

Interviews - Principal, Title One, Math Coach

I found a few minutes to sit down with each person, and presented a quick overview of a “Math Leader”. I wanted to be sure that they were not going to equate “Math Leader” with “Math Coach,” so I included other examples such as informal math leaders, math interventionists, department heads, etc. This in fact is an ongoing challenge I have personally, and wanted to be sure they recognized that Math Leaders included MORE than just math coaches.

Each person was then asked the same three questions:

1. What do you see as the role of a math leader?
2. What do you see as the pros (or positives) of having a math leader?
3. What do you see as the cons of having a math leader?

The discussions are summarized below.

Principal

I interviewed Tom Desjardins on October 17, 2018. His responses were as follows:

1. The first word that came to his mind about the role of a math leader was that of a Champion - someone who could articulate a clear vision as to what children should be learning and how it is scaffolded over the course of their school career.
2. He presented a “30,000 foot view”. The pros are having a math leader are that they can lead. They know the direction to lead, and are mindful of the “pendulum swing” that occurs in education. They are able to discuss data, and understand best practices. They also have the ability to focus people’s attention on math.
3. He could see no cons to having math leaders. He could see lots of cons to NOT having math leaders.

Title 1 Ed Tech

I interviewed Amanda DeLeonardis, a Title 1 Ed Tech, on December 16, 2018.

1. She saw the math leader as someone who can support not just teachers, but also Ed Techs. The math leader is someone that staff can bounce ideas off to improve their own instruction.
2. She saw the Pros as having other adults to get ideas from, as well as the ability to create smaller instructional groups to better meet the needs of students.
3. She could not see any cons.

Math Coach

Although I am a math coach myself, we also have a grant funded math interventionist, who is in our district for $\frac{1}{3}$ of the year, and who is also currently enrolled in the Math Coaching Project. I interviewed Natalie Costello on October 15, 2018.

1. She saw the math leader as someone who was there to help as a teacher needed help. Someone to share advice with - for example on using Moby Max.
2. The pros of a Formal Math Leader is that this person can focus on math (not ELA or other content areas, as most elementary teachers need to do). It allows the person to look across grade levels, and allows them to look more deeply at math.
3. She thought one con of a formal math leader was that if the individual was not working directly with students, they may not clearly understand their struggles. She also noted that having experience at a particular grade level could be either a positive thing or a negative thing, depending on how it was presented and received by classroom teachers.

Analysis of position

The job description for an instructional coach at RSU #74 is given here:

JOB TITLE: K-12 Instructional Coach

MINIMUM QUALIFICATIONS: Bachelor's Degree, 18 credits in content topics, and Maine State Professional Teaching Certificate either K-8 or 7-12.

ADDITIONAL QUALIFICATIONS DESIRED: Master's Degree; Endorsement as specialist or leader in content area (if available from the state)

JOB DUTIES:

- 1) Collaborate with K-12 teachers to develop standards-based curriculum and effective, research-based instructional approaches providing support for students' educational development.
- 2) Assist teachers in using assessment data to inform instruction, including monitoring student progress using a Response to Intervention model.
- 3) Provide for effective communications with staff, administrators and the community on educational topics.
- 4) Support teachers' professional development around best practices in instruction. This can include book studies, professional learning groups, or other suitable professional activities.
- 5) Serve on the district Professional Development Committee to help plan, coordinate and deliver professional learning.

- 6) Assist in the development of an annual content area budget, including expenditures for professional development and instructional materials.
 - 7) Provide support to administrators in the selection and use of textbooks and other teaching materials.
 - 8) Participate as directed in appropriate professional growth activities such as professional associations, conferences, workshops, and courses.
 - 9) Assist in the preparation of state and federal grants.
 - 10) Serve on the district content committee.
 - 11) Work with the Title I Coordinator to implement the Title I program according to federal guidelines.
 - 12) Work with the principals and the Curriculum/Assessment Coordinator to assess needs and allocate resources to support needs of K-12 students.
 - 13) Help to assess the effectiveness of programs through surveys and examination of data.
 - 14) Perform the role of classroom teacher as assigned and certified.
 - 15) Perform other duties assigned by the Superintendent.
- **LINE OF AUTHORITY:** Reports directly to the Curriculum/Assessment Coordinator
 - **SALARY:** In accordance with the collective bargaining agreement of the Carrabec Education Association for the role of classroom teacher.
 - **WORK YEAR:** In accordance with the collective bargaining agreement of the Carrabec Education Association for the role of classroom teacher. Up to 5 summer days as approved by the superintendent at a per diem rate. These days will be for planning and facilitating professional development days for staff.

This job description actually did not exist when I began the job as math coach. There WAS a job description for a Literacy Coach, and the literacy coach and I decided together, with support of principals, that we should modify that job description to make it more generic. The above text is the result of that work.

This job description contains many of the ideas mentioned in the above referenced interviews. Specifically, best practices, working with data, curriculum, and support of teachers are all concepts that appear both within the interviews and within the job description.

Perhaps the most concerning part of the description is lines 14 and 15. This creates an avenue for many other tasks to be assigned to that of the coach, beyond actual coaching. Such tasks, in my case, include work on data teams (both math and reading scores), evaluation systems and SLO's, work on PBE, and more. Much of these do have connections to math, but it also crosses over into other content areas.

Interviews - Teachers

The teachers I interviewed were all 5th grade teachers. Two of them have been in the district for many years, with the third has a long history in education, including alternative ed and

administration, but who is in his first year teaching 5th grade. I asked these teachers the same questions I asked the other participants.

Teacher 1

Terry Corson was interviewed on October 16, 2018. His responses were as follows:

1. The role of a math leader is someone who can promote more advanced math. They can help teachers find resources, and help with individual math problems. They are someone that staff can go to in order to find better ways to teach, and can give feedback to a teacher after class. Basically, a “go-to” person.
2. Terry saw the pros as having someone who could provide resources, as well as help on things including technology.
3. The cons are that depending on the schedule, the person may not always be available. Also, he saw a con in that some teachers are territorial and may not allow the person to help.

Teacher 2

Julianne Belanger was the second teacher I interviewed.

1. She saw the role of a math leader as someone who could organize and run Grade Level Meetings. Someone who could spend time researching and spend one-on-one time with a teacher talking about best practices, pedagogy, and curriculum. She sees the math leader as one who has a bank of resources, as well as making it easier to access things.
2. The pros of having a math leader is having someone to bounce off thoughts and ideas, as well as to ask questions. They can have a much different feeling about teaching math (in a positive way) than an elementary teacher who is teaching all content areas. They can keep an eye on the curriculum at the district level and help guide it.
3. She was unable to come up with any cons.

Teacher 3

Mike Golden is an experienced educator, but a first year grade 5 teacher.

1. He sees a math leader as someone who is hired or who steps forward to direct curriculum and hopefully instruction. He sees them as a “teacher of teachers”.
2. The pros he sees are that the students will be better at math and have an advantage over schools/districts without a math leader. Teachers also have a huge advantage to be able to draw from the expertise of the math leader. It also gives the administrator a person to go to for direction.
3. The only con he saw was that this results in a higher expectation for teachers - actually a good thing, unless teachers are unwilling to rise to that higher expectation.

Performance, Resources, and Data

All of these teachers have access to the same things. They all have MobyMax as an online resource, as well as CueThink as a tool to promote problem solving. Earlier in the year in a district wide workshop I was able to lead each grade level through an exercise in looking at Grade Level NWEA data. During the year, schools will follow up with looking at their own classroom data to help better inform instruction.

I also encourage teacher to make use of exit tickets to monitor student performance. This week, for example, in one of those classes the teacher thought that students mostly got the topic we were working on. As we looked at the actual exit tickets, however, we realized that only about $\frac{1}{3}$ of the class actually had successfully completed the task. This allowed us to make a strategic plan about the next class to continue on that topic.

Formative Assessment

One of the areas that our district is starting to dig deeper into is the use of NWEA data to help inform instruction. In particular, our IT director is meeting with me to examine the possibilities of utilizing the resources of Khan Academy. Specifically, Khan Academy has a module that allows a teacher to enter the NWEA scores for their students, and have Khan Academy create a customized instruction plan that meets the students immediate needs. This has potential to become a strong Rtl component in mathematics.

Teachers are also using MobyMax more and more to monitor student progress. Some are using MobyMax additionally as extra practice as needed for current topics of instruction, while others utilize MobyMax to provide supplemental instruction in areas of weakness.

I have also started encouraging the use of Exit Tickets more with teachers I work with, and encouraging them to examine the results after class to help plan the next days class.

At the high school level we are beginning a requirement that every junior spend 1 hour per week in their advisory block working on SAT preparation on Khan Academy. The advisor will be able to monitor progress through Khan Academy, ensure that students are putting in the required time, and provide support as students work through the year. The hope is that this will result in a better performance on the Junior SAT this coming April.

One valuable idea I learned at the ACTEM 2018 conference earlier in October was a mind-shift around assessments and proficiency scales. The presenter was adamant AGAINST having Common Assessments in the district. Instead, he argued for having Common Proficiency Scales. His point is that a well written proficiency scale allows a multitude of different styles of assessments, both formative and summative, to be written. These can be in an oral form, or by

having students create a presentation, or a traditional paper and pencil. If the proficiency scale is well written, it can be used for a multitude of assessments.

Summative Assessment

The current culture in our district is that every teacher is responsible for their own summative assessments. Many use the assessments provided in the materials for the program, while others may create their own. This culture really seems to run from K - 12.

With the move towards PBE at the high school level, we have begun to work on some common assessments that all students would take. This has allowed me to begin moving that concept to lower grades as well.

At our October 5th workshop, the morning was spent in "Vertical Teams" by content area, made up of teachers from grades K - 12. The task was to take the high school standards that have been selected in that content area, and then discuss and select the standards for the 6 - 8 span that would be necessary. Later in the year, the work will then move to the K - 5 span.

The math vertical team, which I am in charge of, has already done this work, and in fact already selected standards for individual grade levels. This meant that we were ready to move to the next step of the process, which is to create proficiency scales and common assessments in these grade levels. Having said that, in conjunction with my comment above about common proficiency scales, I am rethinking our approach on this. Right now, I think it is necessary to create both common proficiency scales and common assessments so that teachers can learn HOW to create these assessments. However, over time I'd like to see us move more towards having common proficiency scales, and using those scales to monitor student performance.

With that said, these common assessments are being designed so that they can be used either for a proficiency based score of 1 - 4, or a traditional grade of 0 - 100. Teachers are not limited to just these assessments - they can create additional assessments as they choose. What this DOES do, however, is begin to change the culture so that we can better see how students are progressing through the K - 12 grades. And if we can move towards more use of proficiency scales, we will have an even better way to track student performance.

There is also a consideration about the MEA as a summative assessment. This impacts grades 3 - 8, as well as grade 11. The best use of this particular assessment, in my opinion, is to provide programmatic direction for the district. Analyzing results of this assessment really falls on the building principals, data teams, and myself as a math coach.

Instructional Resources

The active resources available to our teachers include the following:

- Moby Max

- NWEA (Fall, Winter, Spring)
- CueThink (Problem Solving tool)
- Google Classroom (can be populated by connecting to our SIS)
- Khan Academy (this is free, and will soon be explored for further use)
- Go Math! Teacher materials and online materials (K - 5)
- Open Educational Resources (6 - 8) - online materials

One of the largest needs within our district is to establish a functional Response to Intervention program. Much of our difficulty lies in the fact that our schools are so small and our schedule is severely impacted by the “specials” such as Art, Music, Technology, Library, and PE that are fixed schedules. As mentioned above, we are at this moment exploring some digital options that can enhance an RtI program, such as a linkage between NWEA and Khan Academy. Additionally, in the next week I will be exploring an add-on to NWEA called Skills Navigator, which we had a few years ago. We dropped it because it was not an efficient use of teacher time. We are hoping this may have changed, and will allow teachers to use Skills Navigator to customize needed supplemental instruction.

It will be necessary for us to find a way to track student performance on standards over time. Although the K - 8 standards are all tied to a grade level, reality is that some students will be working on standards that are prior to their actual grade. Having the means to track this and to better help students succeed will be a critical component.