

Developing a Learning System for Continuous Quality Improvement:
A Research-Practice Partnership Between Lowell Public Schools and University of
Massachusetts Lowell (LPS-UML RPP)

Year 1 Report
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Jack Schneider and Elizabeth Zumpe, Principal Investigators

Peter Piazza, Research Associate

Derrick Dzormeku and Abeer Hakouz, Research Assistants



For more information about the UML-LPS Research Practice Partnership, contact the co-principal investigators:

Jack Schneider, Professor, University of Massachusetts Amherst: schneider@educ.umass.edu

Elizabeth Zumpe, Assistant Professor, University of Oklahoma-Tulsa: elizabeth.a.zumpe-1@ou.edu

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Origin of the Partnership

In January 2022, Lowell Public Schools (LPS) Chief Schools Officer (CSO), Liam Skinner, reached out to Dr. Jack Schneider, then serving as associate professor in the School of Education at the University of Massachusetts Lowell (UML). LPS sought to provide educators with better data and to bolster capacity for continuous improvement. Dr. Schneider was co-founder of the [Massachusetts Consortium for Innovative Education Assessment](#) (MCIEA), within which he developed a School Quality Framework and data visualization dashboard that included a wide range of school-level inputs and outcomes.

They quickly recognized the makings of a longer-term collaboration. Mr. Skinner had been collaborating with another UML faculty member, Dr. Elizabeth Zumpe, who brought expertise in building school leaders' capacity for continuous improvement and organizing research-practice partnerships. To date, no MCIEA district had developed an approach for using the data dashboard. LPS and UML worked together to secure approval for an MOU for a three-year research-practice partnership (RPP), with an initial year of funding provided by the district and cost-sharing from the university.

Mission and Initial Theory of Action

The mission of the RPP is to foster a district-wide culture of data-informed continuous quality improvement. Attaining this mission entails learning at every level of the system over multiple years (Cobb et al., 2016; Mintrop et al., 2022). In the first year, the RPP focused on key drivers of change that would launch an initial phase of this learning and transformation:

- **Infrastructure:** The RPP would provide access to holistic school quality data beyond test scores (Schneider, 2017), with data visualization to support goal-setting and progress monitoring. Starting with the existing MCIEA open-access dashboard, we would make customizations based on input and feedback from LPS educators about types and visualizations of data they find useful for informing improvement.
- **Professional learning for building leaders:** School leaders play an integral role in improvement (Bryk et al., 2010; Copland, 2003; Lee & Louis, 2019). Given how an era of high-stakes accountability policies has tended to invite a focus on test score data, fast results, and using data for compliance (Datnow et al., 2020; Schildkamp et al., 2017), leaders would need guidance and opportunities to practice learning new processes for using data for improvement. For this, the RPP would leverage existing monthly academies for school principals and assistant principals and organize learning in leader networks focused on similar improvement foci (Sutcher et al., 2017).
- **Coherence:** Professional learning needed to be organized around a district-wide model of improvement (Cobb et al., 2016). We opted for continuous quality improvement grounded in processes and tools drawn from design-based school improvement (Mintrop, 2016), improvement science (Bryk et al., 2015; Hinnant-Crawford, 2020), and appreciative inquiry (Cooperrider & Whitney, 2000). This model would orient leaders to use holistic school quality data in combination with a collaborative process to appreciate

strengths, identify and diagnose a problem of practice, and engage in short cycles of disciplined inquiry.

- **Co-design:** We assumed that promising designs for the dashboard and for leaders' professional learning required the combined expertise of LPS educators and UML researchers (Penuel et al., 2011). The RPP would therefore be organized around teams with members from both organizations that would meet regularly to jointly plan, monitor, reflect, and adapt the designs over the course of the year.
- **Research:** The project also aims to carry out research about our efforts that can produce knowledge and practical resources that can travel to other school districts. For this, we would organize research studies that would both inform our designs and allow us to study the results of our efforts, as well as generate insights and materials that would be useful for the field.

RPP Structure

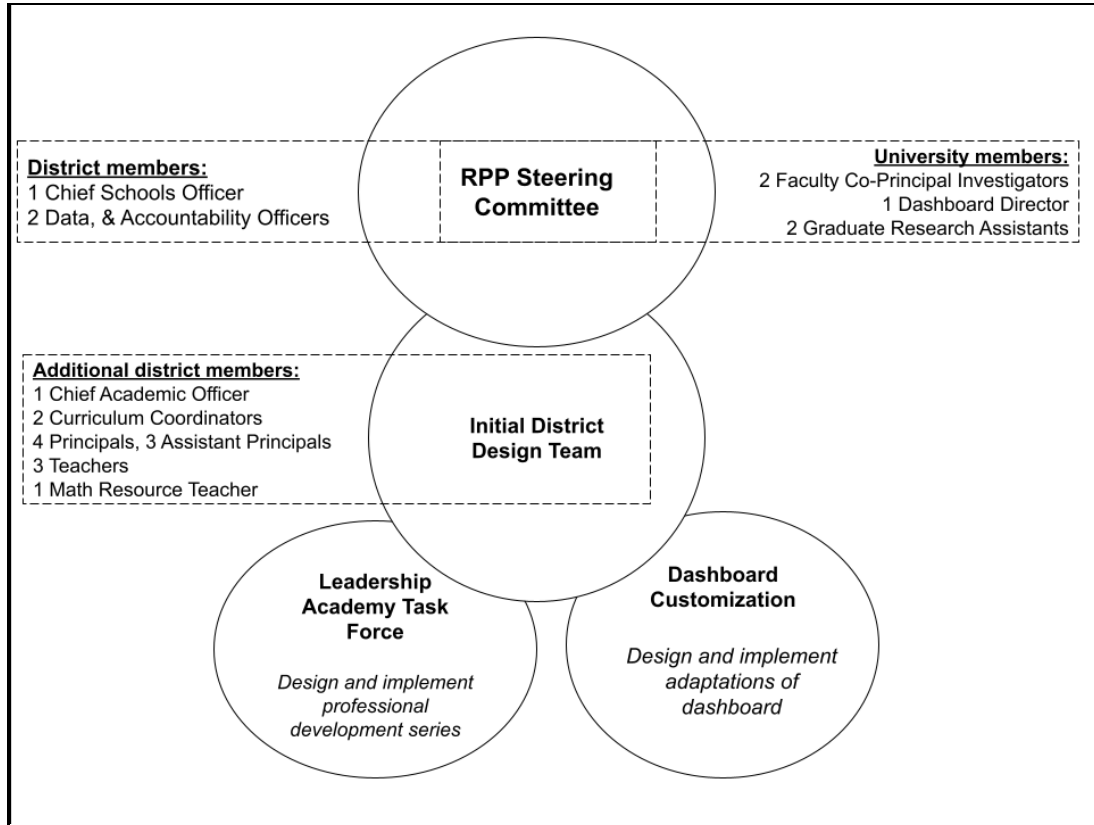
Steering Committee: An RPP Steering Committee meets monthly as an overall governing body. From LPS, this includes: the CSO responsible for principal supervision, organizing leader professional development, and managing the district's research, data, and accountability office; and two leaders that work under the CSO in the research, data, and accountability office. From the university, this includes: two faculty as Co-Principal Investigators, one serving as project manager and lead designer for the professional learning series, and one serving as liaison between the district and university; one dashboard director; and two graduate research assistants.

Initial Design Team: Additional LPS educators were recruited for a district design team that would make key decisions about the design of the professional development and dashboard. The CSO recruited likely champions with expertise in data use for improvement who were respected among colleagues. In addition to all members of the Steering Committee, the design team included: the Chief Academic Officer responsible for curriculum and instruction; two curriculum coordinators in literacy and mathematics working under the CAO; four principals and two assistant principals; three teachers (one elementary, one middle, one high school); and one math resource teacher. During an initial convening over the summer, the design team decided that ongoing design and implementation work required subsets of members to meet regularly in "task forces." One task force would focus on the PD series and the other on dashboard development.

Leadership Academy Task Force: The "Leadership Academy Task Force" includes the CSO, a member of the CSO's department, three principals, one assistant principal, and members of the university team. Midway through the year, the CAO and one curriculum coordinator also joined.

Dashboard Customization Task Force: LPS leaders requested to delay the launch of a dashboard customization task force until after the start of the school year to avoid overburdening educators. In the fall, it proved difficult to gain interest to meet regularly for this. The dashboard director instead met episodically with individuals from the design team interested in supporting specific dashboard tasks.

Figure 1: RPP Structure

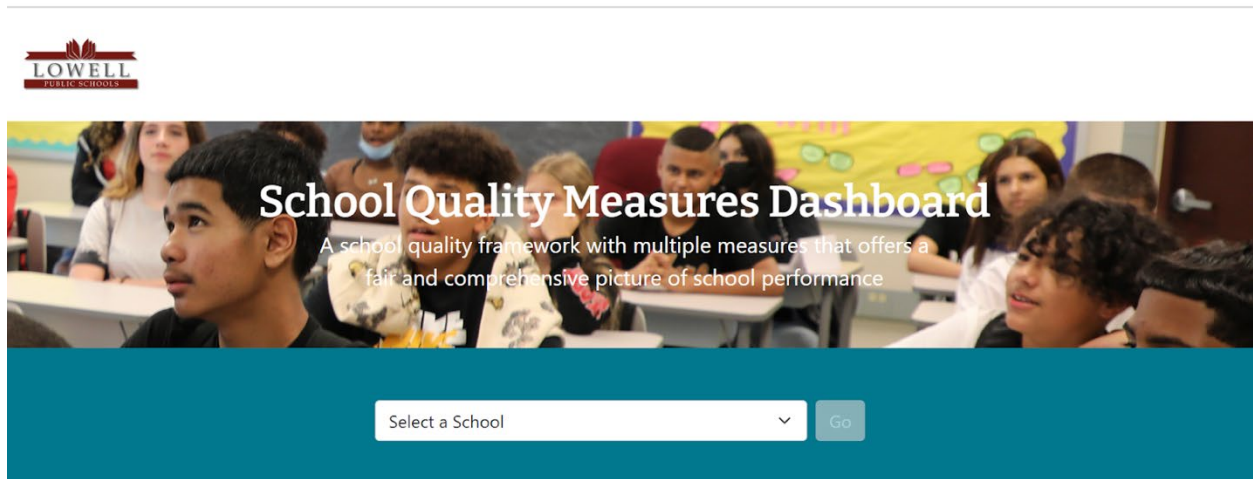


Design and Implementation Activities

Holistic Assessment for Lowell Schools

Lowell Public Schools has been one of eight public school districts in the Massachusetts Consortium for Innovative Education Assessment (MCIEA), since the consortium’s founding in 2016. Originally, MCIEA districts came together to develop a holistic system of measurement for understanding student learning and school quality. With the launch of the LPS-UML RPP, we were able to build on LPS’s work with MCIEA to develop a dashboard customized to district needs and to pilot new strategies for operationalizing existing data as well as collecting new forms of data. This section offers a brief summary of highlights in our work on the Lowell-specific school quality measures dashboard, called Holistic Assessment for Lowell Schools (HALS).

Figure 2: HALS Dashboard Header



Dashboard Modifications

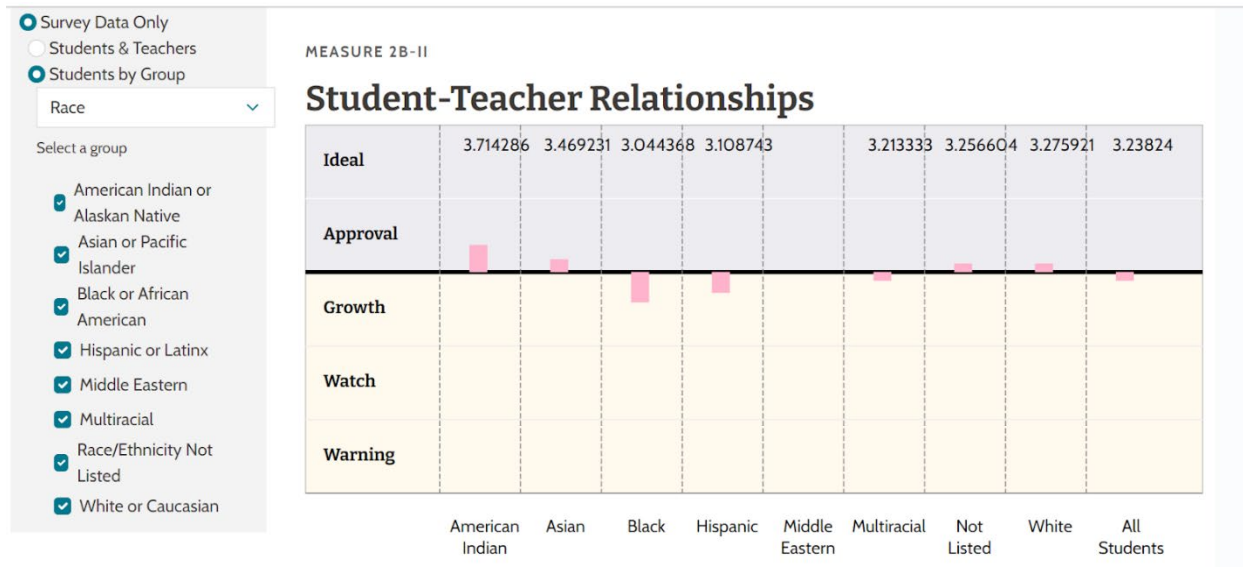
Working closely with school and district leaders in LPS, a team of professors, researchers, and graduate students at UML planned and implemented a number of dashboard modifications aimed at facilitating data inquiry and action planning in LPS.

First, the UML team created a separate dashboard with LPS-specific branding in order to function as a test site for further dashboard customizations. In a meeting on July 6, 2022, a design team with representation across the LPS-UML RPP identified a list of customization priorities. Based on this list, the UML team has implemented the following modifications:

- Visualizing student survey results in disaggregated sub-groups according to race (as depicted in Figure 3), gender, and grade level.
- Renaming components of the school quality framework to more clearly identify measures that are based on perception, as opposed to direct measures of constructs such as academic learning.
- Visualizing the mean survey results for each component of the school quality framework.
- Collecting survey data in a pre- and post- format during the 2022-23 school year.
- Adding measures for student experiences at the k-4 grade span.

Currently, the UML team is working to add student sub-group disaggregation according to family income, ELL, and Special Education status, as well as to offer clarity about how survey response rates are calculated.

Figure 3: Dashboard with Disaggregation by Racial/Ethnic Subgroup



K-4 Survey Development

Given the challenges associated with surveying students in lower elementary school grades, MCIEA has typically conducted survey data collection starting with students in grade four. However, this presented a challenge for LPS: because most elementary schools serve students in grades Pre-k through four, school-wide results on the data dashboard were based only on students in one grade level—students who would transition to a new school in the following academic year. Working with school leaders at LPS elementary schools, UML-based team members modified existing survey measures to be more accessible for early elementary students, including simplified language and visual answer choices (i.e., emojis). In the winter of the 2022-23 school year, all LPS elementary schools piloted new survey measures for student sense of belonging, valuing of learning, and academic challenge; those results are displayed on the HALS dashboard. In the spring of the 2022-23, LPS elementary schools piloted survey measures for student engagement, student-teacher relationships, and emotional safety.

HALS Inquiry Sessions

In addition to providing holistic school quality data to LPS school leaders, the UML-based team offered school-level support in operationalizing data for continuous school improvement. Specifically, a data coach from UML facilitated data inquiry sessions with staff and school leadership at the following schools: Stoklosa Middle School, Butler Middle School, Greenhalge Elementary School, Murkland Elementary School, and Reilly Elementary School. In most cases, inquiry sessions were designed to inform each school’s Quality Improvement Plan (QiP) process, using a data inquiry protocol tailored to school needs. Feedback from participant reflection forms indicates that the sessions were helpful. On average, participants strongly agreed that “our data inquiry conversation led to important takeaways that can shape school action planning” and, when asked to identify strengths of the data inquiry sessions, one participant noted that it was helpful to “[find] a targeted focus based on the student voice.”

Leadership Academy

Initial Work: Learning and Applying CQI to School-Specific Foci

As explained in previous sections, a leadership academy task force team met regularly to co-plan and reflect on feedback about a three-day August institute and monthly sessions. During the first several months, the leadership academy was organized around three strands:

- Learning CQI—learning key ideas and skills for using newly-provided data dashboards in combination with methods of continuous quality improvement (CQI).
- Practicing CQI—completing tasks and action items for undertaking cycles of inquiry (Plan-Do-Study-Act cycles) to address schools’ authentic problems of practice.
- Network Sharing—exchanging ideas and sharing progress about cycles of inquiry in leader learning networks, organized by grouping together schools with similar problems of practice.

The task force assumed at the outset that Learning CQI should include readings from “anchor texts” ([Hinnant-Crawford’s *Primer*](#) and a teaching case) as well as mini-lectures and seminar-style discussions of key ideas. For Practicing CQI, it was assumed that leaders should work on hands-on tasks that started during the sessions and attached to action items to follow up and complete at their sites. (See [here](#) or Appendix B for a P-D-S-A organizer designed to support these tasks.) It was further assumed that principals and assistant principals, although attending the academy on staggered days, would coordinate in between sessions and work with school teams to carry out a joint inquiry cycle.

Adapting to Feedback: Shifting to a District-Wide Focus on Student Engagement and QiP

About midway through the school year, after one inquiry cycle, the task force noted that leaders’ usefulness ratings were slipping. Reflecting together on co-design participants’ experiences at the academy as well as comments on the feedback form, we concluded that:

- Leaders desired more collaboration and less “theory” or “direct instruction.”
- Learning should transition to being less about a process of inquiry and more about a content area related to a focal problem (e.g., becoming familiar with research and theory for addressing the problem of “chronic absenteeism”).
- School needs were too varied to enable shared learning in networks based around school-specific problems of practice.
- Principals and assistant principals were struggling to pursue a shared inquiry due time constraints and job role structures.
- Variation in expertise led to difficulty with follow through and implementation breakdowns of cycles at their school sites.

The task force decided that the lack of a district-wide focus was undermining leaders' learning of CQI and making it difficult for more expert leaders to support novices. School-site coaching would be helpful but was beyond the resources available in the RPP.

Starting in December, to address these challenges in the feedback and better enable district coherence, the task force decided to reorient the academy:

- All schools would now focus on a district-wide priority of “student engagement,” as defined by indicators being used in district instructional rounds related to cognitive demand and student voice on a state department rubric.
- A new strand in the leadership academies would be introduced: “Building shared understanding about student engagement,” for leaders to learn background knowledge and tools for diagnosing student engagement.
- In this new strand, leaders from the curriculum office would join the task force, and some academy time would be reserved to offer leaders a series of teacher PDs about curriculum and instruction that fosters “student engagement.”
- Less time would be for “direct instruction,” and more time would be for hands-on tasks, dialogue, and collaboration.
- Hands-on tasks would include some of those required for completing the district mandated Quality Improvement Plan (QiP) for the following school year.
- Alongside work on the QiP, principals and assistant principals would undertake separate and short-term cycles of inquiry in the current year around problems of practice related to student engagement within their respective spheres of influence.

Responses to these changes were mixed. Leaders appreciated the idea of establishing a district-wide focus, agreed that student engagement was an appropriate and important focus, and enjoyed the workshops provided by the curriculum office.

However, they also experienced the changes as disruptive when the focus drifted away from earlier learning about HALS and CQI. It was assumed that a shared district-wide priority area would better support leaders to undertake another PDSA cycle and to learn from one another in networks. But attempts to bridge student engagement focus and QiP to the earlier learning about the HALS dashboard and CQI came across as redundant and too much “direct instruction.”

When time ran short and leaders reported feeling overloaded with what was on their plates, the task force decided to prioritize curriculum office workshops and planning the following year's QiP for principals, and to involve only the assistant principals in a PDSA cycle and network sharing about student engagement. Ultimately, when March's academy had to be canceled due to weather, the task force decided that a PDSA around student engagement in the current year was unrealistic.

Table 1, below, summarizes the activities of the Leadership Academy across the 2022-23 school year, and includes feedback from participants that illustrates areas of strength and growth areas that the RPP team sought to respond to.

Table 1: Summary of Leadership Academy Topics and Feedback

Month	Topics & Activities	Feedback: “Rate Strategic Data-Informed Decisions Segment” <i>4 = Excellent; 3 = Good; 2 = Fair; 1 = Poor</i>					
		#	%				Comments (+ Positive; Δ Needs Improving)
			4	3	2	1	
Aug Day 1	*Introduction to OA & MCIEA dashboards *Story of Strengths	80	44	53	4	0	+ Access to data, displays + Collegial discussion Δ Limited disaggregation
Aug Day 2	* Learn CQI: CQI toolkit and teaching case * Practice CQI: Needs assessment	67	42	51	8	0	+ Useful content + School team time Δ Too much reading Δ Virtual presenter
Aug Day 3	* Practice CQI: Root cause analysis * Sample planning calendars * Apply CQI to QiP PoP * Distribute <i>Primer</i>	31	48	48	3	0	+ Useful CQI steps + School team time + Colleagues’ examples Δ Felt rushed
Sept	* Initial network sharing * Practice CQI: Empathy interviews & problem of practice	66	38	39	6	0	+ Networks for shared problems of practice Δ Unsure about empathy interviews
Oct	* Network sharing * Learn CQI: Theory of improvement * Discuss <i>Primer</i> and teaching case * Practice CQI: “Plan” PDSA Cycle 1 - Drivers & implementation plan	39	33	64	3	0	+ Useful content + Set short-term goals Δ Not enough time for application of CQI Δ Not with school teams
Nov	* Network sharing * Learn CQI: Measure for improvement * Discuss <i>Primer</i> and using dashboard * Practice CQI: “Plan” PDSA Cycle 1 - Measures & goals	42	21	64	12	2	+ Discuss data with colleagues + Thought-provoking Δ Share template earlier Δ Lack school team time
Dec	* Learn CQI: Results and variation * Discuss <i>Primer</i> & run charts * Refocus: Student engagement * Connecting CQI to QiP * Intro to HALS dashboard features	40	23	53	23	3	+ Data use (“run charts”) + Focus on student engagement Δ Not enough discussion Δ Disjointed
Jan	* Network sharing * Build shared understanding of student engagement	43	23	65	12	0	+ Pivot to QIP + Fresh HALS data + Collaboration

	<ul style="list-style-type: none"> * Practice CQI: “Study” & “Act” for PDSA Cycle 1 * Learn CQI: Use HALS to measure student engagement * Practice CQI: QiP Needs assessment 						<ul style="list-style-type: none"> Δ Too much academic language Δ Not enough discussion
Feb	<ul style="list-style-type: none"> * Building shared understanding of student engagement: Curriculum PD series * Learn CQI: Establish student engagement baseline using multiple data points 	48	33	56	10	0	<ul style="list-style-type: none"> + Connect HALS to student engagement + Curriculum PD Δ Not enough discussion Δ Tasks feel like “extra” Δ CQI feels repetitive
May	<ul style="list-style-type: none"> * Readminister LPS Leaders Survey * Building shared understanding of student engagement: Curriculum PD series * Principals: Share QiP plans, calendars * APs: Use data with equity lens 	36	39	50	8	3	<ul style="list-style-type: none"> + Reflect on QIP and share practices + Data with equity lens Δ Need more discussion with more people

Goals and Progress System (GPS)

Using data from the HALS dashboard—combined with student academic outcomes as measured in district-level assessments—LPS district leaders and UML-based researchers created a comprehensive system for understanding school strengths and areas for growth: the Goals and Progress System (GPS). In addition to offering a summary of key points of data collected across LPS, the GPS system and its corresponding [user guide](#) function as a vehicle for reciprocal accountability. District leaders hold schools accountable for continuous improvement and school leaders now have the opportunity to hold the district accountable for providing the necessary support they need to improve. This unique approach to accountability is designed to improve on traditional, top-down forms of oversight in which data is held by district- or state-level personnel and used as justification to sanction schools.

Rapid Literature Review

In November 2022, then-LPS superintendent Joel Boyd expressed a keen interest in gaining a deeper understanding of the existing research literature pertaining to teacher career ladders. Seeking support from the RPP team, he requested assistance in providing relevant resources and information. This was beyond the scope of the partnership. However, in seeking to strengthen the partnership and broaden its design, RPP leaders agreed to include the use of research evidence.

The review process focused on assessing the quality of the selected literature, distilling key findings, and organizing them into concise bullet points for ease of comprehension. The second project from the superintendent involved developing a sortable database of state accountability percentile rankings along with income and racial demographics. This was aimed at

understanding the so-called 90/90/90 phenomenon, and how it plays out in Massachusetts. 90/90/90 refers to an older line of inquiry that suggested schools with 90% or more low-income students and 90% or more students of color could have 90% or more students achieving at high rates. However, the results obtained from this project indicate a scarcity of evidence supporting the existence of such schools.

Research Projects

As an RPP, this project was designed not just to produce usable knowledge within the partnership, but also to produce generalizable knowledge outside of it. Below we summarize research projects for which data collection is complete or nearly complete. The findings reported here are preliminary. Systematic data analysis is in progress; updates to findings will be shared when the analysis is complete.

Project 1—Improving Data Availability and Usefulness: Pre-Post Survey Results

As described earlier, the RPP proceeded with a key assumption that access to more holistic school quality data would increase the availability and usefulness of data for school leaders. To test this assumption, in June 2022 and again in May 2023, we surveyed school leaders in LPS about their perceptions of the availability and usefulness of various types of data.

Of 80 school leaders, 57 and 45 leaders responded in 2022 and 2023, respectively (71% and 56% response rates). As shown in Table 2 below, leaders’ perceptions of the availability and usefulness of all data types increased between 2022 and 2023. The two data types with the most substantial increases in both availability and ratings of usefulness were teacher surveys and student surveys. Figure 2 shows prominent trends in qualitative comments on the survey that underscore the fact that leaders found the new data dashboards introduced this year, including survey data, to be very useful.

More detailed results are available in Appendix A.

Table 2: Data Types Reported as “Not Available” and Ratings of Usefulness, 2022 & 2023

Data Type	Not Available		Change	Available and Useful (Scale of 1-4)		Change
	2022	2023		2022	2023	
Teacher surveys	54%	6%	-48	1.17	3.15	+1.98
Student surveys	58%	16%	-42	1.09	2.71	+1.62
Data about parent/family involvement	63%	31%	-32	0.98	1.96	+0.98
Interviews	74%	43%	-31	0.75	1.78	+1.03
Parent or community surveys	70%	47%	-23	0.81	1.60	+0.79

Analysis of student work samples	23%	4%	-19	2.50	3.22	+0.72
Disaggregated student outcomes	15%	4%	-11	2.58	3.19	+0.61
Data from instructional rounds	11%	4%	-7	2.75	3.09	+0.34

Figure 4: Trends in School Leader Survey Comments, 2022 & 2023

2022	2023
<ul style="list-style-type: none"> • Available databases lack disaggregation features for subgroups or change over time • Lack of district or state-provided perceptions data from stakeholders (students, teachers, parents) • Some schools developed own surveys and interviews; leaders were concerned that these were not systematic or valid 	<ul style="list-style-type: none"> • Much improvement in overall availability of data due to Open Architects and HALS • Teacher survey data from HALS helpful for new insights about beliefs and cultures • Appreciate new K-3 student survey • Leaders who conducted empathy interviews found them helpful; many wanted to but did not find time or felt unsure of process • Challenges with HALS: <ul style="list-style-type: none"> ○ Data not current enough ○ Data not pertinent for district roles ○ Difficulty with disaggregation features • Data about families and parents remains a growth area for the district

Project 2—School Principals’ Perspectives on the Usefulness of Educational Data

The RPP proceeded with a set of assumptions about which kinds of data, displays, and professional learning opportunities might address school leaders’ needs related to data-informed decision making. As summarized above, an initial survey provided insight into district-wide trends in types of data school leaders perceived to be available and useful. To gain an in-depth understanding of principals’ perceptions of data use, this study involved interviews with nine principals to find out:

1. What are the kinds of data that school leaders wish they had access to (but presently do not)?
2. What perceptions or beliefs do school leaders have about data use?
3. What do school leaders believe the most useful present data points are?
4. What skills are required by school leaders in data use and what do they struggle with?

Preliminary findings:

- Principals highlight the importance of assessment-based data sources such as MCAS, Fountas and Pinnell testing, iReady data, and DIBELS data.

- Principals report that the most useful and available data includes:
 - Classroom-level assessments like formative assessments and report cards.
 - Data sources from HALS and OA dashboards that include student feedback, family feedback, demographic data, attendance, and discipline data.
- Principals find that holistic school quality data on HALS complements more traditional performance or outcomes data.
- Principals find HALS particularly useful for:
 - Providing information about feelings, attitudes, and opinions
 - Providing visualizations that help to identify areas in need of improvement
- Principals utilize data for instructional groupings, targeting curricular plans, action planning, and needs-based interventions.
- Principals describe ongoing challenges with data use:
 - Disparity between data sources, leading to uncertainty about whether the disparity is due to data validity or reveals another aspect of the problem.
 - Overwhelming amounts of data, leading to difficulty in identifying which data to use for which purposes.
 - Lack of systematic data about/from parents and families.

Analysis of data for this project is ongoing. As results become available, they will be shared with LPS partners and posted to the Beyond Test Scores Project website.

Project 3—School Leaders’ School Improvement Planning Practices

In an era of standards-based accountability, school improvement planning has become a widespread expectation for school leaders. In Massachusetts, state law requires school leaders to form a school site council and undertake a formal process of annual planning. Despite the seeming ubiquity of this expectation, most of what is known about school improvement planning exists in the form of normative frameworks. There is little knowledge to date about what school improvement planning typically looks like in practice. Inasmuch as that is the case, district leaders act with a limited understanding of existing approaches to school improvement planning.

To address this gap in understanding, this study asks: How does school improvement planning work *in practice* for school principals?

- When does school improvement planning take place, and who is involved?
- What happens during and after school improvement planning?
- What supports and challenges exist for school improvement planning?

Preliminary findings:

- All principals consider the district-mandated Quality Improvement Plan (QiP) to be their primary or only school improvement plan.

- Aligned with a mandated timeline for the QiP, school improvement planning generally takes place during a short time window from January through March.
- Principals serve as the primary or sole organizer of the improvement plan for most schools, bearing responsibility for data collection and interpretation to draft school priorities, problems of practice, interventions, and budget allocations.
- Principals follow the mandated QiP process and seek data about perspectives of multiple stakeholder groups and approval of the plan by a school site council.
- Some principals have a team of collaborators who participate to some degree in improvement planning, such as an instructional leadership team or data team; however, in most schools, this is a fairly informal and intermittent collaboration.
- While the QiP requires principals to identify “check points” throughout the year, interviews revealed that most schools do not have organizing structures for ongoing collective learning, such as a formal dedicated team or structured process to monitor progress, reflect on results, and make adaptations throughout the year.
- Principals reported that the new dashboards were useful for improvement planning. In particular, HALS was useful for providing perceptions data from students and teachers that allowed consideration of issues of student engagement, teacher beliefs, and school climate in their needs assessment.

Project 4—Developing into a Productive RPP

This study investigates the collaborative process and structure of our RPP. A key feature of an RPP is collaborative partnering between researchers and practitioners, which centers practitioners’ problems of practice and advances the knowledge base. Such a collaborative arrangement between researchers and practitioners is a relatively new and increasingly popular approach to knowledge production in education. A limited but growing knowledge base about best practices for establishing productive RPPs in education has focused almost exclusively on studying well-established or “mature” RPPs that have existed for many years. While providing helpful principles for organizing an RPP, this existing research offers less insight into specific factors that might affect productive partnering in less mature or “young” RPPs. To address this, this study asks:

- After one year of working together, what do participants in a design-based research-practice partnership (RPP) perceive to enable and constrain productive partnering?
- Based on one year of partnering, what do participants recommend as effective strategies in building an RPP oriented towards addressing educational inequity?

To address these questions, we conducted 12 interviews of 60-90 minutes with participants in a variety of school, district, and university roles within our RPP.

Preliminary findings:

- Across roles, partnering was experienced as productive when we had:
 - Shared RPP leadership between university and district
 - RPP leaders with shared understandings of RPP goals and theory of action
 - A multi-role design team with inclusive voice and the “right” people with the necessary expertise and a collaborative orientation
 - A clear focus around which to design for learning (e.g., a dashboard and CQI)
 - Shared responsibility for follow through between university and district partners
 - Consistent routines for ongoing planning and reflecting on results
- Across roles, partnering was experienced as challenging or constrained when:
 - Ownership of design tasks was not shared between university and district partners
 - Shifts in response to participant feedback led to drift and blurring of focus
 - Demands from executive district leaders ran counter to the RPP’s theory of action or interrupted or distracted from the RPP’s designed learning activities
 - University and district partners lacked a shared understanding of the RPP’s theory of action or goals
- Differences between university and district partners:
 - For university partners, partnering was constrained when partnership work became predominantly “transactional” and focused on “deliverables” and less “collaborative” and focused on collective learning through research.
 - For district partners, partnering was constrained by slower-than-desired progress on “deliverables” and when “transparency” about challenges felt more forthcoming from the district than from the university.
- Across roles, becoming more equity-oriented would entail:
 - Acknowledging district-wide inequities across schools in students’ learning needs and schools’ resources
 - Shared focus across the district on a collective equity issue
 - District-wide commitment to using an equity lens with data
 - Merging learning for leaders about strategic data-informed decisions with learning about culturally and linguistically sustaining pedagogy

Next Steps & Recommendations

Meaningful partnerships are easier to generate than to sustain. This is particularly true in the field of K-12 education, in which the ordinary demands on leaders and practitioners leave little capacity for projects beyond the scope of regular programming. Even in this partnership, which has been supported by a broad network of stakeholders in the Lowell Public Schools and in the School of Education at UMass Lowell, the effort required to maintain forward momentum has presented a major obstacle. It is also the case that partnerships like this have real costs associated with them—costs that can eventually prove fatal, if an absence of additional resources requires even more extraordinary effort from project participants.

As of the writing of this report, the LPS-UML RPP is at a crossroads. Startup funds for the partnership, provided by the Lowell Public Schools, as well as through cost-share by UMass Lowell, were allocated for only Year 1; no new revenue sources have been identified. Turnover in the district and at the university present a further challenge. LPS superintendent Joel Boyd has left the district and the RPP lead for LPS, Liam Skinner, has been promoted to interim superintendent. The two co-PIs on the university side of the partnership have both left UML; Jack Schneider is now at the University of Massachusetts Amherst, and Elizabeth Zumpe is at the University of Oklahoma-Tulsa. New initiatives will invariably hit the Lowell Public Schools, drawing attention away from the RPP. The ordinary demands of K-12 schools and districts will exert a steady pressure on any deviation from the mean in daily activity.

And yet commitment to the partnership remains strong. RPP leaders continue to be committed to working together, with or without additional funds, and regardless of changes in roles. And, perhaps most importantly, school-based leaders continue to push the work forward in a variety of different ways. Thus, while it is unlikely that the project will continue with the same momentum as was generated in Year 1, it also seems likely that Year 1 will not be the final year of this RPP.

As this work continues to unfold, it will be important for leaders of this RPP to reflect on three categories of questions:

1. Which elements of our work this year appeared most useful? What would be best to continue or do more of, or eliminate or do less of? In other words, what worked and what didn't?
2. What is sustainable and what isn't? In light of the many pressures and resource limitations that constrain this work, what should be prioritized?
3. How can this work continue to grow, even while it remains focused in its design and limited in its scope? Where can this project be two years from now, at the end of the three-year MOU? Where can this project be a decade from now?

Answering these questions is an essential first step, yet will not be sufficient to sustain the partnership. Clear systems and structures that ground shared values and commitments in actual practice will be essential if this RPP is to endure beyond the publication of this report. Successful partnerships, as we have learned, demand regular meetings as much as they do an inspiring mission. Identifying clear supports that will continue to bring project leaders together for planning, focus educators and school leaders on work related to the RPP, and foster productive research is a clear second step.

Crossroads are places that demand decisions about very different kinds of outcomes. Inasmuch as that is the case, this RPP may *not* be at a crossroads, as it is clear that the partnership will continue in some way, shape, or form. Instead, it may be more accurate to say that the RPP will continue somewhere between the margins and the center of work inside the Lowell Public Schools. Although project leaders may hope for it to be central, it is also the case that sustainable and constructive work along the periphery would be no small feat. Schools, after all, don't improve as a result of the one best initiative; they improve as a result of steady work.

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Appendix A

School Leaders' Perceptions of Data Availability and Usefulness (Spring 2022 and 2023)

Data Types	2022			2023		
	n	Not available (%)	Useful (Mean)	n	Not available (%)	Useful (Mean)
<i>Student outcomes</i>						
Performance on state tests	57	3.51	2.96	45	4.44	3.11
Disaggregated by student groups	57	7.02	2.91	45	4.44	3.18
Disaggregated by subtopic or skill	56	14.29	2.63	45	4.44	3.00
Performance on district assessments	57	12.28	2.75	45	6.67	3.20
Disaggregated by student groups	57	24.56	2.28	45	8.89	3.09
Behavioral incidents	57	7.02	3.00	44	2.27	3.18
Disaggregated by student groups	57	19.30	2.54	44	2.27	3.16
Suspension rates	58	8.62	2.71	44	4.55	2.77
Disaggregated by student groups	57	12.28	2.56	44	4.55	2.80
Chronic absenteeism	57	1.72	3.22	45	2.22	3.60
Disaggregated by student groups	57	10.53	2.72	45	2.22	3.49
Attendance rates	58	1.75	3.00	45	2.22	3.47
Disaggregated by student groups	57	17.54	2.47	45	2.22	3.40
<i>Teacher surveys</i>						
About school climate or culture	56	48.21	1.36	45	4.44	3.31
About resources available	56	53.57	1.18	45	6.67	3.07
About school community and well-being	56	53.57	1.21	45	4.44	3.24
About perceptions of students' learning	56	58.93	1.07	45	4.44	3.16
About perceptions of teaching in the school	56	50.00	1.32	45	4.44	3.24
Any of above disaggregated by subgroups	55	60.00	0.89	45	13.33	2.87
<i>Student surveys</i>						
About school climate or culture	57	52.63	1.28	45	13.33	2.84
About their well-being	57	52.63	1.28	45	13.33	2.82
About their community	57	59.65	1.04	45	13.33	2.84
About their learning	56	58.93	1.04	45	13.33	2.87
About resources available to them	57	61.40	1.04	45	15.56	2.67
About quality of teaching in the school	57	56.14	1.09	45	15.56	2.69
About quality of leadership in the school	57	59.65	0.98	45	26.67	2.38
Any of above disaggregated by subgroups	56	62.50	0.93	45	20.00	2.53

<i>Interviews</i>						
With students	57	77.19	0.70	45	42.22	1.76
With teachers	57	68.42	0.93	45	37.78	2.00
With parents or community members	57	75.44	0.63	45	48.89	1.56
<i>Parent or community surveys</i>	57	70.18	0.81	45	46.67	1.60
<i>Data about extent of parent or family involvement</i>	57	63.16	0.98	45	31.11	1.96
<i>Data from instructional rounds at your school</i>	57	10.53	2.75	45	4.44	3.09
<i>Analysis of student work samples</i>	56	23.21	2.50	45	4.44	3.22

Note. Usefulness measured “Available *and* useful” with rating on 1-4 scale (1 = not useful, 4 = very useful).


Appendix B

Plan-Study-Do-Act (PDSA) Organizer

PLAN

Consult variety of school quality data and evidence

- Empathy interviews
- HALS dashboard
- OA dashboard
- MCAS scores
- Diagnostics (e.g., I-Ready)
- Other:



Identify focal problem

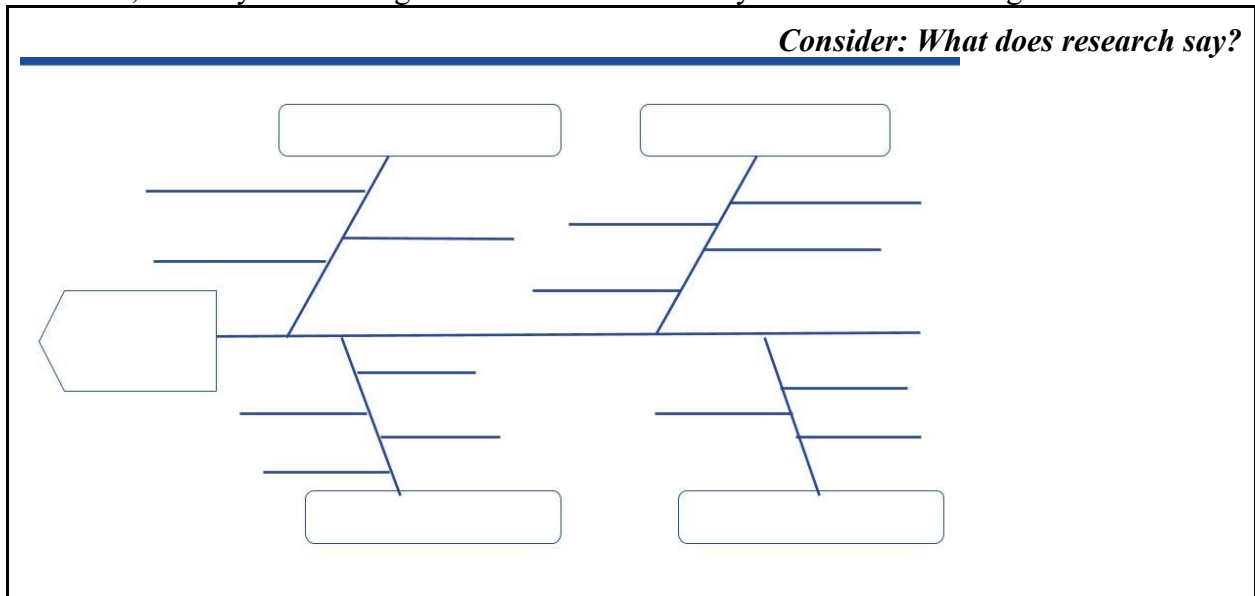
Identify priority area of need:

Specify Problem of Practice [i.e., “Point A” – [WhoDoesWhat](#) that needs to change]

Who	Does	What

Diagnose the problem: Fishbone diagram (replace below with yours)

Considering your experience and data about the problem, brainstorm root causes. Working with a partner or team, ask and answer “Five Why’s” about your focal problem. After trying this a few times, record your thinking about the root cause analysis in a fishbone diagram.



Set Short-term Goals

Point A (current state) <i>What? For Whom? By When? How Much?</i>	Point B (short-term goals) <i>What? For Whom? By When? How Much?</i>
<i>Did you state what is problematic and undesirable and needs changing?</i>	<i>Is there a clearly defined gap between Point A and B? Is Point B feasible for 6 weeks?</i>
<i>Did you operationalize or define key terms? What do you hear or see going on?</i>	<i>Did you operationalize or define key terms? What do you hear or see going on?</i>

Identify Change Drivers and Change Activities

*Which elements of system to activate? What will motivate people to want to change?
What are we ready for and have resources to do?
Consider: What does research say we should try?*

PLAN—> DO

Create an implementation plan (change, add more rows or columns as needed)

Action Item	Name(s)	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6

Identify practical measures

Did it work? (Outcomes measures)	Is it working? (Driver measures)	How is it working? (Process measures)	Is it working as intended (Balance measures)

STUDY

What data did you collect? (e.g., add displays, charts, or graphs here)

SUGGESTION: Try a run chart

Attend to results and variation: What trends do you see? What do you learn from this?

ACT

Based on your data, what will you *do next*? For example:

- Repeat the “do” and “study” phases again – continue testing same change drivers and activities?
- Revising the “plan” stage more heavily – further investigate the problem or change drivers?
- Revise the “do” and “study” phases – make an adaptation to change ideas?
- Start over – change focus?

Why does your experience and data to date suggest that this is the best next step?