

Montana High-Impact Tutoring : Boosting Montana Early Literacy Intervention Program

TABLE OF CONTENTS

Significance	3
Demonstration of Promising New Strategies	8
Strategy to Scale	11
Strategies to Address Barriers to Scale	12
Management Plan	16
Capacity to Scale	18
Dissemination	20
Utility of Products across Settings	20
Quality of the Project Design	20
Conceptual Framework	20
Goals, Objectives, and Outcomes	21
Meeting the Needs	22
Quality of the Project Evaluation	22
Evaluation Designed to Meet WWC Standards Without Reservations	23
Effective Strategies Suitable for Replication or Testing	28
Measuring Fidelity of Implementation	29
Evaluating the Proposed Project to Guide Replication of Project Activities	30

The Montana Office of Public Instruction (OPI) and Education Northwest (EDNW) are pleased to submit the proposed project, “**Montana High-Impact Tutoring (M-HIT): Boosting Montana Early Literacy Intervention Program**” for a mid-phase Education Innovation and Research (EIR) grant. The proposed project aligns with the **Absolute Priority** (see the Evidence Form) to **implement evidenced-based literacy instruction aligned to the science of reading**¹ to improve outcomes for **high need students**.² In 2023, the Montana legislature passed the Early Literacy Targeted Intervention Act, § 20-7-1801 - 1804, MCA, which laid the foundation for an early literacy program to provide a multi-tiered intervention options to students and families. The program, called the Early Literacy Targeted Intervention (ELTI), has begun to improve literacy outcomes for PK-3 students.³ Now, this mid-phase research project, called Montana High-Impact Tutoring (M-HIT), aims to build on that innovative state-initiated work and accelerate learning by adding high-impact tutoring⁴ for high needs students particularly in Montana rural and tribal communities. The mid-research project will also rigorously evaluate the impact and cost-effectiveness of the high-impact tutoring.

The M-HIT project directly addresses **Competitive Preference Priority 1: "Returning Education to the States,"** by **scaling the state-led initiative to rural and tribal communities and upholding local control to determine the types of literary interventions** that will be used to meet the needs of students, families, and educators. **Competitive Preference Priority 2** will be met by a Multi-tiered Systems of Support (MTSS) tier 3 intervention⁵, consisting of virtual, 1:1, high-impact tutoring, reviewed by the What Works Clearinghouse (WWC) which has strong evidence of positive impact (see the Evidence Form).

The M-HIT **partners** include **rural/tribal elementary schools** in Montana who serve high-needs students, the high-impact tutoring partner **OpenLiteracy (OL)**, and **EDNW**, the

external evaluator. The OPI will recruit at least 90 rural/tribal schools and approximately 1,800 high-need students, grades 1 to 3, to participate in the study. The schools are rural as identified by locale codes and serve high percentages of students, not less than 60 percent of whom are eligible for a free or reduced lunch (FRL).⁶ Since June 2020, OL, the tutoring partner, has been at the forefront of virtual, live, 1:1 high-impact tutoring that has significantly improved reading achievement for K-6 students. EDNW, the external evaluator, will conduct a randomized controlled trial evaluation. EDNW brings deep expertise to large complex, mixed methods studies, including randomized controlled trials. EDNW has strong relationships within the Montana education community, including tribal communities.

The rollout of the M-HIT study will include a pilot in year one, treatment over years 2 – 5, and ultimately support 90 schools over five years with high-dosage, virtual tutoring intervention opportunities. During the grant period, 45 schools will be assigned to the treatment group, while another 45 schools will serve as the control group. Students, grades 1 to 3, will be eligible to receive the intervention if they score on an approved literacy screener at a grade level below their current level. On average, 20 students are expected to receive tutoring at each school. Final analyses, conducted during the 2029-30 school year, will incorporate data from across cohorts to rigorously evaluate M-HIT’s impact and effectiveness to improve student achievement and attainment for high needs students, including cost considerations such as economies to scale.

SIGNIFICANCE

In the 2023-24 school year, 44.2% of Montana students in grades 3-8 were reading at a proficient level. This was a slight decrease from 45% in the previous year and is a trend of declining reading scores that began before the pandemic. Pre-pandemic (2019), 50% of students were proficient or advanced. When literacy and graduation data are disaggregated, clear patterns

emerge. Students eligible for FRL represent 39% of Montana’s student population. Only 75% of FRL students graduate, compared to 95% of their non-FRL peers—a 20 percentage point gap. The disparities are even greater for American Indian students, who graduate at a rate of 70% and demonstrate only 20% proficiency on grades 3–8 reading assessments—30 percentage points lower than their peers. In 2023, 22 (4%) elementary schools out of 626 total schools had 0% proficiency in reading, 10 (46%) of which are located on or near reservations. Whereas, 44 of 626 (7%) elementary schools had less than 10% proficiency in reading, 28 (64%) of which are on or near reservations. American Indian students on Montana reservations face problems with lower attendance rates compared to their non-reservation peers. In 2024, American Indian students had the lowest attendance rate, at 17%, of students attending school 95% or more days of a year, compared to FRL students at 27% and all state peers at 34%.

Montana’s English Learner (EL) population, though relatively small, is growing and exhibits significant literacy challenges. The proportion of EL students has increased from 2% to 3% in recent years. Of the 3,176 EL students assessed in 2024, only 34% demonstrated progress toward proficiency, and just 4% achieved proficiency. Data from the 2023–24 Montana Comprehensive Needs Assessment (CNA) revealed that the state’s most disadvantaged schools remain at the basic implementation level for instructional and assessment support for EL students, underscoring the need for enhanced instructional systems and resources.

Currently, 14.2% of Montana students receive special education and/or related services under the Individuals with Disabilities Education Act (IDEA), on par with the national average. Enrollment of students with disabilities increased by 11.7% (to 21,061 total children) between 2018 and 2024. American Indian students are overrepresented in this population by 3.13% relative to their share of the overall student population.

The Need

Need for Highly-effective Literacy Educators in Rural and Tribal Communities. An OPI study in 2022 found that 89.35% of Montana public schools experienced staff turnover, including 94% of on-reservation schools and 54.34% of small rural elementary schools.⁷ Critically, 93.22% of comprehensive schools on or near reservations, which are in the bottom 5% for federal accountability, saw teacher turnover. Further, a 2023 Montana Department of Labor and Industry study⁸ noted that teachers in rural and tribal communities earn an average of \$13,342 less than their urban counterparts, whose average salary is \$63,968, compared to the statewide average of \$58,012.

In May 2023, 918 (10%) Montana teachers held provisional or emergency licenses.⁹ Emergency authorizations, one-year permits for districts unable to find licensed educators, increased by over 90% in two years prior to September 2023. Tribal and rural districts heavily rely on these, with one tribal district reporting 31% (17 teachers) with emergency authorizations in May 2025.¹⁰ Based on the 2023 teacher preparation review conducted by National Council of Teacher Quality (NCTQ),¹¹ Montana educator preparation programs were rated as having implemented on average two out of the five core components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension). Of the six Montana preparation programs assessed, 2 received an A, 1 received a C, and 3 received an F. Overall the review indicates that Montana preparation programs are struggling to prepare aspiring teachers to provide high-quality reading instruction that incorporates evidence-based practices for teaching reading. Since 50% of the educators in Montana attend a preparation program in Montana, the majority of teachers are inadequately trained in scientifically based reading instruction when they enter the classroom.

Need for Evidence-based Literacy Interventions Designed with High Quality

Instructional Materials (HQIM) and Digital Tools. Due to the low enrollment of rural schools and a funding model based on a per pupil rate, access to sufficient funding to purchase literacy intervention HQIM¹² that aligns to evidenced based literacy instruction,¹ promotes knowledge-rich materials, and is backed by a science of reading framework is limited. Montana spends \$12,101 per pupil in expenditures compared to the national average per pupil spending of \$13,494 (\$216 million more per year than in Montana). Montana is ranked 33rd for total revenue (current and capital revenues combined) per pupil (\$13,769), whereas the National average is \$16,202 or \$378 million per year more than in Montana. As research shows, this lack of access to evidenced based HQIM has challenged teachers in rural schools to provide quality education for students.¹²

On top of this, Montana has a unique landscape of local control leading to a wide variety of HQIM used across the state for evidenced based literacy interventions. HQIM can meaningfully improve teaching practice and student achievement, especially when paired with professional learning support (Chingos and Whitehurst, 2012).¹³ Yet, in Montana, the authority for curricula selection is a local decision that has a potentially detrimental effect on student learning.

Need for Effective Professional Development (PD) to Build Educator Capacity. In rural communities, Montana educators are eager to expand their reading instructional skills through PD; however, high-quality professional learning is not always readily available. The biggest barriers to PD participation are the availability of substitute teachers, paying out of pocket to attend learning opportunities, not enough time off from work, significant travel distance, and lack of resources. In addition to having limited access to high-quality PD, rural

educators do not have the opportunity to collaborate with peers and colleagues. This leaves a large portion of educators isolated in their practice.

PD is an essential element of building a MTSS, which maximizes student achievement (Stoiber, K. & Gettinger, M., 2016).¹⁴ On the 2023-24 CNA, educators reported that PD positively impacted their work. Through the CNA, educators requested that OPI increase in-person and networking opportunities that offer differentiated content. Through the 2023-24 CNA, our most disadvantaged school educators identified that they have not achieved proficient implementation regarding the support for teachers in examining student data and collaborating in teams to make instructional and intervention decisions aimed at increasing student achievement.

Need for Opportunities and Choice for Families to Engage in Their Children’s Early Literacy Development. Research confirms that family engagement is crucial for early literacy development, as it significantly improves children's cognitive and language skills, leading to better school readiness and long-term academic success. This engagement includes creating a stimulating home environment, actively reading with children, and supporting their learning through various interactions.¹⁵ On the 2024 parent survey, the primary source of data on family engagement concerning students with disabilities, the results identified key opportunities for enhancing parent-school collaboration, particularly a need for improved ongoing communication between educators and families.¹⁶

Student engagement and attendance continue to be a barrier for learning, particularly in rural communities. High teacher turnover makes it challenging for schools to create consistent, welcoming classroom learning environments. In the early grades, family involvement and re-engagement in school will provide a foundation for students to engage in learning. A promising study on the impact of high-impact on student attendance, offers preliminary evidence

that high-impact tutoring may improve student engagement.¹⁷ Part of this grant work will focus directly on supporting school leaders to engage families with high-impact tutoring and building long-lasting relationships with students' families.

Overall, given Montana's rural barriers, pressing issues, and declining student outcomes, including the outcomes particularly for ELs, students with disabilities, and students eligible for FRL, Montana has profound needs that will be addressed by this mid-phase project. Montana high need students and educators face the alarming distinction of having: 1) a serious shortage of highly prepared educators, contributing to a growing disparity in rural schools' academic achievement, 2) limited access to evidenced based literacy interventions composed of HQIM, 3) a growing set of challenges in creating systems that provide teacher PD to build educator's capacity in evidence based literacy instruction aligned to the science of reading framework, and 4) minimal varied and accessible ways for families to become involved in their child's early literacy development.

Demonstration of Promising New Strategies

Ultimately, **an innovative approach is necessary to increase the likelihood of high need students in rural and tribal schools achieving reading proficiency by the end of 3rd grade, as struggling readers face significant academic and long-term disadvantages.**¹⁸

Research shows that early, inadequate reading instruction leads to persistent reading difficulties and higher occurrences of grade retention and referrals for special education, both of which are very costly for schools.¹⁹ Also, it is well documented that the rate of gain in reading skills slows as students ascend grade levels.²⁰ This emphasizes the need for effective literacy solutions during formative years to prevent compounding challenges and higher expenses associated with the more intensive remediation older students generally require.²¹ **The need to scale**

evidence-based literacy interventions is significant not only for Montana but also nationally, providing valuable insights for rural and tribal communities similar to those found in Montana. Scientific consensus confirms many reading difficulties are not insurmountable and can be significantly reduced or eliminated, if they are identified and addressed early.²² Positive outcomes directly result from evidence-based instructional interventions, rigorously researched and validated to target specific reading weaknesses.²³ **An innovative approach must also be timely, as there is a critical advantage of early intervention.** Early, evidence-based intervention (K-3) is significantly more effective than later intervention.²⁴ This early window leverages young children's developing brains, remediating difficulties before they become ingrained.²⁵ Waiting longer often necessitates more intensive, costly interventions with less certain results.

This kind of innovative solution promotes evidence-based literacy, aligned with efforts to improve literacy achievement nationwide. It directly impacts all students, but especially high-need students, through effective literacy instruction, aligned to the science of reading. **This mid-phase project not only tackles the persistent literacy challenges in Montana, it supports scalable solutions for national use.** It provides a blueprint for equipping an educational system with the tools and frameworks necessary to prevent reading difficulties, intervene effectively when they arise, and ultimately foster a generation of proficient readers.

Strategies Implemented to Date

The ELTI program, aligned to Act § 20-7-1801, MCA, stands as a testament to field-initiated innovation, directly addressing the critical academic challenges faced by Montana students, their families, and dedicated educators. In its first year of implementation, **Montana's ELTI initiative demonstrated measurable success in improving early literacy outcomes for**

young learners. Designed as a comprehensive, multi-tiered strategy that can be adapted to meet the specific context of school communities, the ELTI program integrates summer, classroom and home-based programming to provide targeted literacy interventions aligned with state priorities for early learning and third-grade proficiency.

The Jumpstart Summer Program serves students PK-3 grades, providing intensive literacy instruction to mitigate summer learning loss.³ Approximately 40% of participating students demonstrated measurable growth from initial screening to fall assessments from the summer of 2024 to fall of 2024. Students who did not demonstrate growth maintained existing skills. Classroom-based programming, targeted early literacy programming for 4-year olds prior to kindergarten, reached 2,025 students, with 87% showing measurable improvement in at least one literacy domain. Notably, 57% of these students no longer required ongoing intervention after participation, reflecting progress toward grade-level proficiency. The Home-Based Learning component strengthens family engagement and expands access through virtual support and real-time progress monitoring. Students participate in an online learning platform geared toward their specific needs in literacy. This allows families to support their children and connect with educators over their child's growth in order to work toward proficient reading skills.

Based on early dissemination efforts, including public reports with positive data within districts participating in ELIT, non-participant schools have asked the OPI for implementation support. As evident in the support letters (See Appendix), multiple rural/tribal schools now seek to implement early literacy intervention strategies. Additionally, state-led efforts have emerged to support the program, illustrating that the **OPI and the larger Montana community are invested in providing science of reading-aligned learning opportunities that can supplement ELTI and accelerate student results.** In May of 2025, the Montana Board of Public Education

(BPE) posted a joint Resolution outlining the state’s commitment to improving PK–12 reading proficiency. Recognizing the urgent need for high-quality literacy instruction, the OPI has established policies to ensure that all students have access to evidence-based reading instruction grounded in research. The OPI has embedded the science of reading into Montana’s English Language Arts and Literacy Content Standards (ARM Title 10, Chapter 53). Through Accreditation Standards (ARM Title 10, Chapter 55), schools are required to review and align curricula and instructional programs with the updated standards. The Professional Educator Preparation Program Standards (ARM Title 10, Chapter 58) have also been aligned to ensure that teacher preparation programs include training in the science of reading. **Through these coordinated policies and standards, the OPI is establishing a research-based foundation for literacy instruction that promotes academic success, lifelong opportunity, and community engagement.**

Moreover, **a high-impact intervention is available virtually and is designed to mitigate learning loss through targeted academic supports, including student absenteeism.**²⁶ OL offers an intervention solution (virtual, 1:1, high-impact tutoring) that can address the lack of qualified educators in rural/tribal communities. This program offers licensed educators as tutors, a science of reading-based curricula, a digital platform for data collection and adaptive instruction, and strategic partnerships with schools and families.

STRATEGY TO SCALE

Despite a strong first year, implementation of the ELTI program in Montana's rural/tribal schools was limited. Only 37% of rural/tribal schools participated in ELTI. This is likely due to the schools not having the capacity to implement intervention programs, especially when they are struggling to recruit and retain educators. The absence of adequate educator

capacity to deliver strong, explicit literacy instruction as an integral part of initial core instruction is essential to mitigating the need for subsequent intervention. **Furthermore, the ELTI imodels—the jump start, the classroom-based (exclusively for four-year-olds), and the home-based—lack a crucial component. There are no evidence-based interventions for students in grades K-3 during the regular school day and year.** As the research illustrates, literacy solutions must occur during formative years and be timely to achieve a critical advantage and save costs on more expensive interventions at later grades.²⁷

Thus, **this mid-phase program (M-HIT) offers a significant opportunity to build upon the initial successes of ELTI, by introducing high-impact tutoring for individualized instruction.** M-HIT can ensure that literacy interventions to high-need students in grades 1 to 3 in rural/tribal schools are provided in a timely and urgent manner.

Strategies to Address Barriers to Scale

Exhibit 1. Barriers to Scale and Proposed Innovations/Solutions

Barriers to Scale	Innovations/Solutions
<p>Constraints in remote areas particularly lack of highly-effective educators: Montana's rural/tribal communities struggle to recruit and retain teachers for high-need schools due to low salaries and lack of resources, negatively impacting student achievement. This leads to districts hiring uncertified teachers with provisional or emergency authorizations. Staff shortages hinder the ability to offer interventions, targeted individualized instruction, and before/after school programs, all of which require additional staffing.</p>	<p>Provide a virtual, high-impact intervention tutoring program featuring certified educators who deliver expert instruction tailored to individual student literacy needs. The program (virtual, 1:1, high-impact tutoring) will utilize a structured curriculum grounded in the science of reading framework and a digital platform for real-time data collection, planning, and communication to facilitate adaptive instruction. Collaboration with schools and families will ensure seamless integration with existing educational systems and goals.</p>
<p>Lack of access to evidence-based literacy interventions designed with HQIM is a major challenge caused by systemic issues like inadequate funding,</p>	<p>Implement high-impact tutoring intervention that is consistent with intensive evidenced based literacy instruction. Virtual, 1:1, high-impact tutoring occurs 3 times a week for 1,080 minutes annually. The intervention will utilize a structured</p>

<p>resources, and staffing shortages. The current ELTI program does not provide access to evidence-based interventions to students in grades K-3 during the regular school day and year. Evidence dictates that interventions must occur during formative years and be timely in order for there to be critical advantage.</p>	<p>curriculum grounded in the science of reading framework, a platform for real-time data collection, planning, and communication, to facilitate adaptive instruction. The personalized tutoring will focus on foundational skills and comprehension tailored to each student’s needs. It will include: Individualized Learning Plans: Tutors create learning plans based on student data, as well as school and family context, to enhance effectiveness. Progress Monitoring Tools: Tools like a school data dashboard, tutoring exit tickets, DIBELS, and CORE Phonics track student growth and guide instructional adjustments.</p>
<p>Lack strong, explicit literacy instruction aligned to the science of reading. Educators lack access to training that builds capacity to effectively deliver explicit literacy instruction using a structured approach. Many teachers, especially in rural/tribal schools, are not trained in the science of reading and need ongoing PD to provide the necessary systematic instruction and scaffolding for students to become proficient readers. Even with core programs, teachers often lack the guidance to implement them effectively, including modeling, feedback, and scaffolding.</p>	<p>Build the capacity of educators to create a MTSS to deliver strong, explicit literacy instruction aligned to the science of reading. Professional Development (PD): Deliver consistent, high-quality PD to educators, focusing on evidence-based reading practices aligned with the science of reading and the effective use of HQIM for tier 1 literacy instruction. Implementation Support: Provide resources and technical assistance to teachers to facilitate the effective implementation of MTSS, scaffolding techniques in their classrooms. Develop guidance and provide support to promote the use of MTSS with a focus on the use of HQIM, while generating adoption lists as a straightforward mechanism for signaling HQIM. School Team Engagement: Engage school teams participating in high-impact tutoring in a kick-off meeting with regular quarterly data deep dives to share the progress of students in high-impact tutoring. The sessions will focus on student progress, ensuring a clear understanding of the HQIM being used, how tutoring supports tier 1 evidence-based instruction, and how data from tutoring can inform tier 1 instruction. Instructional Alignment: Ensure tutoring aligns closely with tier 1 evidence-based literacy instruction, creating a cohesive and unified learning experience.</p>
<p>Lack of sufficient opportunities and choice for families to engage in their children’s early literacy development. There are not enough ways for families to be engaged in their child's early literacy development.</p>	<p>Schools will provide resources, activities, and options for families to get engaged with their child's early literacy development. Regular Communication and Data Sharing: Use weekly communication and data updates between tutors, schools, and families to improve transparency and collaboration.</p>

Strategy 1- Provide a virtual, high-impact intervention tutoring program featuring certified educators who deliver expert instruction tailored to individual student literacy

needs. OL's 1:1 tutoring is delivered via federally compliant interactive platforms. All tutoring is provided by certified, experienced teachers who have background checks and an average of 15 years of teaching grades K-6. Tutors are observed at least twice a year using a structured coaching observation framework designed to highlight strengths and identify areas for growth. A tutoring schedule is established to seamlessly integrate into the school day, without interfering with tier 1 instruction or supplemental or extracurricular activities. A school liaison oversees the implementation of tutoring and leads quarterly data meetings with school staff, manages the school's data dashboard, and facilitates the communication of weekly key data. Each student's individual learning plan is monitored and adjusted to ensure that instruction is tailored to students' unique needs. The lesson structure is in the Appendix.

Strategy 2- Implement high-impact tutoring that is consistent with intensive evidenced based literacy instruction. Students receive **1:1 virtual tutoring, 3 times a week, for 1,080 minutes annually.** Each session lasts 30 minutes. Tutoring is delivered over an extended period, typically ranging from 12 to 36 weeks, to allow for skill development, feedback, and meaningful growth.⁸ Students meet with a consistent tutor, ensuring positive tutor-student relationships. High-quality instructional materials are structured, explicit, and cumulative, targeting all five foundational components of reading. Tutoring focuses on fostering engagement and building foundational skills while simultaneously supporting the development of strong reading comprehension skills.

Student attendance has a significant impact on growth. The school liaison will work with schools to address any engagement concerns. Attendance data is very detailed, including minute-by-minute records of when the student logged in and out. At the end of each lesson, students complete a quick assessment to gauge their understanding and performance

immediately. Tutors use ongoing informal and formal assessments such as CORE Phonics Survey and DIBELS 8. The data collectively provides next-step individualized information for instruction for tutors, classroom teachers, and families.

Strategy 3- Build the capacity of educators to deliver strong, explicit literacy instruction aligned to the science of reading. The OPI will deliver high-quality PD to educators in all partner schools (both treatment and comparison schools) to ensure a MTSS, focused on evidence-based reading practices with use of HQIM for tier 1 literacy instruction. The OPI will provide comprehensive resources and technical assistance to teachers, enabling them to integrate reading instruction scaffolding techniques into their classrooms effectively. The OPI will develop guidance and provide support to promote the use of HQIM, while generating adoption lists as a straightforward mechanism for signaling HQIM. Teachers in M-HIT schools will participate in an initial tutoring kick-off meeting and regular quarterly data deep dives. These sessions will analyze student progress, clarify the use of HQIM, and demonstrate how the intervention can inform tier 1 instruction. In M-HIT schools, to foster transparency and collaboration, weekly communication and data updates will be shared among tutors, schools, and families

Strategy 4- Schools will provide more resources, activities, and options for families to be involved with their child's early literacy development. OL communicates with families in several ways, including a letter at the beginning and end of each tutoring cycle (fall, winter, spring). Quarterly progress reports will be provided, with the reporting schedule aligned with the school's report card cycle. By maintaining open communication with students and their families, OL can continuously refine its approaches to better support students' educational journeys. Families in all schools (treatment and comparison schools) will receive guidance on supporting literacy at home, such as shared reading and discussing what they are reading.

Management Plan

The management plan is outlined in Exhibit 2 and 3. It includes activities, milestones, and responsible parties by the grant timeline, January 2026 to December 2030. It includes activities for OPI program director, the project leadership team, the tutoring vendor (OL), and the evaluation team (EDNW). The proposal includes five major activities, see below for details.

Exhibit 2. Implementation and Activities

Phase 1- Prepare to launch the pilot. Capacity Building- (January 2026-August 2026)
Establish project governance structure; finalize partner MOUs; recruit pilot schools; develop PD modules; develop family engagement materials; and prepare to launch M-HIT pilot. This initial cohort will act as a pilot to refine the logic model, project training, and implementation materials for subsequent cohorts. <i>Milestones:</i> Finalized implementation framework; evaluation plan; and training prototypes.
Phase 2 – Launch pilot (build early conditions and coalition for M-HIT) (September 2026 - August 2027)
Launch the pilot; deliver professional learning modules to current sites both treatment and comparison schools; provide family engagement materials; gather baseline data; monitor fidelity; and provide formative feedback to refine materials. Recruit the second cohort. Pilot is launched with 10 schools, 5 which are assigned to the treatment group; implementation report completed with formative feedback, baseline evaluation data collected, and implementation materials revised. <i>Milestones:</i> Draft of report with early findings available to share with MT legislature.
Phase 3 –Expand implementation (advance and spread M-HIT) (Sept 2027 – Aug 2028)
Expand to additional schools; provide ongoing professional learning modules to all schools; provide family engagement materials to all schools; and continue formative evaluation. Recruit the third and final cohort in Spring 2028. The second cohort is launched in the 2027-28 SY, and includes at least 40 new schools, 20 of which are assigned to the treatment group. Data collected, formative evaluation ongoing with feed-back loops. <i>Milestones:</i> Draft of report with interim findings available to share with MT legislature, prior to the Jan 2029 session.
Phase 4 – Full Implementation & Evaluation (Sept 2028 – Aug 2029)
Implement projects across all target sites; conduct midpoint and summative data collection; disseminate interim findings; adjust supports for sustainability. The third cohort is launched with additional 40 schools, 20 and 20, 50% of target sites are implementing M-HIT with fidelity. <i>Milestones:</i> Data collected, formative evaluation ongoing with feed-back loops.
Phase 5 – Sustainability, Replication, and dissemination (Sustain M-HIT) (Sept 2029 – Dec 2030)
Transition project structures to permanent OPI and district systems; finalize evaluation and cost-effectiveness report; release open-access resources and replication toolkit. By the 2029-30 SY, all recruited schools will have access to M-HIT. <i>Milestones:</i> Final independent evaluation; Professional learning available on OPI Learning Hub. Final analyses incorporate data from all cohorts.

Exhibit 3. Activity and milestone chart for the management plan

	Responsible Party	Year 1				Year 2				Year 3				Year 4				Year 5				
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
Phase 1																						
Hire Project Director	OPI	✓																				
Finalize Partner MOUs	OPI		X				X				X			X								
Recruit Pilot Districts	PD/OL			X																		
Develop PL plan/modules	PD/PL Team		X	X	✓																	
Eval Approvals	EDNW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Phase 2																						
Recruit 90 schools	PD/OL				X	X																
Deliver PL to sites tutoring, HQIM	PD/PL Team				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Launch Pilot	OL					✓				✓				✓					✓			
Phase 3																						
Additional districts	PD/OL							X	X	X												
Train regional coaches/admins	PD/PL Team									X	X	X	X	✓	X	X	X	✓	X	X	✓	
20 sites	PD/OL									✓	X	X	X	X	X	X	X	X	X	X	✓	
Dissemination activities	EDNW												X	X	X	X	✓	X	X	X	X	
Sustainability Plan Draft	EDNW												X	X	X	X	✓					
Phase 4																						
Transition structures for sustainability	PD																		X	X	X	X
Finalize eval and cost effective report	PD/EDNW																		X	X	X	✓
Release open access resources/ replication toolkit	PD/EDNW																		X	X	X	✓
Phase 5																						
Gather base-line data	EDNW	X	X	✓																		
On-going formative evaluation	EDNW		X		X		X		X		X		X		X		X		X			
Monitor Fidelity	EDNW		X		X		X		X		X		X		X		X		X			
Midpoint data collection	EDNW											✓										

		Year 1		Year 2		Year 3		Year 4		Year 5	
Annual Reports	OPI/EDNW	X	✓	X	✓	X	✓	X	✓	X	
Submit Final Report	OPI/EDNW										✓

Capacity to Scale

The OPI has the organizational capacity, project financing, expertise, and strong partnerships necessary to scale, implement, and sustain statewide initiatives, with a particular focus on initiatives for rural/tribal communities that serve high percentages of high needs students. Leadership for these efforts start with the Montana State Superintendent, who upholds a vision to improve early literacy outcomes. Leadership is also provided by OPI’s Chief Program Officer, [REDACTED], who oversees all initiatives in collaboration with the Assistant Chief Program Officer, [REDACTED], ensuring effective coordination and strategic implementation. Together, they bring 25+ years of educational leadership and federal grant management experience to the project. OPI’s PD team, led by [REDACTED], Senior Manager, with [REDACTED], PD Manager, [REDACTED], and [REDACTED], Instructional Specialists will provide implementation guidance for PD. OPI’s Indian Education Director, [REDACTED], [REDACTED], leads a team of specialists who focus on the unique needs of Montana’s Indigenous students, and partners with Montana Advisory Council on Indian Education (MACIE), which serves as a strong voice for collaboration among tribal, state, and federal organizations. [REDACTED], Senior Manager, [REDACTED] and [REDACTED], will provide implementation support for high-impact tutoring with schools in comprehensive school improvement status.

EDNW the external evaluator and brings deep expertise to large complex, mixed methods studies, including randomized controlled trials. Founded in Oregon in 1966, EDNW has partnered extensively with the OPI and Montana education communities including tribal

communities. The EDNW team, led by [REDACTED] (WWC-certified group design reviewer, version 5.0), has deep expertise conducting evaluations of federally funded education programs designed to meet WWC standards, including a current Education and Innovation Research (EIR) grant (S411C220010), two recently completed EIR grants (U411C170253 and U411C190287), and two current Mid-Phase Post-Secondary Student Success Grants (P116M240146 and P116M240021). Evaluation team members also bring content expertise in early literacy and have evaluated the implementation and impact of interventions intended to improve literacy outcomes.

The unique vendor, OL, founded and led by [REDACTED] has been at the forefront of providing a virtual, 1:1, high-impact tutoring to significantly improve reading achievement for K-6 students. OL's tier 3 solution is evidence-based, anchored in a science of reading curriculum, led by certified teachers, and seamlessly integrated into school schedules. OL has demonstrated a commitment to developing deep partnerships with districts and schools. Their intentional design supports struggling readers of all types.

Project Leadership Team (PLT)

Leaders mentioned above from each partner organization will meet biweekly during the first year to guide planning and early implementation, shifting to monthly meetings once systems are established. Meetings will focus on project milestones, fiscal updates, implementation data, and feedback from district partners. If the project misses a milestone or data show a decline in fidelity or performance, the program director will initiate a corrective action plan. The OPI Budget Analyst and Grant Accountant will track the budget using OPI's financial system, providing monthly reports to the Program Director.

Advisory Board/Feedback Loops

The advisory group will be composed of individuals implementing M-HIT. The group will convene quarterly to share progress, surface challenges, and collectively problem-solve. The group will include the Program Director. It will also include a superintendent, principal, and teacher representative from different M-HIT schools.

Dissemination

EDNW values sharing learning and will broadly disseminate M-HIT findings and support replication through open-source knowledge products, social media, conferences, and publications. The OPI's dissemination efforts will include first-hand visits for educators, policymakers, and funders to experience the M-HIT. This aims to highlight the M-HIT model's power and importance, especially for adding high-impact tutoring to ELTI's existing state funding structure. The OPI will use its webpage and bulletins for updates, learnings, and key results. The OPI communication team will create a video describing the program and outcomes.

Utility of Products across Settings

This grant will produce three key products: Online PD modules, implementation toolkit, and family engagement toolkit. **Online PD modules** that build educator capacity for implementing an MTSS literacy framework, focused on evidence-based reading practices and effective HQIM will be available on the OPI Learning HUB. **An implementation toolkit** will be available on the OPI website. The kit will have resources to guide educators in rolling out high-impact tutoring. The **family engagement toolkit** will be placed on the OPI webpage and offer family resources to support early literacy development.

QUALITY OF THE PROJECT DESIGN

Conceptual Framework

The M-HIT project is an innovative, targeted intervention designed to create immediate

improvements for high-need students. To urgently get results, an action plan has been outlined in the conceptual framework. See Appendix 3 for a detailed logic model.

Exhibit 4: Conceptual Framework

Need & Resources	Implementation	Immediate results	Mid-term effects	Long-term impact
<p>High need to develop high impact tutoring to improve literacy growth in rural/tribal schools serving high need students.</p> <p>Statewide Early Literacy Targeted Intervention Program and Legislative buy-in.</p> <p>OPI invested in providing science of reading-aligned opportunities that can supplement ELTI and accelerate student results.</p>	<p>Provide communications, recruitment, and project management support of implementation and evaluation.</p> <p>Roll out pilot in year one; delayed treatment over years 2–5, ultimately supporting 90 schools over five years with high dosage virtual tutoring opportunities.</p>	<p>High engagement of eligible students within and across participating schools increasing the likelihood that students transfer strategies they are learning in tutoring to tier 1 instruction.</p> <p>Increased educator capacity to understand MTSS components (tiers, data use, and progress monitoring)</p>	<p>Improved literacy opportunities and results in M-HIT schools.</p> <p>Accelerated Reading Growth: High need students achieve over two years of reading progress within an academic year</p> <p>Increased educator capacity to use universal screeners, review assessment data, and make instructional decisions</p>	<p>Improved Literacy Outcomes by addressing learning gaps early for high need students.</p> <p>Scalable Tutoring Model, available to schools and families statewide.</p> <p>Embedded Educator Practice: MTSS becomes embedded in school structures.</p>

Goals, Objectives, and Outcomes

The M-HIT project has four goals and multiple objectives presented in Exhibit 5. All objectives include a deliverable or outcome target to demonstrate achieving the objective.

Exhibit 5: Goals, Objectives, and Sample Outcomes/Deliverables

<p>Goal 1: Increase capacity of rural and tribal MT schools to provide early literacy interventions</p> <p>Objective 1A: Schools have access to certified teachers who provide virtual, 1:1, high impact tutoring to 1-3 grade high-needs students.</p> <p>(Deliverable) Available certified teachers trained in evidenced based literacy practices for tutoring</p> <p>(Deliverable) High-Impact kick-off training session: Educators in the M-HIT schools learn how to use the school data dashboard, tutoring exit tickets, DIBELS, and CORE Phonics to track student growth, progress monitor, and guide instructional alignment between tier 1 and tier 3 instruction.</p>
<p>Goal 2: Provide evidence-based literacy interventions to students in high-needs schools</p>

Objective 1A: Provide high-impact tutoring to focus on foundational skills and comprehension tailored to each student’s needs.

(Deliverable) High-impact tutoring program: Virtual, 1:1 tutoring sessions available with the same tutor, 3 times/week, for 30 minutes each for 12 weeks (or more as needed).

(Deliverable) Individualized Learning Plans: Tutors create plans based on-going student data.

Goal 3: Build educator capacity in evidence-based reading practices

Objective 3A: Educators in all EIR grant schools receive training in core literacy instruction to support a MTSS.

(Outcome) 100% of educators who teach grades k-3 in EIR grant schools receive professional learning on evidence-based literacy instruction, such as science of reading.

Objective 3B: OPI provides resources and technical assistance to teachers to facilitate effective implementation of evidence-based reading strategies.

(Deliverable) OPI will provide a toolkit of strategies for integration of tiered interventions and instruction.

Goal 3: Increase family engagement in the early literacy development of their children

Objective 3A: Expand opportunities and choice for families and communities in all M-HIT schools to engage in, and support, their children’s early literacy development.

(Outcome) 70% of parents and educators in all M-HIT schools who participated in high-impact tutoring report increased awareness, engagement, and curiosity about literacy for their child.

Meeting the Needs

The M-HIT project will successfully address the needs of the students, grade 1-3, attending elementary schools in Montana rural/tribal communities, particularly, economically disadvantaged and Native American students. Section A describes the needs of our targeted population and provides the rationale for how the M-HIT will meet those needs. Our target population’s needs mirror the national trends of declining literacy results. For example, in 2024, 31% of Montana's 4th graders were at or above the National Assessment Educational Progress (NAEP) Proficient level.

QUALITY OF THE PROJECT EVALUATION

EDNW will serve as the independent evaluator of M-HIT and will lead an evaluation designed to meet What Works Clearinghouse (WWC) standards without reservations. The evaluation will be guided by research questions outlined in Exhibit 6.

Exhibit 6: Evaluation Research Questions

Impact Evaluation	Data Source
1. What is the impact of M-HIT on students' mid-year and end-of-year reading achievement (composite and subtest) compared to students without M-HIT? 2. What is the impact of M-HIT on students' end-of-year school attendance compared to students without M-HIT? 3. For grade 3 students only, what is the impact of M-HIT on state assessment reading achievement? 4. What school and student characteristics moderate the impact of M-HIT?	OPI state administrative data Dynamic Indicators of Basic Early Literacy (DIBELS) assessment data from participating districts
Implementation Fidelity Evaluation	
5. What are the key components of M-HIT? 6. What are the thresholds for low, adequate, and ideal fidelity of implementation for M-HIT?	Document review (logic model, project plans, training materials, fidelity rubric)
7. To what extent is M-HIT implemented with adequate or ideal fidelity? How does fidelity vary across schools?	OL participation records, Tutor surveys and focus groups, Tutoring observations, Student surveys
8. To what extent did M-HIT build educators' capacity to use high-quality instructional materials and implement evidence-based reading strategies?	Educator survey and focus groups
9. To what extent did M-HIT increase families' ability to support their children's early literacy development?	Family survey and focus groups
10. What are the implementation successes and challenges? How can M-HIT be refined to address these challenges?	Tutor surveys & focus groups, Tutoring observations, Student surveys, Family survey and focus groups, Educator surveys & focus groups
11. What is the cost of implementing a program like M-HIT?	Document review (project plans, meeting materials, literature review, Cost-Out tool)

Evaluation Designed to Meet WWC Standards Without Reservations

EDNW will design and implement a cluster-level randomized controlled trial (RCT) in which random assignment occurs at the school level while the impacts are analyzed at the student level. The study will be designed to meet WWC group design standards without reservations, testing the impact of M-HIT on outcomes in the WWC reading domains of General

Achievement, Phonology, Oral Reading Fluency, Encoding, and Reading Comprehension (Foorman, et al., 2016).¹ EDNW have data-sharing agreements with the OPI, districts, and OL for all student-level administrative data.

Sample Selection and Random Assignment. OPI will recruit at least 90 schools for the study. During the grant period, 45 schools will be randomly assigned to the treatment group and 45 to the control group. Before randomization, the parents of eligible students (students reading below grade level) will enroll their student in the program and consent to data collection. Schools will be randomly assigned to the treatment or control group. On average, the study aims to recruit at least 20 eligible and consenting students per school, totaling 1,800 students (900 in the treatment group and 900 in the control group). Consented students within the treatment schools will receive the high-impact tutoring during school hours. Consented students within the control schools will not receive the high-impact tutoring during the treatment year, but will receive the high-impact tutoring after the end of the treatment year.

The first cohort of schools will be recruited in the Spring 2026 and randomized to begin implementation during the 2026-27 school year, consisting of 5 treatment schools and 5 comparison schools. This initial cohort will act as a pilot to refine the logic model, project training, and implementation materials for subsequent cohorts. The second cohort will be recruited in Spring 2027, with implementation starting in the 2027-28 school year, and will include 20 treatment and 20 control schools. The third and final cohort will be recruited in Spring 2028, beginning the 2028-29 school year, and will include 20 treatment and 20 control schools. Final analyses, conducted during the 2029-30 school year, will incorporate data from all cohorts. By the 2029-30 school year, all recruited schools will have access to M-HIT. The treatment rollout schedule can be found in the Appendix.

Outcomes. The study will examine the confirmatory outcomes that align closely with the theory of change. The primary outcome, student reading achievement, will be measured using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) for both treatment and control groups in the middle and end of year. Analyses will draw from the composite score as well as subtests, including Letter Naming Fluency (LNF), Phonemic Segmentation Fluency (PSF), Nonsense Word Fluency-Correct Letter Sounds (NWF-CLS), Nonsense Word Fluency-Words Read Correctly (NWF-WRC), Word Reading Fluency (WRF), and Oral Reading Fluency-Words Read Correct (ORF-WRC) and Accuracy (ORF-ACC). These measures are validated indicators of foundational reading skills and aligned with the domains identified in the WWC Practice Guide: *Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade*.¹ In addition to academic outcomes, student engagement will be assessed using attendance rates. Sustained attendance reflects student motivation, connection to school, and exposure to instructional time, all of which are critical for continuous reading growth. Finally, the since only third-grade students are assessed on state summative assessment, the evaluation team will also examine the impact of the M-HIT using the Montana Aligned to Standards Through-Year (MAST) English Language Arts (ELA) assessment and the Dynamic Learning Maps (DLM) Alternate ELA assessment. Tests routinely administered by schools and district-collected records, such as student attendance, are valid and reliable outcome measures consistent with WWC standards (What Works Clearinghouse, 2022).²⁹

Data. Evaluators will use student-level data from the OPI and participating districts, including demographic (e.g., grade level, gender, race/ethnicity, English learner status, special education status, and economic disadvantage status), academic, state assessment, and attendance data. DIBELS will be administered three times per year (fall, winter, and spring). The

beginning-of-year DIBELS assessment will serve as the baseline measure, and the mid-year and end-of-year assessments will serve as the primary outcome measures. Additional outcomes, including school attendance and state reading assessment performance, will be collected at the end of the school year.

Analysis Approach. The evaluation will use multilevel regression models to estimate the intent-to-treat (ITT) impact of the intervention, where students will be analyzed within schools. This will account for the nested nature of the data (students within schools) and control for differences between schools. The equation below models the general two-level approach:

$$Y_{ij} = \beta_{00} + \zeta_k + \beta_{01}PROGRAM_j + \sum_{s=1}^{s-1} \beta_s[s(j) = s] + \beta_1 X_{ij} + \beta_2 BASELINE_{ij} + \beta_{03}SCHOOL_j + \beta_{04}YEAR_t + \varepsilon_{ik}$$

In this model, Y_{ij} is the post-intervention outcome for student i in school j . ζ_k is the random school effect for school k on the relevant outcome. $PROGRAM$ is a binary indicator of randomized treatment, meaning the eligible student is attending a school that offers M-HIT that year. The coefficient of interest in the regression is β_{01} which represents the average causal effect of assignment to M-HIT on the outcome. Because the evaluation will use cluster-level randomization at the school level, the student-level outcome model includes fixed effects for each cluster s , with one cluster omitted for identification ($s-1$ fixed effects). $SCHOOL$ represents a vector of school indicators that capture the blocks within which assignment occurs and will allow for comparison of students in the same school. X_{ij} represents a vector of student-level covariates, including gender, race/ethnicity, English learner status, special education status, and economic disadvantage status which we will include to improve the precision of our estimates (Bloom, 2006; Bloom et al., 2007).³⁰ $BASELINE$ represents pre-intervention reading achievement. $YEAR$ represents a year/cohort fixed effect to account for any macro trends that

might affect students across Montana. ε_{ik} represents the error term or residual for student i in school k .

The evaluation will use Hedges' g or the Cox index to calculate effect sizes for each outcome. In addition to calculated effect sizes, the evaluation will report post-intervention means and standard deviations for treatment and comparison groups, including the correlations between the two. The evaluation will use a WWC-established imputation method for all missing data in the analysis, including both covariates and baseline measures, and individuals with imputed outcome data will be counted as attriting when assessing individual-level attrition.

Attrition. To meet WWC standards without reservations, this study must have low attrition at both the individual (student) and cluster (school) levels. In accordance with the WWC's *Review Protocol for Beginning Reading Interventions 3.0*, the evaluation will use the optimistic/upper boundary to assess attrition since "most attrition in studies of Beginning Reading was due to factors that were not strongly related to intervention status" (p. 8).³¹ School-level (or "cluster level") attrition is likely to be low as all participating schools are required to administer DIBELS and have attendance data. However, if any cluster level attrition does occur, the evaluation will track and document it. Student-level attrition will happen if students do not take the DIBELS during the school year or disenroll from the state.

Baseline Equivalence. If the study has high attrition, the evaluation will demonstrate that students in the treatment and comparison groups are comparable prior to the randomization by calculating the difference between the treatment and comparison groups on measures such as baseline reading achievement and attendance records. In addition, the evaluation will compare demographic characteristics between the treatment and comparison groups since research shows that these are related to our outcome measures (Banks & Dohy, 2019).³² Because randomization

occurs at the school (cluster) level, the evaluation will also assess baseline equivalence between treatment and comparison schools using pre-intervention data aggregated at the cluster level. The evaluation will calculate standardized differences using Hedges' *g*. For binary baseline measures, the evaluation will report the Cox index. Baseline differences less than or equal to .05 are acceptable according to WWC. If baseline measures have differences greater than .05 but less than 0.25, then we will include them as a covariate in the final regression model to adjust for differences.

Statistical power. The power analysis (Dong & Maynard, 2013)³³ indicates that the study will be powered for a minimum detectable effect size (MDES) of 0.18 (two-tailed test, $\alpha = 0.05$, power = 0.80), with 45 treatment schools, 45 control schools, and an average of 20 students eligible to receive virtual tutoring at each school. The intraclass correlation coefficient (ICC) between schools is assumed to be 0.15, student-level $R^2 = 0.50$, and school-level $R^2 = 0.52$, based on studies of academic achievement (Dong et al., 2006; Hedges & Heldberg, 2007).³⁴

Effective Strategies Suitable for Replication or Testing

The study aims to create guidance for replicating and scaling programs like M-HIT using various strategies. The implementation analysis and formative feedback (see below for details) will provide information that outlines conditions best suited for replication while also highlighting conditions that can be barriers to future replication. EDNW will continue to revise the logic model throughout the four years of this program to reflect implementation success and challenges so that it can serve as a starting point for replication efforts. The evaluation team will work with OPI and OL to determine dissemination efforts to share findings and further support replication. The study will also analyze how the impact of M-HIT is influenced by school and student characteristics. Specifically, it will examine variations in impacts based on factors such

as school urbanicity, size, and demographic makeup, as well as student traits like grade level and socioeconomic status. This information will help identify the contexts and populations where the intervention can be most effective for replication.

Lastly, EDNW will conduct a cost effectiveness analysis (research question 11) in the final year of the study using the ingredients method, a verified cost analysis method (Pratt-Williams et al., 2021).³⁵ EDNW will collaborate with OPI and OL staff members and review existing cost effectiveness analyses of similar interventions to create a detailed list of all resources needed to carry out this intervention, differentiating start-up costs from ongoing costs. This list will go beyond the initial intervention components and include aspects of the intervention, such as the personnel, facilities, and time that are essential components. EDNW will then utilize the CostOut tool, developed by the Center for Benefit Cost Studies of Education, to facilitate the calculation. This ensures that others will have a complete and accurate understanding of all components needed to reproduce this intervention. EDNW will then calculate a cost-benefit analysis to determine the ratios of program costs to impacts.

Measuring Fidelity of Implementation

During the Winter and Spring of 2026, the evaluation team will work with OPI and OL program staff to identify key components of the intervention and co-develop an implementation rubric to assess low, adequate, and ideal levels of implementation fidelity (research questions 5 and 6). The rubric will be based on the key components of the intervention established in the program logic model, and the evaluation team will collaborate with OPI and OL program staff to determine the benchmarks for low, adequate, and ideal implementation for each indicator. To address research questions 7-10 and assess implementation fidelity, EDNW will administer a survey to all tutors, conduct focus groups with a sample of tutors, and observe tutoring sessions.

EDNW will also conduct a survey among educators at participating schools and facilitate focus groups with a sample of these educators. It is important to capture the voices and perspectives of students and their families in this evaluation to gain a deeper understanding of their experiences with tutoring and family engagement. To achieve this, EDNW will implement brief surveys for both students and families, along with conducting focus groups with family members. At the end of each tutoring module, students will complete a one-question survey using graphical faces to indicate their feelings, making it easier for young children in grades K-3 to respond.

Evaluating the Proposed Project to Guide Replication of Project Activities

To guide replication of project activities or strategies, EDNW will provide formative feedback to support the development and improvement of project activities. Data will be collected from tutor surveys, tutor focus groups, observations of tutoring sessions, student surveys, and family focus groups. Evaluators will calculate descriptive statistics to analyze close-ended survey questions (e.g. Likert items) and use content analysis to analyze open-ended survey questions and focus group data. This ongoing formative analysis will explore to what extent tutors feel prepared to effectively serve as tutors and the extent students and families feel supported by the tutoring supports. In addition, EDNW will highlight program barriers that arise in the data to inform program improvement. EDNW will schedule regular bi-monthly check-ins with OPI and OL staff to discuss project updates and formative feedback. EDWN will also provide annual reports to OPI that summarize information on the implementation and impact studies, and a final report at the end of the project.