

From: John Lee [johnrlee@icanlearn.com]  
Sent: Tuesday, February 28, 2012 7:41 AM  
To: What Works  
Cc: Neil Seftor; Sarah Wissel; Sakari Morvey; Quinn Moore; Emily Caffery;  
Roberto Agodini; Michael Ponza; Jill Constantine  
Subject: Re: WWC High School Math Review of I CAN Learn

I would respectfully request that you delay publishing this report, because there seems to be an inconsistent application of study review criteria. With respect to the Barrow study, other high school studies reviewed by the WWC included 8th grade students. Further, our middle school reviewers in 2009 declined to include these 8th grade students in our 2009 middle school report, saying that the Barrow 8th graders would be included in the high school report. With regard to the Kirby Catoosa County Georgia study, it previously met WWC standards and was a part of our 2007 middle school report. It was dropped from the middle school report in 2009 when 9th grade was assigned to high school. This study should be grandfathered in under the WWC standards that allow for earlier studies to be accepted as properly randomized between test and control based solely upon the researcher's assertion that they were.

All I am asking is for fair and consistent standards in conducting our high school review.

Thank you,

John Lee

On Feb 27, 2012 9:05 AM, "What Works" <whatworks@mathematica-mpr.com> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on

I CAN Learn and determined that this intervention is eligible for an intervention report according to the High School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on February 28th, 2012. As a reminder, this report is covered by the embargo agreement signed by you on August 4th, 2010, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,  
Jill Constantine

Director, What Works Clearinghouse



**From:** John Lee <johnrlee@icanlearn.com>  
**Sent:** Tuesday, February 28, 2012 6:53 PM  
**To:** WhatWorks  
**Subject:** Re: WWC High School Math Review of I CAN Learn (WWC 3521)  
**Attachments:** Princeton Study - Barrow Markman and Rouse July 2008.pdf

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**Sent:** Monday, March 05, 2012 2:42 PM  
**To:** WhatWorks  
**Subject:** Re: WWC High School Math Review of I CAN Learn (WWC 3521)  
**Attachments:** WWC HS Math Report Rebuttal 3-5-12.doc; Princeton Study - Barrow Markman and Rouse July 2008.pdf; Catoosa final report 062906.doc

March 5, 2012

Dear What Works,

Below are details of observed irregularities in the WWC High School Math review of the I CAN Learn® Program that I would like to bring to the attention of the Quality Review Team:

**Irregularities with regard to the Barrow et al study:**

1. The WWC Review Team did not review the full study, Barrow et al July 2008, which had previously been supplied to the WWC well in advance at the request of Tim Silman of Mathematica. Instead, the WWC Review Team chose to review an abridged version of this study which was published a year later: Barrow et al 2009. Another copy of the full study is attached to this email for your reference.
2. The reviewers did not follow the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0 with regard to "Reliability of Outcome Measures" page 4, reasons to recalculate statistical significance page 7, "Types of Populations to be Included" page 2, and "Sample Attrition" pages 4 and 5.
3. "Reliability of Outcome Measures": the reviewers ignored the study's results as reported by the authors, and reviewed two subpopulations within the study to generate a new study based upon outcome measures that the authors had challenged on Inter-rater reliability grounds.

4. The authors' Outcome Measure is a NWEA 30-item paper and pencil exam. "We contracted with Northwest Evaluation Association (NWEA) – an organization independent of the CAI developer – to design a customized 30-item paper and pencil, multiple choice exam targeting specific pre-algebra and algebra skills outlined in each district's course objectives (which should also have been reflected in the CAI (and in traditionally taught) curriculum(s) as previously noted). Identical exams were created for Districts 2 and 3. Slightly different exams were created for District 1 to match the district's standards; however, the exams in District 1 were designed to match the exams used in the other two districts to allow for pooled analysis." Page 16 Barrow et al July 2008.
5. The authors reported a 0.17 effect size overall, 8th grade and 9<sup>th</sup> grade students combined, and a 0.25 effect size for students, 8th grade and 9<sup>th</sup> grade students combined, who actually used the intervention. "We find that students randomly assigned to classes using the computer lab score at least 0.17 of a standard deviation higher on a test of pre-algebra and algebra achievement designed to reflect the curriculum in the districts relative to students assigned to traditional classrooms. The estimated effect size rises to 0.25 of a standard deviation when we estimate the effect for students who actually use the computer-aided instruction." Page 4 Barrow et al July 2008.
6. The WWC reviewers ignored the authors' findings, and generated a new study based upon "The outcomes (that) were statewide math achievement tests administered in the study districts' respective states." Page 7 WWC Intervention Report, High School Math, "I CAN Learn® Program February 2012. These outcomes, however, were challenged by the authors, because they have low power to detect effects of a pre-algebra/algebra intervention. "We emphasize that while the state tests have the advantage of being high-stakes and therefore of great importance to the districts, as little as 10% of the state exams in mathematics contain test items related to pre-algebra and/or algebra. As such, they may have low power to detect effects of a pre-algebra/algebra intervention." Footnote 19, "In one of the districts we were able to identify individual test items that were related to pre-algebra and algebra. Not surprisingly, our estimates were quite noisy given that there were very few test items on which to measure the students' performance." Page 18 Barrow et al July 2008.
7. On Page 7 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, it states: "The statistical significance of group differences will be recalculated if (1) the study authors did not calculate statistical significance, (the authors calculated 0.17 overall and 0.25 for those students who

actually used the intervention), (2) the study authors did not account for clustering when there was a mismatch between the unit of assignment and unit of analysis, (there was no such mismatch) or (3) the study authors did not account for multiple comparisons when appropriate. Otherwise, the review team will accept the calculations provided in the study. (All multiple comparisons were accounted for in the study, but it was inappropriate to include the statewide tests results in the final statistical significance calculations due to these tests' "low power to detect effects of a pre-algebra/algebra intervention.") To wit, the WWC Review Team did not follow the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0., and the WWC Review Team was erred in recalculating effect sizes for this study.

8. Further, on Page 2 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, "Types of Populations to be Included", it states: "Students in grades lower than 9<sup>th</sup> grade are included in the review only if such students were classified in the study as high school students or were included along with students in any of the grades 9 through 12 in the study analysis sample". The 8<sup>th</sup> grade students in Barrow et al July 2008 were clearly included in the study analysis sample and as such it was an error for the WWC Review Team to exclude them from their review.
  
9. The attrition of students over the course of the Barrow et al July 2008 study is well documented by the authors, and appropriate controls were used by the authors to maintain the Randomized Controlled Trial status of the study. Further, the "Overall Attrition Rate" ( $2301 - 1605 / 2301 * 100\% = 30.25\%$ , is within the green area,  $<50\%$ , of the attrition diagram on page 5 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, the Original Full Sample study population of 2301 students with NWEA baseline algebra test scores and the Analysis Sample of 1605 students with NWEA baseline algebra test scores are from pages 58 and 60 respectively, Barrow et al July 2008. The "Differential Attrition Rate", is  $30.51\% - 29.99\% = 0.52\%$ , which is well within the green area,  $<7\%$ , of the attrition diagram on page 5 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0: (Treatment group's Full Sample population was 1157 and its Analysis population was 810,  $1157 - 810 / 1157 * 100\% = 29.99\%$  Attrition, and the Control groups Full Sample population was 1144 and its Analysis population was 795,  $1144 - 795 / 1144 * 100\% = 30.51\%$  Attrition, data from pages 58 and 60 respectively, Barrow et al July 2008. This is a Differential Attrition Rate of 0.52%.) By definition on page 5 of the High School protocols version 2.0, the attrition must be considered "low" by WWC Protocol standards, and the Barrow et al July 2008 study must retain its Randomized Controlled Trial status.



10. Furthermore, an example of a previous WWC High School Math intervention report that demonstrably included 8<sup>th</sup> graders in the analysis is found on Page 7 of the WWC High School Intervention Report for Cognitive Tutor and is cited below:

Carnegie Learning Curricula and Cognitive Tutor® Software August 2010

Appendix A1.1 Study characteristics: Cabalo, Jaciw, & Vu, 2007

Characteristic Description

"... At the beginning of the study, students in grades 9–12 comprised 73% of the sample, with 19% in grade 8 and 7% enrolled at Maui Community College."1.

Footnote 1. "As noted in the protocol, students in grades outside of high school were included in the review if they were included in the study analysis sample along with students in grades 9 through 19"

An example of previous WWC math reviews that allowed for authors' recalculation of effect sized based upon students who actually used the intervention is the WWC Middle School Intervention Report Cognitive Tutor® Algebra 1 July 2009.

Appendix 1A: "Participants included 426 ninth-grade students (206 treatment, 220 control) who were assigned to one of six algebra teachers in three study schools. Algebra course sections for each teacher were randomly assigned to a curriculum. The study authors eliminated from the analysis 83 students who transferred within the district to a different section of the course, did not enroll in the district for the second semester, did not receive a grade, or whose records indicated a conflict between the curriculum and class assignment.<sup>2</sup> In order to reduce the cost of the Algebra I assessment, only one control class was randomly selected for each teacher involved in the study. The algebra assessment analysis sample included 255 students (153 intervention, 102 control) from 16 classrooms (10 intervention, 6 control). The analysis sample for the grades analyses included 343 students (173 intervention, 170 control) in

19 sections (10 intervention, 9 control); however, grades are a subjective measure and were not included in the effectiveness rating.”

I have attached a copy of the Kirby 2005 I CAN Learn Algebra in Catoosa County Georgia for the Quality Review Team to review. Dr. Kirby explained to me that when the study was designed, it met the WWC protocols to qualify as a Randomized Controlled Trial, but due to WWC protocol changes made during the study, it only met the WWC evidence standards with reservations when it was included in the WWC I CAN Learn® Middle School Math Intervention Report in 2007:

From: **Peggy C. Kirby** <(b)(6)>  
Date: Fri, May 25, 2007 at 11:26 AM  
Subject: Catoosa County, GA  
To: "John R. Lee" <[JLee@icanlearn.com](mailto:JLee@icanlearn.com)>  
John,

Our study of I CAN Learn in Catoosa County, Georgia again demonstrated the significant effects of your product. As you know, we aim to use randomization in our studies of I CAN Learn whenever possible. Students in this study were randomly assigned to I CAN Learn or traditional classes, but the What Works Clearinghouse revised its standards after the study began to require at least two teachers per condition. WWC recognizes this study as meeting its evidence standards “with reservations.” This classifies the study in the same category as high-quality quasi-experimental studies. In this study, the district provided math score level on the Georgia high-stakes criterion referenced test known as the GCRCT. Using non-parametric analyses, we found the 14% pass difference between I CAN Learn and traditionally-taught students to be statistically significant. The odds ratio was 2.37, meaning that the odds of failure are 2.37 times higher in the traditional group than in the I CAN Learn® group. Congratulations on yet another research-based measure of your program’s success.

Peggy

I do not believe the High School Math Review Team’s assessment that the Catoosa study does not meet WWC evidence standards, due to “only one unit assigned to one or both conditions”, is appropriate. This study met the WWC Middle School Math standards with reservations in 2007, but was dropped from the I CAN Learn® Middle School Math Intervention Report in 2009 when 9<sup>th</sup> grade studies were designated high school not middle school. The review protocols have changed over the years. This creates a moving target for researchers who design their studies to meet WWC protocol



standards only to find they have changed once the study is underway or completed. There is a fundamental question of fairness. It is not fair to continually move the goal posts such that a study designed to meet the existing WWC protocols and standards as an RCT finds it self accepted only as QED in a WWC Middle School Math review because the protocols changed while the study was underway. Further adding to the unfairness, some 9<sup>th</sup> grade studies like the Cognitive Tutor study above are allowed to stay in the WWC Middle School Report, while the Catoosa 9<sup>th</sup> grade study was expelled from this report and then rejected altogether by the brand new High School Math protocols. If the Catoosa study cannot be grandfathered into the High School Math report or returned to the Middle School report for simply fairness sake, then I ask the Quality Review Team to consider that there was more than one teacher in the classrooms. The I CAN Learn® Program is designed to be the primary conveyor of concepts and the classroom teacher assumes the NCTM Standards' role of "Facilitator of Learning". Further, as the Catoosa study notes, a previous large scale RCT, peer reviewed and meets the WWC standards without reservation, put to rest the concern about a "teacher confound" effect for the I CAN Learn® Program:

"There was not a large enough sample of teachers in this study to test for teacher confounding influences, but a study by Kirby (2004) in Orleans Parish schools demonstrated that the effects of I CAN Learn® math is not dependent on teacher. This is expected as the I CAN Learn® Mathematics Programs are 100% computer delivered."

Citation: Page 5: Kirby 2005 Catoosa Study.

Thank you for your attention to this matter and I look forward to your response to these irregularities.

Sincerely,

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On Wed, Feb 29, 2012 at 10:15 AM, WhatWorks <[WWorks@icfi.com](mailto:WWorks@icfi.com)> wrote:

Dear Mr. Lee,

Thank you for the additional information. We will give it to the Quality Review Team.

What Works Clearinghouse

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**Sent:** Tuesday, February 28, 2012 5:53 PM

**To:** WhatWorks

**Subject:** Re: WWC High School Math Review of I CAN Learn (WWC 3521)

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Dear What Works,

Below are details of observed irregularities in the WWC High School Math review of the I CAN Learn® Program that I would like to bring to the attention of the Quality Review Team:

**Irregularities with regard to the Barrow et al study:**

1. The WWC Review Team did not review the full study, Barrow et al July 2008, which had previously been supplied to the WWC well in advance at the request of Tim Silman of Mathematica. Instead, the WWC Review Team chose to review an abridged version of this study which was published a year later: Barrow et al 2009. Another copy of the full study is attached to this email for your reference.
2. The reviewers did not follow the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0 with regard to “Reliability of Outcome Measures” page 4, reasons to recalculate statistical significance page 7, “Types of Populations to be Included” page 2, and “Sample Attrition” pages 4 and 5.

3. "Reliability of Outcome Measures": the reviewers ignored the study's results as reported by the authors, and reviewed two subpopulations within the study to generate a new study based upon outcome measures that the authors had challenged on Inter-rater reliability grounds.
4. The authors' Outcome Measure is a NWEA 30-item paper and pencil exam. "We contracted with Northwest Evaluation Association (NWEA) – an organization independent of the CAI developer – to design a customized 30-item paper and pencil, multiple choice exam targeting specific pre-algebra and algebra skills outlined in each district's course objectives (which should also have been reflected in the CAI (and in traditionally taught) curriculum(s) as previously noted). Identical exams were created for Districts 2 and 3. Slightly different exams were created for District 1 to match the district's standards; however, the exams in District 1 were designed to match the exams used in the other two districts to allow for pooled analysis." Page 16 Barrow et al July 2008.
5. The authors reported a 0.17 effect size overall, 8th grade and 9<sup>th</sup> grade students combined, and a 0.25 effect size for students, 8th grade and 9<sup>th</sup> grade students combined, who actually used the intervention. "We find that students randomly assigned to classes using the computer lab score at least 0.17 of a standard deviation higher on a test of pre-algebra and algebra achievement designed to reflect the curriculum in the districts relative to students assigned to traditional classrooms. The estimated effect size rises to 0.25 of a standard deviation when we estimate the effect for students who actually use the computer-aided instruction." Page 4 Barrow et al July 2008.
6. The WWC reviewers ignored the authors' findings, and generated a new study based upon "The outcomes (that) were statewide math achievement tests administered in the study districts' respective states." Page 7 WWC Intervention Report, High School Math, "I CAN Learn® Program February 2012. These outcomes, however, were challenged by the authors, because they have low power to detect effects of a pre-algebra/algebra intervention. "We emphasize that while the state tests have the advantage of being high-stakes and therefore of great importance to the districts, as little as 10% of the state exams in mathematics contain test items related to pre-algebra and/or algebra. As such, they may have low power to detect effects of a pre-algebra/algebra intervention." Footnote 19, "In one of the districts we were able to identify individual test items that were related to pre-algebra and algebra. Not surprisingly, our estimates were

quite noisy given that there were very few test items on which to measure the students' performance." Page 18 Barrow et al July 2008.

7. On Page 7 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, it states: "The statistical significance of group differences will be recalculated if (1) the study authors did not calculate statistical significance, (the authors calculated 0.17 overall and 0.25 for those students who actually used the intervention), (2) the study authors did not account for clustering when there was a mismatch between the unit of assignment and unit of analysis, (there was no such mismatch) or (3) the study authors did not account for multiple comparisons when appropriate. Otherwise, the review team will accept the calculations provided in the study. (All multiple comparisons were accounted for in the study, but it was inappropriate to include the statewide tests results in the final statistical significance calculations due to these tests' "low power to detect effects of a pre-algebra/algebra intervention.") To wit, the WWC Review Team did not follow the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0., and the WWC Review Team was erred in recalculating effect sizes for this study.
8. Further, on Page 2 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, "Types of Populations to be Included", it states: "Students in grades lower than 9<sup>th</sup> grade are included in the review only if such students were classified in the study as high school students or were included along with students in any of the grades 9 through 12 in the study analysis sample". The 8<sup>th</sup> grade students in Barrow et al July 2008 were clearly included in the study analysis sample and as such it was an error for the WWC Review Team to exclude them from their review.
9. The attrition of students over the course of the Barrow et al July 2008 study is well documented by the authors, and appropriate controls were used by the authors to maintain the Randomized Controlled Trial status of the study. Further, the "Overall Attrition Rate" ( $2301 - 1605 / 2301 * 100\% = 30.25\%$ , is within the green area, <50%, of the attrition diagram on page 5 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0, the Original Full Sample study population of 2301 students with NWEA baseline algebra test scores and the Analysis Sample of 1605 students with NWEA baseline algebra test scores are from pages 58 and 60 respectively, Barrow et al July 2008. The "Differential Attrition Rate", is  $30.51\% - 29.99\% = 0.52\%$ , which is well within the green area, <7%, of the attrition diagram on page 5 of the WWC Evidence Review Protocol for High School Mathematics Interventions Ver. 2.0: (Treatment

group's Full Sample population was 1157 and its Analysis population was 810,  $1157-810/1157*100\%= 29.99\%$  Attrition, and the Control groups Full Sample population was 1144 and its Analysis population was 795,  $1144-795/1144*100\%= 30.51\%$  Attrition, data from pages 58 and 60 respectively, Barrow et al July 2008. This is a Differential Attrition Rate of 0.52%.) By definition on page 5 of the High School protocols version 2.0, the attrition must be considered "low" by WWC Protocol standards, and the Barrow et al July 2008 study must retain its Randomized Controlled Trial status.

10. Furthermore, an example of a previous WWC High School Math intervention report that demonstrably included 8<sup>th</sup> graders in the analysis is found on Page 7 of the WWC High School Intervention Report for Cognitive Tutor and is cited below:

Carnegie Learning Curricula and Cognitive Tutor® Software August 2010

Appendix A1.1 Study characteristics: Cabalo, Jaciw, & Vu, 2007

Characteristic Description

"... At the beginning of the study, students in grades 9–12 comprised 73% of the sample, with 19% in grade 8 and 7% enrolled at Maui Community College."1.

Footnote 1. "As noted in the protocol, students in grades outside of high school were included in the review if they were included in the study analysis sample along with students in grades 9 through 19"

An example of previous WWC math reviews that allowed for authors' recalculation of effect sized based upon students who actually used the intervention is the WWC Middle School Intervention Report Cognitive Tutor® Algebra 1 July 2009.

Appendix 1A: "Participants included 426 ninth-grade students (206 treatment, 220 control) who were assigned to one of six algebra teachers in three study schools. Algebra course sections for each teacher were randomly assigned to a curriculum. The



study authors eliminated from the analysis 83 students who transferred within the district to a different section of the course, did not enroll in the district for the second semester, did not receive a grade, or whose records indicated a conflict between the curriculum and class assignment.<sup>2</sup> In order to reduce the cost of the Algebra I assessment, only one control class was randomly selected for each teacher involved in the study. The algebra assessment analysis sample included 255 students (153 intervention, 102 control) from 16 classrooms (10 intervention, 6 control). The analysis sample for the grades analyses included 343 students (173 intervention, 170 control) in 19 sections (10 intervention, 9 control); however, grades are a subjective measure and were not included in the effectiveness rating.”

I have attached a copy of the Kirby 2005 I CAN Learn Algebra in Catoosa County Georgia for the Quality Review Team to review. Dr. Kirby explained to me that when the study was designed, it met the WWC protocols to qualify as a Randomized Controlled Trial, but due to WWC protocol changes made during the study, it only met the WWC evidence standards with reservations when it was included in the WWC I CAN Learn® Middle School Math Intervention Report in 2007:

From: **Peggy C. Kirby** <(b)(6)>  
Date: Fri, May 25, 2007 at 11:26 AM  
Subject: Catoosa County, GA  
To: "John R. Lee" <[JLee@icanlearn.com](mailto:JLee@icanlearn.com)>  
John,

Our study of I CAN Learn in Catoosa County, Georgia again demonstrated the significant effects of your product. As you know, we aim to use randomization in our studies of I CAN Learn whenever possible. Students in this study were randomly assigned to I CAN Learn or traditional classes, but the What Works Clearinghouse revised its standards after the study began to require at least two teachers per condition. WWC recognizes this study as meeting its evidence standards “with reservations.” This classifies the study in the same category as high-quality quasi-experimental studies. In this study, the district provided math score level on the Georgia high-stakes criterion referenced test known as the GCRCT. Using non-parametric analyses, we found the 14% pass difference between I CAN Learn and traditionally-taught students to be statistically significant. The odds ratio was 2.37, meaning that the odds of failure are 2.37 times higher in the traditional group than in the I CAN Learn® group. Congratulations on yet another research-based measure of your program’s success.

Peggy

I do not believe the High School Math Review Team's assessment that the Catoosa study does not meet WWC evidence standards, due to "only one unit assigned to one or both conditions", is appropriate. This study met the WWC Middle School Math standards with reservations in 2007, but was dropped from the I CAN Learn® Middle School Math Intervention Report in 2009 when 9<sup>th</sup> grade studies were designated high school not middle school. The review protocols have changed over the years. This creates a moving target for researchers who design their studies to meet WWC protocol standards only to find they have changed once the study is underway or completed. There is a fundamental question of fairness. It is not fair to continually move the goal posts such that a study designed to meet the existing WWC protocols and standards as an RCT finds it self accepted only as QED in a WWC Middle School Math review because the protocols changed while the study was underway. Further adding to the unfairness, some 9<sup>th</sup> grade studies like the Cognitive Tutor study above are allowed to stay in the WWC Middle School Report, while the Catoosa 9<sup>th</sup> grade study was expelled from this report and then rejected altogether by the brand new High School Math protocols. If the Catoosa study cannot be grandfathered into the High School Math report or returned to the Middle School report for simply fairness sake, then I ask the Quality Review Team to consider that there was more than one teacher in the classrooms. The I CAN Learn® Program is designed to be the primary conveyor of concepts and the classroom teacher assumes the NCTM Standards' role of "Facilitator of Learning". Further, as the Catoosa study notes, a previous large scale RCT, peer reviewed and meets the WWC standards without reservation, put to rest the concern about a "teacher confound" effect for the I CAN Learn® Program:

"There was not a large enough sample of teachers in this study to test for teacher confounding influences, but a study by Kirby (2004) in Orleans Parish schools demonstrated that the effects of I CAN Learn® math is not dependent on teacher. This is expected as the I CAN Learn® Mathematics Programs are 100% computer delivered."

Citation: Page 5: Kirby 2005 Catoosa Study.

Thank you for your attention to this matter and I look forward to your response to these irregularities.

Sincerely,

John Lee

On Wed, Feb 29, 2012 at 10:15 AM, WhatWorks <[WWorks@icfi.com](mailto:WWorks@icfi.com)> wrote:

Dear Mr. Lee,

Thank you for the additional information. We will give it to the Quality Review Team.

What Works Clearinghouse

**From:** John Lee [mailto:[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)]

**Sent:** Tuesday, February 28, 2012 5:53 PM

**To:** WhatWorks

**Subject:** Re: WWC High School Math Review of I CAN Learn (WWC 3521)

Dear What Works,

Another omission on the part of the reviewers was to afford our intervention the same courtesy afforded other interventions, and that is to take out those students in the test group who did not actually use the intervention. In the Barrow study the authors adjusted their analyses to account for those students in the test group who did not use the intervention and those in the control group who did use the intervention. Please see page 26 of the attached complete study.report.

Page 26 Barrow Study: "The effect for those who actually completed lessons in the lab are even larger: 0.25F-42F, or 39% - 49% of a grade-level more than those taught in a traditional classroom.

On Tue, Feb 28, 2012 at 9:36 AM, WhatWorks <[WWorks@icfi.com](mailto:WWorks@icfi.com)> wrote:

Dear Mr. Lee,



Thank you for contacting the What Works Clearinghouse (WWC).

We have received your email about the I Can Learn Intervention Report. The WWC Quality Review Team is reviewing your email and will prepare a written response. The Quality Review Team responds to concerns raised by study authors, curriculum developers or other relevant parties about WWC reviews published on our website. These quality reviews are undertaken when concerned parties present evidence that a WWC review may be inaccurate. When a quality review is conducted, a researcher who was not involved in the initial review undertakes an independent assessment of the study in question.

If a quality review concludes that the original review contained errors, a revised version of the review will be published on the web site. However, it is WWC policy that the existing report will remain on the web site, and be revised only if the WWC team determines it does contain errors. These quality reviews are one of tools used to ensure that the standards established by the Institute of Education Sciences (IES) are upheld on every review conducted by the What Works Clearinghouse.

Thank you,

What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

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**From:** John Lee [mailto:[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)]

**Sent:** Tuesday, February 28, 2012 7:41 AM

**To:** What Works

**Cc:** Neil Seftor; Sarah Wissel; Sakari Morvey; Quinn Moore; Emily Caffery; Roberto Agodini; Michael

Ponza; Jill Constantine

**Subject:** Re: WWC High School Math Review of I CAN Learn

I would respectfully request that you delay publishing this report, because there seems to be an inconsistent application of study review criteria.

With respect to the Barrow study, other high school studies reviewed by the WWC included 8th grade students. Further, our middle school reviewers in 2009 declined to include these 8th grade students in our 2009 middle school report, saying that the Barrow 8th graders would be included in the high school report.

With regard to the Kirby Catoosa County Georgia study, it previously met WWC standards and was a part of our 2007 middle school report. It was dropped from the middle school report in 2009 when 9th grade was assigned to high school. This study should be grandfathered in under the WWC standards that allow for earlier studies to be accepted as properly randomized between test and control based solely upon the researcher's assertion that they were.

All I am asking is for fair and consistent standards in conducting our high school review.

Thank you,

John Lee

On Feb 27, 2012 9:05 AM, "What Works" <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on

I CAN Learn and determined that this intervention is eligible for an intervention report according to the High School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on February 28th, 2012. As a reminder, this report is covered by the embargo agreement signed by you on August 4th, 2010, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,

Jill Constantine

Director, What Works Clearinghouse

**From:** What Works <whatworks@mathematica-mpr.com>  
**Sent:** Friday, July 12, 2013 1:44 PM  
**To:** johnrlee@icanlearn.com  
**Subject:** WWC Quality Review Team Findings: High School Math Review of I CAN Learn  
**Attachments:** QRT2012001\_Response 7.12.2013.pdf

Mr. Lee,

The WWC has conducted an independent quality review to investigate the issues you identified in your March 5, 2012 correspondence. The attached letter summarizes the quality review team's findings. We hope this letter addresses your concerns.

The WWC strives to respond to concerns about our products expeditiously. In this instance, our response was significantly delayed, and we regret any inconvenience this has caused you. If you have additional questions or concerns, please let us know and we will respond as quickly as possible.

Sincerely,  
Neil Seftor  
Deputy Director  
Co-Principal Investigator  
The What Works Clearinghouse

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July 12, 2013

Mr. John Lee  
[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)  
Reference: QRT2012001

Dear Mr. Lee,

Thank you for your inquiries concerning the WWC intervention reports on I CAN Learn® conducted by the High School Math (released February 2012) and Middle School Math (released March 2009) review teams. In response to your March 5, 2012 correspondence, we conducted an independent quality review. The WWC quality review team responds to concerns raised by study authors, curriculum developers, or other relevant parties about WWC reviews published on our website. When a quality review is conducted, reviewers who were not involved in the initial review undertakes an independent assessment of the studies in question. The reviewers also examines the procedures followed and decisions made during the original review of the studies.

In your March 5, 2012 correspondence, "Irregularities with Regard to the Barrow et al study," you identify a total of 12 issues and cite five separate studies: Barrow, Markman and Rouse (2008, 2009); Kirby (2005); Cabalo, Jaciw and Vu (2007); and Ritter et al (2007). The issues you identify pertain to four intervention reports: [I CAN Learn® Middle School \(2009\)](#), [I CAN Learn® High School \(2012\)](#), [Cognitive Tutor High School \(2010, updated 2013\)](#) and [Cognitive Tutor Middle School \(2009\)](#).

We have reviewed the 12 issues you identify and provide responses to each issue later in this letter. In summary, the main findings of the quality review team are:

- The High School Math review team followed WWC procedures by basing the review on both Barrow et al. (2008) and Barrow et al. (2009), and in citing the 2009 study as the main citation for the review. (Issue 1)
- The High School Math review team followed WWC procedures in excluding the authors' NWEA-constructed assessment from the review. This assessment would be eligible for review if the authors provided the necessary reliability information on the assessment. The High School Math review team requested the reliability information from the authors. While the WWC review team gave the authors a two-week deadline in the initial February 2011 request, correspondence with the authors continued over a 10 month period. Despite this extended window, the authors never provided the necessary reliability information. As a result, the team could only focus on the standardized state math assessment. (Issue 4)
- With the exclusion of the NWEA-constructed assessment, the only eligible outcome measure was reported just for 8th grade students in District 1. Therefore, the High School Math review team followed WWC procedures in excluding District 1 from the report. The results for District 1 should be included in the Middle School Math review of I CAN Learn®; that report will be updated to include District 1 results. (Issues 3 and 8)



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- The WWC review of Cabalo et al. (2007) correctly included the analysis of 8<sup>th</sup> grade students. Unlike the results in District 1 of the Barrow et al. study, the results for 8<sup>th</sup> grade students in the Cabalo et al. study were included with results for students in 9<sup>th</sup> through 12<sup>th</sup> grade. As a result, they are eligible for inclusion according to the High School Math review protocol. (Issue 10)

Below is a detailed response to each issue identified in your March 5, 2012 correspondence:

**Issue 1: You expressed concern that the WWC High School Math review team reviewed an “abridged version” (Barrow et al. 2009) of the original study (Barrow et al. 2008).**

*Quality Review Team Finding: The quality review team reviewed both publications and determined they were related publications that discussed the same study; the 2009 publication is a peer-reviewed journal version of the 2008 publication. The quality review team determined that the 2012 High School Math I CAN Learn® report reflects a review of both the 2008 and 2009 studies. The quality review team has requested the High School Math review team update the reference list to clarify that the 2008 study was consulted.*

*Explanation: The WWC frequently reviews a single study that is publicly available in two forms, such as this one. The review is conducted using both publications with a single rating for the study based on the full scope of information contained in the publications. In these cases, the reference list will list the most recent, peer-reviewed publication as the primary source and the other version(s) as additional sources. The reference list in the 2012 High School Math I CAN Learn® intervention report did not follow this procedure by excluding the 2008 study as an additional source. We will update the intervention report to include reference the 2008 study. Specifically, the 2008 study will be included in the references list immediately after the 2009 study, and the report will identify the 2008 study as an “additional source.”*

**Issue 2: You stated “reviewers did not follow the WWC Evidence Review Protocol for High School Mathematics Interventions version 2.0” with respect to four areas (outcomes, statistical significance, population, and attrition).**

In your correspondence, Issues 3 through 9 provide more detail on each of these concerns. We discuss the quality review team’s findings to each of these subsequent issues below.

**Issue 3: You express concern that the WWC “ignored the study’s results as reported by the authors, and reviewed two subpopulations within the study to generate a new study based upon outcomes measures that the authors had challenged on inter-rater reliability grounds.”**

*Quality Review Team Finding: The quality review team determined the High School Math review team followed WWC standards and procedures in selecting which outcomes and which school districts (subpopulations) to include in the review. The quality review team also determined that the Middle School Math review of an earlier (2007) version of the study was incorrect in determining the study was ineligible for review; the District 1 state math assessment results excluded from the High School Math review should be included in the Middle School Math review. We will update the Middle School Math review to include District 1 state math results for 8<sup>th</sup> graders.*

*Explanation: The concerns you raise stem from the High School Math review team’s decisions to: (1) include only the state math assessment results reported in the study and exclude the other*

outcomes reported by the authors, and (2) exclude the findings from District 1 and only include findings from the other two school districts (subpopulations).

Regarding which outcome results were included in the review, Barrow et al. (2008, 2009) examined the effects of I CAN Learn® on two outcomes: (1) the state math assessment, and (2) the NWEA-constructed 30-item test. Based on the information available to the High School Math review team, the state math assessment was the only outcome eligible for review. The NWEA-constructed 30-item test was not eligible for review because the study authors did not provide information regarding the reliability of the measure. The WWC requires measures to meet minimum reliability standards (see High School Math review protocol, p. 4). If authors do not present this information in their study, the WWC requests the reliability information directly from the authors. As discussed under Issue 4, the High School Math review team did request this information but it was never provided by the authors. As a result, the team focused only on the state assessment.

Regarding the exclusion of District 1, the Barrow et al. (2008, 2009) was conducted in three school districts, and the authors report findings by district. As explained above, the only outcome included in the analysis was the state math assessment. In District 1, the state math assessment results were reported for 8<sup>th</sup> grade students only, while in Districts 2 and 3 the state math assessment results were reported for 10<sup>th</sup> grade students. Because the District 1 results fall within the protocol of the Middle School Math review, they were excluded from the High School Math review.

In response to your concern, the quality review team also examined the Middle School Math review of I CAN Learn® (which was published in 2009). This review rates the earlier, 2007 version of the Barrow et al. study as ineligible for review because the study “does not disaggregate findings for the age or grade range specified in the protocol.” This determination focused on the NWEA-constructed assessment before any attempt to collect reliability information on that measure. However, because the state math assessment is available for 8th grade students in District 1, the quality review team concluded that these results should be included in the Middle School Math review. The Middle School Math review of I CAN Learn® will be updated to include the state math assessment results for District 1.

**Issue 4: You question why the High School Math review team did not include the NWEA constructed pre-algebra and algebra outcome in their review.**

*Quality Review Team Finding: The quality review team confirms that the NWEA test was ineligible for review as no reliability information was obtained.*

Explanation: An outcome must be either a standardized test or provide evidence of reliability to be eligible for review. The High School Math review team initially requested reliability information from the authors on February 23, 2011, with a deadline of March 9, 2011. The last correspondence on this issue was received from Dr. Markman on December 14, 2011, which indicated she was still working to get the information from NWEA. Given there was no subsequent response, the High School Math team determined the NWEA test was not eligible for inclusion in the report as reliability was not demonstrated; this is noted in footnote 4 on page 10 of the intervention report.

**Issue 5: You provide the effect sizes the authors reported (0.17 as an intent-to-treat; 0.25 as treatment-on-treated) for the tests covering pre-algebra and algebra and question why the WWC does not report those effect sizes.**



***Quality Review Team Finding:** The quality review team determined the effect sizes you are reporting are not for an outcome that is eligible for review.*

**Explanation:** The effect sizes you report are for the NWEA algebra test, which was an ineligible outcome for the High School Math review. The effect sizes included in the intervention report are for the state math test, which was an eligible outcome. The High School Math review team reports effect sizes of 0.09 (District 2), -0.06 (District 3), and 0.02 (overall average) for the state math assessment in these two districts.

**Issue 6: You raise a concern that the WWC “ignored the authors’ findings, and generated a new study” based on outcomes that the authors believed were insufficient for identifying impacts of the intervention.**

***Quality Review Team Finding:** The quality review team determined the High School Math review team appropriately focused on the state math assessment for Districts 2 and 3 only.*

**Explanation:** While Barrow et al (2008, 2009) include state math assessment results in the study, they raise a concern that the state math assessment contained more items that were not pre-algebra/algebra (see p. 18). As the authors note, the low degree of overlap between the test and the content addressed in the intervention means the test is unlikely to identify effects of an intervention focused on algebra. Nevertheless, within the High School Math topic area, general mathematics achievement is an eligible outcome, and the state math assessment is a measure of general mathematics achievement. Because the WWC procedures require that interventions are treated consistently within each topic area, general mathematics achievement measures are included in the review if they are reported in the study.

**Issue 7: You discuss concerns that the High School Math review team recalculated effect sizes.**

***Quality Review Team Finding:** The quality review team finds that the High School Math review team decision to compute effect sizes are consistent with WWC procedures; to facilitate comparisons across studies, the WWC review team will compute effect sizes when they are not presented in the study.*

**Explanation:** The High School Math review team calculated effect sizes for the effects of I CAN Learn® for students in Districts 2 and 3 and based on the state assessment. These effect sizes were not provided in Barrow et al. (2008, 2009). The team computed effect sizes using information provided in the study as well as additional information provided by the study authors. The team followed the standard WWC procedures for computing effect sizes (see page 25 of the [WWC Procedures and Standards Handbook Version 2.1](#)).

**Issue 8: You raise concerns that the High School Math review team incorrectly excluded District 1 from the review.**

***Quality Review Team Finding:** The quality review team determined that the High School Math review team followed standards and procedures in excluding District 1 from the review.*



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Explanation: As noted in Issue 3, because the state assessment in District 1 was only for 8th grade students, the analysis of District 1 could not be included once the NWEA-constructed test was deemed ineligible.

**Issue 9: You provide attrition calculations demonstrating the study has low attrition at the student level. This would suggest that the High School Math review team's conclusion that the study suffered from high attrition was incorrect.**

Quality Review Team Finding: The quality review team conducted the attrition calculation for the state math assessment using the data provided by the authors and found there is high attrition at the student level.

Explanation: The High School Math review team assessed attrition for the state math assessment using data provided to the WWC by the authors on June 7, 2011. This assessment led to the determination of high attrition for the state math assessment. The attrition calculations cited in your concern reflect the NWEA assessment. As a result, they are not relevant to the attrition calculations for the state math assessment.

**Issue 10: You raise concerns that the WWC is not treating studies similarly across intervention reports. You point out that in the High School Math review of Cognitive Tutor (2013), the Cabalo, Jaciw & Vu (2007) study included eighth grade students.**

Quality Review Team Finding: The quality review team has determined that the High School Math review team followed their protocol in the inclusion of the analysis with eighth grade students for Cabalo, Jaciw & Vu (2007) study.

Explanation: The May 2010 (version 2.0) High School Math protocol states that "the sample must include high school students, for whom 'high school' is primarily defined as a school with any of the four grades from grade 9 through grade 12 and not explicitly classified as middle school. Students in grades lower than 9th grade are included in the review only if such students were classified in the study as high school students or were included along with students in any of the grades 9 through 12 in the study analysis sample."

In Cabalo, Jaciw and Vu (2007), the 8th grade students were included in an analysis with students in grades 9 through 12. As a result, they are eligible for inclusion in the study. This differs from District 1 in Barrow et al. (2008, 2009). In the Barrow et al. study, the analysis that included 8th grade students in the Barrow study was not excluded because it had 8th grade students, but rather it was excluded because the analysis was *solely* for 8th grade students. This analysis is eligible for inclusion in the Middle School Math review, as discussed in Issue 3.

**Issue 11: You also raise concerns that the Middle School Math review of Cognitive Tutor (2009) "allowed for authors' recalculation of effect sizes based on students who actually used the intervention." The text you provide from Appendix 1A discussed that the authors excluded 83 students (Ritter et al. 2007).**

Quality Review Team Finding: The quality review team determined that the decision to exclude the 83 students was appropriate given the standards and procedures in place at that time.

Explanation: The WWC standards and procedures in effect at the time of the original review (version 1.0) differ from those in effect today (version 2.1). Under Version 1.0, the WWC accepted treatment-on-the-treated estimates when they were the only ones presented. Under Version 2.1, the WWC requires intent-to-treat estimates. In keeping with WWC procedures, when the Middle School Math review of Cognitive Tutor is updated, all studies will be re-reviewed under the standards and procedures in effect at the time of update, and changes will be made as necessary.

**Issue 12:** You expressed concern that the rating for Kirby (2005), which was designed by the study authors to meet WWC standards, was designated as not meeting standards, and you suggest this may be due to protocol changes.

*Quality Review Team Finding: The Kirby (2005) study was originally reviewed for the 2007 Middle School Math I CAN Learn® intervention report. In this review, the study received a rating of Meets Evidence Standards with Reservations. Once the High School Math topic area was created, the study was no longer eligible for review in the Middle School Math topic area. The High School Math review team rated the study as not meeting standards. The quality review team determined that the High School Math review was correct, as the study does not meet standards due to the presence of a confounding factor. This change in the rating – from Meets Evidence Standards with Reservations to Does Not Meet Standards – does not reflect a change in the protocol. Rather, it reflects an error in the 2007 Middle School Math review of Kirby (2005). The quality review team determined that the study should not have met standards in the 2007 review. Because the study is no longer reflected in the Middle School Math review (updated in 2009), no changes are needed to address this error.*

Explanation: Kirby (2005) examines the effectiveness of I CAN Learn® in Lakeview-Fort Ogelthorpe High School. The study randomly assigned 84 students to I CAN Learn® or traditional classes. Kirby indicates there was a single teacher in each condition (“The I CAN Learn® classes were taught by a teacher trained in its use” and “Traditional-class students were taught with the teacher”, p. 2). The WWC rating for a study with a single unit in either condition is Does Not Meet Evidence Standards, as it is not possible to attribute the effects seen solely to the intervention and not characteristics associated with the single unit. This standard is discussed on page 7 of the [WWC Procedures and Standards Handbook version 1.0](#) (May 2008). However, in the 2007 Middle School Math intervention report, the Kirby (2005) study incorrectly received a rating of Meets Evidence Standards with Reservations.

When the Middle School Math protocol was revised in 2009 along with the establishment of the High School Math topic area, the Kirby (2005) study became ineligible for review in the Middle School Math area. This is reflected in the current Middle School Math review of I CAN Learn® (updated 2009). When the study was subsequently reviewed under the High School Math review in 2012, it was correctly rated as Does Not Meet Evidence Standards.

## Next Steps

Based on the findings of the quality review team, the WWC will take the following next steps:

- The 2012 High School I CAN Learn® intervention report will be updated to reflect the fact that Barrow et al. (2008) was consulted as an addition source to Barrow et al. (2009).

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A central and trusted source of scientific evidence for what works in education.

- The 2009 Middle School I CAN Learn® intervention report will be updated to include the state math assessment results for 8<sup>th</sup> grade students in District 1 of Barrow et al. (2008, 2009).

We expect the revised intervention reports to be available on the WWC website in September 2013.

We hope this response has addressed your concerns. Please feel free to contact the WWC if you have additional questions about our reports.

Sincerely,

(b)(6)

Neil Seftor  
Deputy Director  
Co-Principal Investigator  
The What Works Clearinghouse



**From:** What Works <whatworks@mathematica-mpr.com>  
**Sent:** Monday, July 22, 2013 4:28 PM  
**To:** Loyco, Kate  
**Subject:** FW: WWC Quality Review Team Findings: High School Math Review of I CAN Learn  
**Attachments:** QRT2012001\_Response 7.12.2013.pdf

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**From:** John Lee [<mailto:johnrlee@icanlearn.com>]  
**Sent:** Tuesday, July 16, 2013 5:32 PM  
**To:** Neil Seftor  
**Subject:** Fwd: WWC Quality Review Team Findings: High School Math Review of I CAN Learn

Dr Seftor,

Thank you for your response to my inquires. I have a better understanding of why you excluded the NWEA test data from your review, but I am still confused as to why you would include the “state math assessments” that the authors had rejected. The authors rejected the “state math assessments”, because they had “low power” to detect pre-algebra and algebra mastery by the students. The study’s test and control groups were taught pre-algebra and algebra curricula aligned to their grade-level state standards, not a remedial “general mathematics” curriculum.

I can agree that “general mathematics achievement”, as assessed by the “state math assessments”, is an eligible outcome. Unfortunately, the study’s test and control interventions were not teaching remedial “general mathematics”, they were teaching pre-algebra and algebra. All the “state math assessments” confirmed is that the test and control populations were statistically equivalent in their “general mathematical” skills at the outset of this study, as they should be. What improvements that were seen in the test groups’ performance on the “state math assessments” demonstrates that the test intervention did a modicum of remediation in “general mathematical” skills in order to successfully teach pre-algebra and algebra skills. The NWEA assessment confirmed that the test group mastered statistically significant more pre-algebra and algebra skills than did the control group.

I believe it is inconsistent to reject the NWEA assessment data due to the lack of reliability information from the authors, and then generate a new study based upon data that the authors had rejected due to the reliability information provided for that data.

Page 7 of the “WWC Evidence Review Protocol for High School Math Interventions” Version 2.0 states: “The statistical significance of group differences will be recalculated if...(3) the study authors did not account for multiple comparisons when appropriate. Otherwise, the review team will accept the calculations provided in the study.” The study authors properly accounted for the multiple comparisons within this study and properly rejected the “state math assessments”, because of their “low power” to detect pre-algebra and algebra mastery. It was improper for the review panel to generate a new study to evaluate “general mathematics achievement”, because neither the test’s nor the control’s intervention was teaching “general mathematics”. Each was teaching pre-algebra and algebra.

It appears unfair to hold the authors to a test reliability standard that did not exist at the time of the study. NWEA is a well respected testing organization. The authors had every expectation that a test generated by such a prestigious organization would be accepted in a peer-review. For me, the appropriate course of action would be to remove the WWC High School Math review until the authors can provide the

reliability information, or simply state that review of this intervention is on hold until reliability information is provided. The current WWC report unfairly reports that a pre-algebra/algebra intervention does not successfully teach pre-algebra/algebra, because it failed to significantly improve “general mathematics” skills that it did not teach. Please reconsider your High School Math report for this intervention.

Thank you,

John Lee

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From: **What Works** <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)>

Date: Fri, Jul 12, 2013 at 12:44 PM

Subject: WWC Quality Review Team Findings: High School Math Review of I CAN Learn

To: "[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)" <[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)>

Mr. Lee,

The WWC has conducted an independent quality review to investigate the issues you identified in your March 5, 2012 correspondence. The attached letter summarizes the quality review team’s findings. We hope this letter addresses your concerns.

The WWC strives to respond to concerns about our products expeditiously. In this instance, our response was significantly delayed, and we regret any inconvenience this has caused you. If you have additional questions or concerns, please let us know and we will respond as quickly as possible.

Sincerely,

Neil Seftor

Deputy Director

Co-Principal Investigator

The What Works Clearinghouse





**From:** WhatWorks  
**Sent:** Tuesday, September 10, 2013 10:47 PM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Quality Review Team Findings: High School Math Review of I CAN Learn (WWC 3521)  
**Attachments:** QRT 2012001\_Response\_9.10.2013.pdf

Dear Mr. Lee:

Attached in the document entitled *QRT 2012001\_Response\_9.10.2013* is a response to the questions you raised in your inquiry on July 16, 2013.

Thank you,

What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

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Sincerely,

Neil Seftor

Deputy Director

Co-Principal Investigator

The What Works Clearinghouse

# What Works Clearinghouse **WWC**

A central and trusted source of scientific evidence for what works in education.

September 10, 2013

Mr. John Lee  
[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)  
Reference: QRT2012001

Dear Mr. Lee,

Thank you for your continued correspondence regarding the WWC reports that discuss I CAN Learn. This letter is in response to your correspondence of July 16, 2013.

Regarding the inclusion of the state math assessments, it is reasonable to examine whether an algebra intervention improves general mathematics achievement. As the study authors asked this research question and reported the results, the findings from those analyses are eligible for inclusion in our reports.

With respect to the NWEA measure, the previous quality review concluded that the review team followed WWC procedures in excluding the measure from our report. We set reliability standards for outcome measures to ensure that WWC readers can trust the findings we report. To treat the Barrow et al. study differently would be to apply our standards selectively, undermining our consistent application of procedures and standards. Additionally, we gave the study authors multiple opportunities over a ten month period to obtain and provide the reliability information, but we received none.

I hope that this letter addresses your concerns. Please feel free to contact the WWC if you have additional questions about our reports.

Sincerely,

(b)(6)

Neil Seftor  
Deputy Director  
Co-Principal Investigator  
The What Works Clearinghouse



**From:** John R. Lee [JLee@icanlearn.com]  
**Sent:** Friday, May 23, 2008 5:32 PM  
**To:** What Works  
**Subject:** RE: Issue 453: WWC Improvement Index Anomaly

Dear What Works,

May I inquire how your efforts are progressing?

Thank you,

John Lee

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**From:** What Works [mailto:whatworks@mathematica-mpr.com]  
**Sent:** Friday, May 02, 2008 8:43 AM  
**To:** John R. Lee  
**Cc:** What Works  
**Subject:** Issue 453: WWC Improvement Index Anomaly

We apologize for the delay in responding. We continue to look into the issue you raised. It is our protocol to review the documentation created during the original review of a study when we are examining the rationale for key decisions. As you may know, the WWC is now managed by a new contractor. Unfortunately, not all of the documentation related to these specific studies made the transition from the old contractor to the new contractor. We are working currently to acquire the necessary documentation and hope to respond soon.

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**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Thursday, May 01, 2008 10:37 AM  
**To:** What Works  
**Cc:** Jill Miller; Linden Williams  
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Dear Mr. Lee,

Thank you for your emails and explanation of your concerns. We will look into this and get back to you as soon as possible.

Thank you for your patience.

#### What Works Clearinghouse

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**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Thursday, April 17, 2008 4:34 PM  
**To:** info@whatworks.ed.gov  
**Cc:** Jill Miller; Linden Williams  
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Dear Info @ WWC,

Jill Miller, Mark Dynarski's assistant, recommended I forward this email to you. I am requesting redress for an apparent anomaly in calculating the improvement index for the I CAN Learn® Pre-Algebra and Algebra programs. Unfortunately two of our early studies were averaged into our improvement index as eight studies of the subgroups within the two studies. Calculating the improvement index based upon subgroups in two studies gives a skewed weighting to each subgroup. I can find no other example of this in the other middle school math interventions. In fact there are numerous, examples of averaging of the subgroups within a broader study then using this average to calculate the improvement index. As stated below, if the eight subgroups were averaged for their respective two studies, a more accurate improvement index would result.

I look forward to your response so that this apparent anomaly may be corrected soon.

Sincerely,

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**From:** John R. Lee  
**Sent:** Thursday, April 10, 2008 3:05 PM  
**To:** 'mdanarski@mathematica-mpr.com'  
**Subject:** WWC Improvement Index Anomaly

Dear Dr. Dynarski,

Congratulations on taking the stewardship of the What Works Clearinghouse. The education community is thankful for your oversight in this most important effort by the Department. I recently noticed a new feature "Create My Summary" on the WWC website, and I wanted to bring to your attention what was probably an inadvertent anomaly introduced by your predecessor that is now causing a distortion of data presented on the "Create My Summary" page for Middle School Mathematics.

The "Create My Summary" page presents a table labeled "Effectiveness Ratings for Middle School Math: Mathematics Achievement". The interventions are listed in declining order of their respective average improvement Indexes and here is where the anomaly is causing a distortion of the data presented.

The WWC has invested years in developing their rigorous standards for scientifically based research and it is no mean feat to have a study recognized as an RCT. We have worked hard over the last 13 years to improve the quality of our research and then to improve our programs based upon the results of our research. This attention to research and product effectiveness culminated in our receiving a "Positive Effects" rating from the WWC for our I CAN Learn® Pre-Algebra and Algebra programs in March of 2007.

This honor was possible because our Orleans Parish study of 2400 inner city students met the gold standard for an RCT and had an Improvement Index of +14. Our overall Improvement Index, however, was only +6. This is due to the anomaly of disaggregating two of our earlier quasi studies at Hillsborough, Florida into eight studies of eight subgroups. Each of these subgroups was given equal weight in the Improvement Index calculation, equating them to the total non-disaggregated study populations of the other four studies, including the RCT study, causing our average improvement index to drop to +6. If the subgroups had not been disaggregated, our reported Improvement Index would have been +11. This Improvement Index is closer to the +14 of our RCT and more accurately reflects the effectiveness of our program.

Of further note, The Hillsborough studies were conducted in 2001 and 2002 when there were only 229 lessons in our programs. The shortcomings discovered through the Hillsborough studies caused us to create additional lessons for the program. The number of lessons in our program by the time of the RCT study in 2004 was 312.

Treating the two Hillsborough studies as just two studies of Hillsborough's 8<sup>th</sup> graders, which they legitimately were, would be consistent with the treatment of other middle school math studies with multiple matched subgroups/studies within a study; such as Connected Math Schneider 2000 study, Appendix 3, page 11 and University of Chicago Thompson 2006 study, Appendix 3, page 8. Most importantly this calculation method would give the reader a more accurate representation of the effectiveness of the I CAN Learn® Pre-Algebra and Algebra programs.

I hope you will agree that the inadvertent anomaly of treating the two Hillsborough studies as eight should be corrected to give the reader a more accurate representation of the effectiveness of our programs when they visit the "Create My Summary" page on the WWC website.

I will call to set up a time when we may visit over the phone about this. I thank you for your consideration and look forward to speaking with you soon.

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Dear Dr. Lee,

Thank you for contacting the WWC regarding computation of average improvement indices for the Kerstyn (2001; 2002) studies. And thank you for your patience as we have investigated the issues you raised.

After careful examination of the WWC guidelines, Topic Protocol and consultation with Principal Investigator of the Middle School Mathematics Topic, WWC concluded that the average improvement indices were calculated correctly for the studies in question.

As you correctly noted, the WWC usually prioritizes the overall findings in determining the intervention rating and improvement indices. However, a review team has discretion to prioritize subsample findings if, for example, they determine that the subpopulations reflect different groups. For the Kerstyn studies, the review team determined that the subsamples were entirely discreet because each sample related to a different course (Algebra 1 Honors, MJ-3 pre-algebra, MJ-3 Advanced, etc.). Moreover, they concluded that the assignment procedure had integrity for each of these subsamples. It is for these reasons that the subsamples were treated as distinct studies.

We hope you found this information helpful. If you have additional questions, please feel free to contact us again.

#### What Works Clearinghouse

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**Subject:** WWC Improvement Index Anomaly

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Sincerely,

John Lee

**From:** WhatWorks  
**Sent:** Wednesday, July 23, 2008 11:09 AM  
**To:** 'JLee@icanlearn.com'; 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Improvement Index Anomaly  
Dear Dr. Lee,

We understand from the Middle School Math review team that you did not receive the response we sent on July 15. That response is included below. Originally the response was sent to [JLee@icanlearn.com](mailto:JLee@icanlearn.com). We are now including [johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com) in this message. Please confirm that you received this message.

What Works Clearinghouse

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**From:** WhatWorks  
**Sent:** Tuesday, July 15, 2008 10:39 AM  
**To:** 'JLee@icanlearn.com'  
**Subject:** RE: WWC Improvement Index Anomaly

Dear Dr. Lee,

Thank you for contacting the WWC regarding computation of average improvement indices for the Kerstyn (2001; 2002) studies. And thank you for your patience as we have investigated the issues you raised.

After careful examination of the WWC guidelines, Topic Protocol and consultation with Principal Investigator of the Middle School Mathematics Topic, WWC concluded that the average improvement indices were calculated correctly for the studies in question.

As you correctly noted, the WWC usually prioritizes the overall findings in determining the intervention rating and improvement indices. However, a review team has discretion to prioritize subsample findings if, for example, they determine that the subpopulations reflect different groups. For the Kerstyn studies, the review team determined that the subsamples were entirely discrete because each sample related to a different course (Algebra 1 Honors, MJ-3 pre-algebra, MJ-3 Advanced, etc.). Moreover, they concluded that the assignment procedure had integrity for each of these subsamples. It is for these reasons that the subsamples were treated as distinct studies.

We hope you found this information helpful. If you have additional questions, please feel free to contact us again.

What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

**From:** What Works

**Sent:** Tuesday, May 27, 2008 5:59 PM  
**To:** 'John R. Lee'  
**Subject:** RE: Issue 453: WWC Improvement Index Anomaly

We understand that the process of responding to your concerns is taking longer than one would expect. Please be assured that the WWC takes inquiries like yours very seriously as we want to ensure the accuracy of WWC reviews. We have been successful in obtaining the necessary documentation referenced in our earlier response. However, we request your continued patience as several steps of our review process still need to be conducted. We will let you know once we have completed our review.

What Works Clearinghouse

**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Friday, May 23, 2008 5:32 PM  
**To:** What Works  
**Subject:** RE: Issue 453: WWC Improvement Index Anomaly

Dear What Works,

May I inquire how your efforts are progressing?

Thank you,

John Lee

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**From:** What Works [mailto:whatworks@mathematica-mpr.com]  
**Sent:** Friday, May 02, 2008 8:43 AM  
**To:** John R. Lee  
**Cc:** What Works  
**Subject:** Issue 453: WWC Improvement Index Anomaly

We apologize for the delay in responding. We continue to look into the issue you raised. It is our protocol to review the documentation created during the original review of a study when we are examining the rationale for key decisions. As you may know, the WWC is now managed by a new contractor. Unfortunately, not all of the documentation related to these specific studies made the transition from the old contractor to the new contractor. We are working currently to acquire the necessary documentation and hope to respond soon.

-----Original Message-----

**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Thursday, May 01, 2008 10:37 AM  
**To:** What Works  
**Cc:** Jill Miller; Linden Williams  
**Subject:** RE: Issue 453: WWC Improvement Index Anomaly

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Thank you,

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**To:** John R. Lee  
**Subject:** Issue 453: WWC Improvement Index Anomaly

Dear Mr. Lee,

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Thank you for your patience.

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**To:** info@whatworks.ed.gov  
**Cc:** Jill Miller; Linden Williams  
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**Sent:** Thursday, April 10, 2008 3:05 PM  
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**Subject:** WWC Improvement Index Anomaly



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**From:** What Works  
**Sent:** Friday, April 18, 2008 9:38 AM  
**To:** 'John R. Lee'  
**Subject:** Issue 453: WWC Improvement Index Anomaly

**Categories:** Issue 453  
[Dear Mr. Lee,](#)

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From: John R. Lee [JLee@icanlearn.com]  
Sent: Thursday, June 12, 2008 2:24 PM  
To: What Works  
Subject: RE: Issue 453: WWC Improvement Index Anomaly

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Of further note, The Hillsborough studies were conducted in 2001 and 2002 when there were only 229 lessons in our programs. The shortcomings discovered through the Hillsborough studies caused us to create additional lessons for the program. The number of lessons in our program by the time of the RCT study in 2004 was 312.

Treating the two Hillsborough studies as just two studies of Hillsborough's 8th graders, which they legitimately were, would be consistent with the treatment of other middle school math studies with multiple matched subgroups/studies within a study; such as Connected Math Schneider 2000 study, Appendix 3, page 11 and University of Chicago Thompson 2006 study, Appendix 3, page 8. Most importantly this calculation method would give the reader a more accurate representation of the effectiveness of the I CAN Learn® Pre-Algebra and Algebra programs.

I hope you will agree that the inadvertent anomaly of treating the two Hillsborough studies as eight should be corrected to give the reader a more accurate representation of the effectiveness of our programs when they visit the "Create My Summary" page on the WWC website.

I will call to set up a time when we may visit over the phone about this. I thank you for your consideration and look forward to speaking with you soon.

Sincerely,

John Lee



**From:** WhatWorks  
**Sent:** Friday, June 27, 2008 11:28 AM  
**To:** 'JLee@icanlearn.com'  
**Subject:** RE: WWC Improvement Index Anomaly  
Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse. The review process usually takes from 60 to 90 days to complete. Currently, we are working with the Principal Investigator of Middle Math Topic on the issue you raised. We apologize for the delay in processing your request. Thank you for your patience.

What Works Clearinghouse

From: John R. Lee [JLee@icanlearn.com]  
Sent: Thursday, June 12, 2008 2:24 PM  
To: What Works  
Subject: RE: Issue 453: WWC Improvement Index Anomaly

Dear What Works,

Is it possible to let me know what steps remain in your review process and maybe an approximate date as to when you believe the review process will be completed? I look forward to your response.

Thank you very much,

John

From: What Works [mailto:whatworks@mathematica-mpr.com]  
Sent: Tuesday, May 27, 2008 4:59 PM  
To: John R. Lee  
Subject: RE: Issue 453: WWC Improvement Index Anomaly

We understand that the process of responding to your concerns is taking longer than one would expect. Please be assured that the WWC takes inquiries like yours very seriously as we want to ensure the accuracy of WWC reviews. We have been successful in obtaining the necessary documentation referenced in our earlier response. However, we request your continued patience as several steps of our review process still need to be conducted. We will let you know once we have completed our review.

What Works Clearinghouse

From: John R. Lee [mailto:JLee@icanlearn.com]  
Sent: Friday, May 23, 2008 5:32 PM

To: What Works  
Subject: RE: Issue 453: WWC Improvement Index Anomaly

Dear What Works,

May I inquire how your efforts are progressing?

Thank you,

John Lee

From: What Works [mailto:whatworks@mathematica-mpr.com]  
Sent: Friday, May 02, 2008 8:43 AM  
To: John R. Lee  
Cc: What Works  
Subject: Issue 453: WWC Improvement Index Anomaly

We apologize for the delay in responding. We continue to look into the issue you raised.

It is our protocol to review the documentation created during the original review of a study when we are examining the rationale for key decisions. As you may know, the WWC is now managed by a new contractor. Unfortunately, not all of the documentation related to these specific studies made the transition from the old contractor to the new contractor.

We are working currently to acquire the necessary documentation and hope to respond soon.

-----Original Message-----

From: John R. Lee [mailto:JLee@icanlearn.com]  
Sent: Thursday, May 01, 2008 10:37 AM  
To: What Works  
Cc: Jill Miller; Linden Williams  
Subject: RE: Issue 453: WWC Improvement Index Anomaly  
Dear What Works,

May I inquire how your efforts are progressing, and when I might expect an answer to the WWC Improvement Index anomaly?

Thank you,

John Lee

From: What Works [mailto:whatworks@mathematica-mpr.com]  
Sent: Friday, April 18, 2008 8:38 AM  
To: John R. Lee  
Subject: Issue 453: WWC Improvement Index Anomaly

Dear Mr. Lee,

Thank you for your emails and explanation of your concerns. We will look into this and get back to you as soon as possible.

Thank you for your patience.

What Works Clearinghouse

-----Original Message-----

From: John R. Lee [mailto:JLee@icanlearn.com]

Sent: Thursday, April 17, 2008 4:34 PM

To: info@whatworks.ed.gov

Cc: Jill Miller; Linden Williams

Subject: FW: WWC Improvement Index Anomaly

Dear Info @ WWC,

Jill Miller, Mark Dynarski's assistant, recommended I forward this email to you. I am requesting redress for an apparent anomaly in calculating the improvement index for the I CAN Learn® Pre-Algebra and Algebra programs. Unfortunately two of our early studies were averaged into our improvement index as eight studies of the subgroups within the two studies. Calculating the improvement index based upon subgroups in two studies gives a skewed weighting to each subgroup. I can find no other example of this in the other middle school math interventions. In fact there are numerous, examples of averaging of the subgroups within a broader study then using this average to calculate the improvement index. As stated below, if the eight subgroups were averaged for their respective two studies, a more accurate improvement index would result.

I look forward to your response so that this apparent anomaly may be corrected soon.

Sincerely,

John Lee

From: John R. Lee

Sent: Thursday, April 10, 2008 3:05 PM

To: 'mdanarski@mathematica-mpr.com'

Subject: WWC Improvement Index Anomaly

Dear Dr. Dynarski,

Congratulations on taking the stewardship of the What Works

Clearinghouse. The education community is thankful for your oversight in this most important effort by the Department. I recently noticed a new feature "Create My Summary" on the WWC website, and I wanted to bring to your attention what was probably an inadvertent anomaly introduced by your predecessor that is now causing a distortion of data presented on the "Create My Summary" page for Middle School Mathematics.

The "Create My Summary" page presents a table labeled "Effectiveness Ratings for Middle School Math: Mathematics Achievement". The interventions are listed in declining order of their respective average improvement Indexes and here is where the anomaly is causing a distortion of the data presented.

The WWC has invested years in developing their rigorous standards for scientifically based research and it is no mean feat to have a study recognized as an RCT. We have worked hard over the last 13 years to improve the quality of our research and then to improve our programs based upon the results of our research. This attention to research and product effectiveness culminated in our receiving a "Positive Effects" rating from the WWC for our I CAN Learn® Pre-Algebra and Algebra programs in March of 2007.

This honor was possible because our Orleans Parish study of 2400 inner city students met the gold standard for an RCT and had an Improvement Index of +14. Our overall Improvement Index, however, was only +6. This is due to the anomaly of disaggregating two of our earlier quasi studies at Hillsborough, Florida into eight studies of eight subgroups. Each of these subgroups was given equal weight in the Improvement Index calculation, equating them to the total non-disaggregated study populations of the other four studies, including the RCT study, causing our average improvement index to drop to +6. If the subgroups had not been disaggregated, our reported Improvement Index would have been +11. This Improvement Index is closer to the +14 of our RCT and more accurately reflects the effectiveness of our program.

Of further note, The Hillsborough studies were conducted in 2001 and 2002 when there were only 229 lessons in our programs. The shortcomings discovered through the Hillsborough studies caused us to create additional lessons for the program. The number of lessons in our program by the time of the RCT study in 2004 was 312.

Treating the two Hillsborough studies as just two studies of Hillsborough's 8th graders, which they legitimately were, would be consistent with the treatment of other middle school math studies with multiple matched subgroups/studies within a study; such as Connected Math Schneider 2000 study, Appendix 3, page 11 and University of Chicago Thompson 2006 study, Appendix 3, page 8. Most importantly this calculation method would give the reader a more accurate representation

of the effectiveness of the I CAN Learn® Pre-Algebra and Algebra programs.

I hope you will agree that the inadvertent anomaly of treating the two Hillsborough studies as eight should be corrected to give the reader a more accurate representation of the effectiveness of our programs when they visit the "Create My Summary" page on the WWC website.

I will call to set up a time when we may visit over the phone about this. I thank you for your consideration and look forward to speaking with you soon.

Sincerely,

John Lee



**From:** WhatWorks

**Sent:** Monday, September 01, 2008 8:50 PM

**To:** 'JLee@icanlearn.com'

**Subject:** RE: WWC Middle School Math Review of I Can Learn

Dear Mr. Lee,

Gary Ritter forwarded your request for copies of two studies of I Can Learn to the WWC Help Desk.

In part because of copyright restrictions, the WWC cannot provide access to the full text of studies we review, but we will try to provide as much detail as possible about where we obtained copies of the studies we reviewed. For reference, the citations for the Parrott (2005) and Buckner (2007) studies are:

Parrott, D. E. (2005). A study of comparison for students in a computerized mathematics classroom "I Can Learn" and students who are in a traditionally taught classroom. Unpublished master's thesis, Northwest Missouri State University.

Buckler, M. L. (2007). *Comparison study of 8th grade math MAP scores of four Missouri middle schools using the "I Can Learn math lab" in academic years 2005 and 2006*. Unpublished master's thesis, Northwest Missouri State University.

The WWC obtained both studies through the National Library of Education ([http://ies.ed.gov/ncee/projects/nat\\_ed\\_library.asp](http://ies.ed.gov/ncee/projects/nat_ed_library.asp)). The NLE contacted the university library at Northwest Missouri State University for copies.

If you have additional questions, please feel free to contact us again.

What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

**From:** John R. Lee [mailto:JLee@icanlearn.com]

**Sent:** Tuesday, August 26, 2008 11:38 AM

**To:** What Works

**Subject:** RE: WWC Middle School Math Review of I Can Learn

Dr. Ritter,

Is it possible to receive copies of the Buckner, 2007 and Parrott 2005 studies? We are unable to locate them.

Thank you,

John Lee

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**From:** What Works [mailto:whatworks@mathematica-mpr.com]

**Sent:** Friday, August 22, 2008 10:15 AM

**To:** John R. Lee

**Subject:** WWC Middle School Math Review of I Can Learn

Dear Mr. Lee,

The What Works Clearinghouse (WWC), an initiative of the U. S. Department of Education's Institute of Education Sciences, was established to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. As such, we review studies on education interventions that may be included in our reports.

The purpose of the attached letter is to notify you that we are in the process of conducting an updated review of Middle School Math interventions and may be including I Can Learn in our review. The Middle School Math review focuses on math curricula and their effect on mathematics achievement for students in grades six through nine. In this letter, we ask you to review a list of studies and a brief intervention summary.

Sincerely,

Gary Ritter, Ph.D

Principal Investigator, Middle School Math

**From:** What Works  
**Sent:** Wednesday, September 03, 2008 9:31 AM  
**To:** 'John R. Lee'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn (WWCPC - 638)

Dr. Lee,

In response to your phone call yesterday (9/2), we did receive the materials you sent us: the updated description of ICL and the more recent version of the Barrow, Markham, & Rouse study. Thank you for providing them. We also sent a separate email explaining how we obtained copies of the Parrott (2005) and Buckner (2007) studies, as we cannot provide copies. Please let us know if you did not receive this message.

In response to your question about whether the current Middle School Math review efforts will include a reexamination of the Oescher and Kirby study in Dallas, it will not. The study failed to meet WWC evidence standards because of a confound. In this study, the 99 students who received the “treatment” (in this case, using I CAN Learn), all came from the same school. The 99 comparison students came from schools other than the treatment. As a result, it is not possible to distinguish the effects of the I CAN Learn intervention from other factors that may be unique to that school. Studies that include confounds such as this do not meet WWC standards.

Additionally, the WWC requires quasi-experimental designs to demonstrate that the treatment and comparison groups are similar on the outcome of interest before the intervention is applied to the treatment group. In the Oescher and Kirby study, the authors conducted a propensity score match, but did not demonstrate that the groups were equivalent on math ability before students in the treatment school began using I CAN Learn.

Let us know if you have additional questions,

The What Works Clearinghouse

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**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Thursday, August 28, 2008 7:58 PM  
**To:** What Works  
**Subject:** RE: WWC Middle School Math Review of I Can Learn

Dr. Ritter,

Attached are the updated “brief intervention summary” titled “WWC ICL Description 8-28-08 FINAL.doc” and a more recent version of the Barrow, Markham & Rouse study than the one cited in your email.

I requested copies of the Buckner and Parrott studies earlier. I understand things are probably busy there, but I do hope I may receive them.

I am unclear as to the status of the Oescher & Kirby Dallas study. I had resubmitted it to Mathematica anticipating that such an important matched pairs study might receive reconsideration by the new WWC Middle School Math review. Can you tell me where this study stands with the new WWC Middle School Math review?

Thank you for your consideration of the I CAN Learn® Programs. I look forward to hearing from you.

Sincerely,

John Lee

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**From:** What Works [mailto:whatworks@mathematica-mpr.com]

**Sent:** Friday, August 22, 2008 10:15 AM

**To:** John R. Lee

**Subject:** WWC Middle School Math Review of I Can Learn

Dear Mr. Lee,

The What Works Clearinghouse (WWC), an initiative of the U. S. Department of Education's Institute of Education Sciences, was established to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. As such, we review studies on education interventions that may be included in our reports.

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Sincerely,

Gary Ritter, Ph.D

Principal Investigator, Middle School Math

From: John R. Lee [JLee@icanlearn.com]  
Sent: Wednesday, September 03, 2008 11:51 AM  
To: What Works  
Subject: RE: WWC Middle School Math Review of I Can Learn (WWCPC - 638)

Thank you, yes I did receive your email yesterday concerning the Missouri masters papers. Sorry I did not respond yesterday, but we are just now getting on our feet following Gustav.

John Lee

-----Original Message-----

From: "What Works" <whatworks@mathematica-mpr.com>  
To: "John R. Lee" <JLee@icanlearn.com>  
Sent: 9/3/08 7:31 AM  
Subject: RE: WWC Middle School Math Review of I Can Learn (WWCPC - 638)

Dr. Lee,

In response to your phone call yesterday (9/2), we did receive the materials you sent us: the updated description of ICL and the more recent version of the Barrow, Markham, & Rouse study. Thank you for providing them. We also sent a separate email explaining how we obtained copies of the Parrott (2005) and Buckner (2007) studies, as we cannot provide copies. Please let us know if you did not receive this message.

In response to your question about whether the current Middle School Math review efforts will include a reexamination of the Oescher and Kirby study in Dallas, it will not. The study failed to meet WWC evidence standards because of a confound. In this study, the 99 students who received the "treatment" (in this case, using I CAN Learn), all came from the same school. The 99 comparison students came from schools other than the treatment. As a result, it is not possible to distinguish the effects of the I CAN Learn intervention from other factors that may be unique to that school. Studies that include confounds such as this do not meet WWC standards.

Additionally, the WWC requires quasi-experimental designs to demonstrate that the treatment and comparison groups are similar on the outcome of interest before the intervention is applied to the treatment group. In the Oescher and



Kirby study, the authors conducted a propensity score match, but did not demonstrate that the groups were equivalent on math ability before students in the treatment school began using I CAN Learn.

Let us know if you have additional questions,

The What Works Clearinghouse

From: John R. Lee [mailto:JLee@icanlearn.com]  
Sent: Thursday, August 28, 2008 7:58 PM  
To: What Works  
Subject: RE: WWC Middle School Math Review of I Can Learn

Dr. Ritter,

Attached are the updated "brief intervention summary" titled "WWC ICL Description 8-28-08 FINAL.doc" and a more recent version of the Barrow, Markham & Rouse study than the one cited in your email.

I requested copies of the Buckner and Parrott studies earlier. I understand things are probably busy there, but I do hope I may receive them.

I am unclear as to the status of the Oescher & Kirby Dallas study. I had resubmitted it to Mathematica anticipating that such an important matched pairs study might receive reconsideration by the new WWC Middle School Math review. Can you tell me where this study stands with the new WWC Middle School Math review?

Thank you for your consideration of the I CAN Learn(r) Programs. I look forward to hearing from you.

Sincerely,

John Lee

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From: What Works [mailto:whatworks@mathematica-mpr.com]  
Sent: Friday, August 22, 2008 10:15 AM  
To: John R. Lee  
Subject: WWC Middle School Math Review of I Can Learn

Dear Mr. Lee,

The What Works Clearinghouse (WWC), an initiative of the U. S. Department of Education's Institute of Education Sciences, was established to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. As such, we review studies on education interventions that may be included in our reports.

The purpose of the attached letter is to notify you that we are in the process of conducting an updated review of Middle School Math interventions and may be including I Can Learn in our review. The Middle School Math review focuses on math curricula and their effect on mathematics achievement for students in grades six through nine. In this letter, we ask you to review a list of studies and a brief intervention summary.

Sincerely,

Gary Ritter, Ph.D

Principal Investigator, Middle School Math

## **Intervention Summary for the I CAN Learn<sup>®</sup> Program's Pre-Algebra, Algebra and Fundamentals of Math curricula**

### ***Program description***

The I CAN Learn<sup>®</sup> Program, published by JRL Enterprises, Inc., is an interactive, self-paced, mastery based software system providing Algebra, Pre-Algebra, Fundamentals of Math (5th-6th grade math) and core Geometry courses, in excess of 500 lessons, to students nationwide, including a large student base of ethnically diverse, inner-city and rural students in grades K-12. The system includes the I CAN Learn<sup>®</sup> Fundamentals of Math (5th-6th grade math) curriculum, the I CAN Learn<sup>®</sup> Pre-Algebra curriculum and the I CAN Learn<sup>®</sup> Algebra curriculum. These courses cover the mathematical and problem-solving skills students need to meet district, state, and national math standards. The programs are designed to prepare students to pass their states' high-stakes tests, which serve as their metric of AYP. College Algebra credit is also available to students in participating schools through the 121 lesson CLEP program, an open enrollment dual-credit program for middle school students as well as high school students.

### **Additional program information**

#### **Developer and contact**

The I CAN Learn<sup>®</sup> Program was developed by and is distributed by JRL Enterprises, Inc.  
Address: 912 Constantinople St., New Orleans, LA 70115  
Email: [info@icanlearn.com](mailto:info@icanlearn.com)  
Web: <http://www.icanlearn.com>  
Telephone: (504) 263-1380

#### **Scope of use**

The I CAN Learn<sup>®</sup> Program was first implemented in 1995. As of August 2008, the I CAN Learn<sup>®</sup> Program has helped close to one million students in elementary, middle, junior, and senior high schools, as well as community colleges across the United States. The I CAN Learn<sup>®</sup> Curricula can be used online via the Internet or through school LAN's or WAN's provided that the courseware is installed on a local server. Historically, the program's courses have been used in large urban school districts as well as smaller rural school districts where students are frequently at-risk and members of ethnic minority groups.

#### **Teaching**

Custom curriculum alignment to state, district and school standards ensures that students are adequately prepared for high-stakes testing. This is readily accomplished

by selecting appropriate lessons from the I CAN Learn<sup>®</sup> Lesson Database, which contains over 500 multimedia lessons. The Fundamentals of Math curriculum contains 121 lessons with more than 40 hours of instructional video, and the Pre-Algebra, Algebra and Geometry curricula contain 424 lessons with more than 120 hours of instructional video.

Teachers manage their classroom through the Classroom Explorer<sup>®</sup> Class Management System, which keeps track of student attendance, homework, and test grades. It can also help in developing individual learning plans to meet diverse student needs. It is an effective tool for use with Response To Intervention, RTI, programs. A 1:1 student to computer ratio and one-on-one interaction with the teacher lets each student progress at his or her own pace. Peer tutoring and mentoring, along with enrichment activities and true differentiated instruction opportunities also exist for the students.

### **Cost**

The cost of an I CAN Learn<sup>®</sup> system depends on its configuration and terms of support. Using a school's existing hardware, individual subscriptions allowing access to more than 500 lessons costs \$43.48 per student. Varying support plans including trainings, professional development, curriculum alignments, implementation planning, and other pedagogical support are available and encouraged with a cost range from \$400 to \$20,000 per year. A complete traditional classroom installation of hardware and software is available, which includes 30 workstations with all curriculum and class management software, computer hardware, network wiring, furniture, and three years of comprehensive onsite educational support. The cost for this traditional classroom installation is \$200,000 or \$170,000 for a laptop cart configuration.

**From:** John Lee [johnrlee@icanlearn.com]  
**Sent:** Monday, March 09, 2009 8:10 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra  
**Attachments:** WWC ICL Description 3-9-08 FINAL(2).doc

Dear Dr. Dynarski,

Thank you for your email. May I request that you change the developer contact street address to:

912 Constantinople St.  
New Orleans, LA 70115

Also, could you please review the attached updated program description for inclusion/amplification of the current program description in your report?

Thank you for your consideration,

John Lee

On Sat, Feb 28, 2009 at 12:20 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on I Can Learn® Pre-Algebra and Algebra and determined that this intervention is eligible for an intervention report according to the Middle School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on March 10<sup>th</sup>, 2009. As a reminder, this report is covered by the embargo agreement signed by you on July 23<sup>rd</sup>, 2008, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,

Mark Dynarski

Director, What Works Clearinghouse

<<I Can Learn Developer Courtesy Copy Letter.pdf>> <<ICanLearn\_DC.pdf>>  
<<Developer\_Courtesy\_Copy\_Attachment.doc>>



**From:** John Lee [johnrlee@icanlearn.com]  
**Sent:** Thursday, April 16, 2009 4:18 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra  
**Attachments:** WWC MSM\_protocol 4-16-09.pdf

Dear Dr. Dynarski,

Thank you for your work in completing this review. We are honored to have received your "positive Effects" recognition.

Please forgive me, but I am a bit uncertain as to the reason why the Barrow, Markman and Rouse study was designated as "ineligible for review because it does not disaggregate findings for age or grade level". I downloaded the review protocol from your website today (copy attached) and it states on page 2 "middle school is primarily defined as any school with any of four grades 6 through 9. This definition of middle school is used throughout the protocol." In earlier correspondence with the WWC your staff noted that there was confusion within your group thinking that this study was an ineligible study because it was thought to be a study of elementary school math not middle school math. The math subjects of this study, however, were Pre-Algebra and Algebra which are traditionally taught in 7th, 8th and 9th grades and the authors note on page 16 that: "We conducted the study during the 2004-2005 school year in 8 high schools and 2 middle schools in District 1; and during the 2003-2004 school year in 4 high schools in District 2 and in 3 high schools in District 3." and further note on page 17 that these were 8th and 9th grade students, primarily 9th grade. Maybe some of the earlier confusion persists within your group, and unfortunately I am confused. Is it possible for someone to better explain to me why this study was ineligible?

On another note, many of my schools use the WWC website to help them evaluate and select math interventions. I read with interest your study "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", and wondered why the results of this study are not reflected in the Middle School Math website's "Create My Summary" [Effectiveness Ratings For Middle School Math: Mathematics achievement](#) ratings? With so many districts receiving ARRA stimulus Title I funds in the next few weeks, I had hoped that the WWC "Create My Summary" website would provide school decision makers with the most accurate information available to WWC reviewers and raters.

Sincerely,

John Lee

On Sat, Feb 28, 2009 at 12:20 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on I Can Learn® Pre-Algebra and Algebra and determined that this

intervention is eligible for an intervention report according to the Middle School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on March 10<sup>th</sup>, 2009. As a reminder, this report is covered by the embargo agreement signed by you on July 23<sup>rd</sup>, 2008, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,

Mark Dynarski

Director, What Works Clearinghouse

<<I Can Learn Developer Courtesy Copy Letter.pdf>> <<ICanLearn\_DC.pdf>>  
<<Developer\_Courtesy\_Copy\_Attachment.doc>>

**From:** John Lee [johnrlee@icanlearn.com]  
**Sent:** Wednesday, June 10, 2009 5:43 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1263)

Dear What Works,

Thank you for your response, but I must admit I am still confused. I guess I will take your suggestion and use specific studies related to a middle school math report to explain why I continue to be confused. Morgan, P., & Ritter, S (2002) and Shneyderman, A. (2001) both report that the subjects of their studies are 9<sup>th</sup> graders and do not affirm any middle school affiliation, yet the math program studied by these researchers is still listed as a middle school math intervention when it has no middle school studies that meet your standards. My confusion is exacerbated by the fact that, a few years back, the I CAN Learn® Program was delisted from the What Works Clearinghouse, WWC, website, while its studies were being reconsidered under what were then “new” WWC guidelines. Today we have new “new” WWC guidelines, but an intervention that under the old guidelines would have been delisted continues to have prominence on the WWC “Create My Summary” page. Adding further to my confusion is the fact that there are two RCT’s, randomized controlled trials (these are “Effectiveness of Reading and Mathematics Software Products: Findings from the First Student Cohort” and “Effectiveness of Reading and Mathematics Software Products: Findings from Two Student Cohorts” conducted by Mathematica Policy Research, Inc (MPR) for the U.S. Department of Education’s Institute of Education Sciences), which are not reflected in the WWC website reports. I believe, were the findings of these two RCT’s reflected in the “Improvement Index” for the math intervention studied by Morgan, Ritter and Sheyderman, this intervention would not have such a prominent position on the Middle School Math “Create My Summary” page. The confusion I have is that I do not understand why your new guidelines do not lead to equal treatment to all interventions reviewed by the WWC.

Sincerely,

John Lee

On Tue, Jun 9, 2009 at 3:04 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The WWC website contains some older reports—including the Middle School Math topic report— with studies that were reviewed using the previous Middle School Math review protocol. Under that protocol, studies with ninth grade students not specifically designated as middle school students were still eligible for review. The revised protocol, which requires ninth grade students to be classified distinctly as middle school students, will be posted to the WWC website soon.

The WWC has a prioritized process for updating existing reports against the revised protocol. Until a report is updated under the new protocol, however, the existing report will remain on the WWC website.

In addition, there are reports under the Middle School Math topic area that contain studies with ninth grade students that did not pass eligibility screens for reasons other than the study sample. Such studies are included in our reports but designated as studies that do not meet either WWC evidence standards or eligibility screens.

We hope that this explanation answers your question. If you have any further questions about specific studies contained within one of the Middle School Math reports, please feel free to contact us again.

## What Works Clearinghouse

The What Works Clearinghouse was established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. For more information, please visit <http://ies.ed.gov/ncee/wwc/>.

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**From:** What Works

**Sent:** Wednesday, May 27, 2009 11:59 AM

**To:** 'John Lee'

**Subject:** RE: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC).

Following is the response to your initial questions.

Our team is looking into the new question that you have raised and will send you a separate email with our findings.

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This is in response to the questions you raised in your April 16 message to Dr. Dynarski.

Regarding the first issue raised in your email about the Barrow et al. study, the results in the original study were not reported separately for middle school students. The eligibility criteria for the Middle School Math review has been revised; the review now includes only primarily grades six through eight. Students in grade five or nine are included in the review only if they were classified as middle school students. The Middle School Math review protocol is being updated to reflect this change and will be posted to the WWC website soon. Note that we queried the authors of the Barrow study to obtain data for middle school students only, but the authors did not respond to the query. Consequently, the study was deemed ineligible for review because it does not disaggregate findings for the age or grade range examined in our topic area. This study will be examined for review eligibility in the forthcoming WWC review of High School Math interventions.

Concerning the "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", the WWC does not add individual studies to the topic area pages but incorporates them into new and updated intervention reports as systematic literature searches are completed. This process is described in more detail in chapter two of the [WWC Procedures and Standards Handbook \(Version 2.0\)](#). The study can be found within a separate IES publication released by the National Center for Education Evaluation and Regional Assistance. The report can be downloaded from the following link: <http://ies.ed.gov/ncee/pubs/20094041/index.asp>.

We appreciate your contacting the WWC. Please feel free to contact us again should you have additional questions.

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**From:** John Lee [mailto:[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)]

**Sent:** Wednesday, May 27, 2009 11:09 AM

**To:** Sakari Morvey

**Cc:** What Works

**Subject:** Re: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Sakari,

Will you be sending a response to my inquiry soon? Also, may I ask if your earlier email is correct and 9th grade is no longer included in the WWC Middle School evaluations, why are programs with only 9th grade results still listed in your middle school evaluations and Middle School "My Summary" report?

Thank you,

John Lee

On Fri, May 8, 2009 at 9:12 AM, Sakari Morvey <[SMorvey@mathematica-mpr.com](mailto:SMorvey@mathematica-mpr.com)> wrote:

Sakari Morvey would like to recall the message, "WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)".

**From:** John Lee [johnrlee@icanlearn.com]  
**Sent:** Monday, March 08, 2010 5:17 PM  
**To:** What Works  
**Subject:** Recent Review

Dear What Works Reviewers,

I read with interest your recent review of Ritter, Kulikowich, Lei, McGuire, & Morgan (2007) assessing the impact of *Cognitive Tutor*® *Algebra I* on the math achievement of ninth-grade students in three suburban junior high schools in Oklahoma. During the 2000–01 school year

I have concerns regarding the WWC determination that the Ritter et al. (2007) study of Cognitive Tutor meets evidence standards. This study included 11 control students who crossed over to treatment. These students should have been analyzed as controls through a conventional intent-to-treat (ITT) analysis, but the authors of the study dropped these students from the analysis (according to footnote 2 in Appendix A1 in the WWC Intervention Report for the Ritter et al., 2007 study of Cognitive Tutor). Because the authors did not conduct a proper ITT analysis, the WWC should reconsider its conclusion that this study meets evidence standards. As stated in the WWC Procedures and Standards Handbook (V 2.0): "Any movement or nonrandom placement of students, teachers, classrooms, or schools after random assignment jeopardizes the random assignment design of the study." Clearly, this non-random placement of 11 control students into the treatment condition, and the systematic exclusion of these students from the impact analysis of Cognitive Tutor compromises the integrity of this random assignment study. Because we would expect that the crossover students experienced the same benefit as treatment students, their systematic exclusion from the control group analytical sample overstates the magnitude of the Cognitive Tutor effect, especially in such a small study population of 255 students. Could you please address my concerns and respond back?

Thank you very much,

John Lee

**From:** WhatWorks  
**Sent:** Tuesday, March 09, 2010 9:39 AM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: Recent Review (WWCPC 1987)  
Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC).

We have received your email about the Cognitive Tutor<sup>®</sup> Algebra I Intervention Report. The WWC Quality Review Team is reviewing your email and will prepare a written response. The Quality Review Team responds to concerns raised by study authors, curriculum developers or other relevant parties about WWC reviews published on our website. These quality reviews are undertaken when concerned parties present evidence that a WWC review may be inaccurate. When a quality review is conducted, a researcher who was not involved in the initial review undertakes an independent assessment of the study in question. The researcher also investigates the procedures used and decisions made during the original review of the study. If a quality review concludes that the original review was flawed, a revision will be published. These quality reviews are one of tools used to ensure that the standards established by the Institute of Educational Sciences (IES) are upheld on every review conducted by the What Works Clearinghouse.

Thank you,

What Works Clearinghouse

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of these students from the impact analysis of Cognitive Tutor compromises the integrity of this random assignment study. Because we would expect that the crossover students experienced the same benefit as treatment students, their systematic exclusion from the control group analytical sample overstates the magnitude of the Cognitive Tutor effect, especially in such a small study population of 255 students. Could you please address my concerns and respond back?

Thank you very much,

John Lee

**From:** What Works  
**Sent:** Tuesday, April 27, 2010 4:27 PM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** What Works Clearinghouse (2010006)  
**Attachments:** What Works Clearinghouse (2010006).pdf

Dear Mr. Lee,

Attached is a response to the questions you raised in your March 8 message to the What Works Clearinghouse (WWC).

Thank you,

What Works Clearinghouse

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Thank you very much,

John Lee



From: John Lee [mailto:johnrlee@icanlearn.com]  
Sent: Thursday, November 04, 2010 4:21 PM  
To: What Works  
Subject: Fwd: WWC High School Math Review of I CAN Learn

Dr. Seftor,

It has been more than three months since I sent this email, and I have had no response. I am concerned in as much as I checked the WWC High School Math website today and there was no mention that the I CAN Learn(R) Program is under review, while both Saxon Math and UCSMP programs were so listed.

Is there a problem that I am not aware of?

Thank you,

John Lee

----- Forwarded message -----

From: John Lee <johnrlee@icanlearn.com>  
Date: Wed, Aug 4, 2010 at 5:56 PM  
Subject: Re: WWC High School Math Review of I CAN Learn  
To: What Works <whatworks@mathematica-mpr.com>  
Cc: Vincent Melerine <vmelerine@icanlearn.com>, James Womack <jwomack@icanlearn.com>

What Works Clearinghouse,

Thank you for the time extension. Attached are my letter to Dr. Seftor, a signed copy of the Embargo Agreement and our suggestions for Scope of Use, Description of Intervention and Cost. I will fax them as well.

We look forward to your review.

Sincerely,

John Lee

On Fri, Jul 23, 2010 at 8:28 AM, What Works <whatworks@mathematica-mpr.com> wrote:  
Hi Vincent,

We have no problem with that date.

Best,  
What Works Clearinghouse

From: Vincent Melerine [mailto:vmelerine@icanlearn.com]  
Sent: Thursday, July 22, 2010 5:52 PM  
To: What Works  
Cc: John Lee; James Womack  
Subject: Re: WWC High School Math Review of I CAN Learn

Good Afternoon Dr. Seftor,

My name is Vincent Melerine, Vice President of Support from I CAN Learn® Education Systems. John Lee, our President/CEO, has handled all of our operations with the WWC in the past. However, he is currently out of the country and will return on August 4th. Are there any problems with us submitting the signed embargo agreement shortly after his arrival?

Sincerely,  
Vincent

-----

Vincent Melerine  
Vice President of Customer Support  
JRL Enterprises, Inc.  
I CAN Learn® Education Systems  
Direct: 504-263-4663  
Cell: (b)(6)

On Tue, Jul 20, 2010 at 3:54 PM, What Works <whatworks@mathematica-mpr.com> wrote:

To Whom It May Concern,  
The What Works Clearinghouse (WWC), an initiative of the U. S. Department of Education's Institute of Education Sciences, was established to provide educators, policymakers, researchers, and the public with a central and trusted source of scientific evidence of what works in education. As such, we review studies on education interventions that may be included in our reports.

The purpose of the attached letter is to notify you that we are in the process of conducting a review of High School Math interventions and may be including I CAN Learn in our review. The High School Math review focuses on mathematics interventions for high school students in grades 9-12 designed to impact student achievement, including curriculum-based interventions, instructional techniques, and products designed to deliver content and monitor student progress. In this letter, we ask you to review a list of studies, review a brief intervention summary, and sign an embargo agreement.

Sincerely,  
Neil Seftor, Ph.D.

Principal Investigator, WWC High School Math review  
<<I CAN Learn Developer Letter.pdf>>

**From:** WhatWorks

**Sent:** Friday, November 05, 2010 9:11 AM

**To:** 'johnrlee@icanlearn.com'

**Subject:** RE: WWC High School Math Review of I CAN Learn

Dear Mr. Lee,

Thank you for your email. The High School Math review team forwarded your email to the What Works Clearinghouse (WWC) Help Desk. The WWC Help Desk answers questions about navigating the WWC review process and resources.

There are no problems or concerns at this time with the High School Math team's review of I Can Learn. However, we are unable to provide any information on review timelines beyond the information publicly available on our website.

The WWC will contact you if the review team needs any further information.

Thank you,

What Works Clearinghouse

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Is there a problem that I am not aware of?

Thank you,

John Lee

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From: **John Lee** <[johnrlee@icanlearn.com](mailto:johnrlee@icanlearn.com)>

Date: Wed, Aug 4, 2010 at 5:56 PM

Subject: Re: WWC High School Math Review of I CAN Learn

To: What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)>

Cc: Vincent Melerine <[vmelerine@icanlearn.com](mailto:vmelerine@icanlearn.com)>, James Womack <[jwomack@icanlearn.com](mailto:jwomack@icanlearn.com)>

What Works Clearinghouse,

Thank you for the time extension. Attached are my letter to Dr. Seftor, a signed copy of the Embargo Agreement and our suggestions for Scope of Use, Description of Intervention and Cost. I will fax them as well.

We look forward to your review.

Sincerely,

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---

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**Sent:** Thursday, July 22, 2010 5:52 PM  
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**Subject:** Re: WWC High School Math Review of I CAN Learn

Good Afternoon Dr. Seftor,

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Sincerely,

Vincent

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Vincent Melerine  
Vice President of Customer Support  
JRL Enterprises, Inc.  
I CAN Learn® Education Systems

Direct: 504-263-4663

Cell: (b)(6)

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Sincerely,

Neil Seftor, Ph.D.

Principal Investigator, WWC High School Math review

<<I CAN Learn Developer Letter.pdf>>



**From:** John R. Lee [JLee@icanlearn.com]  
**Sent:** Thursday, May 01, 2008 10:37 AM  
**To:** What Works  
**Cc:** Jill Miller; Linden Williams  
**Subject:** RE: Issue 453: WWC Improvement Index Anomaly

**Categories:** Issue 453

Dear What Works,

May I inquire how your efforts are progressing, and when I might expect an answer to the WWC Improvement Index anomaly?

Thank you,

John Lee

---

**From:** What Works [mailto:whatworks@mathematica-mpr.com]  
**Sent:** Friday, April 18, 2008 8:38 AM  
**To:** John R. Lee  
**Subject:** Issue 453: WWC Improvement Index Anomaly

Dear Mr. Lee,

Thank you for your emails and explanation of your concerns. We will look into this and get back to you as soon as possible.

Thank you for your patience.

What Works Clearinghouse

-----Original Message-----

**From:** John R. Lee [mailto:JLee@icanlearn.com]  
**Sent:** Thursday, April 17, 2008 4:34 PM  
**To:** info@whatworks.ed.gov  
**Cc:** Jill Miller; Linden Williams  
**Subject:** FW: WWC Improvement Index Anomaly

Dear Info @ WWC,

Jill Miller, Mark Dynarski's assistant, recommended I forward this email to you. I am requesting redress for an apparent anomaly in calculating the improvement index for the I CAN Learn® Pre-Algebra and Algebra programs. Unfortunately two of our early studies were averaged into our improvement index as eight studies of the subgroups within the two studies. Calculating the improvement index based upon subgroups in two studies gives a skewed weighting to each subgroup. I can find no other example of this in the other middle school math interventions. In fact there are numerous, examples of averaging of the subgroups within a broader study then using this average to calculate the improvement index. As stated below, if the eight subgroups were averaged for their respective two studies, a more accurate improvement index would result.

I look forward to your response so that this apparent anomaly may be corrected soon.

Sincerely,

John Lee

---

**From:** John R. Lee  
**Sent:** Thursday, April 10, 2008 3:05 PM  
**To:** 'mdanarski@mathematica-mpr.com'  
**Subject:** WWC Improvement Index Anomaly

Dear Dr. Dynarski,

Congratulations on taking the stewardship of the What Works Clearinghouse. The education community is thankful for your oversight in this most important effort by the Department. I recently noticed a new feature "Create My Summary" on the WWC website, and I wanted to bring to your attention what was probably an inadvertent anomaly introduced by your predecessor that is now causing a distortion of data presented on the "Create My Summary" page for Middle School Mathematics.

The "Create My Summary" page presents a table labeled "Effectiveness Ratings for Middle School Math: Mathematics Achievement". The interventions are listed in declining order of their respective average improvement Indexes and here is where the anomaly is causing a distortion of the data presented.

The WWC has invested years in developing their rigorous standards for scientifically based research and it is no mean feat to have a study recognized as an RCT. We have worked hard over the last 13 years to improve the quality of our research and then to improve our programs based upon the results of our research. This attention to research and product effectiveness culminated in our receiving a "Positive Effects" rating from the WWC for our I CAN Learn® Pre-Algebra and Algebra programs in March of 2007.

This honor was possible because our Orleans Parish study of 2400 inner city students met the gold standard for an RCT and had an Improvement Index of +14. Our overall Improvement Index, however, was only +6. This is due to the anomaly of disaggregating two of our earlier quasi studies at Hillsborough, Florida into eight studies of eight subgroups. Each of these subgroups was given equal weight in the Improvement Index calculation, equating them to the total non-disaggregated study populations of the other four studies, including the RCT study, causing our average improvement index to drop to +6. If the subgroups had not been disaggregated, our reported Improvement Index would have been +11. This Improvement Index is closer to the +14 of our RCT and more accurately reflects the effectiveness of our program.

Of further note, The Hillsborough studies were conducted in 2001 and 2002 when there were only 229 lessons in our programs. The shortcomings discovered through the Hillsborough studies caused us

to create additional lessons for the program. The number of lessons in our program by the time of the RCT study in 2004 was 312.

Treating the two Hillsborough studies as just two studies of Hillsborough's 8<sup>th</sup> graders, which they legitimately were, would be consistent with the treatment of other middle school math studies with multiple matched subgroups/studies within a study; such as Connected Math Schneider 2000 study, Appendix 3, page 11 and University of Chicago Thompson 2006 study, Appendix 3, page 8. Most importantly this calculation method would give the reader a more accurate representation of the effectiveness of the I CAN Learn® Pre-Algebra and Algebra programs.

I hope you will agree that the inadvertent anomaly of treating the two Hillsborough studies as eight should be corrected to give the reader a more accurate representation of the effectiveness of our programs when they visit the "Create My Summary" page on the WWC website.

I will call to set up a time when we may visit over the phone about this. I thank you for your consideration and look forward to speaking with you soon.

Sincerely,

John Lee



**From:** John Lee [johnrlee@icanlearn.com]  
**Sent:** Wednesday, May 27, 2009 11:09 AM  
**To:** Sakari Morvey  
**Cc:** What Works  
**Subject:** Re: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Sakari,

Will you be sending a response to my inquiry soon? Also, may I ask if your earlier email is correct and 9th grade is no longer included in the WWC Middle School evaluations, why are programs with only 9th grade results still listed in your middle school evaluations and Middle School "My Summary" report?

Thank you,

John Lee

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Sakari Morvey would like to recall the message, "WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)".

**From:** What Works  
**Sent:** Wednesday, March 18, 2009 12:18 PM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (Issue 1067)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC). We have updated the developer address included in the I Can Learn® Pre-Algebra and Algebra intervention report to conform to the changes noted below. We are unable to make further changes to the report at this time.

Thank you again for contacting the WWC. If you have additional questions, please feel free to contact us again.

What Works Clearinghouse

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**From:** John Lee [mailto:johnrlee@icanlearn.com]  
**Sent:** Monday, March 09, 2009 8:10 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra

Dear Dr. Dynarski,

Thank you for your email. May I request that you change the developer contact street address to:

912 Constantinople St.  
New Orleans, LA 70115

Also, could you please review the attached updated program description for inclusion/amplification of the current program description in your report?

Thank you for your consideration,

John Lee

On Sat, Feb 28, 2009 at 12:20 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on I Can Learn® Pre-Algebra and Algebra and determined that this intervention is eligible for an intervention report according to the Middle School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on March 10<sup>th</sup>, 2009. As a reminder, this report is covered by the embargo agreement signed by you on July 23<sup>rd</sup>, 2008, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,

Mark Dynarski

Director, What Works Clearinghouse

<<I Can Learn Developer Courtesy Copy Letter.pdf>> <<ICanLearn\_DC.pdf>>  
<<Developer\_Courtesy\_Copy\_Attachment.doc>>

**From:** What Works  
**Sent:** Friday, April 17, 2009 10:48 AM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC). We received your questions directed to Mark Dynarski about the review of I Can Learn® Pre-Algebra and Algebra.

We wanted to let you know that we are looking into the issues you raise and will prepare a written response.

Thank you again for contacting the WWC.

What Works Clearinghouse

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---

**From:** John Lee [mailto:johnrlee@icanlearn.com]  
**Sent:** Thursday, April 16, 2009 4:18 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra

Dear Dr. Dynarski,

Thank you for your work in completing this review. We are honored to have received your "positive Effects" recognition.

Please forgive me, but I am a bit uncertain as to the reason why the Barrow, Markman and Rouse study was designated as "ineligible for review because it does not disaggregate findings for age or grade level". I downloaded the review protocol from your website today (copy attached) and it states on page 2 "middle school is primarily defined as any school with any of four grades 6 through 9. This definition of middle school is used throughout the protocol." In earlier correspondence with the WWC your staff noted that there was confusion within your group thinking that this study was an ineligible study because it was thought to be a study of elementary school math not middle school math. The math subjects of this study, however, were Pre-Algebra and Algebra which are traditionally taught in 7th, 8th and 9th grades and the authors note on page 16 that: "We conducted the study during the 2004-2005 school year in 8 high schools and 2 middle schools in District 1; and during the 2003-2004 school year in 4 high schools in District 2 and in 3 high schools in District 3." and further note on page 17 that these were 8th and 9th grade students, primarily 9th grade. Maybe some of the earlier confusion persists within your group, and unfortunately I am confused. Is it possible for someone to better explain to me why this study was ineligible?

On another note, many of my schools use the WWC website to help them evaluate and select math interventions. I read with interest your study "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", and wondered why the results of this study are not reflected in the Middle School Math website's "Create My Summary" [Effectiveness Ratings For Middle School Math: Mathematics achievement](#) ratings? With so many districts receiving ARRA stimulus Title I funds in the next few weeks, I had hoped that the WWC "Create My Summary" website would provide school decision makers with the most accurate information available to WWC reviewers and raters.

Sincerely,

John Lee

On Sat, Feb 28, 2009 at 12:20 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

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Sincerely,

Mark Dynarski

Director, What Works Clearinghouse

<<I Can Learn Developer Courtesy Copy Letter.pdf>> <<ICanLearn\_DC.pdf>>  
<<Developer\_Courtesy\_Copy\_Attachment.doc>>



**From:** Sakari Morvey  
**Sent:** Friday, May 08, 2009 10:10 AM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

This is in response to the questions you raised in your April 16 message to Dr. Dynarski.

Regarding the first issue raised in your email about the Barrow et al. study, the results in the original study were not reported separately for middle school students. The eligibility criteria for the Middle School Math review has been revised; the review now includes only primarily grades six through eight. Students in grade five or nine are included in the review only if they were classified as middle school students. The Middle School Math review protocol is being updated to reflect this change and will be posted to the WWC website soon. Note that we queried the authors of the Barrow study to obtain data for middle school students only, but the authors did not respond to the query. Consequently, the study was deemed ineligible for review because it does not disaggregate findings for the age or grade range examined in our topic area. This study will be examined for review eligibility in the forthcoming WWC review of High School Math interventions.

Concerning the "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", the WWC does not add individual studies to the topic area pages but incorporates them into new and updated intervention reports as systematic literature searches are completed. This process is described in more detail in chapter two of the [WWC Procedures and Standards Handbook \(Version 2.0\)](#). The study can be found within a separate IES publication released by the National Center for Education Evaluation and Regional Assistance. The report can be downloaded from the following link: <http://ies.ed.gov/ncee/pubs/20094041/index.asp>.

We appreciate your contacting the WWC. Please feel free to contact us again should you have additional questions.

#### What Works Clearinghouse

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**From:** What Works  
**Sent:** Friday, April 17, 2009 10:48 AM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC). We received your questions directed to Mark Dynarski about the review of I Can Learn® Pre-Algebra and Algebra.

We wanted to let you know that we are looking into the issues you raise and will prepare a written response.

Thank you again for contacting the WWC.

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**From:** John Lee [mailto:johnrlee@icanlearn.com]

**Sent:** Thursday, April 16, 2009 4:18 PM

**To:** What Works

**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra

Dear Dr. Dynarski,

Thank you for your work in completing this review. We are honored to have received your "positive Effects" recognition.

Please forgive me, but I am a bit uncertain as to the reason why the Barrow, Markman and Rouse study was designated as "ineligible for review because it does not disaggregate findings for age or grade level". I downloaded the review protocol from your website today (copy attached) and it states on page 2 "middle school is primarily defined as any school with any of four grades 6 through 9. This definition of middle school is used throughout the protocol." In earlier correspondence with the WWC your staff noted that there was confusion within your group thinking that this study was an ineligible study because it was thought to be a study of elementary school math not middle school math. The math subjects of this study, however, were Pre-Algebra and Algebra which are traditionally taught in 7th, 8th and 9th grades and the authors note on page 16 that: "We conducted the study during the 2004-2005 school year in 8 high schools and 2 middle schools in District 1; and during the 2003-2004 school year in 4 high schools in District 2 and in 3 high schools in District 3." and further note on page 17 that these were 8th and 9th grade students, primarily 9th grade. Maybe some of the earlier confusion persists within your group, and unfortunately I am confused. Is it possible for someone to better explain to me why this study was ineligible?

On another note, many of my schools use the WWC website to help them evaluate and select math interventions. I read with interest your study "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", and wondered why the results of this study are not reflected in the Middle School Math website's "Create My Summary" [Effectiveness Ratings For Middle School Math: Mathematics achievement](#) ratings? With so many districts receiving ARRA stimulus Title I funds in the next few weeks, I had hoped that the WWC "Create My Summary" website would provide school decision makers with the most accurate information available to WWC reviewers and raters.

Sincerely,

John Lee

On Sat, Feb 28, 2009 at 12:20 PM, What Works <[whatworks@mathematica-mpr.com](mailto:whatworks@mathematica-mpr.com)> wrote:

Dear Mr. Lee,

The attached letter is to notify you that the What Works Clearinghouse (WWC) has completed the review of the research on I Can Learn® Pre-Algebra and Algebra and determined that this intervention is eligible for an intervention report according to the Middle School Math review protocol. We have also attached a courtesy copy of the report which will be posted on the WWC website on March 10<sup>th</sup>, 2009. As a reminder, this report is covered by the embargo agreement signed by you on July 23<sup>rd</sup>, 2008, requiring you not to copy, distribute, or discuss the report with members of the public outside your organization, prior to release of the report by the Institute of Education Sciences.

Sincerely,

Mark Dynarski

Director, What Works Clearinghouse

<<I Can Learn Developer Courtesy Copy Letter.pdf>> <<ICanLearn\_DC.pdf>>  
<<Developer\_Courtesy\_Copy\_Attachment.doc>>

**From:** What Works  
**Sent:** Tuesday, June 09, 2009 4:05 PM  
**To:** 'John Lee'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1263)

Dear Mr. Lee,

The WWC website contains some older reports—including the Middle School Math topic report— with studies that were reviewed using the previous Middle School Math review protocol. Under that protocol, studies with ninth grade students not specifically designated as middle school students were still eligible for review. The revised protocol, which requires ninth grade students to be classified distinctly as middle school students, will be posted to the WWC website soon.

The WWC has a prioritized process for updating existing reports against the revised protocol. Until a report is updated under the new protocol, however, the existing report will remain on the WWC website.

In addition, there are reports under the Middle School Math topic area that contain studies with ninth grade students that did not pass eligibility screens for reasons other than the study sample. Such studies are included in our reports but designated as studies that do not meet either WWC evidence standards or eligibility screens.

We hope that this explanation answers your question. If you have any further questions about specific studies contained within one of the Middle School Math reports, please feel free to contact us again.

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**From:** What Works  
**Sent:** Wednesday, May 27, 2009 11:59 AM  
**To:** 'John Lee'  
**Subject:** RE: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC).

Following is the response to your initial questions.

Our team is looking into the new question that you have raised and will send you a separate email with our findings.

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This is in response to the questions you raised in your April 16 message to Dr. Dynarski.

Regarding the first issue raised in your email about the Barrow et al. study, the results in the original study were not reported separately for middle school students. The eligibility criteria for the Middle School Math review has been revised; the review now includes only primarily grades six through eight. Students in grade five or nine are included in the review only if they were classified as middle school students. The Middle School Math review protocol is being updated to reflect this change and will be posted to the WWC website soon. Note that we queried the authors of the Barrow study to obtain data for middle school students only, but the authors did not respond to the query. Consequently, the study was deemed ineligible for review because it does not disaggregate findings for the age or grade range examined in our topic area. This study will be examined for review eligibility in the forthcoming WWC review of High School Math interventions.

Concerning the "Effectiveness of Reading and Mathematics Software Products - Findings From Two Student Cohorts", the WWC does not add individual studies to the topic area pages but incorporates them into new and updated intervention reports as systematic literature searches are completed. This process is described in more detail in chapter two of the [WWC Procedures and Standards Handbook \(Version 2.0\)](#). The study can be found within a separate IES publication released by the National Center for Education Evaluation and Regional Assistance. The report can be downloaded from the following link: <http://ies.ed.gov/ncee/pubs/20094041/index.asp>.

We appreciate your contacting the WWC. Please feel free to contact us again should you have additional questions.

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**From:** John Lee [mailto:johnrlee@icanlearn.com]

**Sent:** Wednesday, May 27, 2009 11:09 AM

**To:** Sakari Morvey

**Cc:** What Works

**Subject:** Re: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Sakari,

Will you be sending a response to my inquiry soon? Also, may I ask if your earlier email is correct and 9th grade is no longer included in the WWC Middle School evaluations, why are programs with only 9th grade results still listed in your middle school evaluations and Middle School "My Summary" report?

Thank you,

John Lee



On Fri, May 8, 2009 at 9:12 AM, Sakari Morvey <[SMorvey@mathematica-mpr.com](mailto:SMorvey@mathematica-mpr.com)> wrote:

Sakari Morvey would like to recall the message, "WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)".

**From:** What Works  
**Sent:** Monday, June 29, 2009 12:09 PM  
**To:** 'johnrlee@icanlearn.com'  
**Subject:** RE: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1263)

Dear Mr. Lee,

In response to your comments on June 10, please be advised that we are in the process of implementing the new Middle School Math protocol on several intervention reports, including Cognitive Tutor. When the WWC releases a revised protocol, it is our policy to conduct a thorough re-review of each intervention against the new protocol. The re-review applies the new protocol to studies included in the initial review as well as any new studies identified since the publication of that intervention report. Once the updated review is complete, a new intervention report is released. Because we are still in the process of applying the new protocol to some middle school math interventions, this means that some intervention reports reflect the original protocol while others the revised protocol. The WWC website explains how to determine which protocol was used for each report.

While our reviews of the studies you mention in your message are not yet final, we expect the updated Cognitive Tutor report to be released in the near future. Because the reviews are not final, we will not discuss the individual dispositions of those studies here. But please review the revised Cognitive Tutor report when it is released, and if you continue to have questions and concerns, please let us know.

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**From:** John Lee [mailto:johnrlee@icanlearn.com]  
**Sent:** Wednesday, June 10, 2009 5:43 PM  
**To:** What Works  
**Subject:** Re: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1263)

Dear What Works,

Thank you for your response, but I must admit I am still confused. I guess I will take your suggestion and use specific studies related to a middle school math report to explain why I continue to be confused. Morgan, P., & Ritter, S (2002) and Shneyderman, A. (2001) both report that the subjects of their studies are 9<sup>th</sup> graders and do not affirm any middle school affiliation, yet the math program studied by these researchers is still listed as a middle school math intervention when it has no middle school studies that meet your standards. My confusion is exacerbated by the fact that, a few years back, the I CAN Learn® Program was delisted from the What Works Clearinghouse, WWC, website, while its studies were being reconsidered under what were then “new” WWC guidelines. Today we have new “new” WWC guidelines, but an intervention that under the old guidelines would have been delisted continues to have prominence on the WWC “Create My Summary” page. Adding further to my confusion is the

fact that there are two RCT's, randomized controlled trials (these are "Effectiveness of Reading and Mathematics Software Products: Findings from the First Student Cohort" and "Effectiveness of Reading and Mathematics Software Products: Findings from Two Student Cohorts" conducted by Mathematica Policy Research, Inc (MPR) for the U.S. Department of Education's Institute of Education Sciences), which are not reflected in the WWC website reports. I believe, were the findings of these two RCT's reflected in the "Improvement Index" for the math intervention studied by Morgan, Ritter and Sheyderman, this intervention would not have such a prominent position on the Middle School Math "Create My Summary" page. The confusion I have is that I do not understand why your new guidelines do not lead to equal treatment to all interventions reviewed by the WWC.

Sincerely,

John Lee

**From:** What Works  
**Sent:** Wednesday, May 27, 2009 11:59 AM  
**To:** 'John Lee'  
**Subject:** RE: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

Dear Mr. Lee,

Thank you for contacting the What Works Clearinghouse (WWC).

Following is the response to your initial questions.

Our team is looking into the new question that you have raised and will send you a separate email with our findings.

-----

This is in response to the questions you raised in your April 16 message to Dr. Dynarski.

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**Sent:** Wednesday, May 27, 2009 11:09 AM

**To:** Sakari Morvey

**Cc:** What Works

**Subject:** Re: Recall: WWC Middle School Math Review of I Can Learn Pre-Algebra and Algebra (WWCPC-1163)

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John Lee

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