

# **A RELATIONSHIP BUILT TO IMPACT INSTRUCTION: DEVELOPING AND SUSTAINING PRODUCTIVE PARTNERSHIPS BETWEEN MATHEMATICS SPECIALISTS AND PRINCIPALS**

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## **ABSTRACT**

How does the mathematics specialist provide a profound and lasting impact on instruction? We believe that a productive partnership between the principal and specialist, which we will call the principal-specialist relationship, is at the crux of the matter. When the principal-specialist relationship is built upon a foundation of a shared vision, clear roles, communication, and trust, both the teachers and students in the school benefit. We will explore the impact of the principal-specialist relationship on teacher success during the era of distance learning as necessitated by the COVID-19 pandemic. In order to explore how these ideas come alive in the field, we gathered survey responses and conducted personal interviews with mathematics specialists in a variety of roles. This article examines ways in which the principal-specialist relationship supports successful mathematics instruction beginning with a review of contemporary literature. In the form of short vignettes throughout the paper, we illustrate the roles of the mathematics specialist and how those roles were adapted for online learning environments. Our findings revealed that a unifying vision for mathematics instruction is essential for attaining maximum impact on student achievement.

## **KEYWORDS**

principal-specialist relationship, productive partnerships, vision, trust, collaboration, communication

*Alone we can do so little; together we can do so much.*

— Helen Keller, as cited in Lash, p. 489

While Helen Keller is certainly not referring to school social dynamics, she adequately describes the impact of a mathematics specialist purposefully developing and maintaining a trusting partnership with the principal.

Productive partnerships are vital for mathematics specialists to be successful in their roles and to optimize their impact in schools. Moreover, the principal-specialist relationship may help to establish the specialist as a positive influence on instruction or result in a disruption in the specialist's development of trust and rapport with other educators in the building. A shared vision, clarity in communication and roles, mutual support, and established trust between the specialist and the principal yields an effective partnership. When all of these standards are achieved, the principal can expect the specialist to serve as a lynchpin, connecting administrative goals and initiatives to instructional decisions and pedagogical action.

The National Council of Supervisors of Mathematics [NCSM] (2019) points out that “relationships are the vehicle from which coaching is delivered” (figure 2.3g, p. 1). It is through this lens that we will examine the relationship between the mathematics specialist and building principal. Research and anecdotal evidence will illuminate the benefits of building positive and productive relationships with principals. We will also highlight how time spent getting to know each other can help in navigating unforeseeable obstacles such as those that resulted from the COVID-19 pandemic.

In this paper we will share results from research studies, illustrative stories, and interviews with teachers, principals, and mathematics specialists that highlight the importance of productive relationships. Qualitative data was collected through an online survey sent to more than 30 mathematics specialists, coaches, and administrators. The combination of research and firsthand accounts allows us to describe the current context and emphasize the impact of the principal-specialist relationship on learning in schools.

## **Literature Review**

Whether acting as an intermediary or instructional support, it is vital that the mathematics specialist establishes relationships and builds strong partnerships with administrators and teachers (Bengo, 2016). Davis et al. (n.d.) suggest that partnerships between the mathematics specialist and the principal can be developed by meeting regularly to share teacher success stories and relevant research while also discussing the goals for the mathematics program, mathematics content, and achievement data. Beyond communicating with the principal, quality partnerships between the mathematics specialist and teachers will depend on inclusive collaboration, personalized planning, and differentiated coaching (Campbell & Ellington, 2013; Inge et al., 2013). Regardless of the methods utilized to build the partnerships, these relationships are a lifeline for a successful mathematics specialist.

Trust is the glue that holds partnerships together. Sticking to the data and facts strengthens the trust in the mathematics specialist with everyone involved. The principal's confidence and trust is bolstered when the mathematics specialist offers relevant data from instruction, assessments, policies, research, and initiatives aimed at moving the school's mathematics program forward (Campbell & Ellington, 2013). Teachers embrace that same level of confidence and trust when the mathematics specialist utilizes data to maintain a focus on

mathematics instruction and exercises discretion to avoid the pitfalls like gossip and breached confidentiality (Inge et al., 2013). This demonstration of knowledge and professionalism enhances collaborative work efforts and sustains credibility and trust within the partnerships.

Traditionally, mathematics specialists have provided face-to-face assistance, support, collaboration, and coaching (Rock et al., 2011). Statewide governances resulting from the COVID-19 pandemic called for an immediate conversion from traditional learning, instruction, and coaching to remote learning with virtual instruction and coaching for all mathematics specialists, teachers, and administrators (Natanson, 2020). Mathematics specialists were forced to change instructional support vehicles and proceed through uncharted territory while maintaining their partnerships with administrators and teachers. In places where shared understandings had already been developed regarding visions and roles within the program, mathematics specialists were more likely to navigate this change as well as other changes without a problem (Inge et al., 2013). Additionally, due to the anticipation of returning to school buildings for fall 2021, these established partnerships can be significant keys to sustaining professional development, support, and collaboration, whether in a face-to-face or virtual environment (National Council of Teachers of Mathematics [NCTM] & NCSM, 2020).

### **Establishing Yourself as a Specialist**

Affecting sustainable positive change in a school can be achieved through productive relationships. While collegial relationships benefit classroom teachers in many ways, they are absolutely critical for the success of a mathematics specialist. Part of the mathematics specialist's role in the first few years in a school or district involves laying the groundwork for how relationships between the specialist, educators and administrators will be established and maintained in a way that leads to a dynamic education environment.

While there exists no specific formula for how to establish oneself as a leader in a school building, there are recommendations that have proven over time to be effective. Each school's environment and culture is different, so approaching the principal to outline the expectations of the specialist's role is an important first step. As indicated by a retired mathematics supervisor and mathematics specialist program coordinator, one of the biggest challenges arose "when the principal and the specialist held very different beliefs about what it means to know mathematics and the power of student-centered learning" (I. Vance, personal communication, June 1, 2020). If this happens to be the case, it is important to keep the focus on students' success to determine effective strategies for instruction and assessment. Once a shared vision is clearly defined, the specialist can then work alongside teachers to develop goals that are concurrent with the principal's vision. Without establishing a plan, the specialist could fall into reacting to issues that arise rather than acting as a proactive agent of change in the school building (I. Vance, personal communication, June 1, 2020).

As experience and research show us, being an effective specialist is reliant on taking the time to better understand the teachers and others in the school community that the specialist is servicing. Heather Nunnally, currently a teaching assistant professor at Virginia Commonwealth University, shared that during her first years as a mathematics specialist in a school, "being willing to help in any way that I could was one way I was able to maintain the relationships with teachers" (H. Nunnally, personal communication, June, 2, 2020). When teachers and administration see the specialist's resolve to achieve student success, it will serve to strengthen the developing partnerships.

After taking time to understand the established relationships within the school, the specialist should become a link between the principal and teachers. The principal's goals, while providing a wide-angle perspective of the school's vision, may be challenging to translate into practical application in classrooms. The mathematics specialist can digest the broader goals and break them down into actionable steps for classroom teachers. Conversely, while teachers may have difficulty voicing their day-to-day struggles with the administration due to the evaluative nature of their relationship, the mathematics specialist can synthesize the needs and concerns of the classroom teachers and approach the principal as a mediator after carefully considered everyone's ideas and reasonable requests.

The following is an excerpt from an interview with Ms. Keo, a district-wide instructional coach from a rural district in her second year, who shares her perspective on establishing oneself as an essential link between administration and instruction.

### **Ms. Keo Depicts Dynamics of Collaborative Relationships**

Teachers see me as an ally for their students and themselves. Administrators see me as supporting their efforts to provide a rich instructional environment with a focus on teacher and student issues and needs. Bridging the gap that can exist between administrators and teachers provides for a better instructional environment and builds trust for my own role, as well as between others (A. Keo, personal communication, June 16, 2020).

### **The Impact of Vision on Progress**

A principal with a clear, achievable vision for the school's growth in mathematics unlocks the possibilities for what a specialist can accomplish in a school. In the following vignette, Ms. Keo describes her work with an administrator with whom she had positive rapport, who had recently become the school's new principal. She discovered that vision can be an anchoring feature in the principal-specialist relationship.

### **Ms. Keo Emphasizes the Importance of a Shared Vision**

This principal really had a strong vision for strong instruction...taking these traditional teachers and really pushing them to move more into current and progressive teaching,... small groups, really trying to do more inquiry, really trying to do more performance tasks, really trying to move away from [the traditional method of] stand and deliver and practice. She has such a great way of challenging her teachers in a positive way, and so her attitude has helped [mathematics specialists] take the lead and facilitate some of this change in some of her departments... Her leadership and her vision and, I think, her [prior] experience in elementary school has really helped lead the charge. And she has created such a positive buzz about us and how we can be a resource and support for teachers that [her efforts have] just kind of kicked off [an effort to generate] the amount of support that we can have. She knows her teachers are good and she wants them to feel supported as she challenges and pushes them further. I think that strong vision...I think it makes or breaks a school (A. Keo, personal communication, June 16, 2020).

When a principal's vision is clearly communicated, whether as expectations or aspirations, the mathematics specialist can take action knowing that administrative support is present and strong. Ms. Leath, a veteran mathematics specialist from a large suburban district, illustrates the importance of clearly communicated expectations in the following interview response.

### **Ms. Leath Illuminates the Impact of Clear Expectations on Progress**

I've had an experience where the principal, at one point, you know, I didn't think she cared for me... Her teachers weren't listening to her so she wasn't too sure how much they would actually listen to *me*. And then when I told her, "give me a chance, you know, I'll back you, I'll support you, what do you want to see when it comes to math?" And she was like, "I wanna see this, I wanna see this, I wanna see that," and I'm like, "let's do it!" And she's like, "you don't know these teachers." And I'm like, "what do *you* want to see?" And she's like, "I wanna see those things," and I'm like "let's do it."... Being a mathematics specialist is not for the faint of heart. You have to know how to be able to smile, but you're also not a "yes" person all the time. People have to understand that you're there to accomplish something. You're not there to become people's friends and people's buddies, so I'm not going to say yes to everything. ... I tell them this is what your principal wants, and I'm here to make sure it gets done. Because why? This is what's best for our children... I tell you within a year, they changed, and the principal just rode the wave. But all I needed was the backing of administration. And the fact that she wanted something so desperately to [take place] in her school. We were a perfect duo. ... It was those four words: What do you want? You tell me what you want and I will let you know if I can't do it. And if I can't do it, I know a slew of people who can help me get it done... And honestly what I shared with you is no different. If you don't have clear expectations as a teacher in your classroom for your students, what is going to happen? But you go across the hall, and you look at somebody who has clear expectations and makes it known, it's a different story. It's not that these children are "better" or whatever. It's just that the expectations are *clear*. They are specific and they speak to whatever the goal and the objectives are. That's it! (J. Leath, personal communication, July 9, 2020).

The previous vignettes exemplify the standards needed for effective partnerships. The following will highlight the importance of purposefully maintaining this newly developed and productive partnership.

### **Maintaining Trust and Relationships with Teachers and Principals**

When working as a mathematics specialist, there is a challenging duality between maintaining the trust that has been developed, while also serving as a bridge between the different needs and different agendas of the principal and teachers. While infrequent, there are times when, after coaching a teacher and not seeing improvement, the specialist may have to consult with the principal about the next steps regarding inappropriate teaching practices. However, the specialist must be careful not to view their teachers with a deficit mindset.

At the end of it, we all have our strengths and we all have our weaknesses. As a specialist I have to understand that nobody has it all. And the only time when you have to break that "trust" is if there is danger. And when I say danger I mean... I don't want to call

teaching 2009 [National Council of Teachers of Mathematics] Standards when you are supposed to be teaching 2016 [NCTM] Standards dangerous, but if I'm telling you not to do that and giving you something to do instead, and you're still doing your own thing, you do need to be called out on the carpet. (J. Leath, personal communication, July 9, 2020).

Ms. Keo provides another perspective on the importance of balancing trust while maintaining high standards.

Teachers and administrators are looking at different pieces to the puzzle. We're all working on the same puzzle, we're just coming at it from different angles and so somebody's got to hold up the box to say, "Look! This is what it looks like in the end! You're all working on the same thing!" (A. Keo, personal communication, 2020)

### **Maintaining The Principal-Specialist Vision at a Distance**

How can the mathematics specialist continue to partner with the principal in order to help realize their vision for the school at a distance? As COVID-19 spread through the United States in 2020, Virginia school districts sought to keep children safe from this potentially deadly disease. Schools were deemed unsafe, and for the first time in history, teachers were responsible for encouraging students' academic development in a virtual learning environment. As a result, mathematics specialists became even more essential to crafting successful lessons. However, working remotely meant that the trust that had been previously developed between the principal and specialist was tested. Remembering the principal's key values and the metrics for success enabled the specialist to make decisions about instruction, assessment, pedagogy, and technology without needing to knock on the principal's door for input.

In the vignette that follows, Mr. Potter, a school-based mathematics specialist with six years of experience in a rural school district, highlights the importance of having clarity of vision, trust, and mutual support with his principal to realize the potential for positive effects on students during a global pandemic.

### **Mr. Potter Maintains Relationships During COVID-19**

My elementary school, like many, abruptly closed in March of 2020 for what we were told would be two weeks and, at present, remains locked. Because the principal and I have a shared understanding of each other's priorities, our entire school was better able to navigate the unexpected closure (Inge et al., 2013). I know that my principal loves his teachers and their well-being is of utmost importance to him. He believes that, when teachers feel loved and supported, students will feel likewise. To ensure the love and support continued, each week our staff was invited to come together virtually through Google Meet just to talk. We had a weekly highlight in which, for example, the music teacher led a sing-along or the P.E. teacher facilitated a warm up activity. These activities were designed to bring us closer while our physical distance remained. Each week we listened and shared stories about our newly adopted pets, our children and grandchildren, and how we were all spending our time. There were tears and laughter. Some stood outside the school for the Wi-Fi connection, and others drove to other places to achieve a better Wi-Fi signal. We all needed to connect to our faculty-community. And yes, our principal attended regularly with his grandson in his lap.

During these weekly staff connection meetings, many teachers asked specific questions about delivering mathematics instruction at a distance. One teacher connected me to her grandson after the weekly meeting was over so that he could receive tutoring on long division. Another teacher asked if I would be a guest teacher for her gifted mathematics class. We co-planned and co-taught multiple classes through Google Meet as a result of that request. But the instructional decisions that were made during that time with long lasting impact are yet to be seen. Every teacher from preschool to the gifted sixth grade class in my district was asked to develop a comprehensive learning plan in the event that students are not able to return to class in the fall of 2020. At every level, I was asked for resources and advice on how best to help our students learn. Lead teachers across the district invited me to be a part of the development meetings. Each of these instructional opportunities stemmed from our weekly social connections at a distance. It was because of our mutually strong principal-specialist relationship that I knew my principal would want his staff to meet together in any way they could and he knew that I would coordinate and facilitate positive conversations. Because of our shared trust, vision, and mutual support, we both could be confident in each other's actions without needing approval from one another.

As Ms. Keo explained, "A principal's role is very important in building and maintaining a thriving network of instructional support within a school" (A. Keo, personal communication, June 16, 2020). This network is strengthened as the mathematics specialist meets the needs of the administrators.

The common denominator for success while engaging in virtual learning has been communication. This collaborative element has been the key to unlocking the true potential for both educators and students in a face-to-face or virtual learning environment. While for some, the relationships that were already established before the COVID-19 pandemic necessitated closing schools were the only ones that grew during our forced distance-learning experiences, Mr. Potter was able to facilitate a virtual space that fostered new relationships leading to more coaching opportunities.

## Conclusion

A shared vision, clarity in communication and roles, mutual support, and building trust between the specialist and the principal yields an effective partnership. This principal-specialist partnership paves the path for supporting instruction and, ultimately, student success. The mathematics specialist holds a unique position as an instructional leader who also serves in a supporting role. It is this paradox that can yield tremendous outcomes when carried out with purpose in a team environment.

This analysis was conducted in the spring of 2020 during the start of the COVID-19 pandemic. Teachers were faced with the hurdle of delivering quality instruction during abrupt, seemingly short-term school closures across the country. Our findings were impacted by those circumstances. This leaves an opening for future research regarding ways in which the mathematics specialist can build and sustain quality relationships with school personnel during long-term or perhaps permanent distance-learning arrangements.

For the mathematics specialist, the time and effort invested in building a positive and productive relationship with the principal will be worthwhile. We urge all new and existing mathematics specialists to reevaluate their relationship with the principal to ensure that you realize its full potential. Find common ground, even if it requires some searching. Clarify values

and the expectations for each person's role. Ask what the principal needs and deliver creative solutions that lead to the realization of a shared vision, even in the midst of a global pandemic.

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