Registry of Efficacy and Effectiveness Studies

Study Title: Rural LIFE (Literacy Intervention Focused on Effectiveness) - Student outcomes (Mid04)

Registry ID: #1807.1v1

Version History

The first version of this entry was published on September 27, 2019 4:16 PM ET. Currently viewing this version.

Section I: General Study Information

PI name: Laura Holian
PI affiliation: AnLar

Primary funding source: Office of Elementary and Secondary Education (OESE)

Award number(s): U411B170038

IRB name: Heartland Institutional Review Board
IRB approval date: 2019-03-01
IRB approval number: 180426-198

Other registration name:
Other registration date:
Other registration number:

Study start date: 2017-12-04
Study end date: 2022-12-31

Intervention start date: 2018-08-01

Timing of entry: Prior to collection of outcome data

Brief abstract:
The study examines the impact of the Niswonger Foundation's Rural Literacy Intervention Focused on Effectiveness (Rural LIFE) compared to business as usual professional development and instruction on student achievement in middle grades. Rural LIFE is a two-year intervention involving personalized learning and literacy action plans for schools, professional development for principals and teachers, and coaching to support schools in implementing personalized learning plans. The evaluation design is a cluster randomized controlled trial (RCT). In April 2018, 72 schools in 18 Tennessee districts that serve students in at least two of three middle grades (6th, 7th or 8th grade) were randomized to the intervention or comparison group. Randomization was conducted within rural/non-rural blocks. All students in grades 6, 7 and 8 enrolled in the study schools on October 1, 2018 are included in the study sample. Students who enter schools after October will be excluded from the sample. The evaluation will examine impacts on student achievement after one year and two years of exposure to
the intervention. Confirmatory analyses will examine the effects of two years of Rural LIFE compared to business as usual on student ELA achievement and on overall school achievement in middle school. In addition, exploratory analyses will examine the effects of Rural LIFE compared to business as usual in middle school on other student outcome domains (math, science), for subgroups (economically disadvantaged students, rural schools), and for one year of exposure.

Keywords:

Comments:

Section II: Description of Study

Type of intervention:
Professional Development, Personalized learning plan for school

Topic area of intervention:
Reading and Writing, schoolwide student achievement

Number of intervention arms:
1

Target school level of intervention:
6, 7, 8

Target school type:
Rural, Urban

Location of implementation:
United States: South

Further description of location:
18 school districts in Tennessee (11 county-based systems and 7 city-based systems)

Brief description of intervention arm:
The Rural LIFE: Literacy Initiative Focused on Effectiveness project is designed to improve literacy across the curriculum in grades 6-8 through technology-enabled, literacy-focused personalized learning strategies, a shared services network, standards-aligned instructional materials, formative assessment and data tools for teachers, and professional development and coaching support for teachers.

Brief description of comparison condition:
Schools in the comparison condition will not receive any of the services included in the Rural LIFE program, and will continue with business-as-usual professional development and instruction. Schools in the comparison condition will not have access to any elements of the Rural LIFE Shared Services Network (SSN) including the personalized learning plan support, professional learning opportunities, or Rural LIFE coaches.

The control schools are from the same state and region as the treatment schools. Tennessee placed emphasis on personalized learning in its ESSA plan. Because of the national and state emphasis on personalized learning, schools in both conditions will have exposure to the concept of personalized learning and resources to support personalized learning outside of the intervention. Schools in the control condition will not be prevented from implementing strategies on their own if they choose to.
Comparison condition: Business-as-usual

Comments: See attached Rural LIFE intervention logic model.

Section III: Research Questions

Confirmatory research question:

Question 1
What is the impact of attending a middle school supported by Rural LIFE for two years compared to a business-as-usual middle school on students' English language arts (ELA) achievement?

Exploratory research questions:

Question 1
What is the impact of attending a middle school supported by Rural LIFE for one year compared to a business-as-usual middle school on students' ELA achievement in grades 6-8 (as measured by the Tennessee Ready ELA test)?

Question 2
What is the impact of attending a middle school supported by Rural LIFE for two years compared to a business-as-usual middle school on students' mathematics achievement in grades 7 and 8 (as measured by the Tennessee Ready math test)?

Question 3
What is the impact of attending a middle school supported by Rural LIFE for two years compared to a business-as-usual middle school on students' science achievement (as measured by the Tennessee Ready science test)?

Question 4
Among economically-disadvantaged students in grades 7 and 8, what is the effect on ELA achievement of attending a middle school supported by Rural LIFE for two years, compared to a business-as-usual middle school?

Question 5
Among middle schools in a rural locale, what is the effect on ELA achievement of attending a middle school supported by Rural LIFE for two years, compared to a business-as-usual middle school?

Question 6
Does the impact of Rural LIFE compared to the business-as-usual condition on student ELA achievement vary by students’ years of exposure to the Rural LIFE program?

Comments:

Section IV-A starts on the next page.
Section IV-A: Study Design (Selection)

Study Design:
Randomized Trial (RT)

Comments:

Section IV-B: Study Design (Input)

Unit of random assignment of intervention:
School

Assignment within blocks or selected strata:
Yes

Define the natural blocks or purposefully selected strata:
rural/non-rural

Probability of assignment to treatment the same across blocks or strata:
Yes

Probability of assignment to treatment:
Half of schools were assigned to treatment and half to control. For a block with an even number of schools, the probability of assignment to treatment was .50. For a block with an odd number of schools, the probability of assignment to treatment was slightly more or slightly less than .50 (depending on whether the first school in the block was randomized to treatment or control).

Unit outcome data measured:
Student

Intermediate clusters between unit of random assignment and unit of measurement:
No

Design Classification:
RT: Multisite (Blocked) Cluster Randomized Trial

Comments

Section V starts on the next page.
Section V: Sample Characteristics

Approximate number of students per school: 273

Approximate number of schools in the comparison condition within each block: 36

Approximate number of schools in the intervention condition within each block: 36

Number of blocks: 2

Certain students that were targeted for the study:
Yes - All students in grades 6, 7, and 8, who are enrolled in study schools on October 1, 2018. Students in grades 6 and 7 will be followed for two years, with outcomes measured in grades 7 and 8, respectively, in spring 2020.

Certain students that were excluded from the study:
No

Certain schools that were targeted for the study:
Yes - Schools in the first congressional district of Tennessee serving students in at least two of the three middle grades (6th, 7th, 8th grade) are eligible to participate. Superintendents, school administrators, and teachers participated in information sessions to learn about the Rural LIFE program, the requirements, and expectations for participants. Two large group information sessions were held in March 2018, and schools were recruited through continued outreach. A total of 72 schools volunteered and signed a commitment to participate prior to random assignment.

Certain schools that were excluded from the study:
No

Certain blocks that were targeted for the study:
No

Certain blocks that were excluded from the study:
No

Comments

Section VI-A: Outcomes (Selection)

Confirmatory question 1 - number of outcome measures: 1

Comments:

Section VI-B starts on the next page.
Confirmatory Question 1, Outcome Measure 1

Outcome domain: Student Achievement - Literacy

Minimum detectable effect size: .21

Outcome measure: TNReady ELA assessment - measured after 2 years (grades 7 and 8)

Scale of outcome measure: Continuous

Normed or state test: Yes

Same outcome measure in treatment and comparison groups: Yes

. . . .

Comments:

Section VII: Analysis Plan

Baseline data collected prior to start of intervention: Yes

Description of baseline data:
pretest measures of each outcome and student demographic characteristics (economically disadvantaged status, English learner status, race/ethnicity, gender)

Covariates to include at the student level in the model:
Gender, Free/reduced lunch status, Race, English Language Learner Status, Student Pretest

Covariates to include at the school level in the model:
Aggregate of Individual Characteristics, school rural status, school size

Analytic model:
See attached analysis model for estimating impacts on student outcomes.

Plan to handle cases with missing outcome data:
delete cases with missing data for the outcome being analyzed

Comments: See attached analysis model for estimating impacts on student outcomes and list of confirmatory contrasts.

Section VIII starts on the next page.
**Section VIII: Additional Materials**
Right click to open files in a new window.

**Links**

No links have been added yet.

**Files**

File Name: [Rural LIFE analysis model for student outcomes-Mid04.docx](Rural LIFE analysis model for student outcomes-Mid04.docx)
Description: Analysis model that will be used to estimate impacts of Rural LIFE on student outcomes

File Name: [Mid04 Rural LIFE Confirmatory Contrasts.docx](Mid04 Rural LIFE Confirmatory Contrasts.docx)
Description: list of confirmatory contrasts

File Name: [Logic Model Rural LIFE.pdf](Logic Model Rural LIFE.pdf)
Description: Logic Model for Rural LIFE program

**Comments**