



Empowered by Evidence: Reviewing Evidence Under ESSA



KENTUCKY DEPARTMENT OF EDUCATION
OFFICE OF CONTINUOUS IMPROVEMENT AND SUPPORT

Introduction

In 2015, the U.S. Congress reauthorized the Elementary and Secondary Education Act through a bill known as the Every Student Succeeds Act (ESSA). One of the requirements of ESSA is that school improvement initiatives be rooted in “evidence-based activities, strategies, or interventions.” While many clearinghouses and databases exist to assist schools in identifying and selecting appropriate evidence-based practices, it is important that education leaders and shareholders have the skills necessary to evaluate evidence on their own allowing for more informed decisions. This instrument provides a framework to guide education leaders and shareholders through the process of evaluating evidence.

While completing this instrument, consider the following:

- Examples are provided throughout the instrument; however, these are not comprehensive. There are other possible answers to a question outside of those that have been included. For consistency, each set of examples is limited to only three choices. The Kentucky Department of Education (KDE) encourages shareholders to fully examine a piece of evidence and answer the questions to the best of their abilities, even if the answer is not provided in the exemplar.
- This instrument is for individual use. No two evaluations will look exactly the same. While it is not required, if this instrument will be used as supporting documentation for a grant application or school improvement plan, please be as specific as possible by including exact quotations and American Psychological Association (APA) citations from the source.
- KDE recommends reading and annotating a study in its entirety before attempting to complete this instrument.
- Responses must be typed in the grey boxes, which will expand as information is entered.
- While completing the instrument, a district/school may find it beneficial to consult other resources. Relevant resources may include:
 - [Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments](#)
 - [ESSA Evidence Levels](#)
 - [Evidence-based Practices Glossary of Terms](#)
 - Webinar: [Evidence-based Interventions: An Overview](#)
 - Webinar: [Evidence for ESSA – An Introduction to Study Design](#)

Study Overview

Reason for Evaluation: TSI School Improvement Plan

If other, describe: [Click here to enter text.](#)

Study Citation (APA preferred): Iwai, Y. (2016). The Effect of Explicit Instruction on Strategic Reading in a Literacy Methods Course. *International Journal of Teaching and Learning in Higher Education*, 28(1), 110-118. Retrieved December 8, 2018, from www.isetl.org/ijtlhe.

Identify the Intervention Studied: Explicit Instruction

Identify the relevant outcome(s) of the study. A relevant outcome is the student outcome(s) (or the ultimate outcome if not related to students) that the proposed process, product, strategy or practice is designed to improve, consistent with the specific goals of a program (i.e., reading comprehension).

Increase students with disabilities ability to read and comprehend text.

Study Design

The study design provides a framework for the development and implementation of a study. A study is a detailed investigation and analysis of a subject or situation. The study design framework guides researchers as they collect and analyze data to test solutions and solve problems. Different study designs provide different levels of rigor and reliability. Education leaders and shareholders should carefully consider the study design used to evaluate an intervention.

In this section, you will evaluate the key features of study design. If you are unsure how to identify a study design, KDE encourages you to reference either the [Evidence-based Practices Glossary of Terms](#) or the [Evidence for ESSA: An Introduction to Study Design](#) webinar.

1. Identify the study design: Quasi-experimental
2. If participants were assigned to groups, describe the method used to assign them to groups. Common group assignment methods include, but are not limited to, random assignment, matched pairs or class assignment. If participants were not assigned to groups, record N/A.

Random assignment

3. Describe any statistical controls used to control for study bias. Statistical controls are more common in correlational studies than experimental/quasi-experimental studies, but they can be found in both.

Common statistical controls include, but are not limited to, analysis of covariance, difference-in-difference adjustments and correlation. If no statistical controls were used, record N/A.

N/A

Analytic Sample

The analytic sample is the sample on which an analysis is based. It is important for education leaders and shareholders to take time to review the analytic sample used in a study. The [Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments](#) describes the importance of aligning the analytic sample with the population of your school. The highest quality evidence will align to a school in both setting and population and will include a large and multi-site sample.

1. Briefly describe the demographics of the analytic sample. Be sure to include any relevant information, including, but not limited to, grade levels, race/ethnicity, gender, socio-economic status, special education status or English language status.

Caucasian, female, secondary education students

2. How many people or groups of people participated in this study? 18
3. How many study participants were assigned to the intervention group? If the study design did not include an intervention group, record N/A. N/A
4. How many study participants were assigned to the control group? If the study design did not include a control group, record N/A. N/A
5. Were any additional comparison groups used in this study? If so, describe the demographic makeup of the groups.

No comparison groups were used in this study.

6. Describe the method used to select study participants.

The study participants used for the case study were students with majors in the education field who were in the second stage of their teacher education program.

7. How many sites were included in this study? 1
8. Which descriptor best describes the setting of the study? Suburban

9. Are there any special circumstances for the sample? Special circumstances may include, but are not limited to, the reporting of additional subgroups, alignment with common academic labels (such as “at risk” or “gifted”) or the exclusion of certain groups from the analytic sample.

No special circumstances were listed.

Intervention Delivery

When evaluating evidence, it is important for education leaders and shareholders to consider the specific methods used by the researchers to implement an intervention. Schools should seek to replicate the conditions used in a study in order to achieve similar results. If an evidence-based practice is not implemented in a way that accurately replicates the conditions used in a study, the intervention may not work as reported.

1. Describe the way the intervention was implemented in this study. Be sure to include relevant details you may need to replicate the results, such as the intervention delivery method, materials used and other protocols unique to this study.

Participants were given a 20 minute lesson weekly on meta cognitive strategies for reading. The meta cognitive strategies included a variety of explicit instruction interventions. When the participants learned the explicit instruction interventions they used them in their own studies while simultaneously using them in their lesson plans to teach elementary school aged students reading content. Participants completed a rating scale on awareness of meta cognitive strategies before learning explicit instruction practices. They were also asked to write reflections before and after the study.

Results

The [Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments](#) suggests that quality evidence “shows a statistically significant and positive (i.e. favorable) effect of the intervention on a student outcome or other relevant outcome.” Education leaders should pay careful attention to the results of a study and how those results were collected.

1. Describe the procedures used to collect data for this study. This information may be found in the Methods or Results section of the study. Be sure to include all relevant information such as the names of any standardized assessments, the conditions under which an assessment was given or archival data sets used.

Using pre- and post-MARSI scores, the researcher used a paired t-test in order to examine if there were any differences among these scores for overall and three sub-categories of Global Reading Strategies (GLOB), Problem Solving Strategies (PROB), and Support Reading Strategies (SUP). For quick writing notes, lesson plans, and reflection papers, the researcher first organized the collected data. After preparation for the data analysis was complete, she explored the data

to get a general sense of it. While exploring the data, she took notes about some key words, comments, and/or ideas that came to her mind. Next, she coded the data by segmenting and labeling and then highlighted key information or some trends about the participants' metacognitive awareness and use of metacognitive reading strategies. She then reduced the number of codes by categorizing similar codes into one code that embraced them.

2. Describe the findings of this study. Be sure to include the findings for any reported subgroups and relevant outcomes and a discussion of the statistical significance of the results. It is generally accepted that study findings are statistically significant when p is less than 0.05 ($p < .05$). APA standards state that studies should include the p value when reporting on statistical significance either within the text or in a parenthetical. For example, the results of the statistical test Analysis of Variance should be reported [$F(2, 145) = 3.24, p = .04$]. In this example, p equals 0.04, which is less than 0.05. This would indicate that the results of this statistical test are significant.

"Overall 3.24 3.56 GLOB 3.07 3.41 PROB 3.68 3.86 SUP 2.79 3.13 Note. GLOB= Global Reading Strategies; PROB= Problem Solving Strategies; SUP= Support Reading Strategies. A paired t-test revealed that there was a statistically significant increase in post-MARSI average score over the pre-MARSI average score overall ($p = .001$). The pre-MARSI average was 3.24, and the post-MARSI average was 3.56. Regarding three subcategories of the MARSI, the researcher found that there was a statistically significant difference between pre- and post-MARSI in the Global Reading Strategies (GLOB) category ($p = .007$). A pre-MARSI average score for GLOB was 3.07, and it increased to 3.41 at the end of the semester. While the results were not statistically significant ($p = .091$), there was still an increase in the average post-score over the average pre-score for the Problem Solving Strategies (PROB). The pre-average score for PROB was 3.68, and the post-average score for PROB was 3.86. For the Support Reading Strategies (SUP) category, there was a statistically significant difference between pre- and post-average scores ($p < .001$). The pre-average score was 2.79, and it increased to 3.13. Regarding qualitative data, three themes emerged. First, teacher candidates themselves enjoyed learning metacognitive reading strategies. For example, they wrote: "I enjoy making comments as I read. I feel I gain a better understanding when I talk myself through it."

Implication

Once a piece of evidence has been evaluated, education leaders and shareholders should consider the implications of the study on their school's potential implementation of an evidence-based practice. In this section, you are encouraged to look beyond the items discussed in the study to consider your local context and school's capacity to implement an intervention with fidelity.

1. Describe the implications of this study for your school. Does the study support the use of this intervention in your building? What special considerations are necessary for implementing this intervention? Be sure to examine all relevant factors, including cost, time and manpower.

Implications of this study for Todd County Middle School would be improvement of instructional strategies that would benefit students with disabilities and students who are performing below mastery level. Students would be taught how to use strategies they have previously been taught as well as gain new strategies that fall

under the Explicit Instruction category. The study supports the use of this intervention at Todd County Middle School. Special considerations to consider include: Professional Development of Explicit Instruction, classroom observations and walk throughs of teachers using Explicit Instruction, and devoted PLC time for teachers to discuss specific Explicit Instruction strategies and analyze student data.

2. Identify any additional pieces of evidence referenced in this study that you may want to review before implementing the intervention.

Explicit instruction in literacy and math instruction for students with learning disabilities.

3. Using the [ESSA Evidence Levels](#) one-pager, consider all of the information collected here and provide an estimate of the level of evidence provided in this study. Promising Evidence (Level III)