers received the full 2 years of training. When moving from year 1 to year 2, the authors intended that students remain in the same classroom to maintain the same study condition in year 2 as students experienced in year 1. However, due to school scheduling demands, many students were assigned to a classroom in a different study condition, and a large portion of students assigned to <i>Pathway to Academic Success Project</i> classes in year 1 did not experience a second year of instruction by a <i>Pathway to Academic Success Project</i> teacher.</p> <p>Because scoring writing samples is costly, authors randomly selected four students per class to score their essays and include in the analysis. For the students continuing in year 2, authors randomly selected four students per class from among students with both a pretest and posttest writing sample. The review calculates attrition from the original randomly assigned sample of students, and not from only those selected for scoring. Because the authors limited the sample eligible for random selection to only students with both a pre- and posttest score, the WWC cannot distinguish exclusions due to random selection from exclusions due to study attrition. Therefore, all exclusions are treated as attrition in this review.</p> |
| Study sample | The study consisted of 230 secondary school English language arts or English language development teachers (113 <i>Pathway to Academic Success Project</i> teachers and 117 comparison group teachers). The findings are based on 211 students in grades 7 to 12, which the authors describe as including English learners and redesignated English proficient students. Eighty-nine percent of the students were Hispanic, 6% were Asian, 1% were White, and 4% were another race or ethnicity or missing this information. Fifty-two percent of English learner students were male. Just over half of the 211 students (55%) met the definition of English learners for this review, which included current English learners and students who were recently (no earlier than 2 years before the start of the study) reclassified as English proficient. |
| Intervention condition | <i>Pathway to Academic Success Project</i> training followed the same format and topics used in Kim et al. (2011), as described in Table 6 above. In this implementation of the <i>Pathway to Academic Success Project</i> , NWP site directors led the professional development with support from study co-directors, doctoral students, or NWP teachers and consultants. Each school identified a teacher to serve as a coordinator and liaison between the NWP site director and the school. <i>Pathway to Academic Success Project</i> teachers also received business-as-usual professional development provided by the school district, as described below for teachers in the comparison group. |
| Comparison condition | Comparison group teachers participated in business-as-usual professional development and used the district ELA textbook and novels for teaching. All comparison group teachers attended a half-day professional development training on Houghton Mifflin Harcourt’s Collections textbook series. Several districts also conducted professional development on district benchmark assessments and the new state Smarter Balanced Assessment Consortium test. |
| Outcomes and measurement | <p>The WWC identified the findings measured at the end of year 2 after teachers received the second, and final, year of <i>Pathway to Academic Success Project</i> training as the main findings that contribute to the effectiveness rating in this intervention report. These findings are measured for a group of students who received 2 years of the intervention, remaining in the study classrooms in both years.</p> <p>Findings for two other groups of students were reviewed as supplemental. This includes a group of students who participated in year 1 with outcomes measured after teachers received the first year of <i>Pathway to Academic Success Project</i> training and a group of students who joined the study classrooms in the second year of the study. For this last group, teachers had received 2 years of <i>Pathway to Academic Success Project</i> training, but students were exposed to just 1 year of a <i>Pathway to Academic Success Project</i> trained teacher.</p> <p>Study authors reported findings for ELs on the Analytic Writing Continuum for Literary Analysis in year 2, at the end of the <i>Pathway to Academic Success Project</i> training. The Analytic Writing Continuum for Literary Analysis measures students’ writing and literary analysis skills, with a focus on developing ELs’ writing skills. Students wrote an essay analyzing a literary nonfiction text in response to a researcher-developed prompt. Essays were then scored using the NWP-developed Analytic Writing Continuum rubric.</p> <p>The study also reports outcomes that meet WWC group design standards and are considered supplemental findings because they measure outcomes after just 1 year of exposure or for non-ELs. These include outcomes for ELs in year 1, outcomes for non-ELs in years 1 and 2, and outcomes for ELs and non-ELs who joined the study in the second year. Summaries of supplemental findings are available on the WWC website (https://whatworks.ed.gov). The supplemental findings do not factor into the intervention’s rating of effectiveness.</p> |
| Additional implementation details | <p>The intervention developer provided support for implementation. Professional development sessions were staggered so that site directors could watch the intervention developer deliver the session to one site before leading that session for their sites. The site directors agreed to implement certain elements of the intervention with fidelity but had flexibility to adapt other elements to their site.</p> <p>Implementation fidelity was assessed based on teacher participation in professional development, the extent to which the content of the professional development was consistent with the program model, and annual teacher surveys about professional development and instructional practices. Authors found that teacher participation in professional development fell short of implementation targets but the content of the professional development met expectations. Three of the four study sites met the implementation target of at least 90% of teachers attending four of the five full-day professional development sessions, and two sites met the target of 90% of teachers attending at least three of the five after-school sessions. <i>Pathway to Academic Success Project</i> teachers reported receiving more ELA-focused professional development than comparison group teachers and that professional development had a greater emphasis on cognitive strategies. However, intervention and comparison group teachers reported spending similar amounts of instructional time on analytical essay writing and reading strategies.</p> |

References

Study that meets WWC group design standards

Kim, J. S., Olson, C. B., Scarcella, R., Kramer, J., Pearson, M., van Dyk, D., Collins, P., & Land, R. E. (2011). A randomized experiment of a cognitive strategies approach to text-based analytical writing for mainstreamed Latino English language learners in grades 6 to 12. *Journal of Research on Educational Effectiveness*, 4(3), 231-362. <https://eric.ed.gov/?id=EJ932553>

Additional source:

Olson, C. B., Kim, J. S., Scarcella, R., Kramer, J., Pearson, M., van Dyk, D., Collins, P., & Land, R. (2012). Enhancing the interpretative reading and analytical writing of mainstreamed English learners in secondary school: Results from a randomized field trial using a cognitive strategies approach. *American Educational Research Journal*, 4(2), 323-355. <https://eric.ed.gov/?id=EJ960494>

Studies that meet WWC group standards with reservations

Olson, C. B., Matuchniak, T., Chung, H. Q., Stumpf, R., & Farkas, G. (2016). Reducing achievement gaps in academic writing for Latinos and English learners in grades 7-12. *Journal of Educational Psychology*, 109(1), 1-21. <https://eric.ed.gov/?id=EJ1125530>

Olson, C. B., Woodworth, K., Arshan, N., Black, R., Chung, H. Q., D'Aoust, C., Dewar, T., Friedrich, L., Godfrey, L., Land, R., Matuchniak, T., Scarcella, R., & Stowell, L. (2020). The Pathway to Academic Success: Scaling up a text-based analytical writing intervention for Latinos and English Learners in secondary school. *Journal of Educational Psychology*, 122(4) 701-717. <https://eric.ed.gov/?id=EJ1249837>

Additional source:

Woodworth, K., Arshan, N., & Gallagher, H. A. (2017). *UC Irvine Writing Project's Pathway to Academic Success program: An Investing in Innovation (i3) Validation Grant evaluation*. SRI International.

Studies that do not meet WWC group design standards

Matuchniak, T., Olson, C. B., & Scarcella, R. (2013). Examining the text-based, on-demand analytical writing of mainstreamed Latino English learners in a randomized field trial of the Pathway to Academic Success Project intervention. *Reading and Writing*, 27(6), 973-974. <https://eric.ed.gov/?id=EJ1039051>. The study does not meet WWC group design standards because it uses a quasi-experimental design in which the analytic intervention and comparison groups do not satisfy the baseline equivalence requirement.

Olson, C., & Land, R. (2007). A cognitive strategies approach to reading and writing instruction for English language learners in secondary school. *Research in the Teaching of English*, 41(3), 269-303. <https://eric.ed.gov/?id=EJ776476>. The study does not meet WWC group design standards because the equivalence of the clusters in the analytic intervention and comparison groups is necessary but the requirement was not satisfied.

Additional source:

Olson, C. B., Land, R., Anselmi, T., & AuBuchon, C. (2010). Teaching secondary English learners to understand, analyze, and write interpretive essays about theme. *Journal of Adolescent & Adult Literacy*, 54(4), 245-256. <https://eric.ed.gov/?id=EJ907572>

Endnotes

¹ The U.S. Department of Education's data story, [Academic Performance and Outcomes for English Learners](#), notes that 9% of ELs in grade 4 and 5% in grade 8 were proficient in reading. Just 67% of ELs graduated high school in 2015-16 (compared with 85% for non-ELs). Although students learning multiple languages may initially seem to lag in language development, they can become proficient in multiple languages with appropriate supports ([McCabe et al., 2013](#); [Castro et al., 2013](#)).

² Most states, with the exception of Florida and California, (1) have few requirements for new teachers in terms of training in effective instruction for ELs and (2) do not require credentials for teaching ELs or in-service training focused on ELs for teachers currently teaching ELs ([Menken & Antuñez, 2001](#); [Quality Counts, 2009](#)).

³ The intervention is referred to as both the *Pathway Project* and the *Pathway to Academic Success Project* in the studies that contribute to this intervention report. The intervention developer confirmed that the *Pathway to Academic Success Project* is the most accurate intervention name. The description for this intervention comes from the studies that contribute to this intervention report and the intervention developer. The What Works Clearinghouse (WWC) requests that developers review the intervention description sections for accuracy from their perspective. The WWC provided the developer with the intervention description in June 2021 and the WWC incorporated feedback from the developer. Further verification of the accuracy of the descriptive information for this intervention is beyond the scope of this review.

⁴ The literature search reflects documents publicly available by December 2019. Reviews of the studies in this report used the standards from the WWC Procedures and Standards Handbook (version 4.0) and the English Learners review protocol (version 4.0).

⁵ The effects of the *Pathway to Academic Success Project* are not known for other outcome domains within the English Learners topic area, including alphabets, reading fluency, reading comprehension, writing productivity, general literacy achievement, mathematics achievement, science achievement, and social studies achievement.

⁶ Previous systematic reviews of Kim et al. (2011) reported findings for the year 2 outcomes on the California Standards Test English language arts composite score, reading subtest, and writing subtest, and the Assessment of Literary Analysis year 1 and year 2 outcomes. These additional outcomes did not meet WWC group design standards for this review because the amount of attrition is unknown and the analytic intervention and comparison groups do not satisfy the baseline equivalence requirement. Therefore, this review focuses on the year 1 California Standards Test English language arts composite score and subtest outcomes. In previous reviews, the analytic intervention and comparison groups did satisfy baseline equivalence requirements; however, due to changes in the WWC Procedures and Standards Handbook (version 4.0), they did not meet the baseline equivalence requirement for this review.

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