PBLWorks Research & Evidence Strategic Priority Plan 2019-2022

~ WE KNOW PBL WORKS; NOW, WE HAVE TO SHOW IT WORKS ~

Introduction

This plan describes the work to be done through 2022 to advance PBLWorks *Research & Evidence Strategic Priority.*

In alignment with PBLWorks vision, mission, beliefs, and strategic priorities in PBLWorks *Strategic Plan 2016-2020,* this plan includes strategic and enabling actions for research and evidence to support PBLWorks ambitions to make a positive impact on students, teachers, and leaders using PBL. This plan is designed to guide and support implementation of strategic actions to advance the research and evidence strategic priority. As such, on an ongoing basis, the plan will be updated based on changing demands, resources, and learning; annually, progress will be analyzed and updates will be made for the subsequent fiscal year; and, in FY20, the plan will be realigned with the new strategic plan for FYs 21-22.

Vision
All students—no matter where they live or what their background— will have access to quality PBL to deepen their learning and achieve success in college, career, and life
Mission
Build the capacity of teachers to design and facilitate quality Project Based Learning and the capacity of school and system leaders to set the conditions for teachers to implement great projects with all students
Beliefs
● Transforms students by inspiring them to think differently about themselves as learners, collaborators, and leaders ● Prepares students for success in college, career, and life ● Leads students to master core academic content and builds success skills ● Advances educational equity and empowers youth furthest from opportunity ● Enables teachers to make a difference in their students' lives

Plan Organization

This plan includes six sections:
- Aspirations
- Key Milestones/Assumptions/Risks
- Strategic Action 1: Research the effectiveness and efficacy of PBLWorks's PBL services
- Strategic Action 2: Create actionable evidence-based tools and resources that partners use
- Strategic Action 3: Build and grow partnerships with national PBL leaders to scale PBL
- Strategic Action 4: Use research and evidence to improve PBLWorks's services continuously
- Enabling Actions: Create capacity to support strategic actions
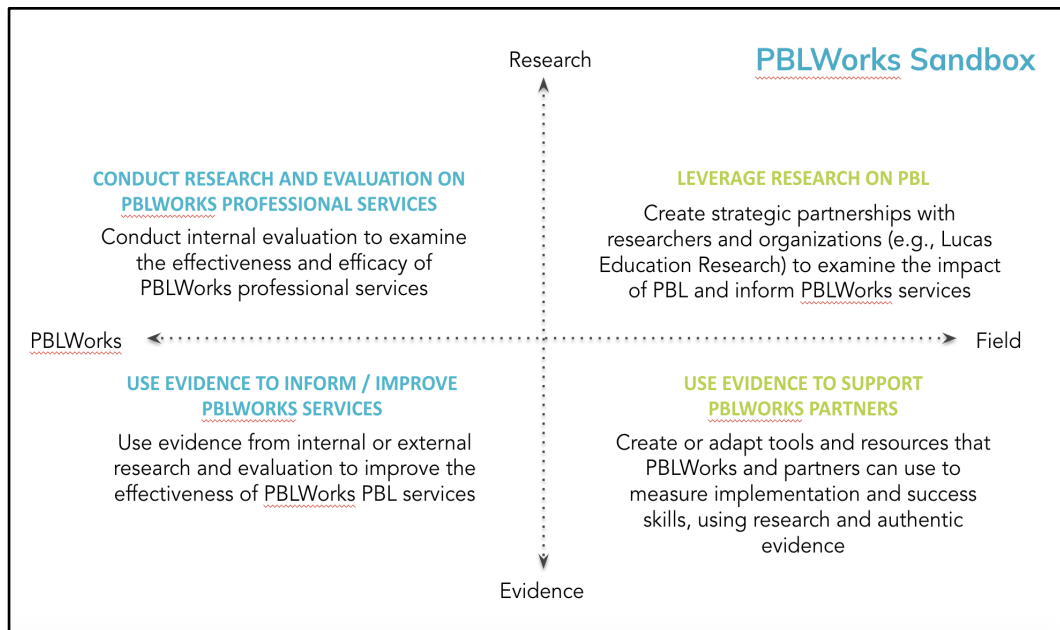
Aspirations

By 2022, we aspire to accomplish the following:

1. Prioritize internal and external evaluation of our services conducted in districts and schools serving at least 50% students of color
2. Create a systematic and trustworthy method for counting and tracking outputs, including participants
3. Define, operationalize, and agree-upon key constructs related to our services
4. Design and test instruments that we and our partners can use to measure impact across our theory of action
5. Conduct at least one rigorous external study to examine the effectiveness or efficacy of our services
6. Partner with researchers of color and researchers who use culturally-responsive research approaches
7. Establish and use a systemic and systematic approach to engaging in internal evaluation of services data and use data formatively and summatively (end-of-year) data to improve, including making space for emerging questions

8. Align and optimize systems that support data collection, analysis, and reporting (e.g., Salesforce, Qualtrics, Conga)
9. Establish a system(s) to identify and report on schools and districts that have evidence of improved outcomes as a result of engagement in our services

Background. In 2017, PBLWorks Research and Evidence Project Team engaged in a strategic planning process to design a strategic priority plan to orient and focus PBLWorks research and evidence work for greater impact. The team gathered insights, risks, and research questions from PBLWorks Management Team, Project Leadership Team, and key staff members; and external stakeholders, including PBLWorks Board members, national PBL experts, and PBL researchers. The team used PBLWorks *Research & Evidence Matrix* (below) as a tool to choose priority focus areas.
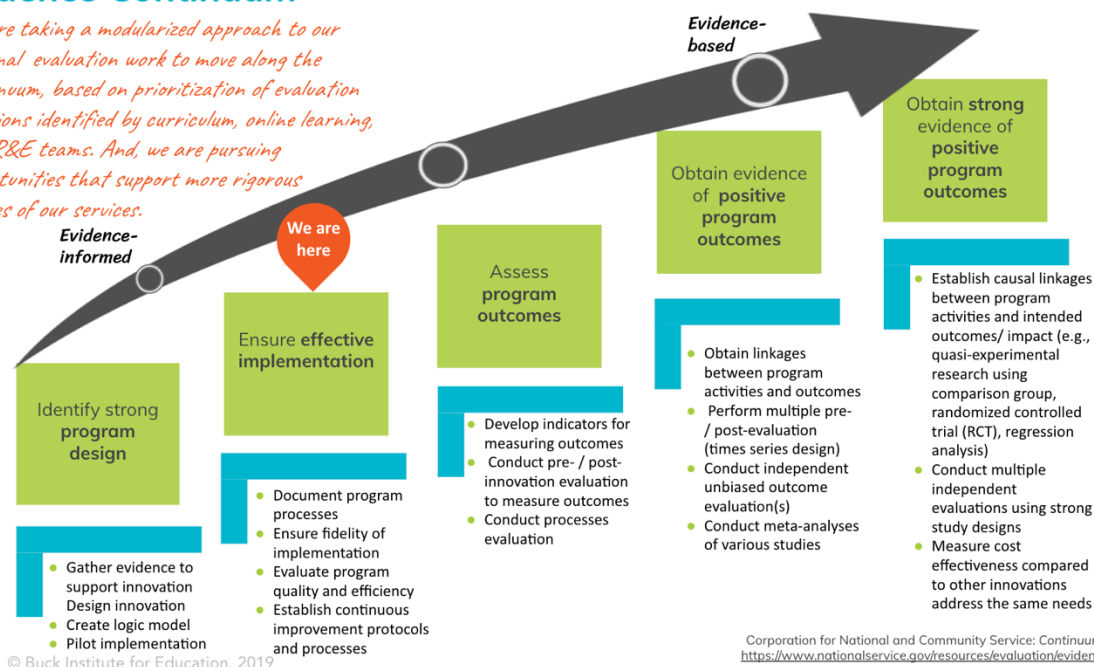

Assumptions

- *Focusing research internally on PBLWorks services.* PBLWorks has high aspirations for transforming student experiences and outcomes through PBL, as expressed in PBLWorks vision and beliefs. PBLWorks mission is squarely focused on teachers and leaders who are within PBLWorks professional services reach. Getting results for students through professional development is a challenge and not impossible. Research shows that professional development can result in student achievement (e.g., Yoon, 2007). PBLWorks will prioritize research that focuses on the effectiveness and efficacy of PBLWorks professional services to gather evidence of what works, improve the quality of services, and inform partners and the field. PBLWorks will partner with other organizations (e.g., Lucas Education Research) focused on PBL research to support the dissemination and use of their findings.

- *Racial Equity.* Racial inequities exist and are perpetuated in research and evaluation. Researchers of color and the use of culturally responsive research and evaluation practices are far from being the norm. As a small team of white women, the PBLWorks research and evidence team recognizes the need to increase our capacity to conduct culturally responsible and equitable research and evaluation in partnership with researchers and evaluators of color so that we support and promote the success of all students to achieve positive outcomes.

- *Inclusive Evidence:* New better evidence is needed to provide a holistic understanding of what all students, including and especially students of color, know and can do as a result of engaging in PBL (and learning in general). The current practice of using composite scores (i.e., standardized state assessments or survey results) as shorthand for sizing up students, teachers, schools, and districts is a structural inequity that reduces students to a single number, obscuring their growth and progress in success skills that matter for college, career, and life. More importantly, this practice significantly hurts our most vulnerable students (i.e., students of color and students whose families are living in poverty) who lack equitable access to educational opportunities needed for

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higher level learning. PBLWorks will push the boundaries of what counts as evidence by testing out alternative authentic measures to show progress, success, and achievement; partnering with others who are committed to equity; and elevating this conversation nationally.

- *Actionable research and evidence.* Educators need actionable research and evidence for decision making, implementation, and continuous improvement. This is a top priority identified by PBLWorks staff members and partners. In collaboration with them, PBLWorks will design easy to consume PBL research and evidence tools and resources tailored to partner needs.

- *Modularization of research and evidence.* Moving from evidence-informed to evidence-based will likely not be a sequential set of actions. The research and evidence team will focus its efforts on organizational areas of focus and pay close attention to emergent needs and aligned funding opportunities along the evidence continuum. For example, the team might go after an external *evidence-based* research project before completely assessing *program outcomes,* two steps prior on the continuum.
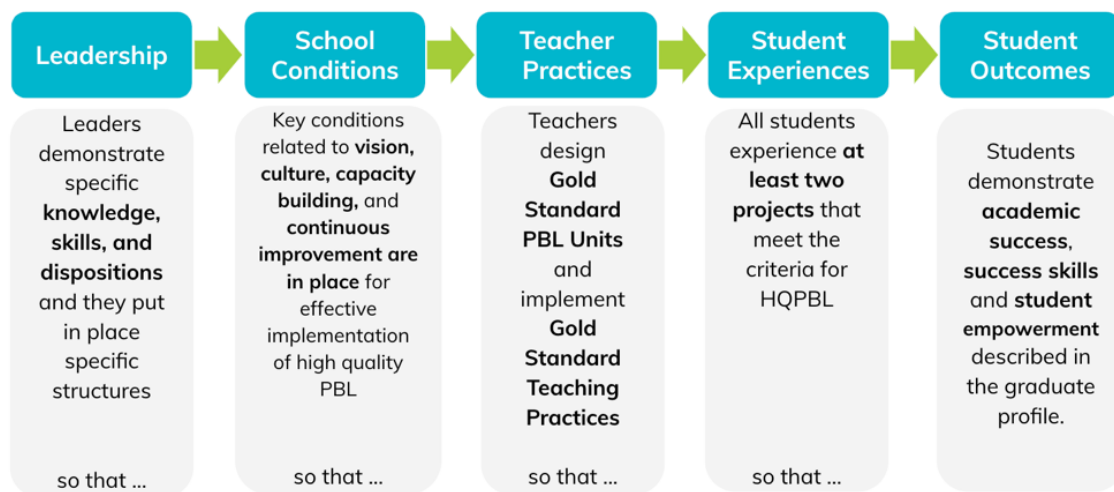

Evidence Continuum

We are taking a modularized approach to our internal evaluation work to move along the continuum, based on prioritization of evaluation questions identified by curriculum, online learning, and R&E teams. And, we are pursuing opportunities that support more rigorous studies of our services.

Evidence-informed

Evidence-based

We are here

Identify strong program design
- Gather evidence to support innovation Design innovation
- Create logic model
- Pilot implementation

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Ensure effective implementation
- Document program processes
- Ensure fidelity of implementation
- Evaluate program quality and efficiency
- Establish continuous improvement protocols and processes

Assess program outcomes
- Develop indicators for measuring outcomes
- Conduct pre- / post-innovation evaluation to measure outcomes
- Conduct processes evaluation

Obtain evidence of positive program outcomes
- Obtain linkages between program activities and outcomes
- Perform multiple pre- / post-evaluation (times series design)
- Conduct independent unbiased outcome evaluation(s)
- Conduct meta-analyses of various studies

Obtain strong evidence of positive program outcomes
- Establish causal linkages between program activities and intended outcomes/ impact (e.g., quasi-experimental research using comparison group, randomized controlled trial (RCT), regression analysis)
- Conduct multiple independent evaluations using strong study designs
- Measure cost effectiveness compared to other innovations address the same needs

Corporation for National and Community Service: Continuum of Evidence. https://www.nationalservice.gov/resources/evaluation/evidence-continuum

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Strategic Action 1: Research the effectiveness and efficacy of PBLWorks's professional services

To deliver on the promise of our vision and mission, we will prioritize establishing an evidence base to show the effectiveness and efficacy of PBLWorks services. PBLWorks will continue to partner with external researchers to conduct effectiveness (ie., Does it work?) and efficacy (i.e., Can it work?) of PBLWorks's services at the student, teacher, leader, and school levels, focused on questions in alignment with the PBLWorks *Theory of* Action and based on high priority questions identified by staff and board members and ongoing scans of current PBL research.

Leadership	School Conditions	Teacher Practices	Student Experiences	Student Outcomes
Leaders demonstrate specific **knowledge, skills, and dispositions** and they put in place specific structures	Key conditions related to **vision, culture, capacity building,** and **continuous improvement are in place** for effective implementation of high quality PBL	Teachers design **Gold Standard PBL Units** and implement **Gold Standard Teaching Practices**	All students experience **at least two projects** that meet the criteria for HQPBL	Students demonstrate **academic success, success skills** and **student empowerment** described in the graduate profile.
so that …	so that …	so that …	so that …	

Strategic Action 2: Use evidence to improve PBLWorks's services continuously

The need for continuous improvement is widely recognized by staff members as essential for achieving PBLWorks's vision and fulfilling the mission. In this work, PBLWorks seeks to put in place a predictable and systematic process for analyzing, reflecting on, and making improvements from a broad array of evidence collected through research projects, PBL research conducted by partners, service surveys, and authentic artifacts.

Strategic Action 3: Build and grow partnerships with national researchers to scale PBL

While PBL research is growing and more experimental studies are underway, the research is emerging and PBL is considered "promising and not proven." The most recent [PBL literature review](#) (Condliffe, et al., 2017) points to key areas of research needed; specifically: (a) rigorous PBL research, specifically randomized control studies; (b) studies examining non-academic competencies; (c) studies that examine the effect of PBL on mathematics and literacy skills; and (d) efficacy of PBL on varying subgroups. PBLWorks will pursue purposeful partnerships with PBL researchers to support the widespread adoption of high quality PBL. For example, Lucas Education Research (LER), a non-profit focused on building an evidence base for PBL located nearby in Marin County, currently has [10 PBL research projects](#) underway. PBLWorks will partner with LER and other national PBL researchers to glean insights, share their findings, and selectively engage in strategic research projects.

Strategic Action 4: Create actionable evidence-based tools and resources for partners

Non-profit organizations are considered by educators are viable sources of valid research (*Education Perspectives Research Survey,* 2018). One of the most pressing, and often urgent, needs expressed by educators in PBLWorks's growing network is evidence that PBL works. In the next three years, PBLWorks will seek innovative ways to identify and generate valid and reliable evidence that pushes the current boundaries on what counts to show what students know and can do, using a broad array of evidence, including state assessment results and alternative authentic measures of student success that describe the whole child. The literature suggests that for research to be used in practice, it must be relevant and integrated into practice. PBLWorks will use human-centered design principles to design tools and resources tailored for the specific and unique needs of educational stakeholder groups: district and school leaders, parents, and teachers.

Enabling Actions: Create capacity to support strategic actions

The growth and sustainability of research and evidence at PBLWorks is dependent on internal capacity and external support. As this work has historically been supported through grants from private foundations, PBLWorks will need to prepare to be best situated to take advantage of funding opportunities that support Strategic Actions 1-4. Other enabling actions include increasing staffing and learning as well as designing new systems of support.

Action Steps - Teacher Face to Face Services

2019	2020	2021	2022
Effective Supports for PBL Implementation of GS Projects by Teachers: Conduct research to identify existing or new supports that are effective for implementation of Gold Standard projects (design and teaching).			
Adolescent Development Research Study: Conduct external exploratory study in the *Scaling HQPBL for Deeper Learning Impact* project.			
Gold Standard Project Design: Conduct external analysis of 40 sample Project Overview/ Student Learning Guides from PBL 101 participants in the *Scaling HQPBL* project			
Single Teacher Post-101 "Case Study:" Explore implementation journey and teacher and student outcomes of 1 PACE teacher who participated in PBL 101.	**PBL 101.** Examine the impact of the new 101 workshop on project quality and implementation, and identify bright spots where implementation is high (e.g., PBL 101 sessions, NF).	**PBL 101+ Follow-Up Services**. Examine the impact of an identified combination of services on project quality and implementation.	
Project Library. Examine the impact of the project library on project quality, implementation, and teacher confidence and readiness.			
Sustained Support Visits (SSVs). Examine the extent to which current SSVs support teacher implementation of GS PBL.	**Sustained Support Visits (SSVs).** Examine the extent to which the revised SSVs is meeting their identified outcomes.		
	Teacher Knowledge, Skills, and	**Teacher Mindset & Practice Shifts**	

	Dispositions (Mindsets): Align current data collection protocols; conduct a literature review and convene a working group to create an operationalized definition of PBL dispositions (mindsets).	**about PBL and Students:** Conduct research on teacher changes post-teacher services.	
		Impact of District Services on Teacher Outcomes: Conduct a quasi-experimental study of the impact of district services on teacher outcomes	
	Effective Professional Development and Supports for PBL Implementation of GS Projects by Teachers: Conduct research to identify existing or new supports that are effective for implementation of Gold Standard projects		
	Teacher Knowledge, Skills, and Dispositions (Mindsets): Conduct research to measure the impact of PBLWorks services on identified outcomes related to teacher knowledge, skills, and dispositions.		

Action Steps - Teacher Online Services

2019	2020	2021	2022
	Online Courses, Modules, and Library: Examine the relationship between resource use and implementation**.**	**Online curriculum**. TBD.	**Online curriculum.** TBD.
	Online Coaching: Examine the extent to which online group coaching supports teacher implementation of GS PBL.	**Online consultancy**. TBD.	
	Online companions (201, SSVs, Coaching). What features, if any, do participants feel are most useful in supporting implementation of GS PBL?	**Online companions (201, SSVs, Coaching).** Examine the relationship between resource use and implementation of GS PBL.	
		Online companions (possibly leadership). What features, if any, do participants feel are most useful in supporting implementation of GS PBL?	**Online Regional strategy support (possibly).** TBD.

Action Steps - Leadership

2019	2020	2021	2022
	Leadership Phase I Pilot Series. Examine the impact of the new leadership series on implementation of GS PBL.	**Leadership Phase I & II Pilot Series.** Examine the impact of the new leadership series on implementation of GS PBL.	**Leadership Phase I & II Revised Series.** Examine the impact of the new leadership series on implementation of GS PBL.
	Leader knowledge, skills, and dispositions (mindsets): Conduct research to measure the impact of PBLWorks services on identified outcomes related to leader knowledge, skills, and dispositions.		
		Leader Knowledge, Skills, & Dispositions: Align current data collection protocols; conduct a literature review and convene a working group to create an operationalized definition of PBL dispositions (mindsets).	**Leader Mindset & Practice Shifts about PBL and Students:** Conduct research on leader changes post-services.
	Impact of School Leadership Networks (SLNs) on School Conditions. Explore the impact of SLNs on school conditions.		

Action Steps - School Conditions

2019	2020	2021	2022
Scaling HQPBL Patterns of Diffusion and Enabling Conditions: Conduct external social network analysis based on survey and focus group data in *Scaling HQPBL* project districts	**Scaling HQPBL Patterns of Diffusion and Enabling Conditions:** Conduct external social network analysis based on survey and focus group data in *Scaling HQPBL* project districts.		
	Design of Data Collection Tools to Measure School Conditions for GS PBL: Identify and refine data collection tools to measure conditions for high quality PBL in District Services.	**Impact on Leadership Services in Districts on School Conditions:** Measure the impact of district services on school conditions.	

Action Steps - Students

2019	2020	2021	2022
Student HQPBL Experiences & Success Skills Development: Conduct external research in the *Scaling HQPBL for Deeper Learning Impact* project	**Student HQPBL Experiences & Success Skills Development:** Conduct external research in the *Scaling HQPBL for Deeper Learning Impact* project		
	Impact of District Services on Student Outcomes [S1]: Re-submit updated Education Innovation Research [EIR] proposal to the US Department of Education to examine the impact of district services on student outcomes.		

Strategic Action 2: Use evidence to improve PBLWorks's services continuously

Action Steps

2019	2020	2021	2022
Annual Data Literacy & Use Survey: Design and launch annual Data Literacy & Use Survey (See p. 38) and use data to build plan	**Survey Refresh:** Refine service surveys based on FY19 data and new research and evidence work; create surveys for newly launched services. **New Survey Platform:** Transition surveys to Qualtrics platform.		
Annual Data Summit: Design and launch first annual all-staff session to systematically analyze summative services data and identify what worked, questions for further investigation, and potential areas of revisions	**Research & Evidence Spotlights:** Offer optional virtual meetings to answer staff members' driving questions.		
Research & Evidence Lunch and Learns: Design and launch series focused on staff members' driving questions. Initial topics identified: Using design thinking to collect user experience evidence, understanding the difference between outcomes v. objectives, using class testing to collect evidence, HILN evaluation results	**Survey Development/Refinement:** Develop new survey for any new services, as needed, and refine for existing services on an ongoing basis.		
Authentic Artifact Sharing: Design and launch regular staff meeting sessions for 2-3 staff members to bring forth authentic artifacts that are evidence of the effectiveness or impact of BIE's services	**Data Summit:** Lead all-staff annual all-staff session to systematically analyze summative services data and identify what worked, questions for further investigation, and potential areas of revisions		

Research Syntheses: Summarize findings from seminal research on key areas of focus for design. Initial topic identified: Coaching.	
Survey Refresh: Update service surveys based on FY18 data and new research and evidence work	

Strategic Action 3: Build and grow partnerships with national researchers to scale PBL

Action Steps

2019	2020	2021	2022
Scaling HQPBL **Project Advisory Council:** Lead annual multi-stakeholder advisory council meeting in NH	*Scaling HQPBL* **Project Advisory Council:** Lead annual multi-stakeholder advisory council meeting in HI		
Out of the Gate Project **Council for High Quality PBL Teaching Excellence:** Lead annual convening of project deans	*Out of the Gate Project* **Council for High Quality PBL Teaching Excellence:** Lead annual convening of deans and project leads		
	PBL Research Technical Working Group: Launch volunteer group, including researchers of color; host quarterly meetings	**PBL Research Technical Working Group:** Convene volunteer group, including researchers of color; host quarterly meetings	
LER Quarterly Meetings: Engage in quarterly meetings with LER team to identify and execute on key joint projects (e.g., research, dissemination of findings)			
New Partners: Engage in strategic outreach to partners, including students of color, with cutting-edge PBL researchers to advance PBL nationally through joint research/ evidence initiatives			

Strategic Action 4: Create actionable evidence-based tools and resources for partners

Action Steps

2019	2020	2021	2022
District PBL Evidence Framework: Test in *Scaling HQPBL* project district/complex area; codify processes and tools	**District PBL Evidence Framework:** Test in *Scaling HQPBL* project districts/complex area; codify processes and tools	**PBL District Evidence Framework:** Launch as new leadership service within district services; create PBLWorks dashboard for partners	**PBL District Evidence Framework:** Publish report/book the idea of using broad evidence to tell the story of student success, breaking down structural inequities
State-Level PBL Evidence Framework: Design in Hawaii Department of Education (HIDOE)	**State-Level PBL Evidence Framework:** Test in Hawaii Department of Education (HIDOE)		
PBL Evidence Matters Brief (V2, n1): Write and publish brief on ESSA levels of evidence and PBL research (analysis done in FY18)	**Knowledge In Action (KIA) Findings:** Get national and local exposure of findings related to PBLWorks's professional services	**Scaling HQPBL Project Findings:** Get national and local exposure of findings related to this project	
		Out of the Gate Project Case Studies: Get national and local exposure of findings related to this project	
	PBL Evidence Matters Brief (V2, n1): Write and publish brief on ESSA levels of evidence and PBL research (analysis done in FY18)	**PBL Evidence Matters Brief (V3, n1):** Write and publish brief on PBL and success skills	**PBL Evidence Matters Brief (V4, n1):** Write and publish brief on PBL School Leadership Networks
	Tools for Measuring Success Skills: Write and share literature review on communication **Tools for Measuring Success Skills:** Design and test teacher and student rubrics for critical thinking		

	Tools for Measuring Success Skills: Design and test teacher and student rubrics for communication		
	Case Studies: Design and test a systematic approach for identifying schools and districts making progress on significant outcomes and capture and sharing stories in case studies	Case Studies: Conduct case studies in identified schools and districts making progress on significant outcomes and capture and sharing stories in case studies	
	Alternative Authentic Measures of PBL Results: Identify, archive and share examples of alternative measures that demonstrate PBL works through broad evidence within and beyond PBLWorks's network		

Enabling Actions: Create capacity to support strategic actions

Action Steps

2019	2020	2021	2022
JM PBL Research Fellow: Develop an annual recruitment process and criteria of *John Mergendoller Research Fellow* based on priority questions for FY20; recruit/select	Equity: Identify and adopt/adapt an equity framework for research and evidence and integrate it into practice		
PBL Research Development Plan: Create and execute on a strategic development plan to support key research projects and partnerships in FY20 and beyond	R&E Strategic Priority Plan: Update a plan for 2021-2022	R&E Strategic Priority Plan: Update a plan for 2022-2025	
Annual R&E Debrief: Engage in end-of-year review of progress and accomplishments on R&E Strategic Priority Plan; capture lessons learned; plan forward	Ideal PBLWorks PBL Researchers: Update and use criteria for the PBL researchers to include researchers of color and/or culturally responsiveness		

PBL Research & Evidence BIE Website: Redesign landing page for R&E on bie.org; partner with Marketing and Publications	**PBL Researcher Short List:** Update the short list of PBL researchers to include researchers of color who are aligned with PBLWorks Ideal Researcher criteria		
Human Centered Design: Work with Curriculum and Marketing to create a HCD process for creating evidence tools and resources	**Equity:** Increase R&E team's capacity for equity		
Researcher: Hire researcher with advanced quantitative skills on fixed-term contract to conduct internal research on key questions	**Equity:** Continue to build a diverse R&E team to accomplish key milestones and aspirations		
Ideal PBL Researchers: Build a short list of PBL researchers aligned to a set of criteria aligned to BIE core values	**PBL Research & Evidence PBLWorks Website:** Redesign landing page for R&E on PBLWorks.org and update on an ongoing basis		
	PBL Research Development Plan: Update and execute on a strategic development plan to support key research projects in FY21 and beyond		
	Annual R&E Debrief: Engage in end-of-year review of progress and accomplishments on R&E Strategic Priority Plan; capture lessons learned; plan forward		