

High-Impact Leadership for School Renewal

Western Michigan University College of Education and Human Development Department of Educational Leadership, Research, and Technology

FY 2017 Supporting Effective Educator Development Grant Program Proposal

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A. Quality of the Project Design (40 points)

(1) The extent to which the proposed project represents an exceptional approach to the priority or priorities established for the competition.

Western Michigan University (WMU) will partner with 15 Intermediate or Educational Service Districts (ISDs or ESAs) from the RNN collaborative to develop leadership capacity in 150 high-need public schools in western Michigan through the ***High-Impact Leadership for School Renewal (HIL Project)***. The WMU **HIL Project** Management Team will train, support, and work with facilitating coaches through the ISD/ESAs to develop the leadership quality and capacity of 600 practicing and aspiring principals over the proposed three-to-five-year project. We will work with 75 schools for 2.5 years (with the other 75 schools serving as a control group); then, provide a 0.5-year intervention to the control schools in year three of the Project. If funding is extended through year five, the Project will repeat the full 2.5 year treatment with the control group schools. The **HIL Project** (a) recruits and prepares school leaders; (b) develops principals' instructional leadership for improving student achievement, school culture and climate, and administrative functions; and (c) provides professional enhancement opportunities for school leaders as required for Absolute Priority 2 (see Appendix F for details). The **HIL Project** also addresses Competitive Preference Priorities 1 and 2 (see page 46-48 for details).

The **HIL Project** will engage practicing and aspiring principals (i.e., teacher leaders with the potential to become principals) in the learning and practice of the ***Seven Dimensions of Learning-Centered Leadership (LCL)*** empirically related to higher student achievement (see Evidence of Effectiveness Form and Table 1). Additionally, the **HIL Project** will guide and coach participating school leadership teams to employ ***Seven Strategic Levers for Systemic Change*** with a research base associated with high integrity and fidelity implementation (HIFI) (see Table 2). Finally, the **HIL Project** employs an adapted model for adult learning in a

complex organization (Waters, Marzano, & McNulty, 2003), called the ***Five Levels of Learning*** addressing: (a) what work is important and why; (b) how to do that work in a contextually appropriate manner (i.e., with integrity); (c) what vital behaviors will produce results; (d) what success looks like (measurable impact); and (e) how to make systems adjustments to achieve results (see Table 3). These five questions address five types of learning and knowing: what is important and why (experiential); what to do (declarative); how to do it (procedural); when to do it (contextual); and how to assess results (evidential). Through the integration of these three major elements—the ***Seven LCL Leadership Dimensions***, the ***Seven Strategic Levers for HIFI***, and the ***Five Levels of Learning***—the **HIL Project** has a solid conceptual framework.

First Element: Learning Modules for the Seven LCL Dimensions. Principals, particularly those in high-need schools, face intensive pressure to raise student achievement. The improvement of teaching and student learning are increasingly understood as the main responsibility of school leadership (Wallace Foundation Report, 2010). Well trained and effective principals can and do make a difference in student learning (e.g., Bossert, Dwyer, Rowan, & Lee, 1982; Goldring & Pasternak, 1994; Hallinger & Heck, 1996; Heck, Larson, & Marcoulides, 1990; Heck & Marcoulides, 1992; Knuth & Banks, 2006; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marcoulides & Heck, 1993; Marzano, Water, & McNulty, 2005; Owings, Kaplan, & Nunnery, 2005; Waters & Kingston, 2005). However, existing mechanisms for developing, certifying, and credentialing principals are not sufficient to develop these competencies and capacities. One shortcoming of the current principal preparation system is the limit to which principal candidates actually experience job-embedded learning around the realities of raising student achievement (Reeves & Berry, 2008).

We developed the *Seven Dimensions of Learning-Centered Leadership (LCL)* with the support of over 11 million dollars of funded projects through the U.S. Department of Education (US DOE) and The Wallace Foundation. Starting with 21 leadership characteristics identified in the Marzano, Waters, and McNally’s meta-analysis study (2005), we extended our research base through 25 additional high-quality studies, created the *Seven LCL Dimensions Framework*; and then tested that framework in two subsequent funded projects. Now, the **HIL Project** will employ the *Seven LCL Dimensions* as the major leadership development content for the *HIL Project*. We will use the LCL Dimensions, training modules, school renewal matrix, and assessments developed in previously funded projects resulting in evidence of impact on student achievement as the core of the **HIL Project** intervention program to develop contextually appropriate and effective leadership capacity. Table 1 provides the research base for the *Seven LCL Dimensions*. Also, see *Evidence of Effectiveness Form*.

Table 1. Seven LCL Dimensions Empirically Associated With Increased Student Achievement

Dimensions	Balanced Leadership *	Elements in Other Research
A. Commitment to school renewal	<ul style="list-style-type: none"> • Affirmation • Change agent • Optimizer • Flexibility • Intellectual stimulation 	<ul style="list-style-type: none"> • Self-efficacy (Smith, Guarino, Strom, & Adams, 2006; Whitt, Scheurich, & Skrla, 2015), self-confidence, responsibility, and perseverance; rituals, ceremonies, and other symbolic actions (Cotton, 2003) • Influencing internal school process such as school policies and norms, teaching practices, and school goals (Crum & Sherman, 2008; Hallinger & Heck, 1996) • The integration of transformational and shared instructional leadership (Marks & Printy, 2003) • Visibility (Witziers, Bosker, & Kruger, 2003) • Purposes and goals (Leithwood & Jantzi, 1999), setting directions (Day, Gu, & Sammons, 2016; Johnson, 2013; Shatzer, Caldarella, Hallam, & Brown, 2014; Supovitz, Sirinides, & May, 2010; Tan, 2016) • Encouraging teachers to take risks and try new teaching methods (Sebring & Bryk, 2000) • Idealized attributes, behaviors and inspiration motivation (Allen, Grigsby, & Peters, 2015; Shatzer et al., 2014).

Dimensions	Balanced Leadership *	Elements in Other Research
B. safe and orderly school operation	<ul style="list-style-type: none"> • Order • Communication • Discipline 	<ul style="list-style-type: none"> • Safe and orderly school environment; positive and supportive school climate; communication and interaction; interpersonal support (Cotton, 2003) • Governance (Heck, 1992; Heck & Marcoulides, 1993); unified governance (Johnson, 2013) • Planning; structure and organization (Leithwood & Jantzi, 1999); redesigning organizations (Day et al., 2016) • Minimize classroom disruptions (Sebring & Bryk, 2000) • Developing policy with a focus on student learning (Johnson, 2013)
C. High, cohesive, and culturally relevant expectations for all students	<ul style="list-style-type: none"> • Culture • Focus • Outreach • Ideals/beliefs 	<ul style="list-style-type: none"> • Goals focused on high levels of student learning; high expectations of students; community outreach (Cotton, 2003) • Climate (Digiorgio, 2008; Heck, 1992; O'Donnell & White, 2005) • Leadership of parents is positively associated with student achievement (Pounder, 1995) • School mission, teacher expectation, school culture (Hallinger & Heck 1996) • Defining and communicating mission; achievement orientation (O'Donnell & White, 2005; Witziers, Bosker, & Kruger, 2003) • Culture (Leithwood & Jantzi, 1999; Schrum & Levin, 2013); teacher collaboration culture (Day et al., 2016) • Collective efficacy (Goddard, 2001; Goddard, Hoy, & Hoy, 2000; Manthey, 2006) • Collective responsibility (Lee & Smith, 1996) • Culturally relevant pedagogy (Boykin & Cummingham, 2001; Dill & Boykin, 2000; Ladson-Billings, 1994, 1995a, 1995b, 1998)
D. Coherent curricular programs	<ul style="list-style-type: none"> • Curriculum, instruction, assessment • Knowledge of curriculum, instruction, and assessment 	<ul style="list-style-type: none"> • Instructional organization (Hallinger & Heck, 1996; Heck, 1992; Heck & Marcoulides, 1993) • Integration of transformational and shared instructional leadership (Marks & Printy, 2003; Dutta & Sahney, 2016) • Supervising, coordinating, managing, and evaluating the curriculum (Witziers, Bosker, & Kruger, 2003) • Instructional program coherence (Newmann, Smith, Allensworth, & Bryk, 2001) • Instructional leadership (Shatzer et al., 2014; Tan, 2016; Whitt et al., 2015)
E. Distributive and empowering leadership	<ul style="list-style-type: none"> • Input • Resources • Visibility • Contingent reward • Relationship 	<ul style="list-style-type: none"> • Shared leadership/staff empowerment; visibility and accessibility; teacher autonomy; support for risk taking; professional opportunities and resources (Cotton, 2003) • Cultivating teacher leadership for school improvement; shared instructional leadership (Marks & Printy, 2003) • Promoting school improvement and professional development (Witziers, Bosker, & Kruger, 2003) • Developing people (Day et al., 2016; Hallinger, 2011; Johnson, 2013; Tan, 2016)

Dimensions	Balanced Leadership *	Elements in Other Research
		<ul style="list-style-type: none"> • Teacher empowerment (Louis & Marks, 1997) • Distribution of leadership (Day et al., 2016; Schrum & Levin, 2013; Tan, 2016); collaborative leadership (Hallinger & Heck, 2010; Heck & Hallinger, 2010) • Individual consideration (Allen et al., 2015) • Professional community (Louis, Marks, Kruse, 1996; Marks & Louis, 1997; Spillane, Shalveson, & Diamond, 2001) • Social trust (Sebring & Bryk, 2000); trust and collaboration (Supovitz et al., 2010) • Engaging community and connecting with district leadership (Johnson, 2013)
F. Real-time and embedded instructional assessment	<ul style="list-style-type: none"> • Curriculum, instruction, assessment • Knowledge of curriculum, instruction, and assessment 	<ul style="list-style-type: none"> • Instructional leadership; classroom observation and feedback (Cotton, 2003); observation and performance management (Day et al., 2016) • Instructional organization (Hallinger & Heck 1996; Heck, 1992; Heck & Marcoulides, 1993) • Transformational and shared instructional leadership (Marks & Printy, 2003; Dutta & Sahney, 2016) • Monitoring student progress (Witziers, Bosker, & Kruger, 2003) • Instructional program coherence (Newmann, Smith, Allensworth, & Bryk, 2001) • Active support of instruction (Supovitz et al., 2010)
G. Data-informed decision-making	<ul style="list-style-type: none"> • Monitor/evaluate • Situational awareness 	<ul style="list-style-type: none"> • Opportunity to learn; learning time; and teacher practice (Hallinger & Heck 1996) • Supervising and evaluating the curriculum (Witziers, Bosker, & Kruger, 2003) • Information collection (Celio & Havey, 2005; Leithwood & Jantzi, 1999; Shen & Cooley, 2008; Shen et al., in press) • Organizational learning (Mark, Louis, & Printy, 2000). • use of data (Anderson, Leithwood, & Strauss, 2010; Day et al., 2016; Johnson, 2013)

* Elements from Marzano, Waters, & McNulty (2005)

Table 1 illustrates that the *Seven LCL Dimensions* represent current knowledge from research and best practice. The *Seven LCL Dimensions* are based on two streams of literature. The first stream includes large-scale meta-analyses, such as those conducted by Marzano et al. (2005) and Cotton (2003). These are quality syntheses of the literature on the relationship between principal leadership and student achievement; however, meta-analyses have requirements for (and, thus, limitations on) the type of original studies included.

To offset this limitation, the second stream of our literature includes those influential studies that were not included in the meta-analyses and either generate or confirm such research supported ideas as the integration of transformational and shared instructional leadership (Marks & Printy, 2003); collective efficacy (Goddard, 2001; Goddard, Hoy, & Hoy, 2000; Manthey, 2006); collective responsibility (Lee & Smith); culturally relevant pedagogy (Boykin & Cunningham, 2001; Dill & Boykin, 2000; Kadson-Billings, 1994, 1995a, 1995b, 1998); instructional program coherence (Newmann, Smith, Allensworth, & Bryk, 2001); professional community (Louis, Marks, & Kruse, 1996; Marks & Louis, 1997); social trust (Sebring & Bryk, 2000); and organizational learning (Mark, Louis, & Printy, 2000). By augmenting research findings from meta-analyses with direct findings from major empirical studies, we maintain up-to-date knowledge from research-supported leadership practice for the ***Seven LCL Dimensions***. Findings from the evaluation of our most recently completed US DOE funded School Leadership Program indicates that the ***LCL Model*** is the kind of integrated school leadership that really matters to student achievement (Shen et al., under review). Additionally, a cross-reference table (Appendix G) shows strong alignment between the ***Seven LCL Dimensions*** and the Michigan approved principal evaluation instruments (Michigan Council for Educator Effectiveness, 2013).

Second Element: Training, Facilitating and Coaching on Seven Strategic Levers for achieving high integrity and fidelity implementation (HIFI) of change initiatives. For principals, there is evidence that using a menu of potentially high-impact behaviors and actions can expand practice repertoire, but there is also evidence that principals need (a) situational awareness and contextual understanding to inform where, how, and when to employ specific leadership practices and (b) a systemic approach for integrating those practices (Fullan, 2007). To achieve that situational and contextual understanding, principals must draw upon evidence

and data, and there has been some progress in developing principals' capacity to do that (Shen et al., 2012). Without a systems approach, however, principals face challenges in establishing evidence-based and data-informed processes in their schools.

This gets to the crux of the problem. Principals need systemic models for how to prioritize, map, align, monitor, and adapt in ways that best fit their school. This is necessary for achieving high integrity and fidelity implementation (**HIFI**) of change initiatives to change the profile of student achievement in one or more critical areas of student success (Fullan, 2007). The **HIL Project** will help school leaders learn how to employ seven research-supported strategies to establish a systemic model for achieving both high integrity and high fidelity implementation (**HIFI**) of a research-based student success initiative. We define implementation integrity and fidelity (i.e., **HIFI**) as implementation that adheres to the foundational principles, ideas, and theories of a research-supported initiative in a manner that is contextually appropriate for the school. We will work with and through principals to assess their school context and contextually apply the theories and principles of the *Seven Strategic Levers for HIFI* in the **HIL Project** schools in order to achieve **HIFI** with a specific research-supported school renewal initiative for raising student achievement.

Table 2. *The Seven Strategic Levers Empirically Associated with Implementing Change*

Strategic Lever	Researchers/Sources	Alignment to Seven Dimensions
1. Purveyors of Change: i.e., School-wide ownership and distributed leadership; Highly committed and invested co-leaders	<ul style="list-style-type: none"> • Fixsen, Naoom, Blasé, Friedman, & Wallace (2005) • Louis, Leithwood, Wahlstrom, & Anderson (2010) 	LCL Dimension E
2. Robust evidence and data-informed processes: i.e., Instructional rounds, data teams, inquiry processes	<ul style="list-style-type: none"> • Elmore, Fiarman, & Teitel (2009) • Reeves & Burt (2006) • Shen, Cooley, Ma, Reeves, Burt, Rainey, & Yuan (2012) 	LCL Dimension G

Continuation of 2: Robust evidence and data-informed processes: i.e., Instructional rounds, data teams, inquiry processes	<ul style="list-style-type: none"> O'Donnell (2008) 	LCL Dimension G
3. Evidence-based performance profiles to identify growth edges and determine priorities for growth and improvement	<ul style="list-style-type: none"> Reeves & McNeill (2011) Reeves (2006) 	LCL Dimension G
4. Vital behaviors and six sources of influence for change	<ul style="list-style-type: none"> Grenny, Patterson, Maxfield, McMillan, & Switzler (2013) Keagan & Lahey (2009) 	LCL Dimensions B, C and E
5. Culture of reflective practice and evidence-based self-assessment	<ul style="list-style-type: none"> Reagan, Case, & Brubacher (2000) Topping, K. (2003) 	LCL Dimensions A, C, E and F
6. Cognitive coaching to develop autonomous learners and leaders	<ul style="list-style-type: none"> Costa & Garmston, (2015) 	Dimensions A and E
7. Scale-up strategies with leading and lagging indicators	<ul style="list-style-type: none"> Harnish (2014) 	Dimension G

Since implementation of any change initiative is a matter of changing expectations, assumptions, and behaviors (i.e., practices) (Keagan & Lahey, 2009), high integrity and fidelity implementation calls for a well-aligned strategic and systemic approach. Principals are not typically prepared as systemic leaders (Hallinger, 2009); rather they are usually prepared to respond more situationally within policies and systems prescribed through district or external channels (Elmore, 2006). In order to implement complex school renewal initiatives, however, principals need to be able to see their schools as systems and develop strategic responses to where and how the systems in the school (including the systems of human capacity and cultural values/beliefs) do and do not align with what it takes to achieve high integrity and fidelity implementation (**HIFI**) (Senge, 2014). As Fixsen et al. found in their 2005 review of the implementation research, principals can be trained, coached and developed into more systemic leaders, but they need help isolating and attending to behaviors that are necessary to make major sustainable changes to established school practices, processes and systems. Additionally, principals need help in identifying where and how to exert the influences that motivate and

enable other actors in the school to adopt “vital behaviors” that align with the desired change (Grenny et al., 2013). If a principal can build a network of change purveyors (Fixsen et al., 2005), the school can begin to move toward a “tipping point” (Schmoker, 2004) of behavior change, where the innovation begins to scale up (Harnish, 2014) and permeate the school. By providing on-site facilitating coaches who are trained in both the **Seven LCL Dimensions** and the **Seven Strategic Levers**, the proposed project will develop both the principal’s and aspiring principals’ capacity to employ systemic approaches to achieve **HIFI** with research supported school renewal strategies.

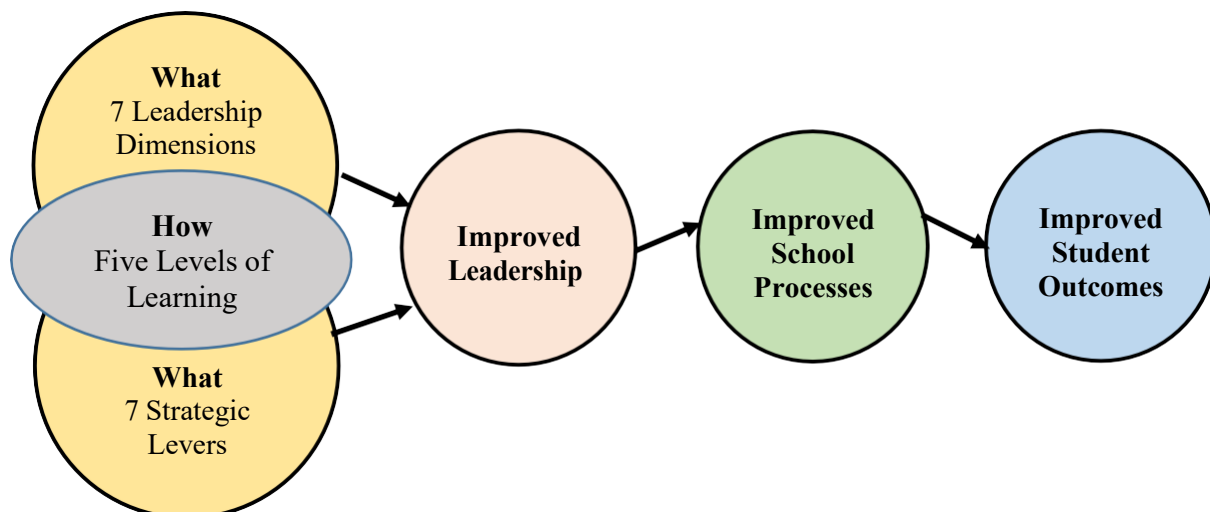
Third Element: Applying Five Levels of Learning in a complex system to train, coach, and support practicing and aspiring principals. With the **Seven LCL Dimensions** and the **Seven Strategic Levers** as the content, we will employ the **Five Levels of Learning Process** for adult learning in complex organizations (adapted from Waters, Marzano, & McNulty, 2003). As illustrated in Table 3, the **HIL Project** will provide principals and aspiring principals a continuum of learning at five levels that support job-embedded, action and results oriented learning. Differing from much of the principal preparation and professional development learning, the **HIL Project** will engage participants in learning at different levels, ranging from (a) *experiential*, to (b) *declarative*, (c) *procedural*, (d) *contextual*, and (e) *evidential*. With the support of a facilitating coach, the school’s stakeholders, and the project staff, each team of practicing and aspiring principals will “learn” their way into planning and actually implementing research-supported renewal initiatives with the goal to achieve both **HIFI** and positive change in student outcomes. Thus, the evaluation component of the **HIL Project** will focus on both changes in the school conditions that support teaching and learning and changes in student results.

Table 3. Five Levels of Learning: A Seamless, Action-oriented Approach

Five Levels of Learning (Knowing the following)	Training for assessing and applying the Seven LCL Dimensions	Coaching for developing school renewal activities	Coaching for applying the Seven Strategic Levers for HIFI	Coaching to support ongoing learning and adaptation
Experiential: what is important & why	X			
Declarative: what to do	X			
Procedural: how to do it		X	X	
Contextual: when to do it			X	
Evidential: what results to look for and how to make adjustments				X

In summary, there are three elements of the conceptual framework for the proposed project, with a purpose to connect the content (“what”) with the process (“how”) so that the proposed project will make its impact on practicing and aspiring principals, teachers and schools, and ultimately students. The following is a schematic presentation of the conceptual framework of the project (Figure 1).

Figure 1. A Schematic Presentation of the Conceptual Framework of the Project



Details of the Proposed HIL Project

Five Types of Learning Activities

The **HIL Project** will provide participants with five major groups of learning activities. ***First***, the school teams will participate in workshops with learning modules focusing on *experiential and declarative knowledge* related to the ***Seven LCL Dimensions*** and the ***Seven Strategic Levers for HIFI***. The workshops will adhere to the theories of adult learning. ***Second***, as extension of each workshop, each school team will work with a facilitating coach and the school's stakeholders to examine and reflect upon their school's current status on each of the ***Seven LCL Dimensions*** as they relate to implementing a specific school renewal initiative to improve student outcomes. The team of practicing and aspiring principals will then develop renewal activities in specific dimensions, as indicated by the school's leadership status profile, to strengthen the leadership capacity for leading the renewal initiative.

Third, school teams will develop a systemic approach to achieve high integrity and fidelity implementation (**HIFI**) of their school renewal initiative. The poor track record for full, high fidelity implementation of high impact improvement strategies is one of the most persistent (and costly) challenges facing K-12 schools today (Eck, Bellamy, Stringfield, Schaffer, & Reynolds, 2011). Research findings are sufficient to greatly inform essential practices that correlate positively with improved student outcomes; yet, study after study illustrates the challenges that schools face embedding research-supported improvement strategies into school routines, school culture, and every day practices (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005). The facilitating coaches will work with the school leadership teams and their stakeholders to determine where and how they need to apply the ***Seven Strategic Levers*** for achieving **HIFI** of the school's research-supported renewal initiative.

Fourth, the participants, the project staff, and facilitating coaches will form a learning community, sharing and reflecting upon their thinking, actions, and evidence. The facilitating coaches will assist the school leadership teams in using a variety of means to reflect, assess, analyze and interpret progress and adapt as needed to achieve **HIFI** and the intended student impact. This will include developing and annually updating personal and school performance profiles, annual priority and goal-setting, and growth planning for continuous progress in alignment with the district's State approved performance evaluation system. *Fifth*, participating school teams and coaches will participate in real-time and on-line engagement within and across participating school teams to extend their learning communities to the schools within their **HIL Project** cohort (three sub-cohorts of 25 schools each).

Project team qualifications. HIL Project co-directors, Shen and Reeves and the other members of the Western Michigan University (WMU) Project management have extensive experience working with Michigan principals. In partnership with other organizations, they received funding from the US Department of Education (2002-05, 2010-15, 2013-18), the Michigan Department of Education (2005-06), and the Wallace Foundation (2000-02, 2005-2010), to conduct professional development for practicing and aspiring principals. As Principal Investigator for the above referenced grant initiatives, Dr. Shen is an internationally recognized scholar in principal leadership. Additionally, **HIL Project** co-director, Dr. Reeves, co-authored School ADvance, one of three school leader performance evaluation systems validated by the Michigan Council for Educator Effectiveness (2013) and currently adopted by over 80% of Michigan school districts. She also developed the model for Michigan's performance-based value-added credentialing system (Reeves & Berry, 2008) and co-developed the Michigan specialty and enhanced endorsement programs for district leaders (Reeves, 2009, 2013).

We learned a great deal from these activities, and also conducted extensive research on the various aspects of school leadership which informs the **HIL Project** (e.g., Burt, Cooley, Shen, Reeves, Yuan, 2008; Reeves & Burt, 2006; Cooley & Shen, 1999, 2000, 2003; Cooley, Shen, & Ruhl-Smith, 1998; Hsieh, & Shen, 1998; Keiser & Shen, 2000; Portin & Shen, 1998; Portin, Shen, & Williams, 1998; Rodriguez-Campo, Rincones-Gomez, & Shen, 2005, 2008; Ruhl-Smith, Shen, & Cooley, 1999; Ruhl-Smith, Smith, Cooley, & Shen, 2000; Shen, 2001; Shen et al., 2005; Shen & Cooley, 2008; Shen, Cooley, Ma, Reeves, Burt, Rainey, & Yuan, 2012; Shen, Cooley, Reeves, Burt, Ryan, Rainey, & Yuan, 2010; Shen, Cooley, & Wegenke, 2004; Shen & Crawford, 2003; Shen & Hsieh, 1999; Shen, Cooley, Ruhl-Smith, 1999; Shen, Cooley, Ruhl-Smith, & Keiser, 1999; Shen, Cooley, & Wegenke, 2004; Shen, Leslie, Spybrook, & Ma, 2012; Shen, Ma, Cooley, & Burt, 2016a, b; Shen, Rodriguez-Campo, & Rincones-Gomez, 2000; Shen & Xia, 2012; Poppink & Shen, 2003; VanderJagt, Shen, & Hsieh, 2001; Xie & Shen, 2013; Reeves & McNeill, 2011). Additional information on our Project Management Team is discussed in Section C.2: The Quality of the Management Plan (Also, see Appendices A and K).

The proposed project capitalizes on our learning and the needs of the participating schools with high-needs students. The findings from our research and experience with previously funded projects indicate that the **HIL Project** is sorely needed, because it (a) incorporates current knowledge on principal leadership and student achievement; (b) engages practicing and aspiring principals in learning dimensions of principal leadership that are empirically related to higher student achievement, and (c) guides participants in applying seven strategic levers for HIFI with a high stakes renewal initiative to improve student outcomes in a critical area (i.e., literacy). The following illustrates how the program will be conducted.

Curriculum. As previously discussed, the **HIL Project** content is the (a) seven empirically supported dimensions of principal leadership, (b) seven strategic levers for achieving HIFI, and (c) the five levels of results and action oriented adult learning. Participants will apply all three as the mechanism to implement the school's specific research-based renewal initiative to achieve student learning goals.

Participants. 150 teams of practicing and aspiring principals (i.e., 150 practicing principals and 450 aspiring principals, for a total of 600 participants) from high-need schools in the RNN Collaborative will participate in the **HIL Project** over a five-year period. The 150 schools will be randomly assigned to either Cohort A (the initial treatment group of 75 schools) or Cohort B (the initial control group of 75 schools). If the project is funded for three years, Cohort A will receive the full Project treatment for 30 months and Cohort B (the Control group) will only receive a six-month abbreviated training and limited coaching in year three. If funded for five years, Cohort B will also receive the full 30-month treatment. Each participating school will have a team of one practicing and three aspiring principals, plus the facilitating coach.

Duration of the Project. The 150 teams of practicing and aspiring principals will be randomly assigned into two cohorts. Cohort A, with 75 school teams (i.e., 75 practicing principals and 225 aspiring principals) will participate in the 30-month program from October 2017 to March 2020. Immediately after the Cohort A finishes, the Cohort B (with 75 practicing principals and 225 aspiring principals) will start the program in March 2020 and conclude in August, 2020, unless funding is extended through years four and five, in which case Cohort B will conclude in July of 2022. As will be discussed in the Project Evaluation section, the methodology of random assignment with delayed treatment allows us to have a rigorous design to investigate the impact of the program and provide evidence of internal validity. The possibility

of funding for either 36 or 60 months allows us to (a) develop a rigorous design by recruiting 150 schools and randomizing them into two cohorts and (b) fulfill the project's obligation to at least train the second cohort, a practice that will help with the recruitment and stability of the research design.

Facilitating Coaches. Coaching is important for professional development (Darling-Hammond et al., 2007; Wallace Foundation, 2007). Each facilitating coach will spend one-two days per week in each school as needed, working with practicing and aspiring principals on their school renewal work (see ***Learning Activities***, p. 11). Facilitating coaches are experienced, successful school leaders, facilitators, and professional developers who are, or will be, employed or contracted by the ISDs or ESAs that serve participating schools. The Project Management Team will train, develop, and support the facilitating coaches on the content and processes of the **HIL Project**. Facilitating Coaches will participate in all learning activities with their assigned school teams and will meet monthly with the Coaching Coordinators and HIL Project Management Team to debrief, refine, and adjust their work where needed based on formative project data.

On-line Learning Activities. The **HIL Project** will use advanced online communication technologies to help deliver interactive learning experiences in an on-line learning community. The on-line learning component is oriented toward three tasks: (a) read or view, react to, and discuss on-line learning resources related to the ***Seven LCL Dimensions*** and the ***Seven Strategic Levers***; (b) develop and share matrices of school renewal activities; and (c) exchange ideas and experience related to carrying out school renewal activities. Project Management Team member and WMU Associate Professor of Educational Technology, Dr. Brian Horvitz, will provide the

technology training and support. He will also coordinate and oversee the production of video training and dissemination resources.

Assessment. The assessment for participants will be based on the performance of the school, the principal, and the leadership team of principal and aspiring principals. Each participant will work with the Facilitating Coach to develop evidence-based performance profiles and growth plans that (a) align with the school's principal evaluation system, (b) establish priorities among possible growth edges that support the school's renewal work, and (c) contextually apply (as appropriate for the performance profile of the school) the **Seven LCL Dimensions** and the **Seven Strategic Levers**. Each school team will also receive reports on principal leadership, school process and student achievement data collected for the purpose of Project Evaluation. Facilitating Coaches will assist school teams in utilizing the data from these reports plus formative data collected on student performance measures, school process measures, and other measures to guide school renewal work.

Learning Communities. The project will form learning communities within and across school teams. The 75 schools in both cohorts A and B will be divided into three sub-cohorts of 25 school teams each to foster more engagement and relationship building across school teams. The on-line engagements will augment direct on-site and cohort training workshops and venues for engagement and collaborative learning, all of which are effective strategies for professional development (Grossman & Wineburg, 1999; Grossman, Wineburg, & Woolworth, 2001; Hadar & Brody, 2010; Vescio, Ross, & Adams, 2008; Watson, 2014). This job-embedded, results and action oriented nature of the **HIL Project** professional learning activities will make the work more meaningful, because the participants will engage in renewal activities as part of their jobs and a culture of shared leadership. Since the work will focus on a school renewal initiative to

which each participating school has already committed, participating school teams will experience collaboration consistent with adult learning for second-order change (Donaldson, 2001; Fullan, 2001; Merriam & Caffarella, 1999; Tennant & Pogson, 1995).

The **HIL Project** delivery model is appropriate for adult learners and has the characteristics of successful professional development programs as summarized from many studies by Darling-Hammond (1995):

1. Experiential engagement in concrete tasks
2. Grounding in participants' questions, inquiry, and experimentation as well as profession-wide research
3. Collaboration, involving sharing of knowledge and experience
4. Sustained and intensive learning experiences, supported by modeling, coaching, and problem solving around specific problems of practice connected to other aspects of school change

Incentives for Participants. A budget of [REDACTED] is allocated for each school (i.e., each team of practicing and aspiring principals). The funds will be used for developing and implementing the renewal activities in their schools, consistent with the district's financial rules. Participating districts will provide matching resources to support the renewal work of the school team.

Participation by the School District Personnel and Changing Working Conditions. Sometimes conditions outside the principal's control might be a barrier to achieving school goals. In order to minimize such barriers, school district personnel will be invited to participate in some of the workshop and coaching activities where such participation could increase central office understanding and support of the school renewal work. Paying attention to improving

both (a) participants' knowledge, skill and behavior, and (b) the conditions under which the participants work will contribute to the success of the project. Additionally, the facilitating coaches will assist participating principals in utilizing the performance profiles and growth plans they develop with their leadership team to communicate with the administrator who does the principal's performance review to foster the principal's personal efficacy, ownership, and proactivity in the formal performance evaluation process.

Summary for A (1) Quality of the Project Design: How the HIL Project Addresses Priority 2

Pages 1-17 provides a detailed description of the HIL Project and all the components that render it a high quality initiative for SEED Grant funding. All aspects of quality are addressed including quality of empirically supported content, empirically supported process, proven track record of effectiveness in developing principal and aspiring principal (as well as district) leadership capacity for improving student achievement, and strong collaborative partnership with a significant state-wide school renewal initiative endorsed by the Michigan Legislature, Department of Education, and all the professional associations with school administrator members. The following summarize the specific ways that the HIL Project addresses the (a), (b), and (c) aspects of project quality:

- a) Recruiting and Preparing Prospective Leaders:*** The **HIL Project** team will work with school principals in the 150 most high-need schools from the RNN Collaborative and recruit three teacher leaders from each school who have the potential to become principals to participate as part of each school's leadership team for this project.
- b) Providing Professional Development to current leaders.*** The **HIL Project** facilitating **coaches** will work with the principal and teacher leaders (aspiring principals) to develop school renewal leadership plans that draw upon the ***Seven Dimensions of Learning Centered***

Leadership and employ Seven Systemic Change Levers to achieve High Integrity and Fidelity Implementation (HIFI) of the school’s renewal initiative. The content for this professional development was developed through previous grant initiatives with evidence of effectiveness (See Evidence of Effectiveness Form).

c) ***Providing Professional Development Enhancement for Leaders.*** Michigan has implemented requirements for research-based, validated performance evaluations for school leaders. The HIL project will work with the participating principals to develop evidence based performance profiles based on the district’s state approved evaluation instrument, and use those profiles to develop performance growth plans that respond to the school’s status and renewal priorities. Additionally, HIL Project coaches will assist each school’s leadership team in the application of the learning modules referenced above in a manner that is appropriate for the current context of the school.

The HIL Project also addresses the *Aligning to the Needs of Project Partners, the State of Michigan, and the Districts/Schools* aspect of the Quality requirements which is detailed in Appendix F and Sections A (3), (4), and (5) on the following pages.

(2) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

Quality. The **HIL Project** is a quality program. *First*, there is a strong conceptual framework underling the proposed activities. The content of the program (i.e., the *Seven LCL Dimensions* and the *Seven Strategic Levers*) and the *Five Levels of Learning* process that connect the “what” and the “how” to the “when” and “evidence” elements of adult learning that changes behavior in ways leading to different and better results. The quality and coherence of the program are enhanced by a job-embedded, action and results-oriented school renewal initiative

with an emphasis on student learning. **Second**, the proposed project takes into account the conditions under which practicing and aspiring principals work (Wallace Foundation, 2006). Too often a project is just on improving the knowledge, skills, and behaviors of practicing and aspiring principals, with no attention to the context and condition under which they work. The **HIL Project** will assist school teams in assessing the condition and context of their schools to prioritize and pursue the most critically important leadership development work for achieving change that actually translates to improved student outcomes. Additionally, including district-level personnel in training and coaching experiences will increase support for practicing and aspiring principals to apply what they have learned. **Third**, the **HIL Project** derives a high degree of quality from the empirical research evidence upon which it is based (See Tables 1, 2, & 3, plus Evidence of Effectiveness, and Appendix K. Bibliography). Besides being richly supported by the research of others, our work on the US DOE funded **Learning-Centered Leadership Program** (a prototype of the **HIL Project**) showed positive effects on school process and student achievement (Burt, Shen, Leneway, & Rainey, 2014; Shen & Burt, 2015; Reeves, Palmer, McCrumb, & Shen, 2014; Shen et al., under review).

Intensity. The proposed activities also constitute an intensive program. **First**, each school leadership team will participate in all five major intensive learning activities (see pages 11-12 for Learning Activities details). **Second**, each year, the HIL Project provides 4 days of workshops whereby participating school teams will convene in three 25-school sub-cohorts, and at least 35 days of in-school work with the facilitating coach. The above amounts to minimum of 88 days of direct contact over a period of 2.5 years. The result will be an intense and sustained leadership development experience for all **HIL Project** participants.

Duration. Too often professional development equates to a workshop on a single day. The proposed program is for 2.5 years and is sustained through weekly interactions between the school teams and facilitating coaches. Participants will engage in five levels of learning during the 2.5 years and engage in the iterative process of school renewal—ranging from designing school renewal activities with integrity; carrying out designed activities with fidelity; and reflecting upon the process. In summary, the proposed **HIL Project** will provide exceptional quality, intensity, and duration for developing principal and potential leadership capacity. Our 2.5 year program is also consistent with the duration argued in the literature (Hargreaves & Fink, 2003; Leithwood & Seashore-Louis, 2011; Miller, 2013; Mitgang, 2012).

(3) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.

The proposed project creates a partnership between Western Michigan University (WMU), the Michigan Reading Now Network (RNN) and the Michigan Association of Intermediate School Administrators' (MAISA) General Education Leadership Network (GELN). RNN and GELN are partnering to achieve full implementation of research-based literacy essentials in all elementary schools in Michigan. Both RNN and GELN coordinate their work on this renewal initiative and three members of their leadership groups will serve as liaisons to the **HIL Project**: Dr. Kyle Mayer, Doug Greer, and Dr. Joanne Hopper. Through the **HIL Project**, WMU will provide the leadership development component in order to equip each participating school with principals and potential future principals who have the capacity to implement high impact school leadership. While the RNN and GELN partners are currently focusing on implementation of a specific literacy initiative, they are also hoping to build leadership capacity for overall student success and successful implementation of any research supported change

initiative; in other words, they are looking to build school capacity for student success both specifically for literacy and generally for other areas of student success. The **HIL Project** leadership development will transcend various research-based school renewal initiatives by developing the leadership capacity to design contextually appropriate renewal strategies and implement those strategies with integrity and fidelity.

The Michigan Department of Education (MDE) is an additional collaborator. MDE and the Michigan State Legislature have both endorsed the RNN/GELN initiative and MDE has endorsed the two empirically supported leadership development strategies included in this proposal (i.e., the *Seven LCL Dimensions* and the *Seven Strategic Levers for HIFI*). Finally, but most important, the intermediate school districts (ISDs), educational service agencies (ESAs) and local school districts (LEAs) that affiliate with the 150 participating schools for the proposed project will be partners and collaborators through an Advisory Group with representatives from stakeholders and partners of the Project.

(4) The extent to which the services to be provided by the proposed project are focused on those with greatest needs.

From the 144 districts that have signed commitments to the RNN school renewal initiative, at least 178 individual elementary schools are above 50% students qualifying for free/reduced lunch. The characteristics of these 178 schools are compared with the state average. As illustrated in Table 4, the 178 schools from which we will draw 150 schools to join the project, are disadvantaged in every aspect of student background and achievement. This project focuses on those schools with the greatest needs. The sample of targeted schools includes both large, urban and small, rural schools (See Appendices D and E for the list of 178 schools and

Local District, ISD, and ESA commitments). Table 4 demonstrates an overview of the characteristics of the schools that populate the pool of 178 high-need schools.

Table 4. Characteristics of Participating Schools (In Comparison to the State Average)

Item	Weighted Average (%)	State Average (%)
Free-and-reduced lunch rate	71	46
Minority rate	44	33
English language Learner rate	11	6
Special education rate	13	13
M-STEP reading proficiency rate	34	47
M-STEP math proficiency rate	27	37
M-STEP overall proficiency rate	30	37
M-STEP 3 rd grade math proficiency rate	32	45
M-STEP 3 rd grade reading proficiency rate	32	46
M-STEP 4 th grade math proficiency rate	29	44
M-STEP 4 th grade reading proficiency rate	31	46
M-STEP 5 th grade math proficiency rate	22	34
M-STEP 5 th grade reading proficiency rate	37	51

(5) The extent to which the design of the proposed project is appropriate to, and will successfully address, the needs of the target population or other identified needs.

The *LCL Dimensions* and *HIFI Strategic Levers* are critical for leadership development in districts that serve high-need student populations. They represent empirically supported leadership dimensions associated with improved student achievement and empirically supported strategies for achieving high integrity and fidelity implementation of research supported change initiatives. Using both, the **HIL Project** will engage principals and aspiring principals in deep analysis of their school's unique characteristics, student population, and achievement status as the means for setting priorities for renewal and change and for mapping out a plan for progressively achieving that change. The **HIL Project** will help school leadership teams assess their status in a multi-dimensional way in order to shape leadership focus and strategies in a way that holds integrity for the school and the students the school serves. Additionally, we will work with the school teams to better understand where and how their school systems and conditions

are, or are not, aligned with student needs, research-supported practices that correspond to those needs, and local capacity to support positive change.

The **HIL Project** will train and develop principals and aspiring principals who (a) are armed with an empirically supported “playbook” of high impact leadership strategies; (b) know how to develop a multi-dimensional profile of the school’s current status; (c) can set priorities for school renewal and change; (d) can use a systems approach to implement a research supported renewal initiative; and (e) know how to apply various levers to achieve high integrity and fidelity of renewal or change initiatives. We will support participants to develop the habits of reflective practice, personal ownership and autonomy for assessing and developing performance, and authentic conversations that cultivate shared ownership and leadership for school renewal.

B. Significance (15 points)

(1) The importance or magnitude of the results or outcomes likely to be attained by the proposed project, especially improvements in teaching and Student Achievement.

The Results or Outcomes of the Proposed Project. The proposed project will help the participating schools and school districts achieve important results during the project period that the schools and school districts will not otherwise achieve. The project aims to:

1. Improve the knowledge, skill, and behavior of 150 practicing and 450 aspiring principals;
2. Improve teaching and learning in participating schools and set an example for others;
3. Raise student academic achievement for participating schools; and
4. Employ a model of professional development for principals that could be scaled-up and sustained by the Michigan Department of Education, Michigan Association of Secondary

School Principals, and Michigan Elementary and Middle School Principals Association (together they train about 200 principals each year).

These results are important for the participating schools and school districts. They are also important for dissemination and replication. The coalition of 150 participating schools representing the 144 local school districts and 15 ISDs/ESAs in the RNN, along with the scale-up efforts by all the state administrator associations and the Michigan Department of Education, will serve as the foundation for a significant magnitude of results.

Characteristics of the Project: The First Reason that Ensures Outcomes. The likelihood of achieving the targeted importance and magnitude of the results derives from (a) the support from the participating school districts, (b) current knowledge based on empirical research, (c) the delivery strategy that takes into account characteristics of adult learning and the complexity of school renewal, and (d) the sufficient level of quality, intensity and duration to ensure the impact. Please see Table 5 below for specifics.

Table 5. *Characteristics of the HIL Project that ensure the outcomes*

Characteristics	Description
1. Support from the participating school districts and other organizations.	<p>We have the letters of support from:</p> <ul style="list-style-type: none"> • School districts, ESAs and ISDs for the pool of 150 Projectschoools. • The Michigan Department of Education, the RNN and GELN Collaboratives, and the professional associations for Michigan school administrators (MASA, MASSP, MEMSPA)
2. The research base of the content and the fit with the school needs.	<ul style="list-style-type: none"> • Content of the proposed project, The Seven LCL Dimensions empirically related to higher student achievement and Seven Strategic Levers empirically related to HIFI • Content is appropriate for principals of high needs schools and urgently needed by the participants.
3. Delivery of the project takes into account the characteristics of adult learning and is job-embedded and renewal-oriented.	<ul style="list-style-type: none"> • The learning during the program includes <i>experiential, declarative, procedural, contextual, and evidential learning</i> (adapted from Waters, Marzano, & McNulty, 2003). • Project activities are renewal-oriented and focused on both implementation integrity and fidelity. • Intensive and sustained facilitating coaching will guide participants to implement their learning in contextually appropriate and important ways.
4. The proposed project is of sufficient quality,	<ul style="list-style-type: none"> • The Project utilizes high quality, empirically tested content (see point 2 above).

intensity, and duration to lead to improvements in school leadership.	<ul style="list-style-type: none"> • It is also intense and sustained, with 88 days of direct contact for participants • The management and coaching teams will continually monitor and adjust the Project design and implementation • If funded for 5 years, both the initial treatment group of 75 schools and the control group will receive a full 30 months of intense intervention.
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Partnership: The Second Reason That Ensures Outcomes. The second reason for producing significant results lies in the partnership for the proposed project, which involves the collaboration of the partners for maximizing the effectiveness of project services. The proposed project is a partnership between the WMU Project Team, the RNN with its current membership of 144 districts and 15 ISDs/ESAs in western Michigan with state-wide expansion pending, the MAISA GELN Literacy renewal initiative with its state-wide membership, the three Michigan professional associations for school administrators, and the Michigan Department of Education. The Project has the support of the superintendents and boards of the school districts in the schools that comprise the pool from which the 150 participating schools will be drawn. WMU is one of 76 public institutions in the nation designated as universities with high research activity by the Carnegie Foundation. It is also ranked in the nation's top 100 public universities. It is one of the top 10 producers of teachers and school administrators in the nation. The faculty of educational leadership have extensive experience in partnering with school districts to improve student learning. The proposed project represents a form of school-university partnership that maximizes the effect of project services.

Meeting the Needs of Districts with High-Needs Schools: The Third Reason That Ensures the Outcomes. The proposed project meets participating school districts' needs. The district leaders who support the **HIL Project** indicate that improving student achievement is urgent—both for their own schools and communities and for all schools in their respective regions and across the state. This is of even more urgent concern in the pool of 178 high-need

schools we have identified. Principal leadership is second only to teaching among school-related factors that affect student learning (Leithwood et al., 2004). The **HIL Project** will enhance the quality of leadership with current principals and expand leadership capacity with a pool of highly developed prospective principals, thus enabling participating schools and districts to meet the need for principals who have the skills and competencies necessary to significantly improve schools both now and into the future.

(2) The extent to which the costs are reasonable in relation to the number of persons to be served and to the anticipated results and benefits.

The proposed project will cost about \$4 million each year. Given that we will have 300 participants (75 practicing and 225 aspiring principals) in 75 schools serving approximately 33,750 students (75 schools * 450 students/per school) per year, the unit cost will be about \$13,333 per participant per year, and about \$119 per student per year. The costs for the **HIL Project** are reasonable, given that this project will provide an intensive adult learning opportunity for practicing and aspiring principals to: (a) develop knowledge and skill, (b) expand use of high impact leadership and implementation strategies, (c) employ reflective, evidence-based processes, (d) apply an established model of leadership with efficacy results for improved student outcomes, and (e) extend that model with strategies for high integrity and fidelity implementation.

(3) The potential for the incorporation of project purposes, activities, or benefits into the ongoing program of the agency or organization at the end of the grant.

The potential for sustainability, replication, and dissemination of the **HIL Project** leadership development model is very high. *First*, the co-principal investigators for this project

have a strong track record of funded projects that involve the work defined in this proposal with empirical evidence of impact. **Second**, the collaboration and partnership with the RNN/GELN initiatives raise the likelihood of shared ownership of the leadership development model and state-wide dissemination through the expansion of the RNN/GELN collaboratives, **Third**, both the RNN and GELN initiatives have garnered high levels of commitment, endorsement and attention from the entire Michigan education community, including the Michigan State Legislature, the Michigan Department of Education (MDE) and a quickly spreading network of regional collaboratives which will soon encompass the entire state. **Fourth**, the four Michigan school administrator associations have all endorsed the initiative and will be key players, along with MDE in future dissemination. **Finally**, the RNN initiative has a strong endorsement from the private sector through a collaborative of 300 corporate and small business CEOs in the western part of the State, called Talent 2025. This private collaborative has stated their intent to provide additional funding support through private funds to complement and augment the work achieved through the proposed SEED grant project where needed to support dissemination.

(4) The extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information or strategies.

The project is proposed with intent for dissemination in ways that will enable others to use the information or strategies. The basis for replication of project activities lies in the fact that (a) a set of materials/manuals on curriculum, training, coaching, and support resources, plus assessment tools are already developed and will be enhanced through the **HIL Project** for dissemination; and (b) efficacy data for the project will be collected, analyzed, and disseminated. In the following, we will expand on these points.

First, through previous funded projects (referenced earlier), we have develop a set of materials on curriculum, training, coaching, and assessment and have already worked with MDE, other universities, and the school administrator professional associations to disseminate them. Through the **HIL Project** we will continue to refine and enhance this body of work for use with participating school teams and future dissemination. One specific enhancement will be the addition of video training modules. All **HIL Project** content is developed with an emphasis on the leadership schools need in order to identify, adapt, and implement contextually appropriate school renewal initiatives that actually improve student outcomes. Through our evaluation plan, we will produce clear findings on the efficacy of this body of work and make sure those findings are readily available in clear reports and other publications (both print and multi-media).

Based on our experience of delivering the program, we have produced learning modules, publications, tools, web sites, and protocols for school leadership teams to use for assessing their school context, prioritizing renewal focus and activities, developing HIFI strategies, and assessing impact. For example, in a multi-year project on data-informed decision-making practices for principals funded by the Wallace Foundation, the WMU team developed and validated an instrument that measures the extent to which principals engage in data-informed decision-making, called *Data-Informed Decision-Making on High-Impact Strategies: A Measurement Tool for School Principals* (See Appendix I) (Shen et al., 2012, 2016). We plan to utilize and refine the body of work and tools created and tested in our previous projects plus develop new work as needed for the HIL Project. Therefore, in the future there will be a set of tools to be utilized when others deliver the **High-Impact Leadership Development for School Renewal (HIL Project)**.

Second, efficacy data derived from the project evaluation will also help with providing information for replicating the proposed project activities. As we will discuss in the *Project Evaluation* section, we will utilize a rigorous design called “randomization with delayed treatment” to evaluate the impact of the proposed project on participants’ leadership, school process and culture, and student achievement. The *Evaluation Plan for the HIL Project* clearly articulates the key components, the mediators, and outcomes of the grant-supported intervention, as well as measurable threshold for acceptable implementation.

Finally, our WMU Team and our RNN/GELN partners and collaborators have a firmly established relationship with both the Michigan Department of Education and the school administrator associations in Michigan. Through previous funded projects we have disseminated a number of guides and tools for disseminating previous evidence-supported leadership development initiatives. Examples include *Data-Informed Decision-Making on High-Impact Strategies: A Measurement Tool for School Principals* and *Data-Informed Decision-Making: A Guidebook for Data Points and Analyses in the Context of Michigan School Improvement Framework* (Appendix J). After the guidebook was released, more than 4,000 copies were requested by Michigan school districts. In addition, the contents of the materials on data-informed decision-making were adopted by universities’ principal training programs and professional association specialty and enhanced endorsement programs in Michigan. The WMU Project Team will work with the RNN and GELN leadership, MDE, and the administrator professional associations to facilitate dissemination of the HIL Project results and model as well.

In summary, the following actions will ensure the replication of the proposed activities: (a) distribution of materials on refined and expanded curriculum, training, and coaching; (b) publishing of efficacy studies for the project based on data about participants, schools, and

students; and (c) building upon the constructive relationship between WMU, the RNN/GELN Collaborative, MDE, school administrator professional associations, and other organizations. We are confident that the **HIL Project** will generate meaningful results and a significant body of work that can be disseminated for replication.

C. Quality of the Management Plan (25 points)

(1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

Specified and Measurable Goals of the Project. The HIL Project encompasses a very specific set of goals for leadership development related to the empirically supported content of the Project, i.e., *The Seven LCL Dimensions* and *The Seven Strategic Levers for HIFI* as detailed in the following table.

Table 6. Specified and Measurable Goals for Participants in the Project

Dimensions	Goals
A. Commitment to school renewal	<ul style="list-style-type: none"> • Adjust leadership approaches to fit the current reality • Engage in school renewal activities • Recognize success and failure • Ensure teachers are aware of most recent best practice
B. Safe and orderly school operation	<ul style="list-style-type: none"> • Adhere to standard operating procedures • Communicate well with teachers and students • Reduce factors that detracts teachers from their teaching • Develop a positive and supportive school climate
C. High, cohesive and culturally relevant expectations for all students	<ul style="list-style-type: none"> • Foster a collective efficacy for students • Establish clear goals for students • Be an advocate to communicate the expectation with stakeholders • Demonstrate a strong belief in high expectations for students
D. Coherent curricular programs	<ul style="list-style-type: none"> • Be actively involved in curriculum-related activities • Work with teachers to align the standards and curriculum • Visit classrooms to supervise the implementation of the alignment • Ensure the coherence among various renewal initiatives in school

E. Distributive and empowering leadership	<ul style="list-style-type: none"> • Engage teachers in decision making • Promote quality interactions with teachers • Celebrate teachers' accomplishments • Have good relationships with teachers • Secure sufficient resources for teachers' work
F. Real-time and embedded instructional assessment	<ul style="list-style-type: none"> • Establish a formative assessment system consistent with the curriculum and the state's accountability measures • Facilitate teachers' use of formative assessment data in key subjects for diagnostic purpose • Promote the notion that assessment is part of instruction • Facilitate teacher growth via classroom observation and objective feedback
G. Data-informed decision making	<ul style="list-style-type: none"> • Develop a system to collect major streams of data on topics such as student achievement, instructional practice, and parent engagement • Know the status of the school based on data • Is able to analyze data and initiate first-order and second-order renewal activities • Is able to evaluate the impact of the renewal activities
Seven Strategic Levers for HIFI	<ul style="list-style-type: none"> • Develop school, principal, teacher, and student performance profiles to guide renewal focus and initiatives • Identify vital behaviors to achieve high integrity and fidelity implementation of renewal initiatives • Employ six sources of influence to achieve vital behaviors • Employ reflective practices and cognitive coaching to scale-up vital behaviors • Identify leading and lagging indicators to monitor and evaluate success

Objectives of the Project. The objectives for the **HIL Project** are four-fold: (a) demonstrate learning and growth on participant's leadership profiles; (b) assess, plan and implement renewal activities for the **Seven LCL Dimensions** as needed to support each school's renewal initiative; (c) move renewal work from first-order (i.e., "incremental") to second-order (i.e., "deep") change over the duration of the project (Marzano et al., 2005) through the application of **Seven Strategic Levers for HIFI**, and (d) share learning among Project participants.

Outcomes of the Project. As part of the project evaluation, we will conduct rigorous analysis of the outcomes related to (a) principals, (b) school process and culture, and (c) student

achievement. We expect to see significant improvement along these dimensions due to the intervention. See Table 7 for how the outcomes of the **HIL Program** will be measured.

Table 7. How the Outcomes of the Program Will Be Measured

Outcomes	Instrument or Data Source
Statistically improved principal's leadership	Measured by Vanderbilt Assessment of Leadership in Education
Statistically improved school culture and process	Measured by the well-established and widely-used School Climate Survey
Statistically improved student achievement	Measured by student achievement in math and reading as reflected in M-STEP (state-wide accountability test)

(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

The Management Team. WMU will provide the management team for the proposed project. The team consists of Dr. Patricia Reeves (director), Dr. Jianping Shen (co-director), Dr. Lisa Ryan, Dr. Brett Geier, Dr. Louann Palmer, Dr. Sue Poppink, and Dr. Brian Horvitz. Their respective responsibilities are as follows:

Table 8. Delineation of Responsibilities for the Management Team

Personnel	Responsibility
Patricia Reeves	Director: plan, coordinate, and supervise project activities; report to federal grant officer; and oversee financial matters
Jianping Shen	Co-director: assist with planning, coordinating, supervising project activities; liaison with external evaluators; coordinating research activities
Lisa Ryan	Manager: managing the daily operations
Louann Palmer & Brett Geier	Coordinators for facilitating coaches: assist in coordinating the three sub-cohorts and the facilitating coach teams for each of the sub-cohorts
Sue Poppink	Researcher: Assist in data collection and coordinate collection and analysis of formative qualitative data
Brian Horvitz	Technology coordinator: Develop, support on-line engagement, web site, and video production

The Team of Trainers, Facilitators, Facilitating Coaches and Others. The project will utilize a team of module trainer/facilitators for the Seven LCL Dimensions who will assist with project workshops and work with the facilitating coaches to prepare them to support the project

principals and aspiring principals on each of the LCL Seven Dimensions. The module trainer/facilitators contributed to development of the Seven LCL Dimension Modules through two previous federal school leadership grants and also contributed to the journal articles and books published from those projects and/or contributed to the HIFI Lever modules through the Courageous Journey State endorsement program.

Table 9. A Delineation of Responsibilities for Other Key Project Members

Personnel	Responsibility
Walter Burt	Assist with LCL Dimension Training and Coaching Team Support
Dennis Mc Crumb	Assist with LCL Dimension Training and Coaching Team Support
Doctoral Assistants	Assist project management; coaches training/support, data collection
Derek Wheaton	Train and Coordinate Coaching Teams
Patti Andrea	Train and Coordinate Coaching Teams
Pat Wilson O’Leary	Train and Coordinate Coaching Teams
Facilitating Coaches	To be identified in collaboration with the ISDs and ESAs
Kyle Mayer	Liaison with the RNN Leadership
Doug Greer	Liaison with the RNN Leadership and Talent 2025
Joanne Hopper	Liaison with the GELN

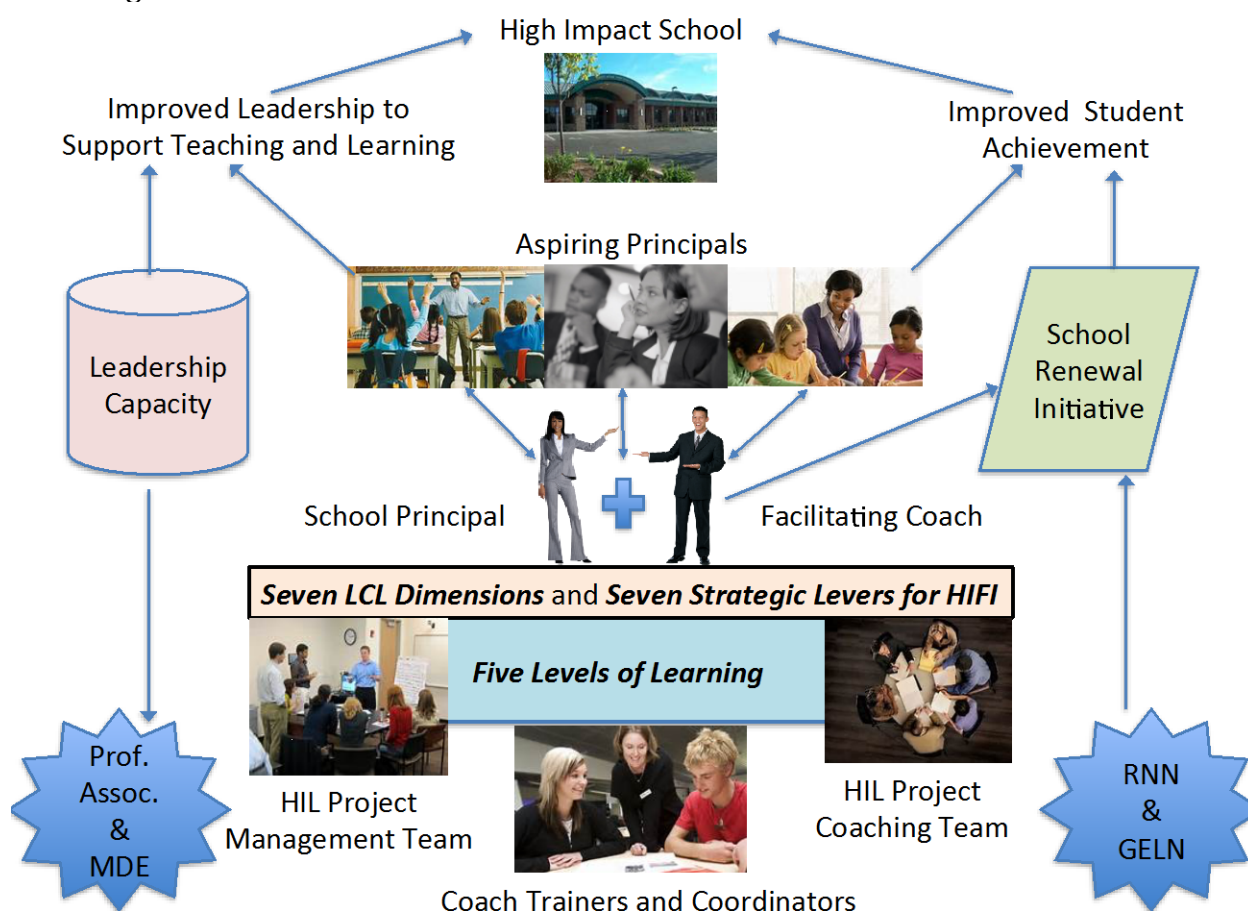
Time Commitment of the Project Directors and Other Key Personnel. Each year, Dr. Reeves (director) will dedicate 48% of her time to the project and Dr. Shen (co-director) 41%. The time commitments of the directors and other key project personnel are appropriate and adequate to meet the objectives of the proposed project. Please see Project Budget Narrative for details.

Project Delivery System and Management Process

Figure 2 illustrates the delivery system the HIL Project will utilize a trained and supported team of facilitating coaches to engage, train, facilitate, and support the teams of principal and aspiring principals as they explore how to apply the ***Seven LCL Dimensions*** and the ***Seven Strategic Levers*** to support their school’s renewal initiative. The Management Team will work with the ISDs and ESAs that support participating schools and the district leadership from those schools to screen, select, and develop the best available talent for the Facilitating

Coaches Team, and the Coaching Trainers and Coordinators on the Management Team will develop, monitor, and support the coaches as they work with their assigned schools. Figure 2 illustrates:

Figure 2. HIL Project Delivery and Support System for Developing Principal Leadership and Achieving HIFI with a School Renewal Initiative



Project Timeline and Milestones. We have created a detailed plan for project timeline and milestones as laid out in the following.

Table 10. Timeline and Milestones for 36 Month Treatment of Cohort A (75) Schools and Initial Training for Cohort B (Control Group)

Time Frame	Actions and Milestones
Year 1	
Sept. 2017	<ul style="list-style-type: none"> a. Reconfirm participating schools and collect baseline data on each b. Randomize assignment of participating schools to cohort A (the first treatment group and Cohort B (the control group for phase 1 of the project and treatment group for phase 2)

	<ul style="list-style-type: none"> c. Work with ISDs and ESAs that support participating schools to identify, recruit, and confirm facilitating coaches d. Begin working with Cohort A schools to identify and recruit potential future principals for each participating school e. Confirm WMU Project Management team and establish first year management meeting and work session schedule
Oct. 2017	<ul style="list-style-type: none"> a. Confirm and assign facilitating coaches to Cohort A schools b. Organize Cohort A schools into three regional groups of 25 schools for each group c. Select and begin training the facilitating coaching team coordinator for each of the three regional groups d. Begin training facilitating coaches and conduct school orientations for each e. Establish schedule of facilitating coach trainings, workshops, and debriefings f. Begin management team, facilitating coach team, and advisory group meetings (will repeat each month through the duration of the project) g. Collect additional baseline data for both Cohort A and Cohort B (the control group for phase 1) h. Complete contractual arrangements for the project
Nov. – Dec. 2017	<ul style="list-style-type: none"> a. Continue training and development of facilitating coaches and coaching coordinators b. Conduct first training workshop for school teams and facilitating coaches: (a) orientation to the project; (b) the Seven LCL Leadership Dimensions; and (c) the Eight HIFI Strategic Levers c. Facilitating Coaches assist the school teams in developing contextual assessments of the school's status on (a) the Seven LCL Leadership Dimensions and (b) the critical elements of the school's research based renewal initiative d. Coaches and school teams begin prioritizing renewal activities across the Seven LCL Dimensions as appropriate to support the school's renewal initiative e. Coaches and school teams begin using the eight strategic levers as needed to support implementation of the renewal activities f. Continue management team, coaching team, and advisory team meetings, workshops, and debriefings
Jan. – March 2018	<ul style="list-style-type: none"> a. Continue all of the work from November – December b. Conduct second training workshop for school teams and facilitating coaches f. Begin collecting formative data on the work of school teams to monitor and adjust project activities as needed to best support the work g. Principals develop performance development plans to support the work in alignment with the district's administrator evaluation system h. Coaches begin assisting school teams in refining use of cognitive coaching, data informed process, instructional rounds, etc. i. Coaches assist school teams in identifying vital behaviors to achieve HIFI and align those behaviors with the school's teacher evaluation system Coaches assist school teams in applying the six sources of influence to implement vital behaviors (Grenny et al., 2013)
Apr. – June 2018	<ul style="list-style-type: none"> a. Coaches and school teams update school and leadership profiles b. Conduct coaching team and management team debriefings to inform planning for year two c. Plan for summer (third) training workshop for coaches and school teams

	d. Continue training and support for coaching team
July – Aug. 2018	<ul style="list-style-type: none"> a. Conduct summer training workshop for coaches and school teams b. Compile year one data and create year one reports c. Conduct management team and coaching team debriefings and additional training as needed d. Finalize work plan and schedule for year 2
Sept. – Dec. 2018	<ul style="list-style-type: none"> a. Coaches and school teams update school and leadership profiles b. Conduct coaching team and management team debriefings to inform planning for year two c. Plan for summer (third) training workshop for coaches and school teams d. Continue training and support for coaching team
Jan. – Mar. 2019	<ul style="list-style-type: none"> a. Conduct fourth training workshop for coaches and school teams for year two b. Work with coaches and school teams to revise school renewal activities as needed to move forward on HIFI with the school’s renewal initiative c. Conduct instructional rounds to update school performance profiles d. Coaches work with school teams to update their personal performance development plans to support HIFI of the school’s renewal initiative
Apr. – June 2019	<ul style="list-style-type: none"> a. Conduct fifth training workshop for coaches and school teams for year two b. Revise renewal activities along the Seven LCL Dimensions as needed to support the school’s renewal initiative c. Coaches and school teams continue employing the eight strategic levers to achieve HIFI of the school’s renewal activities and initiative d. Coaches and school teams update school and leadership profiles e. Conduct coaching team and management team debriefings to inform planning for year two f. Plan for summer (sixth) training workshop for coaches and school teams g. Continue training and support for coaching team
July – Aug. 2019	<ul style="list-style-type: none"> a. Conduct summer training workshop for coaches and school teams b. Compile year two data and create year one reports c. Conduct management team and coaching team debriefings and additional training as needed d. Finalize work plan and schedule for year 3
Sept. – Dec. 2019	<ul style="list-style-type: none"> a. Conduct seventh workshop for Cohort A coaches and school teams b. Continue coaching support of school teams c. Continue management team support of coaching team d. Update school, leader and teacher performance profiles on vital behaviors e. Revise renewal activities as needed to support HIFI
Jan. – Mar. 2020	<ul style="list-style-type: none"> a. Conduct final training workshop for Cohort A coaches and school teams b. Conduct first training workshop for Cohort B (the control group) coaches and principal/teacher leader teams c. Continue coaching support of school teams d. Continue management and coaching team debriefings and additional training as needed
Apr. – June 2020	<ul style="list-style-type: none"> a. Conclude Cohort A b. Conduct year 3 data collection and analysis for Cohort A c. Create final Cohort A reports d. Begin publication and dissemination process e. Conduct summer training workshop for Cohort B

July – Aug. 2020	<ul style="list-style-type: none"> a. Management team and coaching team debrief Cohort A and prepare to continue with Cohort B if funding extended to years four and five b. If project continues into years four and five, reassign coaches to Cohort B schools and begin sequence of activities followed with Cohort A c. Continue publication and dissemination process d. Prepare for full treatment of Cohort B if HIL Project funded through years 4-5
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(Cohort B will complete the 2.5-year program if funded for Yrs. 4 and 5).

(3) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

There are four mechanisms for ensuring feedback and continuous improvement in the operation of the proposed project. **First**, for each of the modules of the program, we will conduct evaluation with participants. This kind of formative evaluation data is very important for making adjustments toward the success of the project.

Second, when the first cohort is completed in 30 months, there will be data from the principals, teachers, students, and schools to compare the possible difference between the randomly assigned first and second cohorts. This kind of evaluation will generate summative evaluation data for the first cohort, and will help us plan the second cohort.

Third, we will report the data related to the operation of the project as well as formative and summative evaluations to the participants, the advisory committee, the project officer in the U.S. Department of Education and the professional community, from all of whom we will seek feedback. These procedures will help ensure feedback and continuous improvement in the operation of the proposed project.

Finally, the committed engagement by identified partners and stakeholders advisory group will also ensure feedback and continuous improvement in the operation of the proposed project. All committed partners have much at stake. The participating school districts expect that the project improves principal leadership, which will, in turn, lead to higher student achievement. The three state-level organizations—Michigan Department of Education, Michigan Association

of Secondary School Principals, and Michigan Elementary and Middle School Principals Association expect that the proposed project will produce curriculum, training and coaching guides, and efficacy data to help them scale and sustain the *HIL Program* to the state level. Through representations on the coaching teams and the frequent interaction with the project management team, the partners will also provide feedback for continuous improvement in the operation of the proposed project.

D. Quality of the Project Evaluation (20 points).

(1) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

There are four mechanisms for ensuring feedback and continuous improvement in the operation of the proposed project. ***First***, for each of the modules of the program, we will conduct an evaluation with participants. This kind of formative evaluation data is very important for making adjustments toward the success of the project.

Second, when the first cohort is completed in 30 months, there will be data from the principals, teachers, students, and schools to compare the possible difference between the randomly assigned first and second cohorts. This kind of evaluation will generate summative evaluation data for the first cohort, and will help us plan the second cohort.

Third, we will report the results related to the operation of the project as well as formative and summative evaluations in their aggregated forms to the participants and their school districts, the project officer in the U.S. Department of Education, and the professional community including Michigan Department of Education, from all of whom we will seek feedback. These three procedures will help ensure feedback and continuous improvement in the operation of the proposed project.

Finally, the committed engagement by identified partners will also ensure feedback and continuous improvement in the operation of the proposed project. All committed partners have much at stake. The participating school districts expect that the project improves principal leadership, which will, in turn, lead to higher student achievement. Michigan Department of Education is looking for an effective model of school improvement via leadership development. Through frequent interaction with the project staff, the partners will provide feedback for continuous improvement in the operation of the proposed project.

(2) The extent to which the methods of evaluation will provide valid and reliable performance data on Relevant Outcomes.

The four instruments for the three outcome measures have sound psychometrics. **First**, the *Vanderbilt Assessment of Leadership in Education*'s internal consistency reliabilities are .98 for the two principal forms and .99 for the two teacher forms; as to construct validity, GFI and Adjusted GFI are .99 for both core components and key processes analyses for Form A and .98 for both core components and key processes for Form B (Porter et al., 2008). **Second**, the *School Process and Culture* has items from (a) National Center for Education Statistics' *Schools and Staffing Survey 2007-08* (with demonstrated sound psychometrics as indicated in the manual, <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010332>) and (b) *School Leadership Questionnaire* measuring curricular and instructional practice with scale reliabilities ranging from .77 to .90 (Camborne, Rowan, & Taylor, 2003). **Finally**, *M-STEP* measures student achievement in school core content areas. Reliability has not been released yet (personal communication with a M-STEP program officer; previous version having reliabilities ranging from 0.8's to 0.9's).

(3) The extent to which the methods of evaluation will, if well-implemented, produce evidence about the project’s effectiveness that would meet the What Works Clearinghouse Evidence Standards with reservations.

Sample and the Randomized design. The sample of 150 principals will be randomly assigned into two groups. One group will receive training from Oct. 2017 to Mar. 2020 and the other from April 2020 to Sept. 2022. The above “random assignment coupled with a staggered roll-out of a program” (Institute of Educational Science, 2010) meets the What Works Clearinghouse Evidence Standards without reservations.

Measures. Four established instruments with sound psychometric properties, will be used to measure outcomes: the *Vanderbilt Assessment of Leadership in Education* (Porter et al., 2008) for principal leadership; the National Center for Education Statistics’ *Schools and Staffing Survey* (2007-08) (items from the school and teacher surveys) and the *School Leader Questionnaire* (Camborne, Rowan, & Taylor, 2003) for school culture and process; and the *Michigan Student Test of Educational Progress (M-STEP)* for student achievement in core content areas (a mandatory state testing program).

Treatment schedule. The treatment schedule and data collection on the three outcome measures are presented in Table 11. The two treatment phases illustrate the method that IES refers to as random assignment coupled with a staggered roll-out of a program. Data are longitudinal (pre, mid, post) and hierarchical (teachers nested within schools, students nested within schools). Three outcome measures are on (a) principal leadership, (b) school culture and process, and (c) student achievement.

Table 11. Treatment Schedule for Data Collection on Three Outcomes

Cohort	Pretest	Phase I Treatment	Midtest	Phase II Treatment	Posttest
1	3 Outcomes	10/2017 – 4/2020	3 Outcomes	N/A	3 Outcomes
2	3 Outcomes	N/A	3 Outcomes	4/2020 – 9/2022	3 Outcomes
	In 10/2017		In 4/2020		In 9/2022

Key outcome evaluation questions center around the impact and its mechanism:

1. Does program participation have any impact on (a) principal leadership, (b) school culture and process, and (c) student achievement?
2. If there is an impact, what is the causal mechanism (relationship) among (a) principal leadership, (b) school culture and process, and (c) student achievement?

These two key outcome evaluation questions are important because they inquire into the effectiveness of the intervention using various outcomes and how the impact comes about. As detailed in the following, these two research questions will be addressed by having the appropriate sample size, measures, and data analysis approaches.

Evaluating Treatment Effects: Participation versus Nonparticipation. Under the IES delayed treatment experimental design, we can treat the first cohort of 75 principals as the (true) experimental group and the second cohort of 75 principals as the (true) control group during the first phase of our program (10/2017 to 4/2020). The first two waves of data (pre and mid) will allow us to assess if our program has treatment effects on (a) principal leadership, (b) school culture and process, and (c) student achievement. We accommodate data hierarchies with a two-level HLM (hierarchical linear model) equivalent to ANCOVA (see Raudenbush & Bryk, 2002). Taking principal leadership (*PL*) as an example with *PL1* coming from pretest and *PL2* from midtest data, we have teachers (at level 1) nested within schools (principals) (at level 2).

$$PL2_{ij} = \beta_{0j} + \beta_{1j}PL1_{ij} + \beta_{2j}G_{ij} + \varepsilon_{ij}$$

where $PL2_{ij}$ is the principal leadership score (after our program for the first group and before our program for the second group) assessed from teacher i in school j . $PL1_{ij}$ is the covariate (principal leadership score before our program for both groups), and ε_{ij} is an error term unique

to each teacher. G_{ij} , a dichotomous variable, indicates group membership of a teacher (experiment or control). Its coefficient, β_{2j} , represents treatment effects:

$$\beta_{2j} = \gamma_{20} + u_{2j}$$

where u_{2j} is an error term unique to each school (principal). If γ_{20} is statistically significant, there are significant treatment effects. If u_{2j} is statistically significant, treatment effects will vary significantly across schools (principals).

This HLM model can be adjusted for teacher background and school context to explore what kind of teachers in what type of school contexts are more likely to enhance treatment effects of our program working with principals. Such an HLM model is:

$$PL2_{ij} = \beta_{0j} + \beta_{1j} PL1_{ij} + \beta_{2j} G_{ij} + \sum_{m=1}^M \beta_{(m+2)ij} X_{mij} + \varepsilon_{ij}$$

$$\beta_{2j} = \gamma_{20} + \sum_{n=1}^N \gamma_{2n} W_{nj} + u_{2j}$$

where X_m ($m=1,2,\dots,M$) are level-1 variables descriptive of teachers and W_n ($n=1,2,\dots,N$) are level-2 variables descriptive of schools.

We will investigate (a) whether teachers' experience improved principal leadership after their principals' participation in our program and (b) what kind of teachers in what kind of schools can help enhance principal leadership resulting from their principals' participation in our program. Treatment effects on school culture and process can be assessed similarly.

To examine treatment effects on student achievement (SA), we modify data hierarchy from teachers nested within schools/principals to students nested within schools/principals:

$$SA2_{ij} = \beta_{0j} + \beta_{1j} SA1_{ij} + \beta_{2j} G_{ij} + \sum_{m=1}^M \beta_{(m+2)ij} X_{mij} + \varepsilon_{ij}$$

$$\beta_{2j} = \gamma_{20} + \sum_{n=1}^N \gamma_{2n} W_{nj} + u_{2j}$$

Our goal is to investigate (a) whether students demonstrate improved academic achievement after their principals' participation in our program and (b) what kind of students in what type of schools are most likely to improve academic achievement as a result of their principals' participation in our program.

Evaluating Treatment Effects: Practice versus Non-Practice. Under the delayed treatment experimental design, we have a unique opportunity to examine whether practice (after participation) affects outcomes (compared with participation only). Practice effects can also be considered as “long-term versus short-term treatment effects.” Across a period of 60 months, the first cohort of 75 principals who complete our program in the first 30 months will then apply what they have learned to their daily work during the next (last) 30 months. The second cohort of 75 principals will receive no treatment during the first 30 months and will receive treatment during the last 30 months with no opportunity to practice. The second and last waves of data (mid and post) will allow us to assess whether practice after participation has any effect on (a) principal leadership, (b) school culture and process, and (c) student achievement. Taking principal leadership as an example, with *PL3* coming from the post-test and *PL2* coming from the mid-test:

$$PL3_{ij} = \beta_{0j} + \beta_{1j} PL2_{ij} + \beta_{2j} G_{ij} + \sum_{m=1}^M \beta_{(m+2)ij} X_{mij} + \varepsilon_{ij}$$

$$\beta_{2j} = \gamma_{20} + \sum_{n=1}^N \gamma_{2n} W_{nj} + u_{2j}$$

where $G_{ij} = 1$ for practice after training (experiment group) and $G_{ij} = 0$ for training without practice (control group). If γ_{20} is statistically significant, there are significant practice effects.

This HLM model can be easily modified to examine practice effects on school culture and

process, as well as student achievement.

Evaluating Mechanism of Impact. Theoretical insights single out a principal's DIDM as the initiator (cause) of school culture and process (effect) and school culture and process as the force (cause) to change student performance (effect) (Hallinger, 2011; Marks & Printy, 2003). The unit of analysis is school, and the mechanism of impact focuses on program participation that sets off the chain reaction. We will integrate first and second waves of data from the first cohort with second and third waves of data from the second cohort to create a total of 150 schools for data analysis of the causal relationship among principals' DIDM, school culture and process, and student achievement.

Statistical operations are performed in two steps. In the first step, we will aggregate teacher rating scores and student achievement scores to the school level by means of "posterior means" within the HLM framework. Taking principal leadership as the example, with PL_a as the principal leadership score before participation and PL_b after, we have:

$$PL_{bij} = \beta_{0j} + \beta_{1j} PL_{aij} + \sum_{m=1}^M \beta_{(m+1)ij} X_{mij} + \varepsilon_{ij}$$
$$\beta_{0j} = \gamma_{00} + u_{0j}$$

where β_{0j} is the school average principal leadership score for school j after adjustment over teacher characteristics, captured in HLM as posterior means (one for each school) that can be used for further data analysis (see Raudenbush & Bryk, 2002). Adjusted for sampling and measurement errors, posterior means are better school average measures than raw score means (aggregations). In this way, each of the 150 schools will have a set of school measures on principal leadership, school culture and process, and student achievement. They are data for the second analytical step. In the second step, we will apply SEM to confirm the causal relationship among principal leadership, school culture and process, and student achievement. Taking into

account school context, we will extend this SEM model to specify that school context influences the three school measures so as to examine whether the causal link still holds true once school context is taken into consideration.

Minimum Detectable Effect Size (MDES). Using *Optimal Design Plus*, we found that our models have a statistical power of 0.97 for examining teacher outcomes and a 0.95 for student outcomes, have an MDES of 0.16 for examining teacher outcomes and 0.17 for student outcomes. Please see Appendix H for more details.

The evaluation will be conducted independently by Dr. Ma and his team at University of Kentucky. Based on the delivery model, Dr. Ma took the lead in designing an evaluation that is consistent with the program delivery. The randomized, time-delayed design meets the requirement for rigorous design. Adequate funds are budgeted to effectively carry out this complex project evaluation led by Dr. Ma, whose expertise includes conducting numerous large-scale evaluations, including being the Research and Evaluation Coordinator for a \$24 million National Science Foundation grant.

COMPETITIVE PREFERENCE AND INVITATIONAL PRIORITIES

Competitive Preference Priority 1: How the project will promote diversity in the educator Workforce

The proposed project will focus on developing the capacity of currently practicing school principals and developing other school leaders who will expand the pipeline of high quality candidates for future principal openings. The **HIL Project** Management and Coaching Teams will work with the participating school principals to identify and recruit teacher leaders who contribute to the diversity of this pipeline.

a. How the Project will provide educator development activities to improve cultural competence and responsiveness skills that contribute to an inclusive school culture

One of the Seven LCL Dimensions is "high, cohesive and culturally relevant expectations for all students." This Dimension focuses on the leaders' responsibility to improve cultural competency and responsiveness skills that contribute to an inclusive school culture. Coaches will work with the school teams to examine the ways in which teachers make learning relevant for all students. Additionally, the coaches will assist the school teams in assessing staff, student, and parent feedback on the state of inclusiveness and cultural responsiveness for the school. Finally, the entire school renewal approach and process used in the **HIL Project** systematically assesses the school's contextual and situational factors, taking those factors into account for achieving integrity in the renewal work.

b. Improving the recruitment, support, and retention of educators from diverse backgrounds.

According to 2016-17 data, 71% of students in the 178 high-need schools identify as minority; however, only 19% of the administrators (including principals) and 7% of the teachers from those same schools identify as minority. Clearly, there is a need to recruit, support, and retain more minority educators in those schools. This will pose a challenge in recruiting aspiring or potential principals in those schools, so the Management and Coaching Teams will work with district and ISD/ESA leaders to initiate more targeted recruitment practices and to increase diversity overall, especially among the teachers who could be developed into potential principals.

Competitive Preference Priority 2: How the project will contribute to an individualized learning environment

Schools have been struggling for decades to create teaching and learning processes that empower students through individualized learning plans. There are several ways the proposed project will contribute to this major shift in the teaching and learning processes of the school.

First, the **HIL Project** will help participants to develop renewal activities to establish

individualized learning environments. The project will engage participants to profile individual students via the “data-informed decision-making” dimension, to set individualized expectations via the dimension of “High, cohesive and culturally relevant expectations for all students,” and to construct individualized learning experience via the “coherent curricular programs” dimension. Project participants will then engage the school staff in a similar effort to establish individualized learning environment as a school-wide renewal activity. ***Second***, the project facilitating coaches will train and support the principal and aspiring principals in using school, student and performance assessment data (from research-based administrator and teacher evaluation systems) to (a) develop performance profiles based on current evidence; (b) collaboratively identify priority improvement areas for their own and the school’s performance; and (c) develop robust personal growth plans in consultation with each other; then, carry out those plans and assess personal growth as a result of those plans. By teaching the school leaders to follow this process for their own learning and growth, the Project will empower them to assist other teachers to do so. As teachers get better at developing their own individualized growth plans (based data from student, school process, student and parent feedback, etc.), they will be better equipped to replicate this process with students. The process was developed for the School ADvance administrator assessment and evaluation system co-authored by the HIL Project director, but is applicable to all research-based performance assessment and evaluation systems.

Invitational Priority: How this project will contribute to the use of micro-credentials

The WMU Educational Leadership program will support the work of project participants by inviting project participants to submit their performance development plans and results for juried review under one or more areas of micro-credentialing.