

CW-FIT Rural Expansion: Gaining More Time to Learn and More Time to Teach in Rural Schools



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INTRODUCTION: Absolute and Competitive Preference Priorities

CW-FIT Rural Expansion is an **Education Innovation Research (EIR) Expansion Phase** grant that will evaluate and expand implementation of CW-FIT (Class-Wide Function-related Intervention Teams) in rural schools, grades K-8, across the country. CW-FIT is an evidence-based classroom management program (<https://cwfit.ku.edu>) with strong evidence meeting the highest standards of What Works Clearinghouse (WWC) for improving academic engagement and reducing disruptive behaviors. To ensure effective and sustainable implementation in rural schools, our team at the University of Kansas (KU) will partner with the National Rural Education Association (NREA), along with seven State affiliate Executive Directors, for recruitment and dissemination, Today's One Room School House (TORSH) to support web-based coaching in rural schools, the Global Education (GE) Academy to support professional development and credentialing for rural teachers, and WestEd for the external evaluation.

The problem: Students cannot succeed academically if they are not in class and engaged in learning. Across the Nation, and in our partnering rural districts, rural students' disruptive and disengaged behavior is leading to lost instruction time. Our partnering rural districts and their teachers need professional development for cost-efficient and effective evidence-based strategies to address improving engagement, reducing disruptive behaviors, and raising the academic performance of their students.

The CW-FIT solution: CW-FIT engages students and improves instruction time, thus the slogan "*More Time to Teach, More Time to Learn.*" As one of our Rural District leaders noted, "*The program fits quite well with work that we would like to engage in after seeing decline in academic engagement and disruptive behaviors increasing throughout the pandemic.*"

This project will directly support **rural schools** (grades K-8) with **high percentages of high-**

needs students (defined for this project as students eligible for free or reduced-priced lunch) across seven States (See Table 1) with 480 teachers, 7,200 students, and 1,440 target students who will participate in the randomized control trial. An estimated 24,174 rural students will directly benefit from CW-FIT in scaling throughout and following the project. **With this proposal, we submit 72 rural district (NCES Locale Codes 32, 33, 41-43) leaders’ signatures of support representing 137 schools across our seven state partners** (Appendix C for Letters).

Table 1. *Rural State Partner Districts with High Percentage of High-needs Students*

State (% of Rural Schools in the State)	# Partner District Signatures	# Partner Schools (*total rural)	Avg. % Free/Reduced in Partner Districts (range)	**Avg. % Below Reading Proficiency in Partner Districts (range)
California 11.5%	16	23 (1138)	89% (62-100)	60% (35-82)
Kansas 45.7%	6	15 (562)	41% (25-52)	67% (55-79)
Minnesota 33.1%	6	12 (575)	37% (31-57)	50% (41-67)
Montana 74.4%	10	17 (577)	36% (19-47)	60% (28-90)
New York 16.7%	27	40 (322)	47% (24-72)	51% (16-75)
Tennessee 29.3%	4	23 (651)	48% (31-62)	75% (69-78)
Texas 25.9%	3	7 (1925)	77% (68-91)	64% (55-69)

*Total available rural schools for additional recruitment and dissemination efforts within partner States

**Source: State and District Report Cards based on Statewide Reading Tests as required by ESSA

Project goals are to:

1. Expand CW-FIT to rural schools across the country by utilizing a *CW-FIT Micro-credentialing Program* embedded in a *Rural Coaching Model* to address barriers to scaling CW-FIT to rural schools.

2. Contribute to the evidence base for Classroom Management in Rural Schools for improving academic engagement and achievement for high-needs K-8th grade students.

WestEd’s (www.wested.org) independent evaluation will generate important information about (a) the intervention’s effectiveness in rural schools; (b) conditions that promote or impede its effectiveness; and (c) information about reengaging students in rural classrooms. WestEd has a strong record with prior I3/EIR evaluations and has designed

the evaluation to meet WWC standards without reservations.

CW-FIT Rural Expansion addresses both absolute and competitive preference priorities.

Absolute Priority 1- Strong Evidence: Two Randomized Control Trials (RCTs) of CW-FIT (Kamps et al., 2015; ██████ et al., 2018) have been reviewed by WWC meeting standards without reservations and a recent RCT of CW-FIT in middle schools (██████ et al., 2021) also showed strong positive outcomes for improving academic engagement and reductions of disruptive behaviors (see Evidence Form). These studies support CW-FIT as a low-cost intervention to improve K-8 outcomes and evidence is further supported by 32 peer-reviewed studies. **Absolute Priority 2- Field Initiated Innovation- General:** We will scale CW-FIT to rural schools supporting some of our Nation’s students with greatest need. Despite the strong evidence supporting CW-FIT, to date, a strategy has not been developed to meet the needs of rural schools as they face geographic, personnel and resource constraints limiting capacity to cost-effectively coach teachers to implement CW-FIT. These are key barriers preventing CW-FIT from scaling to rural schools and that our project will address (see Strategies to Scale).

Competitive Preference Priority 1- *Promoting Educational Equity and Opportunity for Underserved Students in Rural Middle Schools.* Promoting equity for rural students is vital as rural America is becoming more racially and ethnically diverse (Rowlands & Love, 2021) and racial discipline and achievement gaps persist (Showalter et al., 2019). The inclusive and preventative nature of CW-FIT employs several effective strategies to breaking the implicit bias cycle, including effective instructions and classroom management, changing the dynamics of student-teacher interactions through frequent positive interactions, and identifying students who need additional support (Scott, 2021). Further, CW-FIT promotes equity and opportunity by preparing students to work collaboratively on teams, an essential skill for success in college

and careers (see approaches offered in the RFA [DOE, p. 24989]). With these attributes, CW-FIT has great promise to address the racial/ethnicity test score gap (Tieken & Montgomery, 2021) as it supports all students academically and socially (Chrisp, 2019).

Competitive Preference Priority 2- *Addressing the Impact of COVID-19 on Rural Students and Teachers.* With limited resources, evidence-based interventions, and professional development (AASA, 2017), rural school districts are ill-prepared to make up for lost instruction time after COVID-19. We will examine how rural students, including various subgroups, have become disengaged from learning in the aftermath of COVID-19, and, in response, we will implement CW-FIT as an evidence-based strategy for engaging students. Secondly, we will address the RFA’s call for evidence-based professional development, coaching and ongoing support to address challenges faced by rural teachers. This project responds to the call for **EIR expansion grantees** to expand learning time to accelerate learning ensuring all students have opportunities to successfully meet challenging academic standards.

(A) SIGNIFICANCE

(1) The National Significance of the Proposed Project.

Nearly one-third of U.S. public schools are rural, and about one-fifth of public-school students—9.3 million students—attend rural schools (National Center for Education Statistics, 2019). Across these rural schools, teachers are losing valuable instruction time to disengaged students, disruptive behavior, and disciplinary actions such as office referrals, along with in-and out-of-school suspensions. Notably, rural schools have more students receiving in-school suspensions (ISS) (6.09%) than urban schools (5.06%). Of further concern is that disciplinary actions are not equitable. Among rural students (in district codes 32-33, 41-43), 12.3% of Black students get ISS compared to only 4.14% of White students and 4.89% of Hispanic students

(USDOE, 2017). Disproportionate discipline also extends to students with disabilities, students receiving free/reduced-price lunch, and youth who identify as lesbian, gay, bisexual or transgender. Students are primarily removed from classrooms for minor misconduct, and those students who are suspended have significantly higher risk of falling behind academically, dropping out of school, and encountering the juvenile justice system (Morgan et al., 2014; Skiba et al., 2011).

Lost learning time contributes to the poor reading outcomes many of our districts are facing. As Table 1 displayed, the 72 rural districts, supporting this project, have a high percentage of students below reading proficiency (range 51%-75%). Further, across these rural district partners, and the U.S, there is a persistent test score gap between rural White students and rural Latino and Black students, and similar gaps in graduation rates (Showalter et al., 2019).

Rural teachers who are often known for being dedicated, resilient professionals, are struggling to support high-needs students in the presence of declining academic engagement, and increases in academic deficits, absenteeism, conduct and mental health issues (Green, 2022; Meckler, 2022; Campbell, 2021). As they attempt to meet these challenges, rural schools have a critical need for professional development, ongoing support, and cost-efficient evidence-based interventions. Facing a tsunami of current events (e.g., staff shortages, declining enrollment/funds, COVID-19 related lost instruction time) many teachers have lost some of their efficacy to provide quality instruction and engage students (Pressley, 2021).

With this project, CW-FIT will be positioned to support rural teachers to re-engage and support high-needs students as they navigate the post-pandemic return to learning. CW-FIT provides targeted professional development and coaching to implement a feasible and effective intervention targeting skills critical to student success: improved academic engagement, social-

emotional learning skills, and reduced disruptive behavior (Michael, 2022; Skinner et al., 2009). CW-FIT is widely adaptable as it can be implemented with existing resources across curricula, subject matter, and K-8 grades. These valuable implementation features extend potential impacts to students in most rural schools and contribute towards equitable educational opportunities in geographically diverse rural schools. Recent CW-FIT studies demonstrate high-needs middle (█████ et al., 2021) and elementary (█████ et al., 2016) students show an increase in engagement of at least 40% and 20% respectively with CW-FIT, these engagement gains translate into a full period per week of recovered learning time for elementary students and two lessons per week for middle school students. *Over the course of the school year, this increase in engagement will provide an estimated equivalent of adding 36 lessons for elementary students and 72 lessons for middle school students.*

(2) Promising New Strategies Building on Existing Strategies.

This project will build on existing and well vetted strategies including the overall CW-FIT Program, a District Coaching Model utilizing technology, and training materials. This project will expand to rural schools throughout the country with promising new strategies that our rural partners have called for including small modifications to the District Coaching Model to create a more flexible model for resource constrained schools: the *Rural Coaching Model*. Like the existing District Coaching Model, the Rural Coaching Model will utilize the existing TORSH (Today's One Room School House) system, an innovative online platform to support coaching and fidelity (described in Strategy to Scale section). With this project, the rural coaching model will integrate the new *CW-FIT Micro-Credentialing Program (MCP)*. This promising approach to training will adapt existing training materials for online delivery to replace in-person training that District Coaches currently conduct, reducing demand on Coaches, sustaining the consistency

of delivery, enhancing reach, and reducing cost. Additionally, rural teachers will be able to earn micro-credentials that can stack toward graduate credit (see Strategy to Scale Section).

(3) Contributions to Increase Knowledge of Educational Problems or Effective Strategies.

This project will increase knowledge of how evidence-based classroom management can be expanded to rural schools. While Every Student Succeeds Act (ESSA) promotes adoption of strong evidence-based practices such as CW-FIT, research is lacking to confirm how these practices translate into outcomes for students in rural schools (Showalter et al., 2019). Rural schools are largely left out of education research in general and no large-scale studies of classroom management have been conducted in specifically rural schools (Lavalley, 2018, Thier et al., 2021). The project will also contribute to the knowledge of the effects of CW-FIT on: (a) academic engagement and achievement for K-8 rural students; and (b) rural teachers' classroom management. CW-FIT is novel because it: 1) directly addresses academic engagement, 2) has a Tier 2 level of support, and 3) utilizes online coaching along with the new Micro-credentialing. CW-FIT also uniquely improves teachers' skill sets as they learn to establish positive and equitable classroom climates. Tier 1 of CW-FIT is implemented class wide and designed to increase academic engagement for most students. Tier 2 supports are implemented for those students unresponsive to Tier 1. The primary components of CW-FIT are described below.

Tier 1 Teaching Component. The first component of CW-FIT involves teachers teaching lessons on classroom expectations. The goal is that teachers explicitly teach 3-4 positively stated classroom expectations. CW-FIT teachers will teach two-three brief 10-15 min lessons targeting classroom expectations. For each lesson, the teacher presents the expectations and students model, practice and review them. The expectations can be pre-established or if the teacher does not have posted expectations, they can select from ones available at the CW-FIT website. The

lessons most widely used at the elementary level are: (a) appropriately gaining attention and assistance, (b) following expectations, and (c) ignoring minor peer inappropriate behavior. At the middle-school level, a student input session on what respect looks like in the classroom has been the main lesson as disrespect is one of the primary disruptions to engaged learning for which students are sent to the office. Expectations taught provide the structure that enable students to navigate classroom social and behavioral expectations (Kamps et al., 2000).

Tier 1 Group Contingency Component. This class-wide component consists of a group contingency where students earn points as part of teams (4-6 teams per class) by meeting classroom expectations and demonstrating academic engagement (e.g., completing assignments, reading). The goal of utilizing a group contingency is to reinforce and reward students for meeting the expectations in an efficient and equitable way. A team chart displays each team's points, and teams meeting a preset goal (set by the teacher) earn privileges or rewards. At times during instruction (prompted by a timer), the teacher briefly stops and awards points.

Tier 2 Component- Self-Management. In prior studies of CW-FIT, approximately 1-2 students in each class were non-responsive to Tier 1 CW-FIT. Teachers, in consultation with their coach, report (Tier 2 Form) student responsiveness after 3-4 weeks of implementing Tier 1. Tier 2 consists of student self-management (e.g., students learning to monitor their own engagement) that requires little teacher time and is embedded while Tier 1 is implemented. The teacher (or coach if available in building) provides a "mini" 10-min pullout lesson for the identified students on self-management. The goal is to develop independence, agency, and awareness, helping students self-regulate their behavior. The addition of self-management historically results in positive results for 70% of students receiving Tier 2.

Program Monitoring Component. This CW-FIT component includes keeping records of

implementation (e.g., how often teachers implement), fidelity of implementation, and brief observations. Rural coaches will be able to monitor fidelity and implementation remotely (via TORSH) or in person when possible. Program Monitoring allows Coaches to make data-based decisions about which teachers need additional coaching.

(B) STRATEGY TO SCALE

(1) The Specific Strategies to Scale that Addresses Prior Barriers.

Despite strong evidence supporting CW-FIT, rural schools have insufficient guidance for how to cost-effectively train and coach teachers representing the key barrier to scaling CW-FIT to rural districts. First, we have not developed a system to provide training and professional development for rural teachers. Rural school districts have limited capacity and resources for district coaches to provide training, **which has been reported as a barrier by rural schools who have previously adopted CW-FIT**. They are often limited due to factors such as cost, time, and geographic isolation. Too often, these schools lack resources to implement CW-FIT well and rely on the external training to sustain the practice and reach full implementation. To address this, we are converting existing training of teachers that requires an in-person district coach-directed 2-hr in-service to a *Micro-credentials Program (MCP)*, training Rural Coaches (who will utilize MCP and will support teachers) and build school and district capacity to sustain the intervention. CW-FIT will be integrated into partnering districts' planning (budget, yearly professional development) and systems for support (demonstrated capacity to coach). Additionally, **rural schools need cost- and time-effective methods to support sustained, high-fidelity implementation**. To address this, we will implement *a Rural Coaching Model* utilizing the TORSH system and existing CW-FIT website supports.

STRATEGY: Customize existing District Coaching Model for a *Rural Coaching Model* (Table 2 pg. 10). This model will allow rural districts to build capacity and grow the use of CW-

FIT in their districts. Implementing the **Rural Coaching Model** will allow *Coaches* to train within their school or district using TORSH’s virtual coaching platform with less face-to-face directed training and assistance. **To increase the scalability** of CW-FIT, we collaborate with TORSH, an innovative professional development company. TORSH (see <https://www.torsh.co> and Appendix J), is TORSH’s secure online platform for Coaches and participating teachers to store, share and manage generated content. Teachers use TORSH’s proprietary mobile app to record and upload video of themselves implementing CW-FIT, and Coaches review the videos and offer actionable feedback. TORSH allows Coaches to add time-synced text feedback and audio notes to videos. The system also allows Coaches to complete online fidelity forms and provide open comments to teachers.

Table 2. *Rural Coaching Model*

Rural Coaching Model	
Activity	Description
Identify Coaches	A Rural Coaching Nomination Form will guide the procedures to select a Rural Coach for each district and or school. The form outlines the responsibilities and time commitments and will be used in consult with district leaders to establish a procedure to carefully select and nominate the teachers or staff most qualified for the position.
Training & MCP Program	Rural Coaches will complete the Micro-credentialing Program (MCP) and will then attend an online training led by Regional Directors, learning how to use the TORSH system to provide coaching and monitor fidelity as well as enroll teachers into MCP.
Training & Professional Development	RDs will have a series of weekly Consultation Meetings that will allow Rural Coaches to attend virtually and at times that fit their schedule. The meetings will focus on factors that are influencing implementation as well as providing an opportunity for Rural Coaches to connect across schools, districts, and regions.
Today’s One Room Schoolhouse (TORSH)	TORSH System will serve as a centralized system for Coaches to: View teacher videos, score fidelity, and provide feedback (<u>See also Screenshots of TORSH System in Appendix J for the following forms</u>) <ul style="list-style-type: none"> Coaching Log, CW-FIT Fidelity Form & Implementation Reports to aid in early identification of teachers in need of additional support

STRATEGY: Launch the *CW-FIT Micro-Credentials Program (MCP)*. We have a fully established training that has been used to train teachers throughout the country, yet rural partners have noted a strong demand for the flexible micro-credential, a cost-effective teacher training. Micro-credentials are short competency-based courses that provide a record of focused learning and include an assessment that, when awarded, provide teachers with a proof of mastery. The CW-FIT MCP will be 6 online modules: (1) Diversity and Equity in the Classroom (2) Classroom Expectations, (3) Engaging Students, (4) Building Positive Relationships, (5) Addressing Challenging Behaviors, and (6) Tier 2 supports. The flexibility of the platform allows teachers to complete each 20-min module at their convenience. Upon completion, the Rural Coach, will receive notification that a teacher has attained mastery. The teacher will then use TORSH to record their CW-FIT sessions, which the Coach will use to virtually coach and support high-fidelity implementation. Additionally, the teacher can opt to receive 1/3 of a graduate credit through KU for completing the CW-FIT training modules. This credit can be “stacked” with additional modules (e.g., project-based learning) designed to meet the standards of other Colleges and Universities.

(2) Management Plan to Achieve Objectives On-Time and Within Budget.

The management plan with goals, objectives, measures, activities, timelines, and responsible personnel is provided in Tables 3 (pg. 16) and 5 (pg. 20). Our team and partners along with our external evaluator (WestEd) are well prepared to achieve the objectives of the project on time and within budget. We have budgeted contributions to the 10% contributed funds required for this competition (see Budget Justifications). Between us, we have decades of successful project management, including large efficacy trials. Our funding record with agencies as EIR, IES, and OSEP showing the accountability we have demonstrated and our research integrity. WestEd has

successfully evaluated projects from various agencies including numerous I3/EIR projects.

The Roles and Responsibilities of Partners. The CW-FIT team and our rural State partners will be responsible for recruitment and communication with rural partners. WestEd will be responsible for conducting the evaluation. Ensuring ongoing feedback and continuous improvement and strong communication will include: meetings to coordinate, reviewing feedback (e.g., teachers, rural administrators) and records, documenting timelines and milestones. Implementation of key activities will be monitored and tracked per the due dates, performance, and personnel responsible. Rural Coaches will complete and submit coaching logs into the TORSH system that will be reviewed on an ongoing basis by the CW-FIT Regional Directors. The coaching log tracks coaching time and the content of the coaching, along with the teacher(s) who are trained. As the lead applicant, [REDACTED] will oversee all aspects of implementation and will coordinate evaluation with the WestEd team led by Senior Researcher [REDACTED]. In addition to these personnel, district, and school-based staff (to be determined and identified upon funding) along with NREA State affiliate Executive Directors will contribute to the success of the project.

District and School-based Staff. Participating CW-FIT Rural schools districts will be supported with a customized plan for coaching and supporting the implementation of CW-FIT. Coaches may include a teacher as an extra duty role, or any range of school or district personnel depending on the unique capacity of a district. Regular meetings, weekly at first and then monthly, will provide opportunities to review CW-FIT Program Monitoring data with the Coaches.

Rural Recruitment and Advisory Council includes expertise well suited to support recruitment of and dissemination to rural districts. National- [REDACTED], Director of the National Rural Education Association (NREA) and former teacher, principal, assistant superintendent, NREA State affiliate Executive Directors: California- [REDACTED], Small School

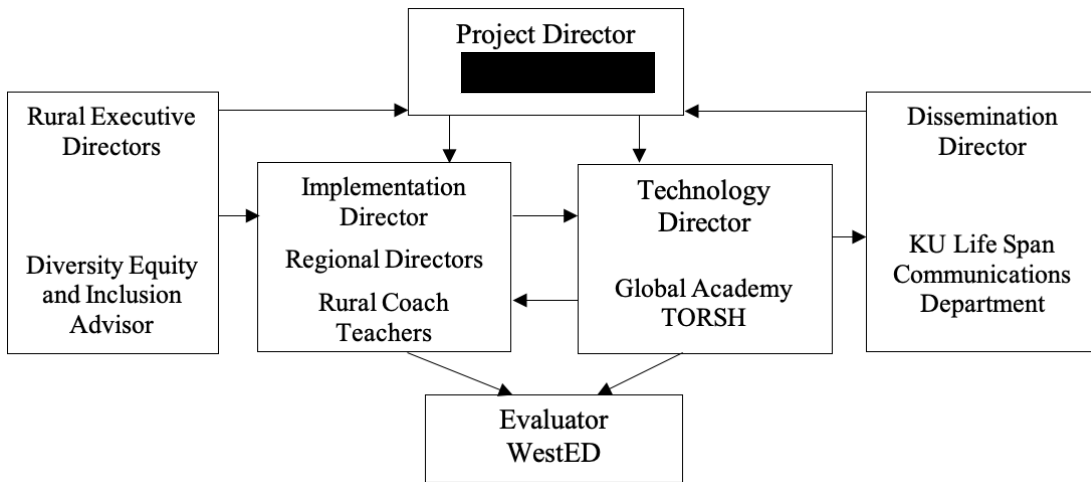
Districts' Association, Kansas- [REDACTED], Rural Education Center, Minnesota- [REDACTED], REA, Montana- [REDACTED], REA, New York- [REDACTED], Rural Schools Association, Tennessee- [REDACTED], REA, and Texas- [REDACTED], REA. The Executive Directors have committed to quarterly video conference calls and annual in-person meetings at the NREA conference, to guide recruitment, communication with and feedback from area rural districts, and dissemination within their States/regions. (See Letters of Support)

(3) The Capacity of Personnel, Resources and Management to Bring the Project to Scale.

The personnel are highly qualified to bring the project to a national scale complete the objectives on time and within budget. (See Figure 1 pg. 14- Organization Structure)

University of Kansas: [REDACTED] (Project Director) is a Senior Scientist/Professor at KU's Juniper Gardens Children's Project (JGCP- a community-based research unit- see resources). As the developer of CW-FIT, [REDACTED] has 22 years-of-experience in education research. He has conducted CW-FIT trainings for schools across the country and has led over 18 federal education projects including three RCTs of CW-FIT. **Role:** Direct Project working with Implementation and Regional Directors to confirm implementation fidelity and coordinate with WestEd to ensure timely completion of RCT and project evaluation activities. He will oversee budgetary monitoring and collaboration with our rural partners. [REDACTED] (Technology Director) as a JGCP Research Professor, has over 18 years of experience in research and development while supervising the staff of the Technology Innovation Development & Research (TIDR) Lab (see resources). **Role:** Direct all aspects of Technology through the TIDR lab: including the *Micro- Credentialing, TORSH, and maintaining website resources.* [REDACTED] (Dissemination Director) is an Assistant Research Professor at JGCP. She is a former middle school teacher and regional education consultant serving rural

Figure 1. Management/Organizational Structure



school districts and is a certified WWC reviewer. **Role:** Responsible for coordination of all dissemination products and support from the KU Communications Department for news releases.

█ (Cost Analyst) is an economic evaluation expert at KU who has led cost studies for multiple IES grants and will lead the cost analysis for this project. █

(Implementation Director) will lead implementation, supervising Regional Directors (RDs). Four RDs to be named will train coaches, assist with dissemination and communication with the State Executive Directors. █ (Diversity Equity and Inclusion (DEI) Advisor) is the Assistant Vice Chancellor for DEI at KU and will review hiring procedures, training, recruitment, and dissemination products.

WestEd: █ (Evaluation Director) has extensive experience leading evaluation studies, particularly RCTs (funded by IES and National Institute of Justice). His expertise includes multilevel modeling, structural equation modeling, and he is a certified WWC reviewer. **Role:** Supervise staff, coordinate with CW-FIT team, and lead technical discussions and decisions, data analyses and yearly and final reporting/dissemination activities. █

(Evaluation Co-Director) has over 25-years-experience leading national studies (including EIR,

IES, NSF). **Role:** Oversee remote data collection, project management, and deliverables, contribute to data analysis, and participate in disseminating activities. [REDACTED]

(Quantitative Analyst) has expertise including measurement of youth well-being and has led analysis for several RCTs. **Role:** Responsible for the random assignment process, data analysis and for the final design plan and ensuring fidelity of the RCT methods.

The Resources are Sufficient to Bring the Project to Scale. WestEd and the CW-FIT teams have demonstrated resources necessary to bring the project to scale. The lead applicant organization is KU Center for Research (non-profit) and the CW-FIT team which is at KU's Juniper Gardens Children's Project- a community-based research unit and a leader in education research, along with program development, for over 50 years.

Our partnering rural school districts from 7 states have shown overwhelming interest and support for this project with signed letters of support from 73 rural district leaders. Each district will develop their organizational capacity to sustain CW-FIT after project funding and will create individualized implementation and sustainability Action Plans with assistance from Regional Directors. Plans will integrate the Rural Coaching Model into the upcoming calendar of professional development and will allocate funds post project. Plans will also identify area school districts that they will collaborate with to adapt and sustain implementation. In addition, partnering districts have appropriate bandwidth and computers for teachers to complete modules.

The Global Education (GE) Academy is nested within KU and will offer our well vetted professional development in an online format offering micro-learning credentials which can be used for professional development hours and can be stacked for graduate credit. GE Academy has extensive micro-credentialing and module development experience.

Table 3. <i>Milestones, Timeline & Personnel</i>		YR1				YR2				YR3				YR4				YR5				Personnel
		F	W	SP	S	F	W	SP	S	F	W	SP	S	F	W	SP	S	F	W	SP	S	
Goal 1. Expand CWFIT to Rural Schools Across the Country																						
Objective 1: Implement Strategy to Scale Training Coaches with High Fidelity																						
Milestones																						
Strategy 1.1.	Launch Rural Coaching Model and Micro-credentialing Program	✓	✓	✓	✓																	1,4
Strategy 1.2.	Identify and confirm Rural Coaches			✓				✓				✓				✓						1,3,6
Strategy 1.3.	Conduct training of Rural Coaches			✓		✓				✓				✓				✓				1,3,
Strategy 1.4.	Distance consultation with Rural Coaches			✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓			3
Objective 2: Implement Strategy to Scale Training Teachers with High Fidelity																						
Strategy 2.1.	Intervention teachers complete MCP modules			✓		✓				✓				✓				✓				3,4,5
Strategy 2.2.	Rural Coaches coach intervention teachers			✓		✓	✓			✓	✓			✓	✓							3,5
Strategy 2.3.	Intervention teachers implement CW-FIT			✓		✓	✓			✓	✓			✓	✓			✓	✓			3
Strategy 2.4.	Rural Coaches guide Tier 2 procedures			✓		✓	✓			✓	✓			✓	✓			✓	✓			3,5
Goal 2. Contribute to the Evidence Base for Classroom Management in Rural Schools																						
Objective 3: Conduct an Independent Implementation Evaluation and RCT																						
Strategy 3.1.	Recruit 120 schools (total of 480 teachers)			✓		✓		✓		✓		✓		✓		✓						1,2,6
Strategy 3.2.	School randomization					✓				✓				✓								2
Strategy 3.3.	Collect pre- and post-evaluation measures					✓	✓			✓	✓			✓	✓							2
Strategy 3.4.	Analyze data and evaluate CW-FIT impact							✓	✓			✓	✓			✓	✓	✓	✓	✓	✓	2
Objective 4: Disseminate Project Findings and the <i>Rural Coaching Model</i> for CW-FIT																						
Strategy 4.1.	Plan for sustainability from day one	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,3,4,6,7
Strategy 4.2.	Disseminate within districts & to novel districts			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,3,4,5,6,7
Strategy 4.3.	Continue scaling																	✓	✓	✓	✓	1,3,4,5,6,7

Implementation team=1, Eval Team=2, Regional Directors=3, TIDR=4, Rural Coaches=5, State Exec Directors=6, Dissemination Team=7

The TORSH System is an online professional development and coaching platform with HIPPA-level security protections that has been successfully used with CW-FIT for the past three years. With this project, TORSH will establish connections across rural districts within States that wish to collaborate in training efforts.

The Technology Innovation Development & Research (TIDR) Laboratory staff at JGCP/KU, led by [REDACTED], will be responsible for the conversion of our training to modules being hosted by the GE Academy. The TIDR Lab maintains the CW-FIT website and resources hosted there and coordinates all activities with TORSH and has successfully developed web-based educational interventions for JGCP (projects funded by NIH, IES, NSF, EIR).

Table 4 provides the ongoing communication strategies to support the project.

Table 4. *Communication Strategies*

Meetings	Strategies Reviewed	Participants	Frequency	Procedures and Outcomes
Regional Dir. (RDs) Meetings	1.1-1.4, 2.1-2.4, 3.1	Project Dir. Imp. Dir. RDs	Monthly	Confirm recruitment, Review Micro-Credentialing, TORSH data and assess progress.
Rural Coach Support Calls with RDs	1.3,1.4, 2.1-2.4, 4.3	RDs & Rural Coaches	Weekly (first month) then monthly thereafter	Review all records (TORSH) and identify problems and solutions.
Evaluation Team and CWFIT Team Meetings	3.1 -3.4	WestEd, Project Dir., Imp. Dir.	Weekly then monthly	Directors will facilitate meetings between WestEd and districts to schedule data collection.
TIDR Lab Staff Meetings	1.1, 2.1, 4.3	Technology Dir. TIDR Team	Weekly	The Director will meet with the TIDR team to oversee MCP, the website and TORSH.
Exec. Dir. Meetings	1.2, 3.1, 4.1- 4.3	Project Dir, Exec Dir., NREA Exec Dir.	Quarterly Calls & Annual in-person	Initial meetings- overview of the project, timelines. Quarterly mtgs- recruitment and dissemination.

(4) The Plan to Broadly Disseminate.

Led by our CW-FIT team in coordination with our State Executive Directors, dissemination will target additional schools throughout districts within participating States then progress to broad dissemination to other States. We will track non-project rural districts adopting and implementing CW-FIT. Several factors contribute to CW-FIT being broadly disseminated. **First**, dissemination planning will begin from day 1 as CW-FIT staff meet with State Executive Directors to discuss strategies and integrate into the Rural Education Associations outreach plans. Regularly scheduled meetings between Regional Directors and coaches will help inform progress and feedback regarding dissemination. Upon completion of study participation, District maintenance of CW-FIT will be supported by continued access to all CW-FIT implementation supports including TORSH and Teacher Credentialing. **Second**, Coaches and leaders will help with the dissemination (and the project has budgeted funds for them), including: (a) partnering organizations contributing to publications (e.g., Journal of Research in Rural Education) and presentations; (b) disseminating CW-FIT within their school, district, and state; and (c) providing exemplar classrooms that other districts may consult with prior to adopting CW-FIT. Presentations will target policymakers and practitioners at state and national rural conferences. **Third**, KU Communications Department supports news releases to education and news services. The website, cwfit.ku.edu, will have policymaker friendly research briefs, and video resources making project findings widely accessible. Ongoing posts about the project via social media (e.g., Twitter, YouTube, Pinterest, and a Facebook page) will help ensure broad dissemination.

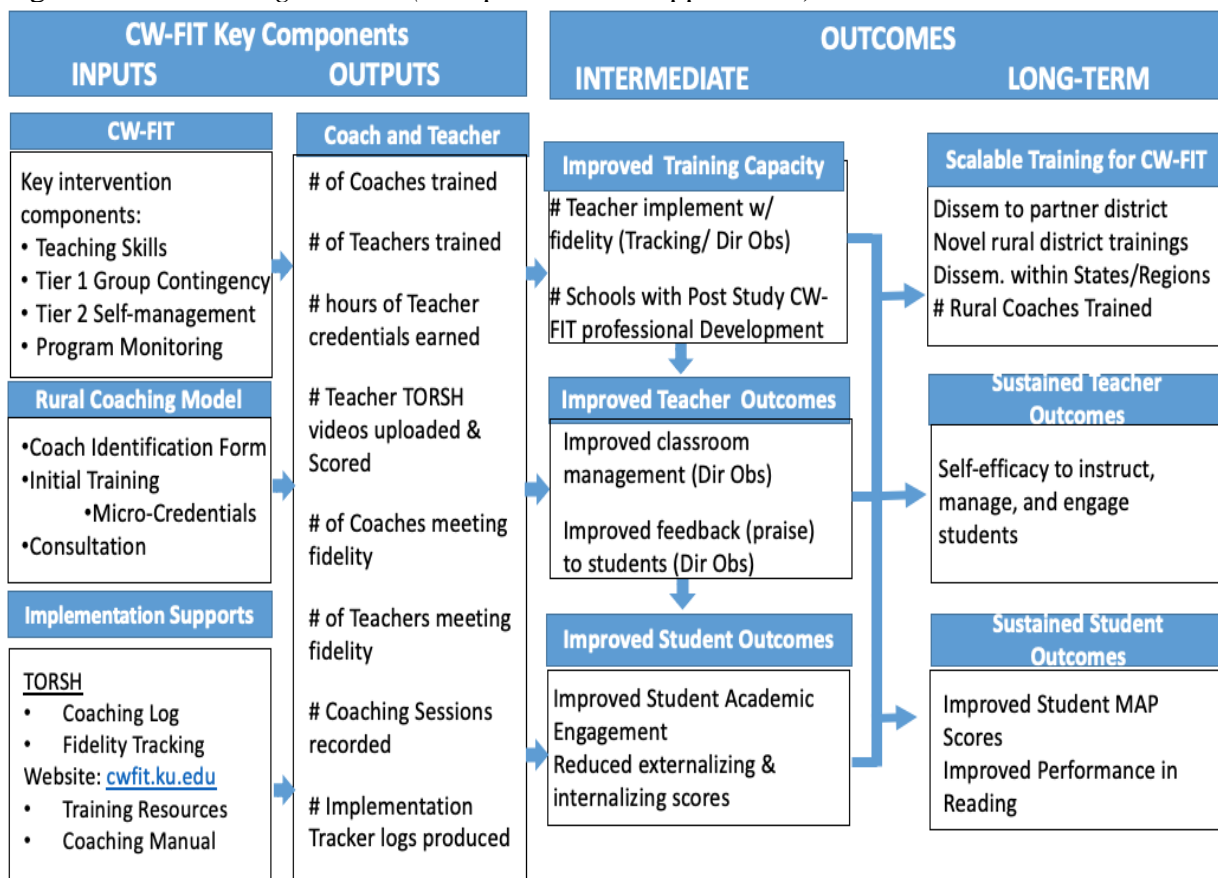
(C) QUALITY OF THE PROJECT DESIGN

(1) The Quality of the Conceptual Framework Underlying the Proposed Research.

The logic model for the CW-FIT project is provided in Figure 2 (pg. 19 and Appendix G).

This model drives Project Objectives (Project Design and the Evaluation Plan). We expect that *Coaches* will be able to implement the training model with integrity and that, in turn, teachers will implement the intervention with high fidelity. The expected outcomes will reflect prior study outcomes of increased student academic engagement and achievement along with improved teacher classroom management. By meeting the project objectives, schools will develop capacity to sustain implementation of CW-FIT.

Figure 2. CW-FIT Logic Model (also presented in Appendix G)



(2) The Goals, Objectives, and Outcomes to be Achieved by the Project.

The proposed five-year project has two goals: 1) Expand CW-FIT to rural schools across the country by implementing a **Rural Coaching Model** and utilizing a **CW-FIT Micro-Credentialing** program (MCP); 2) Contribute to the CW-FIT evidence-base for: (a) improving

academic engagement and achievement for high-needs students in rural elementary schools; and (b) improving teachers’ classroom management in these rural schools. Coaches will be trained by CW-FIT Regional Directors and will, in turn, train teachers. After initial Coach training, distance consultation will be provided to the Coaches. Table 5 (below) provides the specific project goal, objectives & milestones, expected outcomes, and measures.

Table 5. *Project Goals & Milestones, Objectives, Outcomes and Measures of Progress*

Project Goals / Milestones	Outcomes	Measures of Progress
Goal 1. Expand CW-FIT to Rural Schools Across the Country		
Objective 1: Implement Strategy to Scale Training Coaches with High Fidelity (Yrs 1-4)		
Strategy 1.1. Launch Rural Coaching Model and Micro-Credentialing Program (MCP) (Yr 1)	Rural Coaching Model and MCP available and posted. https://cwfit.ku.edu	Measure 1.1. 100% Rural Coaching and MCP materials/ modules are posted.
Strategy 1.2. Identify and confirm Rural Coaches. (Yrs 1-4)	District leaders meet with project staff to review coaching roles, and desired qualifications and complete District Coaching Nomination.	Measure 1.2. 100% of Participating Schools complete Coaching Nomination Form and Coaching Agreement Form.
Strategy 1.3. Conduct Training of Rural Coaches for Intervention Schools. (Fall of YRs 1-4)	Coaches trained in 1-day virtual training: implementing CW-FIT, and TORSH to monitor fidelity and to provide feedback.	Measure 1.3. 100% of Coaches attend training and demonstrate 90% or greater on Coaching Mastery Assessment.
Strategy 1.4. Distance consultation with Rural Coaches 1 x week then monthly. (Yrs 1-4)	Coaches are fully trained and solutions for school level implementation are addressed.	Measure 1.4. Regional Directors Activity Logs record 100% Coaches with 80% or greater participation.
Objective 2: Implement Strategy to Scale Training Teachers with High Fidelity (Yrs 1-4)		
Strategy 2.1. Intervention teachers complete MCP modules. (Fall Yrs 1-4)	Rural Coaches will facilitate teachers’ enrollment in CW-FIT MCP.	Measure 2.1. GE Academy tracks records of teachers’ module completion.

Strategy 2.2. Rural Coaches coach intervention teachers. (Fall Yrs 1-4)	Coaches coordinate kick-off, review 2 videos of intervention teachers the first 2 weeks then monthly for teachers with >90% fidelity & more frequently for teachers with <90%.	Measure 2.2. Using TORSH, 80% of all online coaching sessions logged with dosages, strategies, and fidelity recorded.
Strategy 2.3 Intervention teachers implement CW-FIT. (Fall Yrs 1-4)	Intervention teachers implement CW-FIT 3 X week in English Language Arts with Fidelity.	Measure 2.3 TORSH DATA indicates 80% of teachers implement CW-FIT 3 x week.
Strategy 2.4. Rural Coaches guide Tier 2 procedures. (Yrs 1-5)	Coaches work with teachers to identify students that may benefit from Tier 2 procedures.	Measure 2.4. Based on records, 100% of students receive Tier 2 that were nominated by teachers.
Goal 2. Contribute to the CW-FIT evidence-base in Rural Schools		
Objective 3: Conduct an Independent Implementation Evaluation (Yrs 2-4)		
Strategy 3.1. Recruit 120 schools (total of 480 teachers). (Yrs 2-4)	Principals at schools noted by district leaders as supportive of the project.	Measure 3.1. Teachers (480) and Principals (120) in participating schools sign consent/agreement.
Strategy 3.2. School randomization. (Yrs 2-4)	120 schools randomly assigned (yearly cohorts).	Measure 3.2. WestEd reports on randomization procedures.
Strategy 3.3. Collect pre- and post-evaluation measures. (Yrs 2-4)	Classroom /teacher data pre /post-measures collected (see evaluation plan).	Measure 3.3. WestEd indicates 97% data collected with minimal missing data (<3%).
Strategy 3.4. Analyze data and evaluate CW-FIT impact. (Yrs 2-4)	WestEd completes analysis and prepares publication meeting WWC standards without reservations.	Measure 3.4. WestEd completed analysis with <5% attrition of teachers.
Objective 4. Disseminate Project Findings and the <i>Rural Coaching Model</i> for CW-FIT		
Strategy 4.1. Plan for sustainability from day one. (Yrs 1-5)	Individualized Action Plans will start at initial meetings with districts.	Measure 4.1. WestEd receives each district sustainability Action Plan.
Strategy 4.2. Disseminate findings within and beyond project school districts. (Yrs 2-5)	Findings disseminated within districts, regions, at national conferences, in peer-reviewed journals and through social media.	Measure 4.2. Annual report on dissemination indicates 100% completion of Dissemination Plan activities per year.

Strategy 4.3. Continue scaling beyond the project funding. (Yr. 5 and future)	CW-FIT will be implemented in novel schools and novel districts.	Measure 4.3. GE Academy will record the # of teachers trained in current and novel districts.
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(3) The Design of the Project Appropriately Meeting Rural Education Needs.

CW-FIT has been developed and revised over the past 14 years including implementation resources and training to address the needs of K-8 classrooms and it is currently being implemented in every state in the country (and around the world). RCTs conducted with high-needs students have shown significant positive effects and have met WWC standards without reservations. The 32 peer reviewed studies further support the efficacy of CW-FIT in a range of regions across K-8 classrooms. As a result of this extensive testing and refinement over the years, we are prepared to now, through this project, address the rural needs of our rural partner school districts and rural districts around the country. For this project, we have partnered with the NREA and State affiliate Executive Directors to assure the project is designed to meet their state and rural district needs. With this project and in direct response to needs of our rural districts, we will be refining our well tested District Coaching Model to a Rural Coaching Model. We will also respond to their needs for high quality and cost-effective professional development with our CW-FIT Micro-credentialing program. By offering these refinements based on extensively tested coaching and training materials, we are confident that this project will meet the needs of rural districts, will overcome the barriers to scaling up and expanding this evidence-based intervention, and contribute generalizable knowledge to the field about scaling evidence-based practices in rural schools.

(D) QUALITY OF THE PROJECT EVALUATION

WestEd will conduct an independent evaluation of CW-FIT Rural Expansion through a rigorous multi-state, multi-site cluster RCT. WestEd has conducted several large-scale RCTs within the I3/EIR program (including a 2021 funded Expansion project) and is familiar working

with *Abt* (technical assistance for EIR). WestEd has extensive experience with WWC and have many staff certified by WWC with deep knowledge and experience conducting research that meets WWC standards without reservations. The study of CW-FIT Rural Expansion will meet WWC standards version 4.1 and draft version 5.0 without reservations. The evaluation measures are content valid, psychometrically reliable, and aligned with WWC's Evidence Review Protocol domains. Like past RCTs of CW-FIT, we expect this RCT to have low school attrition because of strong incentives and personal connections to local leaders of rural education working with and alongside schools. We expect low teacher and student attrition and non-response because of rigorous data collection monitoring. The evaluation team will assess fidelity of implementation consistent with the EIR Technical Assistance guidelines and conduct cost analyses of CW-FIT Rural Expansion to establish a replicable and sustainable model beyond the EIR grant. Because these procedures and the evaluation measures used are like past successful RCTs of CW-FIT, we are confident in our ability to execute the current study with high fidelity and minimal school attrition. This evaluation will exceed EIR expectations and contribute rigorous experimental evidence of effectiveness. **The evaluation will address the following research questions:**

1. *Do students receiving the CW-FIT intervention score higher on a standardized measure of reading achievement than students in the control group?*
2. *Do target students receiving the CW-FIT intervention score higher on a measure of student academic engagement than students in the control group?*
3. *Do target students receiving the CW-FIT intervention score lower on a measure of externalizing and internalizing behaviors than students in the control group?*
4. *Do teachers implementing CW-FIT demonstrate more effective classroom management skills than teachers in the control group?*

5. *To what extent is the impact of CW-FIT on student achievement in reading, academic engagement, and externalizing and internalizing behaviors moderated by student, teacher/classroom, and school characteristics?*
6. *To what extent is the impact of CW-FIT on student achievement in reading, academic engagement, and externalizing and internalizing behaviors mediated by teacher self-efficacy, classroom management, and CW-FIT fidelity?*
7. *To what extent is the training and coaching of teachers conducted with fidelity and to what extent is CW-FIT implemented with fidelity by the teachers?*
8. *What are the factors that hinder or facilitate implementation of CW-FIT in rural schools?*
9. *How do teachers perceive CW-FIT feasibility, use, and impact?*

(1) Producing Evidence to Meet WWC Standards Without Reservations.

WestEd and KU have designed a multi-state, multi-site cluster RCT that will include a total of 7 States, 40-60 rural school districts, 120 schools, 480 teachers, 7,200 students and 1,440 target students across three cohorts. During year 1, all study procedures and measures will be piloted in a sample of rural schools that will not be included in the RCT to ensure the RCT implementation is successful. We will pilot in one school across 6-7 of our State partners including a coach and an estimated two teachers (estimated 6 schools, 12 teachers). This pilot will inform any adjustments needed to the recruitment efforts, consenting procedures, Micro-credentialing tracking, and data collection procedures prior to the Years 2-4 RCT. Starting in Year 2, 20 school districts, 40 schools, and 160 teachers will be the first cohort of the RCT. We will recruit (see Table 6 next page for solutions to recruitment barriers) four general education teachers of students in grades K-8 within each school. All students in each teachers' classroom at the time of randomization will be included in the study. For middle-schools, ELA teachers will

select one class period for the RCT. To evaluate impacts on student academic engagement and behavior, WestEd will replicate the approach used in prior CW-FIT RCT studies (e.g., ██████ et al., 2018) and identify three target students in each teachers’ classroom with significant behavioral challenges. The total number of target students is estimated to be 1440. This will ensure that the impacts of CW-FIT are measured for students most in need of behavior support.

Table 6. *Potential Participation and Recruitment Barriers*

Potential recruitment and barriers:	Solutions:
Districts: 1) must make strategic decisions on what programs to adopt, 2) they can have multiple simultaneous initiatives and sometimes have difficulty understanding how to integrate programs, and 3) and leadership may retract and decline participation.	We have secured 72 district letters of support and Regional Directors will meet frequently with district leaders to ensure buy-in and support the integration of implementation with other initiatives.
Rural schools often lack resources for professional development and have limited personnel for coaching.	Cost analysis will guide this project to be cost efficient. Online coaching and the use of online Micro-credentialing modules will help with personnel and resource constraints.
Rural teachers often have financial strains that make out-of-school time for training unmanageable.	We have budgeted stipends to compensate teachers for any off contract, out-of-class time.

The three target students in each classroom will be identified using two reliable and valid screening measures. First, teachers will use Stage 1 of the Systematic Screening for Behavior Disorders (SSBD; Walker et al., 2014) (reliability of Stage 1: $\alpha = .77$ [Caldarella et al., 2008]). In Stage 1, teachers are given clear descriptions of externalizing and internalizing behavior problems, then separately evaluate all their students on the dimensions of externalizing and internalizing behaviors. Teachers nominate five different students on each dimension and rank order these students according to how closely their observed behavior patterns correspond to the two behavioral profiles (i.e., internalizing and externalizing). Next, we will ask teachers to rate the top three students from the SSBD using the School Social Behavior Scales–Second Edition

(SSBS-2, reliability: $\alpha = .98$ [Merrell, 2002]) to confirm their status as at-risk for behavior disorders, defined as scoring at or above the 65th percentile on one of the domains: social competence or anti-social behavior. If a student does not meet this criterion, WestEd will ask the teacher to use the SSBS-2 with the next students on the SSBD to identify a student that meets inclusion criteria. If no additional students meet criteria, WestEd will target the students with the highest scores on the SSBD-2 and work with KU to determine if they should be included in the impact analyses.

Following teacher consent, target student identification, and collection of all baseline measures, schools will be randomly assigned to a treatment group that will receive coaching and implement CW-FIT in their classroom, or a business-as-usual control condition that will have access to the training following post-test data collection. WestEd will randomly assign schools to conditions using the *block.random* function in the *psych* package (Revelle, 2021) in R (R Core Team, 2021). Random assignment will include within district blocks so that clusters of similar schools randomized to each condition are balanced on size, SES, racial composition, and prior ELA achievement levels. This same procedure will occur for cohorts 2 and 3 (years 3 and 4).

WestEd will carefully track student rosters, attrition, and non-response throughout the study. Student joiners (who enroll in a study classroom after randomization) will be excluded from baseline and analytic samples per WWC standards. As an incentive to participate and not leave the study, schools and teachers randomly assigned to the control condition will receive CW-FIT training/materials after the study is complete. In the *unlikely event* of higher-than-expected attrition or non-response, our collection of student-level pretest data and block randomization ensures that baseline equivalence between groups can be assessed, and students will be matched using propensity scores, allowing the study to meet WWC evidence standards with reservations.

Statistical Power

To achieve statistical power of .80, we assumed a total sample of 120 schools, 4 teachers per school, and 15 students within each classroom for the full sample that will complete the reading achievement measure (~ 7,200 students) and 3 target students within each classroom (~ 1,440 students), a .05 alpha level, and student-level data correlated with the outcome explaining 50% of the residual variance. Under these assumptions, the minimum detectable effect size (MDES) is .17 for the full student sample completing the reading achievement measure and .19 standard deviation units for the target students completing the academic engagement and externalizing and internalizing behaviors measure. Effect sizes from prior CW-FIT RCTs ranged from 0.24 to 2.18 for student outcomes (Kamps et al., 2015; ██████ et al., 2016; Caldarella et al., 2018; ██████ et al., 2021). Therefore, we feel confident that the study is adequately powered. All assumptions that informed the power analysis are presented in Appendix J.

Measures

All measures described below have evidence of reliability and validity. The pretest measures reduce residual variance in outcomes and increase precision of the impact estimate. The posttests will provide valuable estimates of CW-FIT's effect on student achievement in reading, academic engagement, and student behavior, as well as impacts on teachers' classroom management skills during ELA instruction. All student measures will be given at pre-test before randomization and in January after implementation has occurred for 12 weeks.

Student measures. WestEd will collect student-level measures for research questions 1-7.

Academic Achievement in Reading. All students in both treatment and control classes, will complete the Northwest Evaluation Association's (NWEA) Measures of Academic Progress (MAP) assessment in reading (reliability: $\alpha = .95$ [Thum & Houser, 2015]) at the beginning of

the school year *before random assignment* and in January of each school year. The NWEA MAP is among the most used assessments in the U.S. due to its ability to measure academic performance across multiple subjects and grade-levels (Cordray et al., 2013). The NWEA MAP is a computer-adaptive test, meaning the questions' difficulty level changes according to the student's previous answers. In this study, students will only complete the Reading section which has three versions for three grade groups. The K-2 Reading test contains 43 questions and takes students 15-30 min. to complete. The 2-5 and 6-12 Reading tests contain 40-43 questions (45-60 min. to complete). The K-2 test is accessible by having the questions read aloud on the computer. The K-2 test focuses on phonological awareness, capitalization, punctuation, spelling, grammar, informational text, and vocabulary. The 2-5 and 6-12 tests focus on literary texts, summarization, drawing conclusions, informational texts, vocabulary, and context clues. Students are assigned a Rasch Unit (RIT) scale score and normed growth score- comparable across grades.

Student Academic Engagement. Teachers will complete the *Engagement Versus Disaffection with Learning: Teacher Report* (EvsD; reliability: $\alpha = .90$ [Skinner et al., 2009]) for each target student in their classroom. The EvsD is a questionnaire rating a student's level of engagement and disaffection. All items are rated on a 4-point Likert-type scale (1-not at all true, 4-very true). Academic Engagement will be assessed with two subscales (each has 5 items): 1) Emotional engagement (reliability: $\alpha = .72$) items assess positive emotional reactions during class activities. Sample items include "In my class, this student is enthusiastic" and "When working on classwork, this student seems to enjoy it." 2) Behavioral engagement (reliability: $\alpha = .68$) items assess behavioral involvement in class such as attention and effort. Sample items include "When I explain new material, this student listens carefully," and "In my class, this student works as hard as he/she/they can." Subscale scores are obtained by averaging the item

ratings within each subscale.

Student internalizing and externalizing behavior. The teacher will also complete the SSBS-2 (Merrell, 2002) for each target student in their classroom. The SSBS-2 is a standardized, norm-referenced behavior rating scale for students in grades K-12. The SSBS-2 consists of two teacher-rating scales: Social Competence (SC) and Antisocial Behavior (AB). Each scale consists of 32 items that are rated on a 5-point Likert-type scale from 1 (*never*) to 5 (*frequently*). Each scale is composed of three subscales. The SC scale is composed of the Peer Relations (14 items), Self-Management/Compliance (10 items), and Academic Behavior (8 items) subscales. The AB scale is composed of the Hostile/Irritable (14 items), Antisocial/Aggressive (10 items), and Defiant/Disruptive (8 items) subscales. Scoring includes T-scores, percentile ranks, and functioning levels. Sample items include: “Offers to help other students” and “Insults peers.”

Teacher outcome measures. WestEd will collect teacher-level outcomes to evaluate the impact of the CW-FIT training and coaching, to inform the evaluation of fidelity of implementation, and for use as mediators of treatment effectiveness. Each measure has evidence of reliability and validity, and none were researcher developed (WWC Version 5.0 standards).

Direct observation of teacher classroom management. All teachers will record three videos using the TORSH system at the beginning of the year before randomization and again in January after CW-FIT implementation. The videos will capture the teachers engaged in whole-group ELA instruction. Teachers’ classroom management skills will be collected using direct observation of all six teacher videos. WestEd will collect the direct observation of classroom management skills led by [REDACTED], (Director of the Center for Instructional and Behavioral Research in Schools at the University of Louisville) who has developed a direct observation coding system of teacher classroom management skills with over 10,000 classroom

observations using the system. Coding includes the percentage of time a teacher is engaged in instructional practice and frequency counts of praise, behavior specific praise, negative feedback, opportunities-to-respond, and error correction. [REDACTED] has established the reliability, validity, and generalizability of [REDACTED] classroom management coding system ([REDACTED] et al., 2014, 2018) (reliability: interobserver agreement = 94% [REDACTED] et al., 2018)).

Teacher self-efficacy. WestEd will measure (pre and post) teachers’ self-efficacy, defined as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). All teachers will complete the *Teacher Sense of Efficacy Scale* (TSES; Tschannen-Moran & Hoy, 2001). The TSES is a 24-item self-report measure of teachers’ self-efficacy in three areas of teaching: classroom management, instructional practices, and student engagement (reliability: $\alpha = .90$ for *management*, $\alpha = .91$ for *instruction*, and $\alpha = .87$ for *engagement* [Tschannen-Moran & Hoy, 2001]). Each item is rated on a 9-point Likert scale ranging from 1 (nothing) to 9 (a great deal).

Table 7. *Components, Measures, Description of Measures, and Timing*

Component	Measure	Description of Measure (Research Question #)	Timing
Student Outcomes			
Reading Achievement	NWEA MAP Test-Reading	Computer-adapted standardized measure of reading for students in grades K-12. (RQ 1)	Pre & Post
Academic Engagement	Subscales of the EvsD	Teacher rating of target students’ engagement in their classroom. (RQ 2)	
Student Behavior	SSBD	Teacher rating of target students’ internalizing and externalizing behaviors. (RQ 3)	
Teacher Outcomes			
Classroom Management Skills	Direct observations	Observing TORSH videos, trained data collectors will record percentage of time teaching, frequency counts of praise, negative feedback, opportunities-to-respond, and error correction. (RQ 4, RQ 6)	Pre & Post

Teacher Self-Efficacy	TSES	Teacher self-report self-efficacy measure with three subscales: instructional strategies, classroom management, and student engagement. (RQ 6)	Pre & Post
<i>Implementation Fidelity and Sustainability</i>			
Teacher Fidelity	Teacher Fidelity:	WestEd observers will complete 9-item checklist of fidelity of CW-FIT intervention components. (RQ 6, RQ7)	Fall
Coach Fidelity	Coach Fidelity	Coaching Mastery Assessment, Coaches will log monthly activity in the TORSH system. Ongoing records of coaching feedback and fidelity will be used to verify coaching log and assess fidelity of Coaching (WestEd via TORSH). (RQ7)	Monthly
Barriers	Qualitative Interviews with CW-FIT teachers	WestEd will conduct focus group interviews with participating teachers to understand barriers to implementation. Focus groups will be virtual and include at least 20% of the CW-FIT Teachers in each cohort. (RQ 8)	Post
Social Validity	Consumer satisfaction questionnaire	CW-FIT teachers will complete an online survey administered by WestEd rating satisfaction with training and coaching, the amount, type and level of coaching support they received, feasibility, use and impact of CW-FIT. (RQ9)	Post

Implementation fidelity and sustainability measures. WestEd, in collaboration with KU, will also collect a series of implementation fidelity and sustainability measures to evaluate the professional development and coaching and teachers’ implementation of CW-FIT as designed. These measures have all been developed and used by KU in prior RCTs. Each of these measures are described below along with the student and teacher outcome measures.

Data Analysis. WestEd will use a series of three-level hierarchical linear models (HLM) with students nested in classes nested in schools to estimate all treatment effects. Aligning with random assignment procedures, treatment effects will be estimated at the school level. Additionally, school-, class/ teacher-, and student-level covariates will be included to reduce residual error and increase power and precision. Treatment-by-moderator interactions will be added to examine potential

moderating effects. Mediation will be estimated using multi-level structural equation models (see Appendix J for 3-Level Model Specification).

(2) Providing Guidance for Replication and Testing in Other Settings.

Data from this evaluation will provide evidence that school-based staff can successfully implement CW-FIT in rural schools. Evidence of this involves (1) including a large sample representing States and rural districts that are diverse in location, size, and student characteristics; (2) examining whether the impact of CW-FIT varies by different characteristics of schools, classrooms, teachers, and students; (3) collecting and analyzing high-quality implementation fidelity data from multiple sources at the district, school, and classroom level; (4) including a cost analysis to provide valuable information about the cost-effectiveness of the program; and (5) WestEd will conduct focus group interviews with participating teachers to understand barriers to implementation. Focus groups will be virtual and include at least 20% of the teachers in each cohort. These activities will inform the conditions under which CW-FIT is likely to have the greatest impact, and what supports may be needed in rural districts not meeting these conditions.

Diverse Settings and Samples. The seven participating States include many high-need rural schools and students (See Table 1 and Appendix C for letters of support). Such diversity will support the broad generalizability of CW-FIT implementation in other rural districts.

Understanding Differential Impact. To examine potential moderators and mediators of treatment (research questions 5-7), school-, classroom-/teacher-, and student-level moderators will be incorporated into HLM models via within- and cross-level treatment-by-moderator interactions, and multi-level structural equation models will test mediation effects. Moderating factors will include school characteristics (cohort indicator, school size, percentage of minority students and

students receiving free/reduced lunch), measures of fidelity, classroom/teacher characteristics (e.g., teacher experience, teacher certification, baseline achievement level, and class size), and student characteristics (e.g., gender, ethnicity, free/reduced lunch status, disability status, and baseline achievement level). Results from these moderation analyses will help identify settings or populations for which CW-FIT is particularly effective or not well suited. WestEd will also examine teacher- and student-level mediation models. The logic model specifies intermediate teacher (i.e., classroom management) and student (i.e., academic engagement and achievement) outcomes. The intermediate teacher outcomes may mediate teacher self-efficacy, as well as impacts on academic engagement, which in turn may mediate CW-FIT's impact on achievement in reading. WestEd will use multilevel structural equation modeling to test mediation effects given its superior ability to address the presence of measurement error within a statistical model and to account for the nesting of data (Little et al., 2007).

Analyses of Fidelity of Implementation Data. Fidelity of implementation is a critical component of intervention effectiveness (██████████ et al., 2021) and is deliberately integrated into all components of this study to address research questions 7-9. The TORSH platform will provide fidelity of implementation data, including coaching logs, consumer satisfaction surveys and fidelity measurement for both treatment and control (to identify if they are doing any parts of CW-FIT without training) teachers. After analyzing these data, we will examine fidelity of implementation of CW-FIT (e.g., the dosage and quality of coaching, teacher satisfaction, and effective implementation across diverse settings), and the scaling strategy (e.g., site selection, coaches, teachers, training, and monitoring).

Cost Analysis. Expansion grantees are asked to consider cost and changes with scaling. This study will examine cost variation when implementing CW-FIT to scale across rural schools and

districts (led by ██████████, KU). Previous CW-FIT cost studies estimate a total cost of \$9402 or \$31.45/student. Districts will need to invest \$640/district-level coach and \$166/teacher to train and support classroom-wide implementation. Once trained, teachers can implement CW-FIT with less than \$20/classroom in material resources and less than 20-min a week. The cost of coaches is a primary cost driver and will decrease total costs by \$1-2/student as the number of teachers increases. These initial cost estimates suggest CW-FIT is cost-efficient and can be feasibly implemented in rural schools. This project will extend initial cost estimates by collecting start-up and ongoing implementation cost data for CW-FIT and control schools to estimate annual total costs. The IES funded Cost Tool Kit will be used to collect staff time, material and facilitates costs, calculate annual and total costs at the per-student and per-school level, and conduct a Cost-effectiveness Analysis. The total cost of CW-FIT will be compared with intervention effects to calculate a cost effectiveness (CE) ratio, as an expression of the costs relative to outcomes. Finally, the CE ratio for CW-FIT will be compared to the CE ratio of the control group.

(3) Articulating Components, Mediators, Outcomes, and Thresholds.

As described above, WestEd will collect a rich set of implementation data, including coaching logs, fidelity of coaching, fidelity of implementation, teachers' perceptions of the training, coaching and CW-FIT, and teacher credentialing. Based on prior RCTs and recommendations from the research field, WestEd has set the following thresholds for acceptable implementation: (a) professional development and coaching fidelity must meet >90% fidelity (e.g., credentials completed, completion of Coaching Logs); and (b) teacher implementation of CW-FIT must meet 80% fidelity and be implemented at least 3 times a week. Taken together, WestEd is confident that these data will provide insight about the key project components. Further, WestEd has a priori developed an analysis plan to examine a series of school, teacher/class, and student moderators of

treatment effectiveness, and teacher-level mediators that may also impact treatment effects. The evaluation targets specific and explicit student-level outcomes aligned with prior RCTs of CW-FIT, including academic achievement in reading, academic engagement, and student behavior. Further, impacts on teachers' self-efficacy and classroom management skills will be explored.

(4) Methods of Evaluation Providing Performance Feedback and Outcome Progress.

The WestEd evaluation team will be directly involved with the project from day 1. [REDACTED] and his team will meet with [REDACTED] weekly at the beginning of the project and then monthly as the team deems necessary. During Year 1, the WestEd team will work with the KU team to pilot test all measures, data collection procedures, data management processes, consent processes and to develop analysis code and reporting templates. During pilot testing, WestEd will provide weekly updates about the feasibility of the established procedures, necessary changes, and specific guidance to enact changes. Then, starting in Year 2, WestEd will provide weekly updates on project activities and, if any concerns arise, work with KU to remedy all issues. WestEd will focus on maintaining randomization, attrition, data collection, student-level leavers and joiners, and controls against potential confounds to ensure this study meets WWC standards without reservations.

Overall CW-FIT Expansion Project Summary: Strong evidence, including 3 RCTs and 32-peer reviewed studies, supports CW-FIT to improve student academic engagement and academic achievement, while reducing disruptive behaviors. Our team led by CW-FIT and NREA, along with WestEd's evaluation team, have the capacity and qualifications to lead this important work addressing rural schools' needs to reengage students and improve academic achievement.

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