Study Title: Rural LIFE School effectiveness (Mid04)

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Version History

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Section I: General Study Information

PI name: Laura Holian
PI affiliation: AnLar

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IRB name: Heartland Institutional Review Board
IRB approval date: 2019-03-01
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Other registration name:
Other registration date:
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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 school. Rural LIFE is a two-year intervention involving personalized learning 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 logic model for Rural LIFE intervention model, which is included as an attachment ("Additional Materials") to the entry for the study of impacts on student outcomes (study 1).

Section III: Research Questions

Confirmatory research question:

Question 1
What is the impact on school achievement in middle schools supported by Rural LIFE for two years compared to business-as-usual (measured by the overall composite score on Tennessee's value-added model)?

Exploratory research questions:

Question 1
What is the impact on school achievement in middle schools supported by Rural LIFE for one year compared to business-as-usual (measured by the overall composite score on Tennessee's value-added model)?

Question 2
What is the effect on schools' overall composite score on Tennessee's value-added model in rural middle schools supported by Rural LIFE for two years, compared to business-as-usual rural middle schools?

Comments:

Section IV-A: Study Design (Selection)

Study Design:
Randomized Trial (RT)

Comments:

Section IV-B starts on the next page.
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 locale

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:
School

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

Design Classification:
RT: Multisite (Blocked)

Comments
School composite scores are aggregated from student achievement tests by TDOE.

Section V: Sample Characteristics

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

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

Number of blocks: 2

Certain schools that were targeted for the study:
Yes - 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:

Confirmatory Question 1, Outcome Measure 1

Outcome domain: school achievement

Minimum detectable effect size: .424

Outcome measure: Tennessee Value-Added Assessment System (TVAAS) overall composite score - year 2

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 measure of the outcome (TVAAS overall composite score SY 2017-2018, the year prior to the start of the intervention) school rural status, school size, percentage of students in the school who (a) receive special education services, (b) are English learners, and (c) are economically disadvantaged.

Covariates to include at the school level in the model:
English Language Learner Status, Special Education Status, pretest measure of the outcome (TVAAS overall composite score SY 2017-2018, the year prior to the start of the intervention) school rural status, school size percentage of students who are economically disadvantaged

Analytic model:
See attached analysis model that will be used to estimate impacts on school effectiveness
**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 effects of Rural LIFE on school effectiveness. Also, see list of confirmatory contrasts, which is included as an attachment ("Additional Materials") to the entry for the study of impacts on student outcomes (study 1).

**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 school effectiveness-Mid04.docx](#)
Description: Analysis model that will be used to estimate impacts of Rural LIFE on school effectiveness

**Comments**