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PRIME Assignment
EDU 532

Reflective Questions for PRIME Equity Leadership

Principle 1: Ensure high expectations and access to meaningful mathematics learning for every student.

Equity Indicator 1

Every teacher addresses gaps in mathematics achievement expectations for all student populations.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

Much of my work as a math coach currently revolves around helping teachers look at and understand the data from various sources. Some data is from our NWEA (Fall/Winter/Spring), while other may be MEA data, data from online programs such as Moby Max or Khan Academy, or even from looking at a set of exit slips with a teacher after an observation.

Growth Strategies:

I am already beginning the move towards Stage 3 - Leadership in the Extended Community. Specifically, I am working at multiple levels with regards to an RtI program, including an adequate progress monitoring tool that can be used both within and RtI environment, as well as specifically for Special Education.

Stage 3 Readiness, Commitment, and Participation

I am increasing the opportunities available to myself for involvement in the greater mathematics community. Some of the specific opportunities:

- MMCP Summer Seminar presentations
- WMEC Rendezvous presentations
- ACTEM 2018 presentation
- Informal conversations with other district leaders through connections made in various aspects.

As I continue to increase my understanding of how best to measure mathematics achievement, I will have plenty of outlets available for me to share this information.

Equity Indicator 2

Every teacher provides each student access to relevant and meaningful mathematics experiences.

Self-Assessed Current Status:

Stage 3 - Leadership in the Extended Community

Rationale:

In my first couple of years as a math coach, I was clearly working to “engage teachers in the development and implementation of lessons that reflect the importance of relevant, meaningful mathematics.” (PRIME p15). The last two years, however, have added to that focus through the curriculum development work I have done, both with a vertical team (Math Think Tank), and in horizontal teams (grade level meetings). In fact, much of the work the Math Think Tank has done in looking at the progression of mathematics through the standards is now serving as a model for the superintendent’s initiative this year with vertical teams throughout the content areas in our district.

Growth Strategies:

One of the things I need to work to do is to continue the work of the Math Think Tank into the area of assessments. We are again leading the way in the district by figuring out how best to assess standards, both across grade levels and also through the grades K - 12. As we continue to refine these assessments, I believe that I will be called on in future years to provide training and explanations on the assessment process in other content areas.

Stage 3 Readiness, Commitment, and Participation

The next obvious step, both in terms of curriculum design through the grades and with assessments, is to share what we are doing with educators outside our district. While that may not happen this current year, as we are still finalizing what things will look like, I definitely see this as something that I will be doing in future years.

Equity Indicator 3

Every teacher works interdependently in a collaborative learning community to erase inequities in student learning.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

As a math coach, I am continually looking for ways to engage staff members not only in one on one coaching activities, but also collaborative professional learning communities. These have included such things as book studies, grade level meetings, and vertical teams. Over the last three years, we have shifted our focus to include a lot of discussion around data, and looking at how to better monitor student achievement.

Growth Strategies:

The next piece of this work for me will involve bringing the high school into a similar discussion. To this point, although I'm technically a "K - 12" coach, my work has primarily been in the elementary and middle levels. As we continue to work to improve student learning at K - 8, however, it becomes evident that the high school involvement is the next major piece of work.

Stage 3 Readiness, Commitment, and Participation

As I work to implement a high quality mathematics program K - 12, through the Illustrative Mathematics materials, this will open up opportunities for K - 12 discussions around learning progressions, as well as the standards of mathematical practice and the NCTM effective teaching practices. This sets the stage for my becoming a stage 3 leader in this area.

Reflective Questions for PRIME Teaching and Learning Leadership

Principle 2: Ensure high expectations and access to meaningful mathematics instruction every day.

Teaching and Learning Indicator 1

Every teacher pursues the successful learning of mathematics for every student.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

The last 2 years have been focused on implementing common curricular outcomes. In particular, the Grade Level Meetings that I ran last year had a specific purpose in establishing the mathematics goals for each grade level, along with an emphasis on ensuring that the lessons being taught were meeting the goals that we set for the grade level.

Additionally, there has been much focus on mathematical discourse in the math classrooms across the district and throughout the grade levels. Although not every classroom is necessarily focused yet on discourse, there is a much larger percentage than there used to be.

Growth Strategies:

As I look towards Stage 3, much of the strategies and opportunities are in place. We are building common assessments and common proficiency scales throughout the K - 12 program. We are also moving towards the implementation of a cohesive single program throughout all grades, although we are still a few years from seeing this fully in place.

Stage 3 Readiness, Commitment, and Participation

As we continue to work to identify key target points for monitoring growth in the various grade levels, we are also actively looking for a complete progress monitoring tool that will allow us to not only monitor progress WITHIN a grade span, but also ACROSS grade spans. This will move us towards a truly cohesive mathematics program, where we can identify skills that students still need to build and provide the means for them to learn those skills, while continuing to move them forward in the program.

Teaching and Learning Indicator 2

Every teacher implements research-informed best practices and uses effective instructional planning and teaching strategies.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

The descriptors in the Stage 2 section really define the job of a math coach in a lot of ways. From determining current status of teaching practices, to helping them implement best practices, and engaging them in dialogue about best practices and supporting them in technology, this defines what I have been doing for 3+ years.

Growth Strategies:

The area where I need to improve this is again the expansion from K - 8 to include high school teachers. In particular, I should see about acquiring NCTM's Principles to Actions for the high school teachers, and attempt to engage them in a book study of this material. I have done this with many K - 8 teachers, but this would be the starting point for the high school to begin improving their instructional practices.

Stage 3 Readiness, Commitment, and Participation

I have an opportunity to begin working with one of the teachers at the high school right now. My effectiveness in helping him improve his instructional practices may be the catalyst needed to work with other high school teachers to improve their practices.

Teaching and Learning Indicator 3

Every teacher participates in continuous and meaningful mathematics professional development and learning in order to improve his or her practice.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

Once again, much of my work as a math coach automatically puts me in the Stage 2 area. Although I can't say that I engage EVERY teacher in professional learning, as there are teachers who choose not to involve themselves with what I have to offer, nevertheless a strong component of my work is wrapped around the idea of meaningful mathematical professional development. Some of this is one on one, some is at a school level, and some involves a district level.

Growth Strategies:

To grow towards a Stage 3 in this area will again require more involvement from the high school level. The Vertical Teams in place will help to bring that about, as we engage in conversations from K - 12 around curriculum, programs, teaching practices, and data.

Stage 3 Readiness, Commitment, and Participation

The challenge to truly meeting the stage 3 level revolves around time. Although I may work to create quality embedded professional development, finding the time within the school day is a challenge. One way that I have met that this past year was to work with our Title V coordinator to build in money for substitutes throughout the year and have Grade Level meetings that allowed us to address many of these items. This year, the emphasis by the district has been more on a series of extended early release days, but moving forward, finding a way to build in these Grade Level Meeting days throughout the year may be the best option.

Reflective Questions for PRIME Curriculum Leadership

Principle 3: Ensure relevant and meaningful mathematics in every lesson.

Curriculum Indicator 1

Every teacher implements the local curriculum and uses instructional resources that are coherent and reflect state standards and national curriculum recommendations.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

During the last school year in my Grade Level Meetings (K - 8), a major focus was establishing clear curricular goals. We used a variety of resources in addition to the Common Core, such as the coherence map and the focus documents, as well as teachers professional judgment, to create for each grade levels a list of broad curricular goals. These goals are the “public” face of our mathematics curriculum. In addition, we discussed how the term “curriculum” is a multi-layered term. It goes down as deep as what the teacher is doing on each individual day, but is also broad in that a few statements explain the major work of the year. In particular, we made it clear that although the school board and the administration could and SHOULD have some input on the top layers of the curriculum, we are not advocating that the school board provide a scripted day by day curriculum.

Growth Strategies:

The work done at the K - 8 level resulted in a series of goals for the grade level. The next step in this process is to create a similar type of set of goals for the courses at the high school level. .This will get us to the point where we have a full comprehensive K - 12 math curriculum.

Stage 3 Readiness, Commitment, and Participation

Part of the work at the high school MUST involve the concepts and conversations around *Catalyzing Change in High School Mathematics*. This will be crucial to developing a viable high school curriculum.

Curriculum Indicator 2

Every teacher implements a curriculum that is focused on relevant and meaningful mathematics.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

For the first couple of years as a math coach, I would not have placed myself at Stage 2. I would have said I was at Stage 1, primarily because I was still learning for myself much of what the K - 8 standards were all about, and what would be considered “meaningful” mathematics. Now, however, I feel that I am definitely working to engage teachers in the development of meaningful mathematics. One specific example - our primary textbook (Go Math!) works well, but there is one piece that continually bothers me. On their lessons on Problem Solving, they simply ask leading questions that the children fill in answers to. There is no real thinking on the child’s part at all. I have worked, though, to implement a problem solving solution through CueThink, and in particular have regularly encouraged teachers to take the problems OUT of the book, and put them in CueThink and let the students go at solving them, working on their own but being able to collaborate with classmates. This has turned those problems from boring stale problems to fill in the blank for into a much more meaningful task for the students.

Growth Strategies:

Once again my growth strategies need to revolve around the high school and encouraging them to embrace more meaningful mathematics. The implementation of the Illustrative Mathematics high school material next year should allow for this change to happen.

Stage 3 Readiness, Commitment, and Participation

In addition to supporting my own teachers in the implementation of the IM materials, I am pursuing ways to provide training to teachers of the IM materials in our district as well as several others that I know are using the material. Having suitable training in this material allows for a more relevant and meaningful mathematics program.

Curriculum Indicator 3

Every teacher implements the intended curriculum with needed intervention and makes certain it is attained by every student.

Self-Assessed Current Status:

Stage 1 - Leadership of Self

Rationale:

It's difficult to implement the "intended curriculum" when such a thing doesn't actually exist. Thus, it's even more difficult to engage staff in discussion and actions on discrepancies between the intended, implemented, and attained curriculum.

Growth Strategies:

The first step in growing in this area is clearly to work towards getting a coherent and rigorous curriculum in place. Part of that involves determining exactly WHAT a curriculum should look like, and then building it alongside the teachers within the district. Part of that work has begun, and it will be continuing over the next couple of years until this piece is complete.

Stage 3 Readiness, Commitment, and Participation

Once we have an appropriate curriculum in place, it becomes my responsibility to work to ensure its implementation throughout the district. This is a natural fit to my job as a math coach, and the work over the past three plus years in establishing relationships with the various teachers will enhance this implementation. It is my hope that by the end of the 2020 school year, we might have a curriculum in place and be moving towards full implementation.

Reflective Questions for PRIME Assessment Leadership

Assessment Indicator 1

Every teacher uses student assessments that are congruent and aligned by grade level or course content.

Self-Assessed Current Status:

Stage 3 - Leadership in the Extended Community

Rationale:

Over the past few years as a math coach, numerous opportunities in the area of assessment have arisen. During much of my high school career, my colleagues and I worked hard to align assessments with stated goals and expectations, and ensuring that these were important levels of mathematics. As a math coach, I have been working both in Grade Level teams and in Vertical teams in the development of meaningful mathematics assessments. Part of the focus is also around using those assessments to inform instruction. Finally, I have been involved in several assessment pieces at a state and larger level, from an SAT Alignment workshop, to a standards setting workshop on the new SAT, and also involvement in the local MEA standard alignment process. I also this past summer had the opportunity to work on an alignment piece for a new assessment being developed by the College Board.

Growth Strategies:

I will be continuing to learn about assessment strategies, and will involve myself in opportunities to look at proficiency-based assessment to refine my understanding of how best these can be created and administered. I am in philosophical agreement with the concept of Proficiency-Based Education - the difficulty lies in figuring out the best way to measure that proficiency. As such, I need to continue to talk with people in other districts to hear about additional ways that are being tried.

Stage 3 Readiness, Commitment, and Participation

Once we finalize an approach to a lot of these questions around proficiency-based assessments, I believe that we can craft assessments that aligned to the grade level standards, accurately measure student proficiency, and can even be easily adapted to be used in a traditional grade system as needed. At that point, I will be ready to share our experiences and what we have learned on a larger scale, such as a future WMEC conference or the like.

Assessment Indicator 2

Every teacher uses formative assessment processes to inform teacher practice and student learning.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

One of the key ways I am working with teachers on formative assessments is to encourage them to have exit tickets at the end of class, with a quick problem for the student to solve. This provides the teacher data about how well the class understood the lesson. In one particular case, the teacher initially said that he thought most kids had gotten the lesson. However, after going through the exit ticket, he was surprised to find that perhaps only $\frac{1}{3}$ of the students had gotten the correct answer.

Growth Strategies:

Utilizing more types of formative assessments would be the next logical step. Finding ways to implement strategies from *Mathematics Formative Assessment* by Page Keeley and Cheryl Rose Tobey will provide an excellent set of additional resources for teachers to implement.

Stage 3 Readiness, Commitment, and Participation

As I continue to work on proficiency based assessments, I am finding that using those as a pre-assessment to a unit can be an extremely effective formative assessment. This past week I administered one in a 5th grade classroom, and when the teacher and I went through them it helped to point out areas of weakness. Once the unit is completed, we are optimistic that a post-assessment will show marked improvement in these areas.

Assessment Indicator 3

Every teacher uses summative assessment data to evaluate mathematics grade-level, course, and program effectiveness throughout a district, region, or province.

Self-Assessed Current Status:

Stage 2 - Leadership of Others

Rationale:

As a math coach I spend a fair amount of time looking at data. In October during an extended early release day I led the K - 8 staff in a 3 hour data workshop, looking at a protocol for viewing data, and then specifically looking at both math and reading NWEA scores.

Much of the focus of that workshop had to do with “So what does it mean?” and “How do we respond to what we see?” The district is implementing data teams in all their schools, and the protocol I introduced is designed to be a model for each data team. Thus, looking at the NWEA, the MEA, and other data sources and using that data to inform our practice is a large focus of this year.

Growth Strategies:

The discussions on summative data will continue as we being utilizing common assessments, written to common proficiency scales across the district. It will allow us to begin looking at teaching strategies that are effective when we see differences in student performance and allow the opportunity for teachers to share their strategies. Working to be sure assessments are fair and free of bias will be one of the next big steps I will have to take, but I suspect this will require some more studying and learning on my part.

Stage 3 Readiness, Commitment, and Participation

The superintendent has made it clear that he wants to expand my role to include more work done with assessments. This will allow me the opportunity to have a larger impact, not just within the math area, but I suspect also with other content areas. Additionally, it will likely provide me with opportunity to talk with board members and parents about data within our district and be in a position to explain and clarify where clarification is needed.