What is your mathematics leadership purpose?"

Navigating the space with your "mathematics leadership compass"

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I often encounter mathematics leaders who are seeking direction in their maths leadership. They often ask me, "What do I need to do as a maths leader?" Like the manner in which a compass helps direct the way, a question such as this one can bring focus to our leadership activity and help us navigate that space with greater purpose.

Questions about our maths leadership are important, and we need to spend time thinking about our purpose as maths leaders. Questions like these can help point us in the "right" direction. When I am asked questions about what maths leaders need to do, I often respond by asking another question. I tend to ask, "So, what do you see as the purpose of your mathematics leadership? What is your mathematics leadership compass?"

I often see a quizzical look on the maths leader's face when they hear me ask about a "mathematics leadership compass". I tend to tell the maths leader that I am asking about their leadership direction. This is not a question that can be answered quickly. It takes some serious reflection to identify the purpose and direction of our activity as maths leaders. Our leadership activity is multifaceted because as maths leaders we have to engage with aspects of our activity which are both leadership focused (for example, planning and leading professional learning) and managerial focused (like ordering mathematics teaching resources). For many maths leaders, they struggle to move beyond those managerial aspects of their leadership activity.

By now, you will have noticed that I refer a lot to “leadership activity”. This is linked to how I see the concept of leadership. In another section of this site (About LEaDME), I share my view of mathematics leadership. Essentially, I see maths leadership as activity that influences the mathematical knowledge, practices, and dispositions of all people engaged in a school community. This is no easy feat when you consider how vast mathematical knowledge and ways of thinking and working mathematically are, let alone thinking about all of the people involved in a primary school setting: the students, the parents and families, the classroom teachers and support staff, and of course, the school leadership team members like the principal, deputy principal and the other curriculum leaders. Just like a compass has points which help direct us as we try to navigate from one space to another, there are points in a school that can help direct our leadership activity. These are “points of intervention”.

Points of intervention

A point of intervention is a place within an organised system where targeted activity can be enacted with the purpose of influencing that place and thus making a difference. In a school (an organised system), there are multiple “places” where targeted activity is enacted by particular people or groups of people for particular purposes. Student learning is the most important place in the system of the school. It is the primary reason why the school exists. We know from countless education research studies that the person who has the greatest influence on student learning in the school is the classroom teacher. Therefore, in any school, student learning is the point of intervention for the classroom teacher. This makes sense to us so we can carry this idea through to our maths leadership activity.

When I speak with many maths leaders, they passionately say that they are there for the students and they are there to improve the students’ mathematics learning. This is very admirable and I agree that maths leaders are there for the students. However, in many ways, it is unachievable to say that the maths leader can influence all students’ mathematics learning. It is an impossible task.

Teacher learning as the maths leader’s point of intervention

I would never discourage a maths leader from holding the purpose of improving student mathematics learning outcomes as it would be wrong of me to do so. I do, however, challenge maths leaders to seek a greater purpose (objective) which is focused on developing teacher learning. Just as the classroom teacher’s point of intervention is student learning, the maths leader’s point of intervention is teacher learning.

Your targeted mathematics leadership activity in your point of intervention (teacher learning) needs to influence and make a difference to teacher knowledge, teacher practices, and teacher dispositions for effective teaching and learning of mathematics in your school. By directing your leadership activity towards to your

point of intervention which is teacher learning, your teachers should be able to use that professional learning to influence their own point of intervention which is student learning. In this sense, your maths leadership does influence student learning outcomes in mathematics but is through your point of intervention of teacher learning where you achieve this objective. Get to the point of your maths leadership activity by directing it in a way that influences and makes a difference to teacher learning, your point of intervention.

So, if you are thinking about the direction of your mathematics leadership, maybe you could think about your own mathematics leadership compass. Recognise that your point of intervention is teacher learning. It is through this point that you can find greater direction and focus for your leadership activity: influencing and making a difference to teacher knowledge, practices, and dispositions of and for effective mathematics teaching in your school.

The following questions might be helpful in identifying more aspects of your mathematics leadership compass, thinking about your point of intervention. After reflecting on these questions and recording your responses, you might consider sharing them with your school principal or executive leadership team. Your responses might prove to be important conversation topics with your principal about ways that you could influence teacher learning in your school setting. By now, you would have worked out that your own mathematics leadership learning is the point of intervention for the principal at your school. Sharing your responses to the following questions might help your principal in her/his work in influencing and making a difference to your mathematics leadership knowledge, practices, and dispositions.

Reflective questions when thinking about your point of intervention of teacher learning

- What leadership activity is required to support the development of your teachers' mathematical content knowledge for effective maths teaching? What mathematics topics/concepts/ideas do your teachers need to know more about? What sources of information (data) might suggest this as a need?
- What do your teachers need from you to deepen their pedagogical content knowledge (knowledge of teaching and assessment practices, ways that students learn mathematics, and knowledge of the maths curriculum) so that they can plan for, teach, and assess mathematics learning for all students? What sources of information (data) might suggest this as a need?
- How do your teachers view mathematics? What are their beliefs and mindsets about maths? What relationship do they have with maths? How might their feelings and beliefs influence the "type" of maths that they might be teaching in their classroom?
- What are the opportunities to develop teacher learning in mathematics education at your school? What structures are at the school that enhance

teacher learning? What structures hinder teacher learning? What are possible ideas for transforming those hindrances to opportunities?
- What resources do you need to lead teacher learning in mathematics? How might you access these resources?
- What do you need to learn for yourself about how teachers learn to teach mathematics? Who or what might support you in this area? Which other staff members might support you in leading teacher learning in mathematics education?
- How comfortable are you in leading teacher learning in mathematics? What support do you need in becoming more comfortable and more proficient in leading teacher learning in mathematics education?

Your own mathematics leadership compass will be as individual as you, and it will be different from that of another maths leader. We know this because school contexts and environments in which we work influence what we can and cannot do with our leadership activity within our point of intervention of teacher learning. Your mathematics leadership compass will also be influenced by your years of experience as a maths leader, and by your own personal knowledge of mathematics content and the pedagogies we use to teach mathematics effectively. It will also be influenced by what you know about the ways that teachers learn how to teach mathematics effectively.

Whatever your leadership activity, it should have a clear purpose on influencing teacher learning, as it is this objective that helps navigate and direct our activity as maths leaders…and it can make mathematics education in your school more effective.

So, what is your mathematics leadership compass?