

# The Math Acceleration Project End of Year Report

Year 1, 2021–2022

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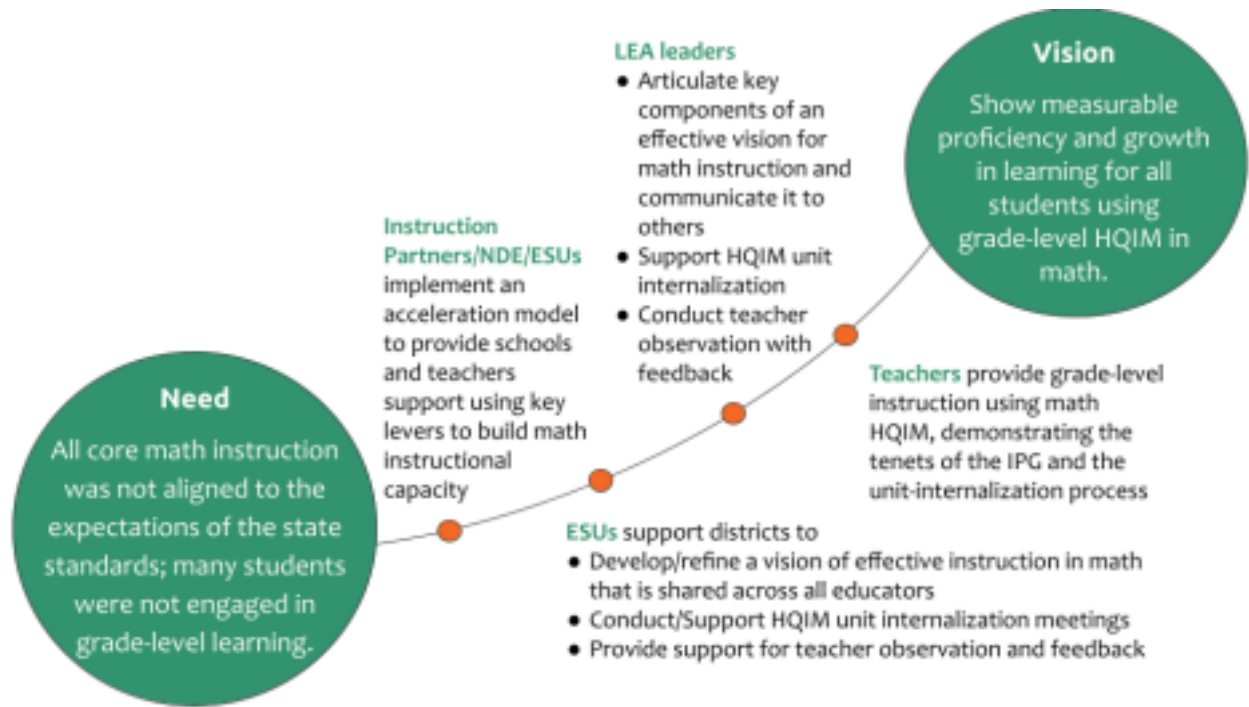
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## Executive summary

The 2021–2022 school year marked the beginning of the Nebraska Math Acceleration Project, a partnership between the Nebraska Department of Education (NDE), Nebraska Educational Service Units (ESUs), districts and/or schools chosen by their ESUs, and Instruction Partners. This three-year project aims to build instructional leadership to accelerate learning in math through leveraging K–8 high-quality instructional materials (HQIM). This support focuses on work addressing three key levers: vision setting, unit internalization, and observation and feedback.

Each ESU participates in the project for two years in partnership with one or two districts. The project is structured to build the capacity of ESU leads, then local education agency (LEA) leaders, then teachers gradually releasing the responsibility of implementing the work through the chain of stakeholders so that it is sustainable after the conclusion of the project.

## Theory of Change



## Year 1 Goals

In year 1 of the Math Acceleration Project, four ESUs and six school districts, along with ten elementary and middle/junior high schools, participated between August 2021 and May 2022. The intended outcomes for year 1 were that ESU leads would build their capacity, schools would make progress on each of the key levers, and instruction would improve as measured by the [adapted Instructional Practice Guide](#). All of this work intends to lead to student growth in mathematics with a particular focus on priority students who have been historically marginalized. As part of this work, ESU leads together with Instruction Partners participated in specific activities related to walkthroughs and action planning, working to build ESU independence in leading these activities.

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Most of the work of year 1 focused on building an instructional vision for mathematics and establishing common expectations for use of HQIM in participating schools. Additionally, there was a goal of recruiting at least seven new ESUs for Cohort 2, each with one to two district partners.

## Year 1 Findings

### ESU leads

ESU leads shifted from working primarily with teachers to working more closely with LEA leaders. When self-assessing their progress throughout the year, ESU leads on average reached or surpassed the developing stage for six of the eight major activities from year 1—describe the math IPG, prepare for walkthroughs, conduct walkthroughs, conduct hallway and summary instructional conversations, pre-plan for action planning, and progress monitor—showing that they were growing and developing capacity in these areas.

## Reflections from ESU Leads:

- “Being involved in the Math Acceleration Project was a win for all! As a leader from the ESU, I had the opportunity to partner with experts from Instruction Partners, and to lead the principals and teachers in meaningful work around mathematics. The teachers engaged in reflective conversations that propelled their students' understanding of mathematics forward. I have no doubt that the work we do next year will continue to deepen the understanding of great mathematical teaching and learning, of both teachers and principals.” Dr. Kelly Georgius, ESU 2
- “My experience with Instruction Partners this year has given me the leadership capacity to work more confidently with districts that have recently adopted HQIM. The Instruction Partners team, led by Michael Coon, not only supported the principal and teachers in the district we served but also collaborated with me and helped me grow as an instructional math leader. Because I serve twenty-one districts, I am not able to assist schools with program-specific pieces of training. My work has to be general but still effective in any program, which is not an easy task. Instruction Partners has accomplished that through walkthroughs, data collection, action planning, and follow-up support. This model of support and improvement gives principals and teachers the tools they need to successfully use their HQIM to support students while also working collaboratively with their colleagues, creating a culture of collective teacher efficacy. This is powerful work.” Kristin Kasten, ESU 13

## LEA leaders

LEA leaders showed significant growth across the year in building their capacity as instructional leaders; improvement in leaders' confidence and ability to observe and talk about math instruction using language from the IPG was evident in conversations.

## Instruction

As measured by the adapted IPG, on average across all classrooms, standard alignment and student mastery increased slightly from 2.0 to 2.1 in standard alignment and 3.0 to 3.1 in student mastery. More notably, 100% of observed classrooms had lessons that reflected grade-level standards during the spring walkthroughs. The percentage of classrooms where lessons targeted the appropriate

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aspect of rigor increased from 24% in the fall to 66% in the spring. A smaller but still significant improvement was observed in Core Action 2A: making the mathematics of the lesson clear. Only 12% of lessons in the fall were positive (scoring a 3 or 4); positive lessons increased to 28% in the spring.

## Participant satisfaction

In addition to meeting the majority of intended outcomes of year 1, participants were highly satisfied with the work. When responding to school-level surveys for walkthroughs, action planning sessions, and professional development sessions, the average response across all survey types and questions was 91.5% agree or strongly agree. ESU leads were also satisfied with the time they had to meet and collaborate, responding with an average across all questions of 94.5% agree or strongly agree. Recruitment efforts also highlight how much ESU participants enjoyed the project. The goal of recruiting seven ESU and district pairs for year 2 was exceeded—10 pairs joined Cohort 2. Many of the new ESU partners mentioned that they heard about the project from year 1 participants.

# Learnings from Year 1

<p><b>Process and timing:</b> In year 1, the project started late; some districts only finishing their baseline walkthroughs in mid-December. The original plan was to work through one lever before moving to another which made it challenging to get to all three levers.</p>	<ul style="list-style-type: none"><li>● Launch partnerships during the spring of year 1 to start work right away for Cohort 2</li><li>● Incorporate the key levers so that work on multiple levers happens simultaneously and all levers are reached before the end of the year</li></ul>
<p><b>Year 1 goals/outcomes:</b></p> <ul style="list-style-type: none"><li>● The vision setting work was not fully integrated into the work of the other key levers</li><li>● There was a decrease in IPG Core Action 2C (check for understanding) and 2F (provide supportive and affirming feedback) on average across all classrooms</li></ul> <p><b>Priority students:</b> There were few priority students in the student body of participating districts</p> <p><b>Progress monitoring:</b> There was a lack of monitoring structures to ensure that action steps were being accomplished in a timely way in participating schools</p>	<ul style="list-style-type: none"><li>● Explicitly incorporate instructional vision into observation and feedback work, such as checking for evidence of the vision during informal walkthroughs</li><li>● For each district, ask the same person to score both the fall and spring walkthroughs to avoid calibration problems</li></ul> <p>Enhance the focus on students with disabilities and students living in poverty, especially through a deeper focus during classroom walkthroughs, debrief conversations, and discussions with participants about supports that students with disabilities receive</p> <p>Create a monitoring plan as well as the structures needed for implementation in order to progress monitor work more effectively and intentionally</p>



## Conclusion

Year 1 of the Math Acceleration Project was a big success as well as an opportunity for learning and growth. All of the key activities listed in the [Theory of Change](#) are on track to be completed by the end of year 2 for this year's cohort. Much progress has already been made with vision setting and instructional improvements during the spring walkthroughs, especially around grade-level instruction and alignment to aspects of rigor. Unit internalization and observation and feedback will be the focus of year 2, along with transferring more responsibility to participating ESU and LEA leaders. All leaders have shown tremendous growth and are making progress toward carrying out this work independently.

## Project overview

The Nebraska Math Acceleration Project is a capacity-building endeavor to create sustainable change in Nebraska schools, especially after the lost instruction time as a result of the COVID 19 pandemic. The goal of the project is to support Education Service Unit (ESU) leaders across Nebraska to engage in the process of instructional walkthroughs, action planning, and progress monitoring in grades K–8 with the districts and schools they support to ensure that the high-quality instructional materials (HQIM) these districts and schools have adopted are being implemented effectively. The work of the

project spans three years from the 2021–2022 school year through the 2023–2024 year.

The Math Acceleration Project aims to reach the vision of growth in mathematics learning for all students by building the capacity of ESU and LEA leaders in implementing HQIM and supporting mathematics instruction. There are multiple levels of work in this project: Instruction Partners provides direct support to ESU leads through engaging in cycles of improvement with districts, ESU leads take what they have learned to provide support to LEA leaders and teachers, school instructional leaders set up structures and routines to support teachers to implement new HQIM, and finally teachers support students with great instruction.



### Students

**Teachers** Student performance should change as a

**LEA Leaders** Teachers will response to higher-quality also take part in some aspects

The focus of year 1 is building the capacity of ESU leads to support LEA leaders in vision setting, unit internalization, and observation and feedback. ESU leaders will take more and more ownership of the

work as the project progresses. School leaders will take part in all of the activities of year 1, building their instructional leadership skills along the way. They will start taking true ownership of the work during year 2,

especially through the work of observation and feedback. of the work during year 1, such as vision setting sessions and professional learning around unit internalization; teachers will continue to receive support

throughout year 2, especially as LEA leaders build their capacity around observation and feedback. instruction as teachers build their skills and improve the use of their HQIM by the end of year 2.

# Process

## Summary

In year 1, participants set out to strengthen K–8 mathematics instruction, building on HQIM and focusing on three key levers for impact: vision setting, unit internalization, and observation and feedback. Below are the activities that each of the six participating districts completed, along with the four ESU leads and Instruction Partners during the 2021–22 school year.

Vision setting meeting with teachers	6
Expectations for use meeting with teachers	4
Unit internalization professional learning session	2
Formal observation and feedback training	3
Classroom observations	62
Action planning meetings	12
ESU collaborative meetings	3

## Instructional Vision Setting

After engaging in fall walkthroughs, all of the LEA leaders determined that they needed to set an instructional vision due to misalignment of instruction with grade-level standards and/or aspects of rigor across classrooms in their schools. The process of vision setting included the following key aspects:

- Engaging teachers in the process and coming to a consensus as a building around what the key beliefs for mathematics instruction are
- Establishing a realistic and actionable vision and clearly communicating it to all collaborators
- Determining expectations for use of the curriculum beginning with creating a list of elements to teach in common—which aspects are non-negotiable and which can or should be adapted to meet the needs of each class

The vision setting process can support grade-level instruction by naming key aspects of math instruction to which every teacher wants to commit. Additionally, through the work of setting expectations for use, teachers can find areas where those commitments can best come to life. By the end of the year, it was clear from teacher feedback that vision setting was having an impact. The majority of teachers reported that there was a vision for mathematics instruction in place and that there were common expectations for using the curriculum.





## Key Takeaways

Overall, year 1 was a successful start to the Math Acceleration Project. The wins reinforced what LEA leaders knew when they adopted HQIM for mathematics—adoption is the first step in the process of improving instructional outcomes. There were many other wins to celebrate as well, especially:

1. ESU leads and LEA leaders grew tremendously in their capacity to be instructional leaders.
2. A vision for mathematics instruction was created and communicated to teachers along with expectations for use in all participating districts.
3. Lessons in all observed classrooms were focused on grade-level standards.
4. Teachers demonstrated improvements in their lesson’s alignment to the rigor of the standards across all districts.
5. On average teachers made the mathematics of the lesson clearer.

This project has been a learning process and many lessons were learned this year, the biggest being that the key levers for improving instruction are not sequential—they require overlap to reinforce and solidify change. These lessons will serve as an opportunity to continue to grow and improve; there will be changes made to the project [next year](#) to incorporate these learnings.

## Measurement

### Tools

Each element of the [Theory of Change](#) has specific tools and metrics that are used to measure progress toward the goals of the project. Some of these tools utilize perception data such as progress along the leadership continuum, and others rely on objective data like standardized test scores. The measurement tools were developed so that progress at each level could be monitored—from ESU leads to students.

<p><a href="#">Instructional Practice Guide for Math</a> (adapted)</p>	<p>Measure instruction during classroom walkthroughs, focusing on whether the instruction is aligned to grade-level standards, targets the appropriate aspect of rigor, and if teachers check for understanding</p> <p>Used to score each classroom walkthrough in the fall and spring</p>

Teacher  
focus-group interviews [fall/spring](#)

[ESU Self Reflection Continuum](#)

Collect candid feedback about instructional practices and support/professional learning opportunities and LEA leadership; provide insight into whether or not LEA leaders have successfully established the conditions necessary for each of the key levers

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Teacher focus groups were conducted during both the fall and spring walkthroughs (questions asked were guided by the flow and context of conversation)

Provide ESU leads with a mechanism to understand their learning over the life of the project; measure progress toward building

ESU leads, together with Instruction Partners,



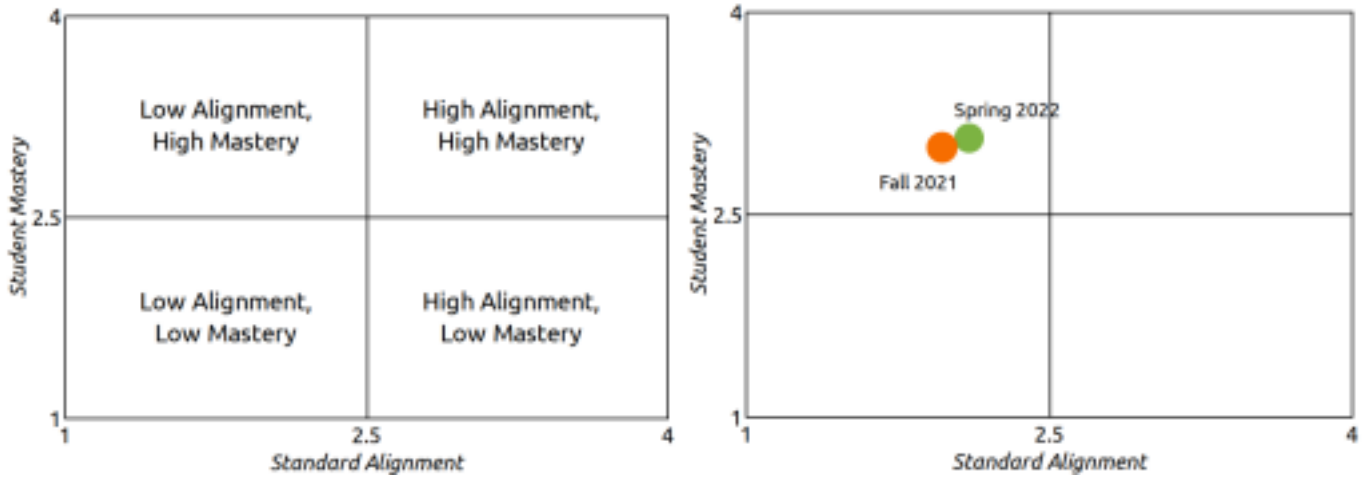
	<p>instructional capacity of ESU leads to sustain the work as listed in the <a href="#">Theory of Change</a></p>	<p>filled out the ESU Continuum mid-year</p>
<p><a href="#">Instructional Leadership Levers Diagnostic</a></p>	<p>Provide a snapshot of a school’s systems to support the implementation of HQIM and support leader reflection upon three leadership levers—instructional vision for math, collaborative planning, and observation and feedback; reveal any disparities among the perceptions of ESU leads, LEA leaders, and teachers regarding the three leadership levers</p>	<p>ESU leads, principals, district leaders, and teachers were all given the opportunity to fill out the Instructional Leadership Levers Diagnostic in April</p>

## Instructional Practice Guide for Math (adapted)

It was apparent that some of the work on vision setting that partner districts engaged in over the course of the year was coming to life through the improvements in instruction, seen from the adapted Instructional Practice Guide (IPG) scores:

- On average across all classrooms, **standard alignment and student mastery improved** slightly from the fall to the spring, with five of six districts improving in one of these dimensions. ● **Four of six participating districts showed growth in the percentage of positive indicators** on the adapted IPG (positive scores are either a score of “yes” for yes/no questions or a score of 3 or 4 for questions scored 1 to 4).
- In the spring, **100% of observed lessons reflected grade-level standards**, an increase from 85% in the fall (Core Action 1A).
- In the spring, **66% of observed lessons targeted the appropriate aspect of rigor**, an increase from 24% in the fall (Core Action 1C).
- In the spring, **28% of observed lessons had positive scores (score of 3 or 4) for the teacher making the mathematics of the lesson clear**, up from 12% in the fall (Core Action 2A). ● Every participating district made gains in core actions 1C and 2A, showing that the instruction across all classrooms became more focused on developing students’ conceptual understanding of the material.

The graph below shows the average walkthrough scores from fall to spring across all classrooms. Although the average across all classrooms showed an improvement in both standard alignment and student mastery, average scores by district resulted in some districts improving in one, both, or neither dimension, as shown in the table below.

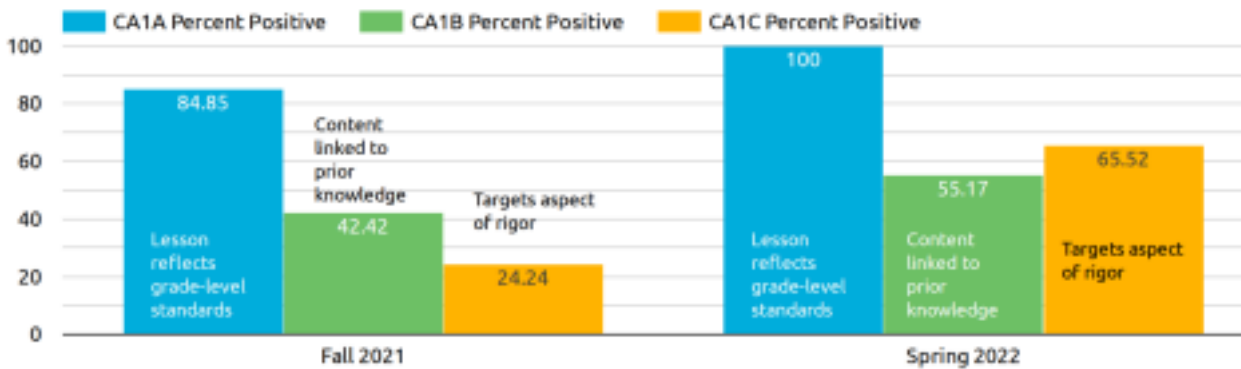


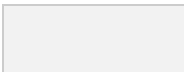
*Note: Units reflect the number of districts.*

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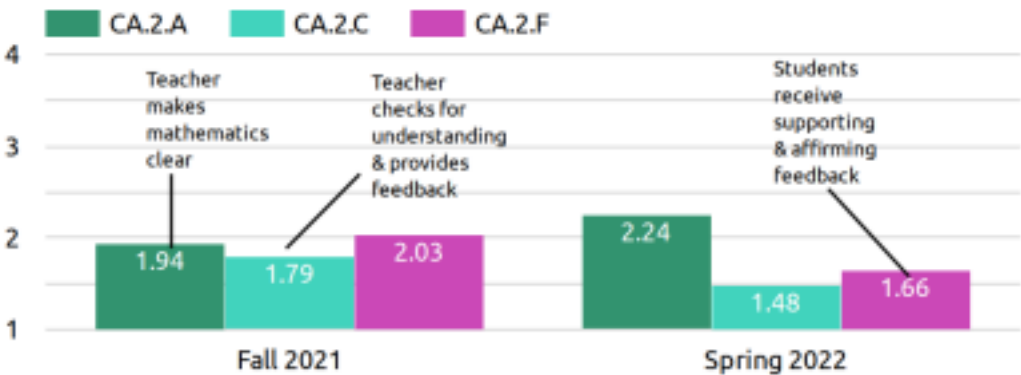
The scores for Core Action 1 and Core Action 2 of the [adapted IPC](#) depend somewhat on the level of alignment to the grade-level standard. The graphs below show the averages of the Core Action 1 and Core Action 2 indicators for all classrooms in the fall compared to the spring.

### Core Action 1: Average Across all Classrooms





### Core Action 2: Average Across all Classrooms



### Considerations and challenges

- **Implementation dip:** In two partners, student mastery decreased as standard alignment increased, and in two others, student mastery increased as standard alignment decreased. The likely explanation for this relationship is that as instruction is better aligned to the grade-level standard, it becomes more challenging for students; thus, their mastery of the material falls. It also applies in the other direction; in some cases, teachers modify their curricular materials, and in doing so, lower their alignment to grade-level standards and make it easier for students to master the material.
- **Time of year:** Our second walkthroughs were conducted in April during NSCAS testing and instruction often lacked a connection to prior knowledge, which resulted in a drop in 1B
- **Pacing:** Core action 2C and 2F dropped due to additional focus on the pace of the learning given upcoming testing—though the classrooms were more focused on asking questions to reveal student understanding, the actual one-on-one or small-group checks for understanding were more focused on compliance than on revealing student thinking in those moments. Additionally, we saw fewer affirming abilities because of the focus on getting through the material.

### Teacher feedback

In the fall, teachers were asked some general questions about their trust in leadership, how they prepare for units, professional development opportunities, and their building’s instructional vision for math. Some of the key themes from the fall focus groups are listed below. (Questions followed the flow of the conversation, so not all districts responded to the same questions.)

- **None of the teachers who were asked about an instructional vision for mathematics knew what the vision at their school was or articulated a common vision.**
- Teachers in two districts mentioned specifically that they experienced a lack of follow-through when they brought ideas and concerns to leadership. Teachers in two other districts mentioned that they weren’t comfortable going to their leadership with all topics.
- Neither of the two districts who provided feedback around professional development opportunities believed that the PD they are offered truly met their needs.
- In response to the question, “How do you prepare to teach a unit,” teachers in the four districts who responded mentioned reviewing their curricular materials and choosing some

of them as a way to prepare. Some teachers supplemented their curriculum with other materials, and some picked which elements of the curriculum they wanted to use.

In the spring, the focus group questions were revised to focus more directly on the three key levers—vision setting, unit internalization, and observation and feedback. Below are some of the major changes in responses and themes from the spring focus groups.

- A big change was that **all teachers who responded to questions about the vision for mathematics instruction knew that their school was working on setting a vision**, and they had participated in the work. Some couldn't remember exactly what the vision was, but they knew one existed.
- There wasn't much change from the fall in the responses about unit internalization. Many teachers were concerned about pacing and getting through all of the material.
- Observation and feedback was a clear area for growth in the spring. Teachers in the three districts who provided feedback mentioned that they were rarely, if ever, observed and, when they were observed, that leaders didn't provide any actionable feedback related to their mathematics instruction.

## ESU Self-Reflection Continuum

The possible scores on the ESU Self-Reflection Continuum are 1) Observing, 2) Developing, 3) Approaching, and 4) Leading, showing the progress of ESU leads as they work toward leading walkthrough and action planning activities independently. The average scores across all ESU leads are listed in the graph below. Activities 1 through 5 are associated with walkthroughs and 6 through 8 with action planning. Overall, ESU leads surpassed the developing stage for walkthroughs and were working toward the developing stage for action planning.



The graph above shows that in four of the five walkthrough activities and two of the four action planning activities, ESU leads achieved the goal of meeting or exceeding the developing stage. The walkthrough activities of describing the Math IPG, preparing for the walkthrough, conducting the walkthrough, and hallway and summary conversations were particular strengths, with leaders on average almost reaching the approaching stage after only completing fall walkthroughs with their partner districts. Teacher focus groups and the action planning meetings are both areas for improvement for year 2.

## Instructional Leadership Levers Diagnostic

Using this tool, respondents reflected on whether or not leading indicators around vision, collaborative planning, and observation and feedback were established in their schools or districts. Each question was a yes or no response, so the data shown below represents the percentage of “yes” responses.

### Instructional Leadership Levers Diagnostic: Average Agreement Across Indicators

District leader	2	85.71% 37.5% 20.0%
ESU leader	2	71.42% 56.25% 90.0%
Principal	4	50.0% 56.25% 75.0%
Teacher	25	72.0% 49.0% 60.0%

Although the work is not finished, one of the big successes of the time spent on developing a vision and expectations for use can be seen in the teachers’ perception data. From conversations with teachers at the beginning of the year, it was clear that there was no recognized vision for mathematics instruction in any of the schools. As seen above, by the end of the year, most teachers believed that there was a set vision for mathematics instruction in their school, the vision was connected to their materials, and there were common expectations for use of the materials. This last piece is especially important for the participating schools—all of which have recently adopted HQIM. By the end of the year, 80% of the teachers who responded believed that there was a set of common expectations at their school for use of their new curriculum (see the [Appendix](#) for additional data). This is a big step toward ensuring that all classrooms are using their HQIM and teaching grade-level standards.

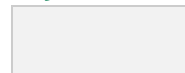
## Student achievement

NSCAS scores will be used across all years of the project to measure student achievement and growth. Schools will administer these assessments each year and the NDE will share building-level, district-level, and ESU-level data when it is available.

## Perception of work

Throughout the project, surveys were administered after all major activities such as walkthroughs, action planning meetings, professional development sessions, and ESU lead collaborative meetings. The questions varied slightly depending on the type of activity but for each activity, participants were asked if it was a valuable use of their time, what was most impactful about the activity, and what could be improved. These data are important perception data to better understand the participant experience.

- Giving equal weight to each type of activity, **88.3%** of participants agreed or strongly agreed that the activity was a valuable use of their time.



- Giving equal weight to all questions, the average across all surveys and questions was **92.2%** agree or strongly agree.

These results suggest that participant needs were met through the project activities and professional learning sessions. After each survey was administered, the results were used to guide decision-making around the next activity and adjust as needed to ensure that participants got the most out of their time.

## Progress toward Theory of Change

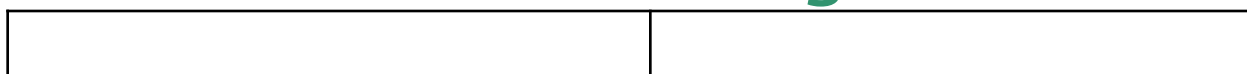
This project is tracked based on the [Theory of Change](#). In the table below, progress is marked as follows:

- **Advancing:** Work is progressing as expected; there is likely more progress to be made since work with each partner spans two years, but significant progress has been made thus far.
- **Emerging:** Not as much progress was made in year 1 as initially expected, but things are on track to be completed in year 2.
- **Unknown:** The desired outcome was either not able to be measured or the data is not available yet. **Note:** *Student data falls into the “unknown” category because data is not yet available.*



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|---|---|
| <ul style="list-style-type: none"> <li>● Pilot, test, and refine collective approaches guiding the Math Acceleration Project.</li> <li>● Expand the learning community.</li> <li>● Design models to provide LEAs support using the key levers.</li> <li>● Support districts to develop/refine an instructional vision for math. (ESU leads)             <ul style="list-style-type: none"> <li>● Conduct unit internalization meetings. (ESU leads)</li> <li>● Provide support for teacher observation</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>● and feedback. (ESU leads)</li> <li>● Articulate the key components of an effective instructional vision for math and communicate it. (LEA leaders)</li> <li>● Support unit internalization. (LEA leaders)</li> <li>● Conduct teacher observation with feedback. (LEA leaders)</li> <li>● Provide grade-level instruction using HQIM. (Teachers)</li> <li>● Conduct unit internalization. (Teachers)</li> </ul> |
|---|---|

## Successes and challenges





<p><b>Growth in leaders:</b> ESU and LEA leaders gained skills in observing lessons and engaging in instructional conversations as well as confidence in their role as</p>	<p><b>Timing:</b> The project started somewhat late, with the first round of walkthroughs not finishing until mid-December. This late schedule made things feel rushed and resulted</p>
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<p>instructional leaders. LEA leaders especially developed a deeper understanding of the importance of standard alignment and rigor and how to look for grade-level instruction using the IPG.</p>	<p>in many partners not progressing past the action steps on instructional vision. In addition, scheduling walkthroughs was challenging and some districts had their spring walkthroughs as classes were preparing for the NSCAS which impacted IPG scores in those classrooms.</p>
<p><b>Instructional improvements:</b> Gains were made in alignment with grade-level standards (1A), targeting the aspect of rigor (1C), and making the mathematics of the lesson clear (2A). These are some of the most important indicators on the IPG, and the increases across year 1 show that teachers are beginning to make some crucial changes to their instructional practice.</p>	<p><b>Teaching and instruction:</b> Most districts weren't able to complete work around unit internalization and observation and feedback. Additionally, growth on the IPG was not universal, especially in some indicators</p>

**Insights:** Lots of lessons were learned from year 1 that will make the work of year 2 even stronger. One of the most important learnings was the interconnectedness the key levers.

**Progress monitoring:** In year 1, there were no monitoring structures to ensure that action steps were being accomplished in a timely way in participating schools, which resulted in some things falling behind.

## Looking ahead

The Math Acceleration Project spans three years but has been designed to ensure that the work will be sustainable even after the completion of the project. Though the major release of responsibility to both ESU leads and then LEA leaders will occur when participants are in their second year, there is already some evidence that ESU leads will be able to continue this work independently.

## Sustainability

- **Mindset:** It is evident that participants are fully on-board with this work. They are engaged in all of the activities, and leaders are continuing the work with other districts and/or with other content areas in their schools.
- **Change in practice:** There are two tools used to measure progress in implementing the key levers in this work: the ESU Continuum and the Instructional Leadership Levers Diagnostic. With the help of these tools, we know that leaders are changing their practice, moving toward a place where they will be able to implement those changes more and more independently.
  - **Leadership capacity:** ESU leads are beginning to implement this work with other district partners who aren't participating in the project, demonstrating that they have the initiative and the drive to continue the work. Leads will gain more skills and independence as they

progress through year 2 and implement the activities of the project independently with their new district partners.

## Lessons learned

Many lessons were learned in year 1 of the Math Acceleration Project. Each of these lessons will be used to make improvements and drive changes to the plan for year 2 and year 3 to make an even greater impact in future years. Below are key lessons learned:

- Connect the three key levers—vision setting, unit internalization, and observation and feedback—integrating the work among all three rather than completing each in isolation. ● Plan to work with every district on all three key levers.
- Start earlier in the school year to allow for as much time to work as possible.
- Collect baseline data earlier before work begins.
- Clarify the process to teachers and explain what the year will look like.
- Collect more principal and teacher feedback to gain insight into building-level changes.
- Create accountability practices.

## Year 2

In year 2 of the Math Acceleration Project, the four original ESUs and their district partners will continue advancing through the work of the three key levers. These Cohort 1 ESU leads will also begin the work of the project with new district partners. The leads will have some support and coaching from Instruction Partners but will begin taking on more responsibility to engage in the work independently, particularly with the district partners who are joining in year 2. The work that ESU leads do with new districts will provide important practice transferring ownership as a way to set themselves up for long-term sustainability. A new cohort will also begin the project in year 2, consisting of a group of brand new ESU and district pairs. This group, Cohort 2, will follow the process outlined in this report, observing Instruction Partners initially, and gradually gaining skills and knowledge to begin taking on some of the work on their own.

Some of the changes that will be implemented in year 2 are:

- Adjusting the timeline to ensure that all partners are able to begin unit internalization and observation and feedback work before the end of the year;

- Implementing monitoring and accountability practices to ensure that ESU and LEA leaders maintain momentum and stay on track with their goals;
- Creating a session for teachers to explain the project and their role at the beginning of the year; and
- Dedicating time to describing and planning out teacher focus groups and action planning sessions with ESU leads so that they feel confident in their ability to lead the group discussion and to craft action plans.

# Appendix

[Links and Resources](#)

[Instructional Leadership Levers Diagnostic Data](#)

[Detailed Theory of Change & Progress](#)



## Links and Resources

[Final State Partnerships Math IPG 21-22.pdf](#)

[MathAcceleration.Detailed Theory of Change.PartnerFacing.pdf](#)

[NE Math Acceleration Project\\_ Instructional Leadership Levers Diagnostic Tool.pdf Version 4.0 ESU](#)

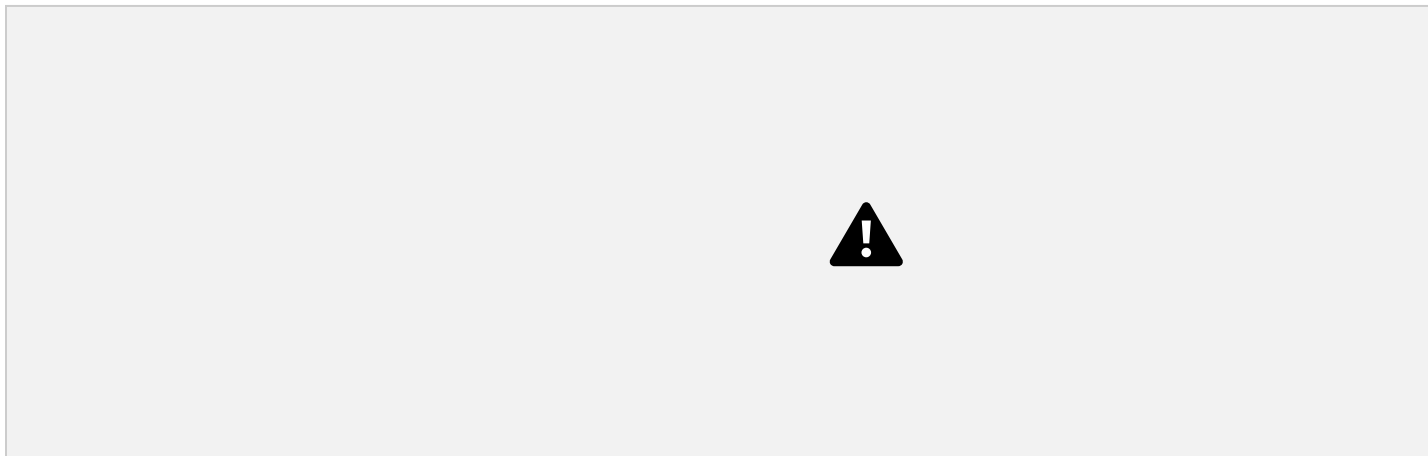
[Self-Reflection Continuum.pdf](#)



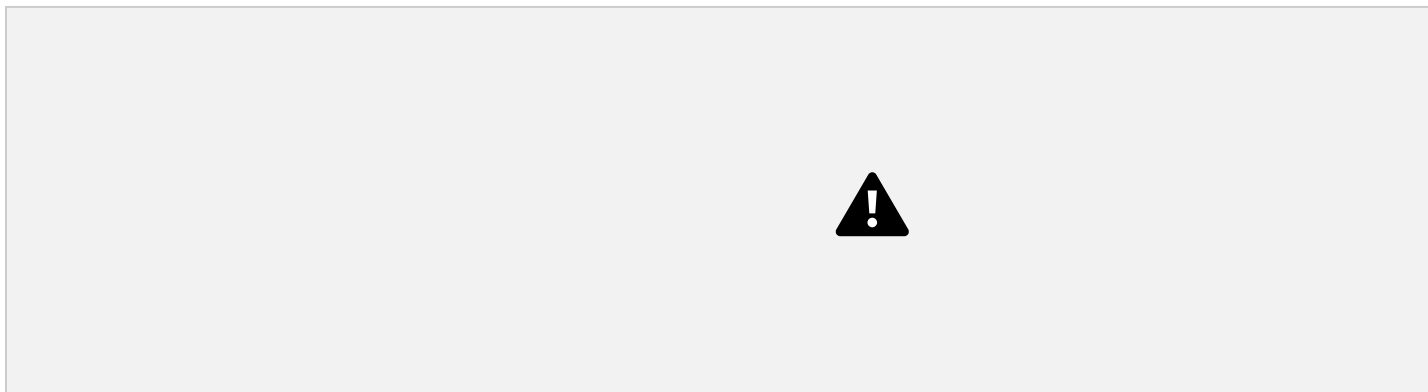
## Instructional Leadership Levers Diagnostic Data

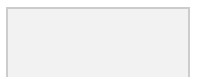
Using this tool, respondents reflected on whether or not leading indicators around vision, collaborative planning, and observation and feedback were established in their schools or districts. Each question was a yes or no response, so the data shown below represents the percentage of “yes” responses for each question averaged by role across all districts.

### Vision for Mathematics Instruction



### Collaborative Planning





## Detailed Theory of Change & Progress

This project is tracked based on the Theory of Change. Each aspect of the Theory of Change utilizes a specific metric or tool to understand growth and progress made towards reaching the desired outcome. In the table below, progress is marked as follows:

- **Advancing:** Work is progressing as expected; there is likely more progress to be made, given that work with each partner spans two years, but significant progress has been made thus far.
- **Emerging:** Not as much progress was made in year 1 as initially expected, but things are on track to be completed in year 2.
- **Unknown:** The desired outcome was either not able to be measured due to challenges mentioned in the Measurement section above or the data is not available yet.

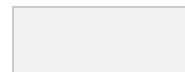
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<p>Pilot, test and refine our collective approaches in a learning community (NDE, ESUs, and districts/schools) over time, informed by data and feedback</p>	<p><b>Advancing:</b> Feedback and data from year 1 will inform changes to implement in year 2</p>
<p>Expand the learning community to the current interested ESUs and NDE to bring practices and policies specific to acceleration support</p>	<p><b>Advancing:</b> 10 new ESU/district pairs, will participate in Cohort 2 with the support of 6 ESUs</p>
<p>Co-design models to provide schools and teachers support using key levers to build instructional capacity and replicate to sustain.</p>	<p><b>Advancing:</b> ESU leads have reached or surpassed the “developing” stage on the ESU Continuum for almost all activities related to walkthroughs and action planning; ESU leads are engaging in vision setting with other partner districts</p>
<p>Support Districts to Develop/Refine a Vision of Effective Instruction in Math that is Shared Across All Educators</p> <ul style="list-style-type: none"> <li>● Determine which components of the curriculum are to be taught in a similar manner</li> <li>● Grade level access for all students with a focus on priority groups</li> <li>● Provide scaffolds within grade level instruction</li> <li>● Focus on conceptual understanding first and then develop procedures</li> </ul>	<p><b>Advancing:</b> All six participating districts have set a vision for mathematics instruction and have engaged in setting expectations for use of the curriculum with their teachers; 100% of lessons observed this spring reflected grade-level standards and 65.5% of lessons targeted the appropriate aspect of rigor (up from 24.2% in the fall).</p>
<p>Conduct Unit Internalization Meetings</p> <ul style="list-style-type: none"> <li>● Develop regularly scheduled time to meet</li> <li>● Develop/support unit internalization</li> </ul>	<p><b>Emerging:</b> Two districts have completed initial professional learning sessions and the remaining districts will complete those sessions in the fall of 2022; all</p>

	<p>districts will engage in work to support unit internalization throughout the upcoming school year</p>
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<p>Provide Support for Teacher Observation and Feedback</p> <ul style="list-style-type: none"> <li>• Develop/Support scheduled times for observation and feedback</li> <li>• Build leader knowledge of the core materials</li> <li>• Conduct/support regular classroom observations with feedback</li> </ul>	<p><b>Emerging:</b> Most districts did not do any explicit observation and feedback work this year; it will be a focus in the upcoming school year to integrate this work into the work of each of the other levers (note: the districts who were able to do some work around observation and feedback made significant gains in instruction as measured by the IPG).</p>
<p>Articulate the key components of an effective vision for math instruction and communicate it to others.</p> <ul style="list-style-type: none"> <li>• Use the key mathematical shifts to refine a vision that guides all mathematics instruction</li> <li>• Design a master schedule that supports the time requirements of the curriculum and limits the impact of interventions on core instruction</li> <li>• Communicate how the vision is aligned to the math curriculum <ul style="list-style-type: none"> <li>• Use the vision to determine which components of the curriculum are to be taught in a similar manner</li> </ul> </li> </ul>	<p><b>Emerging:</b> In the Instructional Leadership Levers the average agreement of the vision indicators existing in schools was 71.42% for ESU leads, 50% for principals, and 63.86% for teachers even though all districts have completed vision setting work; vision setting will continue to be established in year 2, integrated with unit internalization and observation and feedback.</p>
<p>Support unit internalization</p> <ul style="list-style-type: none"> <li>• Regularly scheduled time to meet</li> <li>• Support training for unit internalization with resources and staffing and then observe for quality</li> <li>• Ensure structures are in place to monitor the unit internalization process</li> </ul>	<p><b>Emerging:</b> Most partners will begin unit internalization work in year 2.</p>
<p>Conduct teacher observation with feedback</p> <ul style="list-style-type: none"> <li>• Review and understand curriculum before observing a lesson</li> <li>• Regularly scheduled times for observation and feedback on priority indicators</li> <li>• Provide feedback to teachers that affirms potential and creates expectations for growth</li> <li>• Align observations and actionable feedback to the math instructional practices identified for teacher actions</li> </ul>	<p><b>Emerging:</b> One district partner has begun this work; all districts will complete this work in year 2.</p>



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<p>Provide grade level instruction using HQIM supported by the following:</p> <ul style="list-style-type: none"> <li>• The enacted lesson intentionally targets the aspect(s) of rigor (conceptual understanding, procedural skill and fluency, application) called for by the standard(s) being addressed</li> <li>• The teacher deliberately checks for understanding to surface misconceptions and opportunities for growth to provide feedback to students</li> <li>• Students from historically marginalized communities consistently receive supportive feedback that affirms their abilities and potential as mathematicians</li> </ul> <p>Complete Unit Internalization</p> <ul style="list-style-type: none"> <li>• Identify and articulate key takeaways from the unit</li> <li>• Decide on key representations and strategies</li> <li>• Describe the connection between the aspect of rigor identified within the standard and the representations and strategies within the materials</li> <li>• Identify the places where you will use assessment strategies to collect data and plan to support unfinished learning with appropriate scaffolds</li> </ul>	<p><b>Emerging:</b> Progress has been made in instruction targeting the aspect of rigor (core action 1C) but not in checking for understanding (1B); work will continue in year 2.</p> <p><b>Emerging:</b> Teachers in two districts have completed professional learning on unit internalization; the other districts will complete these sessions early in year 2, and all districts will continue work throughout year 2.</p>
<p>Show measurable proficiency and growth in the learning of mathematics across all categories and identities with a focus on those who have been historically marginalized</p>	<p><b>Unknown:</b> Student NSCAS scores will be shared in the fall of year 2.</p>
<p>Engage in lessons that support the development of grade appropriate mathematical thinking and problem solving with opportunities to do math that affirms their identities and communities using real world tasks.</p>	<p><b>Unknown:</b> Student work was not analyzed in year 1 due to time constraints.</p>