

# The WERA Educational Journal

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## About This Issue

This issue of the WERA Educational Journal (WEJ) has four papers related to district efforts to improve student learning and one review of books related to highly capable students.

- Ana Elfers and Marge Plecki describe the experience of the Auburn school district that invested in teacher leadership as a way to improve instruction and better serve a changing student population.
- Alison Brynelson describes teacher perceptions of principal leadership qualities as the Mukilteo school district transitioned to a new teacher evaluation system.
- Nicole Ralston looks at misconceptions that elementary teachers in one Washington school district have about their students' understanding of basic mathematical concepts.
- Kimberly Kendziora and Nick Yoder summarize the research on social and emotional learning (SEL) and then discuss key results from a study of several large urban school districts that are collaborating to promote the integration of SEL into their core activities districtwide.
- Jann Leppien completes this issue with a list of books that all educators should have on their shelf if they are responsible for working with advanced students.

We encourage members and others to consider submitting interesting papers for publishing in upcoming issues of the WEJ. See the Call for Papers below for more information about this topic.

Pete Bylsma, EdD, MPA

WEJ Editor

Director of Assessment/Program Evaluation, Mukilteo School District

## Call for Papers for the WERA Educational Journal (WEJ)

We are seeking papers and other submissions for the May 2017 issue of the *WERA Educational Journal*. The WEJ is a collection of peer-reviewed academic papers, professional reports, research reviews, book reviews, essays, and commentaries of general significance and interest to the Northwest education research and practitioner community. The WEJ is issued twice a year (November and May). Papers for the May 2017 issue are due January 15, 2017.

Topics in the WEJ cover a wide range of areas of educational research and related disciplines. These include but are not limited to issues related to the topics listed below.

- Early childhood education
- Curriculum and instruction
- State and national standards
- Professional development
- Special populations (e.g., gifted, ELLs, students with disabilities)
- Assessment results covering various content areas
- Early warning indicators
- Social and emotional issues
- School and district effectiveness
- Teacher and principal evaluation
- Education finance and policy
- Educational technology
- Educational leadership

Papers should be of interest to a wide range of educators in the Northwest. Condensed versions of dissertations and theses that are reader-friendly are encouraged. For more information about the WEJ and its submissions, see the [Submission Guidelines](#) posted on the WERA website. If you have questions about the process or about possible submissions, please email Pete Bylsma, the WEJ editor, at [WEJeditor@gmail.com](mailto:WEJeditor@gmail.com) or his work email at [bylsmaj@mukilteo.wednet.edu](mailto:bylsmaj@mukilteo.wednet.edu).

# **The Role of a District Teacher Leadership Program in Supporting School and District Improvement Initiatives**

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*Distributed leadership and collaboration was the focus of one district's investment in teacher leadership as a way to improve instruction and better serve a changing student population. The district's five-year teacher leadership initiative became a vehicle to introduce new programs, recognize the expertise of teachers, and provide teacher leaders with opportunities to be involved in implementing changes in their classroom, school and district. This study examined the school and district impact of the program in developing teachers' leadership skills and the ways in which teachers subsequently engaged in school and district leadership activities.*

## **Perspectives on Teacher Leadership**

Enhancing and supporting teacher leadership has been a focus in many districts for several decades. Partially in response to the ever-increasing expectation that principals ensure instructional guidance and support is provided, a variety of forms of distributed leadership have emerged (Murphy, Smylie, Mayrowetz & Louis, 2009; Spillane, Halverson & Diamond, 2001; Hargreaves & Fink, 2006). Some research examining distributed leadership found that shared leadership has a greater impact on student learning than individual leadership (Louis, et al., 2010). Teacher leadership can positively impact teacher and student learning in a number of ways, including (1) increase a school or district's capacity for instructional improvement, (2) broaden and deepen participation in planning and decision-making about improvement strategies, (3) model best practices, and (4) foster collegiality and social capital (Danielson, 2007; Crowther, Kaagen, Ferguson & Hann, 2002; Smylie & Denny, 1990). That said, successful implementation of distributed leadership is somewhat dependent on the principal's capacity to adapt to the newly defined nature of their own leadership work, and to build the supports, trust, and opportunities necessary to foster the leadership work of teachers (Murphy, 2005; Murphy, Smylie, Mayrowetz, & Louis, 2009).

Ways of thinking about teacher leadership have evolved over time, resulting in a wide variety of forms of teacher leadership, both formal and informal (York-Barr & Duke, 2004). Inherent in the role of a teacher leader is the expectation that teacher leaders will collaborate with others, thereby increasing intellectual and social capital (Nappi, 2014). This collaboration may take place at multiple levels within the system, including within grade levels, departments, and/or professional learning communities, or occur across school and district contexts. Ronfeldt et al. (2015) found that student achievement gains were greater in schools with stronger collaborative environments and in classrooms where teachers were strong collaborators in their instructional teams. Certain conditions known to foster productive teacher leadership include the support of principals and the adequate provision of time and resources to support the work.

## **Methods and Study Context**

This study employed a concurrent mixed-methods research design with both qualitative and quantitative data collection and analyses (Creswell & Plano Clark, 2010). To corroborate research findings and to provide diverse perspectives, we included multiple outcome measures and gathered data from a variety of sources. The research questions include:

- 1) How has a five-year districtwide teacher leadership initiative supported teacher leaders' professional knowledge and skills, and student learning goals, as well as school and district improvement initiatives?
- 2) To what extent has the initiative impacted teachers' roles and responsibilities and in the district?

This study was situated in the Auburn School District, a rapidly changing suburban district that encompasses a 62 square mile area in Western Washington. The district serves approximately 15,000 students, of whom 55 percent receive free or reduced-price meals, 55 percent are students of color, and 15 percent participate in the transitional bilingual program.

In 2010, the Auburn School District partnered with the Center for Strengthening the Teaching Profession (CSTP), a Washington state non-profit, to provide training and support for the Auburn Teacher Leadership Academy (ATLA). Approximately 50 teachers each year participated in a year-long cohort-based program (2-3 teachers from each school). Approximately 250 teachers completed the training over the first five years (about 30% of the district's teachers). CSTP developed a Teacher Leadership Skills Framework that has formed the basis for their professional training of teachers. Using the CSTP framework, teacher leadership is defined as "the knowledge, skills and dispositions demonstrated by teachers who positively impact student learning by influencing, adults, formally and informally, beyond individual classrooms" (CSTP, 2009). The cohort met for four days in the summer prior to the school year, and then over the course of the school year to learn leadership skills such as working with adult learners, building relationships through communication, facilitating collaborative work, strengthening knowledge of content and pedagogy, and systems-level thinking in decision making.

### ***Data Sources, Data Collection and Analysis***

The primary qualitative strategy involved semi-structured interviews, focus groups and document analyses. The main quantitative work involved analyzing data derived from surveys and state datasets.

*Interviews and Focus Groups.* Interviews provided a detailed understanding of how participants experienced the program. The interviews also served as a platform for developing or adapting survey measures. Site visits were conducted on five separate days over nine months during the 2015-16 school year. Individual interviews were conducted with 16 teachers and 13 administrators. Additionally, 5 focus groups were conducted, organized by school level. A total of 10 teachers and 8 administrators participated in focus groups. A total of 47 employees of the district (representing 19 of 22 schools) were involved in interviews and focus groups.

*Surveys.* A second strategy involved the design and deployment of online surveys for school staff. The surveys were designed in consultation with the district and were deployed Autumn 2015. Survey data included factors such as the extent and nature of participation, assessment of school-wide impacts, instructional and leadership practices implemented, and satisfaction with the leadership training. A total of 102 certificated teaching staff responded to the teacher survey, yielding a response rate of 47 percent. Respondents were distributed across all five years of cohorts, with slightly higher response rates from Cohorts 1 and 4. A total of 24 administrators responded to a separate survey, a response rate of 63 percent. Respondents represented 22 of 24 the district's schools.

A variety of archival source materials were collected to offer information pertinent to the research questions, especially with regard to the organization and focus of professional development, such as five years of ATLA session agendas based on the Teacher Leadership Skills Framework, demographic information about students and staff, and the leadership efforts aimed at addressing student learning needs.

### **Findings**

Like many districts in recent years, Auburn has faced substantial changes in education policy and practice while addressing increasing enrollments and changing student demographics. The Auburn Teacher Leadership Academy was established with a vision to build capacity for teacher leaders to better support a changing student population through active participation in instructional improvement efforts. Professional learning communities (PLCs) became an entry point to support the changes and collaboration was a way to collectively improve. A district administrator

explained, “Grounded in the strategic plan was a belief in collaboration as the way for us to get better together, and that we’re stronger as a team than any of us individually... We knew to be able to do collaboration well, we need to be able to develop some leaders at the building level other than the principal... What is it that we can do to help empower teachers to be able to lead their colleagues in collaboration to ultimately increase student learning?” ATLA became a vehicle for messaging and introducing new initiatives, recognizing the expertise of teachers, and providing teacher leaders with the opportunity to be involved in implementing changes.

In order for teachers to play a more active and influential leadership role with their colleagues, the training focused on developing specific knowledge and skills essential to teacher leadership based on the Teacher Leadership Skills Framework developed by CSTP. The training began by helping teachers shift how they viewed themselves as leaders. Analysis of the data identified four major themes: (1) development of teacher leadership knowledge and skills, (2) intersection of teacher leadership with school and district initiatives, (3) teacher leaders’ changing roles and responsibilities, and (4) trade-offs and tensions.

### ***Development of Teacher Leadership Knowledge and Skills***

As part of this initiative, the district sought to move toward a culture where teacher leaders could collectively engage at multiple levels of the system. Essential to this process was teachers’ gaining the *confidence to lead* and permission to take reasonable risks. For some teacher participants, risk taking was a new way of viewing their professional activities. A high school teacher explained, “The most memorable [aspect of the ATLA training] for me is just the impression that it's okay to put yourself out there and it's okay to take a risk. It's okay to utilize the skills that you have for the betterment of the school and the kids. I can do more to help the kids if I get involved in leadership... and training other staff, and just as much as I can in helping them in the classroom.” Reasonable risk-taking was a theme echoed by district leaders who noted that it was OK to make some mistakes – because that too, is learning – as long as staff “fail forward, fail fast,” which meant to make adjustments quickly and then move on. The vast majority of teachers surveyed (88%) and 100 percent of Auburn administrators either strongly or somewhat agreed that ATLA increased participants’ self-confidence as a teacher leader.

Based on survey and interview data, a central outcome was learning to *work more effectively with other adults*. A district level administrator explained the rationale for this focus: “We all knew how to teach, but we didn't know how to teach adults. ATLA really brought that idea, ‘How do we work with adults, maximize their strengths? How do you have those tough conversations?’” Interview data indicated that a recent district initiative had rolled out less smoothly in some buildings, resulting in the need for increased professional conversations and adjustments going forward. ATLA teachers indicated that the training provided a means for them to productively engage with their colleagues, particularly during this time.

Training activities included examples of different work styles, such as task-driven versus more relational orientations. A teacher explained how this understanding helped in working with colleagues: “...you are really task driven and that's why. I want to socialize and make sure everybody's comfortable and happy and okay. That's how come sometimes we butt heads. It's not a personal thing... It's interesting tapping into different people's personalities... It's building on what strengths they have to bring to the table.” Another teacher described an activity that involved physically locating themselves in a line with others, based on whether they considered themselves primarily a big picture thinker or more detail-oriented. A teacher explained, “That has helped me a little bit to think about where I see other staff members, where I see how they deal with their anxiety. If someone's a detailed person, they need to know everything if they're unsure of something, if they feel like they're in the dark. That's kind of helped me think [about how to work together].”

Participants described using protocols to model and practice how to have a difficult conversation. A middle school teacher explained, “...practicing those protocols, and again, just what do you do if you’re in a meeting when nobody

wants to participate? Again, these are all adults. They are paid to be here and that's their job, but it's just they're still upset and hurt about those shifts, so how to work with that." An elementary teacher admitted her own weakness in being a talker and not a very good listener. After the training, her PLC team created protocols that they stick to religiously: "We have agendas that we stick to. We have a certain amount of time that each one of us is allowed to talk. It all came from ATLA. We make decisions whether or not certain conversations should be sidelined. We set our priorities. We give ourselves time limits. We wrap up with a, 'How do you think that went?'"

Other strategies for working with adults were mentioned by participants and included key words like "norms of collaboration" and "assume positive intent." A high school teacher explained, "I think ATLA did give me the confidence to be able to work with others in that other [more accepting] style." The confidence to take risks in working with their colleagues also opened up opportunities for teachers to engage with the district in new ways.

District leaders were intentionally visible and involved with the program over the five years. In particular, the former superintendent would design and lead a portion of the learning on the day when the *systems level thinking* was discussed. A district level administrator explained: "He engaged with teachers. They could ask questions. He could give kind of his vision, 'Hey, while you're here, this is what we're thinking. This is why we're doing it,' and [he] always did a great job of explaining the systems piece. 'Here's what we're doing in elementary, here's why. Here's what you're seeing in middle school, here's why. Here's what we're hoping will happen.'"

A middle school teacher explained how the systems level training had given her confidence in working with staff across the district: "Part of the ATLA structure is learning how to navigate systems as far as who do you talk to, to get certain things done? Especially as teachers, we're so used to talking to maybe other teachers and directing students, but [not] navigating outside of that." For some teachers it also created new connections to the district office which supported teacher leadership activities and expanded their access to resources. The survey data also confirm this finding: 83 percent of ATLA teachers agreed, either somewhat or strongly, that the ATLA training equipped them to use systems-level thinking in decision-making. Ninety-two percent of principals agreed that teachers had improved in their ability to use systems-level thinking in decision making as a result of the ATLA training.

The training also *expanded teacher networks*. Most teachers valued the collaboration with others that they might not normally come into contact with, and enjoyed bouncing ideas off of their colleagues. The notion that training supported collaboration with other teachers across the district was one of the items teachers mostly strongly agreed with (53% strongly agreed, 34% somewhat), and most principals agreed that the training had broadened teachers' network of colleagues (58% strongly, 42% somewhat agreed) and improved their ability to collaborate with other teachers (46% strongly and 50% somewhat agreed). CSTP trainers sought to prepare activities that actively engaged teacher participants and were immediately applicable to their school contexts, such that teachers could call to mind specific program activities, in some cases five years after the training. Table 1 summarizes teacher perspective on some survey items.

**Table 1: Extent of teacher agreement with statements about ATLA training (n=102)**

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Was directly applicable to my work as a teacher	2%	9%	33%	56%
Supported collaboration with other teachers across the district	2%	8%	34%	53%
Helped me communicate more effectively with my colleagues	1%	8%	44%	46%
Included enough time to think carefully about and try new ideas	0%	11%	43%	46%
Recognized and built on individual teachers' knowledge and experience	0%	6%	50%	44%
Included opportunities to work productively with other staff in my school	1%	17%	39%	43%
Improved my ability to use assessments to inform my instructional practice	4%	17%	52%	26%

### ***Intersection of Teacher Leadership with School and District Initiatives***

The teacher leadership initiative intersected with a variety of district and school improvement policies and practices during this time period. For some teachers, engagement in leadership activities had a profound effect on their *perspective of how decisions are made* within a school. A middle school principal described changes he has seen in his teachers: “I’ve seen teachers do a complete one eighty after going through ATLA because they understand, I think, the leadership side of things.... What people want and what’s best for the school is not always in line; and also they understand that sometimes leadership and change takes time... I’ve seen people change and be more supportive of slow change and of a process and of coming with solutions rather than just complaints.” Another middle school principal described how the training has helped teachers become decision-makers: “It’s empowering teachers to be a decision-maker within the building, to come with ideas, to have reasons for those ideas. I think it’s helped with just the dynamics of my building, you know the way that people get along, the way that people work together, the way that they are willing to share ideas. It’s been powerful, it’s taken a lot off of my plate.” The training provided an organic process for many teachers to become part of a larger leadership effort to support student learning. Survey responses support that a majority of ATLA teachers felt they had a voice in decision-making at their school and that leadership roles were shared among teachers and administrators (see Table 2).

**Table 2: Extent of teacher agreement about impact on decision making, leadership and collaboration (n=102)**

<b><i>ATLA has helped my school be a place where...</i></b>	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
Teachers have a voice in decision-making	8%	13%	48%	29%
Leadership roles are shared among teachers and administrators	5%	17%	47%	29%
Teachers collaborate	4%	10%	56%	28%

When asked to provide specific examples of a leadership step taken as a result of ATLA training, teachers described new roles they have taken on, including those of instructional specialist, department chair, PLC facilitator, and trainers in professional development activities. Teachers also mentioned assisting others with technology and the use of data. Other ATLA teachers described leading a book club to help build staff community and climate. Respondents

also described using active listening skills and improved ability to engage productively in difficult conversations among colleagues, including conflict resolution. Two such examples described by teachers are provided below:

“I feel more equipped to tackle difficult conversations in my PLC with my team. I better understand how to approach differences, in a non-emotional way, and guide the dialog so that our conversation stays productive and working towards a solution.”

“I have become more involved with the facilitating of data. I was good at using data for myself. But now I try to help others see how they can use data to improve their students. I encourage them to share ideas, I try to be more of a mentor.”

Administrators echoed many of the examples provided by teachers, and described ways in which teachers facilitated meetings or presented to colleagues in various professional development settings. While ATLA teachers were not required to take on a particular teacher leadership activity or role, many teachers did return their schools and shared in front of their colleagues what they had learned. An ATLA teacher explained how her principal continues to support continued professional growth in this area: “Each cohort that is currently in the training, our principal will meet with us and ask, ‘You are learning things at ATLA. What do you want to practice at the building level so you can put those leadership skills into practice?’ In part, that’s how I started doing a few little in-services when I was doing ATLA, and I’ve done more since then.” A middle school principal provided examples of the application of the skills and knowledge learned in the school: “Every single year of ATLA so far, the people have come back and said, ‘We just did this in ATLA today. I want to do it at our staff retreat in August.’ Every year we started our retreat with something from ATLA and our teachers present and it’s been successful.” Another middle school principal talked about a building focus on peer-to-peer leadership opportunities and the role ATLA teachers have played: “Lots of people stepped up for that. To have people come into the room to observe them teach or go into someone else’s room and model some instruction. That’s been powerful.”

*Collaboration in PLCs.* Professional collaboration is a key element of the ATLA framework. From the beginning, the district had envisioned PLCs as a place where teachers could work together to support a broader group of students across grades within schools. Since principals typically are not able to regularly attend PLCs and grade level meetings, teacher leaders could be supported and empowered to lead this work. Many PLCs and other grade level groups in Auburn schools appear to function quite productively, with ATLA teachers leading and supporting the work. Describing activities at a district waiver day last fall, an elementary teacher noted how the ATLA training informed their work: “We together came up with team goals. ... We submitted our lesson plans, submitted our observations, we created and wrote out two weeks’ worth of math so that we are saying the exact same things to our children at the same time and we also took our whole ELA block, rearranged it, assigned things that we are going to do, and this was all within a course of four hours... I don’t believe that had I not been through this [ATLA] I could have developed the skills to work with these people as well as I have.”

Nevertheless, challenges remain within some PLCs. An elementary teacher who had recently changed schools candidly described the differences between the PLCs in the two schools and said: “I believe that our district is working towards the kind of collaboration that we have at my school. I am not sure they have achieved it.” A teacher responding to the survey wrote, “The district and school provide time for collaboration, but often control it to the extent that teachers can’t get done the important work of planning curriculum and instruction. There is only so much looking at data that needs to be done.”

*Prompting Changes in Instructional Practices.* Eighty-five percent of ATLA teachers surveyed indicated that the program had led them to make changes in their teaching, and data from interviews support these findings. Themes that emerged from the interview data included working with student data and strategies for engaging students. In some cases, the group skills learned in the ATLA training could be applied to work with students. A teacher



described a mantra attributed to ATLA of “classroom, neighbor, hallway, building” as a way to think about teacher leadership activities which start with one’s own classroom and move outward throughout the building.

Engagement with student data was frequently mentioned by participants as a takeaway from the training, as in this example: “As far as working with students, again I think the first thing that comes to mind is just how we look at data with students.” An elementary principal described how one of her grade levels wasn’t doing very well on the MAP assessments at the time: “So they started to implement a lot of the seven strategies of assessment [from the ATLA training]. I bought the book for everybody else on the team, so everyone would have their own book, and their own tools and materials...and they’ve seen a dramatic improvement. Their team is much more cohesive. They are all on the same page, they are moving forward collectively so it was a real positive experience, especially for that team.”

*Prompting Professional Conversations.* For some principals and ATLA teachers, the training provided an opportunity for different kinds of professional conversations. Principals who were able to attend the last hour of the ATLA training together with their teachers mentioned the richness of the conversations, as described by this middle school principal: “What I think they really loved about ATLA is that hour that we’re invited to come meet with them at the end of each meeting; and its super valuable to me... Every time I go, they don’t have anything earth-shattering for me, but they’re like, ‘So we talked about this today, what does that look like in our building?’ So they’re learning things that are kind of behind the scenes in our building.” Others, such as this elementary principal, found conversations with teachers enriched when they returned to the building:

“The real strength [of ATLA] has been in the conversations once we get back to the building where we talk about different things they want to implement, or different resources that now they’ve learned through ATLA and we might need in the building. Then we would go out and buy those different resources, or they would go hear of a great book in ATLA...and I’ve gone and purchased those books for my staff, or we set up professional development opportunities.”

Teacher leadership conversations such as these helped frame building discussions around instructional practices.

*Principals’ Perspectives on Distributed Leadership.* Some principals viewed ATLA as an opportunity to shift teachers’ understanding of leadership from a focus on the individual building leader to a shared leadership effort. Two such examples by elementary principals are provided below:

“The point being is that the distributed leadership ... I prefer [the term] “shared leadership,” it means that our building can continue ... regardless of the fact the demands have been added to all schools and all systems that we are able to continue to progress, as oppose to bog down, in the midst of that... it's one of the things that makes me feel most fulfilled in what we do, as a building. Knowing that: (a) I'm not alone and I'm sharing the work and the celebrations and the burdens and all those pieces, and (b) they are phenomenal at what they do, so they're growing and our staff grows as a product of that.”

“I am able to distribute that leadership... like with the PBIS [Positive Behavioral Interventions and Supports]. I sit on the committee but I’m not the one who’s having to drive that... We are going into our SIP [School Improvement Plan] revisions, it’s the same thing. Like ATLA teacher leaders are the chairs, and so they run those meetings, they motivate the staff. I’m just overseeing it, which helps a lot with the evaluations, and things that I have to do. Principals’ times are getting just crunch, crunch, crunch. So if you can have those building leaders who can address some of those concerns, it also helps the staff because they are seeing that things get done... Here, we can kind of hand things off to some of the motivated leaders who can make a big difference in our building.”

ATLA supported school and district initiatives through messaging beyond that of a single principal or a district leader. The training was intended to provide an organic process for teachers to become part of a larger leadership effort to support student learning. It should be noted that there was a minority opinion among a few principals who did not see a connection between school and district initiatives and the ATLA initiative.

*Differences Across the District.* Professional development initiatives often play out quite differently across schools depending on the school level, composition of the student body, the teacher workforce and the school's leadership capacity. The ATLA initiative is no different in this regard. While many ATLA teachers found immediate opportunities to use their training, others did not. A survey respondent wrote, "I feel that there should be a better way for ATLA members to bring their learning back to the schools. There was no set time for us to do so and it wound up not directly happening." A middle school teacher explained, "We learned a lot but then if you're not in one of those specific leadership positions, you don't get the chance to use them." An elementary teacher described her situation this way: "...once I went through [ATLA] and I went back to my school and I didn't have a whole lot of luck getting buy in from that. I actually did kind of just let it go for a while. We actually tried some of the exercises in our PLC's and things like that, but we didn't have a lot of success."

Auburn schools had similar numbers of ATLA teachers trained across the five year years, but leadership opportunities varied by school and by level. The survey data reveals some differences by school level on items related to the district sharing leadership, tapping expertise and modeling practices, with elementary teachers holding overall more positive views. Another aspect of this experience was the way in which ATLA teachers in specialist roles found it challenging at times to find support, encouragement and opportunities to utilize their training and skills.

### ***Teacher Leaders' Changing Roles and Responsibilities***

Over four-fifths (85%) of teachers surveyed agreed that ATLA encouraged them to pursue *new teacher leadership opportunities*, but most weren't interested in leaving the classroom to take on formal leadership roles. Thirty percent reported that they currently have a role with significant teacher leadership responsibilities. As a middle school ATLA teacher explained, she enjoyed being able to be able "to lead, guide and be an agent of change and innovation within the building without having some sort of formal leadership role." She continued, "I figured out a long time ago after dabbling in formal leadership in those roles, that's not where I want to be. I want to be with kids."

One of the areas where ATLA teachers appear to have expanded their leadership participation has been serving on school and district committees and other collaborative work. An elementary principal described the ways in which collaboration has increased among ATLA trained teachers: "Almost all of them, I can't think of an exception to that, become engaged in district level committees, curriculum design, summer work, item writing, curriculum creation." A high school teacher discussed his views of teacher leadership opportunities: "I think teacher leadership sort of feels more like [I am] an ambassador... I've been to more district trainings. I understand what an administrator wants, but I'm working with teachers. ...you fully have a bigger picture, perhaps, of what the goals of the district are. And then you can, again, in a lot of informal ways, help bring others along."

ATLA was not designed to be a leadership pipeline from teaching to administrative positions, although a few staff transitioned to formal leadership positions. Using state databases, we found 15 individuals (6% of participants) who changed assignments during the first five years, including positions as district administrators, principals or assistant principals or district instructional support positions. More than four-fifths (85%) of teachers surveyed agreed that the program encouraged them to pursue new teacher leadership opportunities, but most weren't interested in leaving the classroom to take on other formal leadership roles.

The ATLA training supported the work of individual teacher leaders in their classrooms and in their schools, as well as provided opportunities for collaborative work at different levels of the system. However, given the substantial commitment of time and resources, ATLA training was not without tensions and trade-offs.

### *Tensions and Trade-offs*

As with any districtwide improvement initiative, ATLA has experienced some implementation challenges. These challenges included addressing time constraints, improving the applicability of ATLA training to meet the needs of diverse learners and supporting administrators in understanding how best to support teacher leaders. Each of these issues is discussed below.

*Time.* ATLA created space and opportunities for teachers to develop their leadership skills, but the time commitment for the training was arguably the greatest challenge. Both teachers and principals expressed concerns about teachers leaving their classrooms multiple times across the year. A secondary principal articulated the time concern on behalf of his teachers: “Some teachers don't want to be out of the classroom. So when you're asking a teacher to make the sacrifice of being out their classroom, that's probably the biggest challenge... There are some teachers that said, ‘I don't want to do it because I don't want to be out of the classroom,’ but I would say the ones that participated in it appreciated the process, and some of them definitely grew and took on additional leadership roles.”

Some principals expressed their own concerns about pulling teachers out of the building. A principal in a high poverty school talked about the needs of his students when a good teacher is absent from the classroom: “Kids in demographics similar to ours really struggle with change. When they go from having this really awesome person that cares about them and knows everything about them, because that's the kind of person that they are, to anything other than that, it not only can destroy that day, but potentially the week. And recovering from that is a difficult thing for them.”

This concern was compounded by an ongoing shortage of substitutes needed to replace teachers who attended the training. Training days sometimes added extra work for administrators when a lack of substitutes meant finding staff to cover for ATLA teachers or sometimes covering the teachers' classrooms themselves. An administrator's response on the survey simply said: “The only concern I have is the lack of sub teachers on the days of ATLA training.”

Administrators frequently mentioned that they wanted ATLA meetings to be held outside of the school day. An elementary principal articulated the concern this way: “The number one thing they should change going forward, or could have changed in the past is; not pulling your best people out of your building during the school day.... Eight to nine times a year that your kids are either with a substitute teacher instead of one of the best people in your building or they are divided into a bunch of other classes because you couldn't even get a sub. A sub crisis and shortages, that's an issue I think should be wrestled with.” Auburn staff weren't able to offer any easy solutions to the time and substitute issues. Several suggested meeting after school hours and compensating teachers for their time. Others acknowledged that this would limit who would be able to participate.

*Work with Diverse Student Populations.* An increasingly diverse student population has amplified the need for skills in cultural competency and ways to address the achievement gap. Working with diverse student populations is one area where interviews and survey findings suggest that for some, the ATLA training was not as helpful. Twenty-one percent of administrators surveyed somewhat disagreed that the training empowered teachers to initiate equity-driven changes. An elementary principal shared: “I think we really still need to have that focus on quality educational practice. How to meet our diverse populations, and that doesn't just mean our ethnic diversity, or our linguistic diversity. It really means we've got to include our poverty diversity, and really focusing on best practices

on teaching.” When asked about whether the training helped teachers support diverse learners in his building, an elementary principal replied, “I would simply say that it's increased their awareness and they've grown as advocates for minority populations. But I can't point to a specific behavior outcome that I see in what they do, in relationship to that.” A middle school principal of a diverse school added: “I don't know what kind of an impact it has had on that...I think the things they learned in there could certainly be used for that, but I don't know that there's ever been that direct connection made.”

Nearly a third of teachers indicated that learning about ways to address the achievement gap (31%) or meet the needs of students from diverse cultural backgrounds (22%) was not adequately addressed by the training. An ATLA teacher explained: “I think the one thing that really just sticks out is I would really love to see us do a little more with diversity training. I mean I think we need to have conversations about race. We need to have conversations about celebrating differences and being accepting of everybody's differences.”

*Training for School Leaders.* The majority of Auburn teachers who participated in ATLA training felt well supported and were encouraged to pursue new opportunities. However, both teachers and administrators mentioned that some principals might benefit from training or suggestions on how to more effectively utilize the skills and talents of their teacher leaders. This might reflect the need for principals to consider and prioritize their work with teacher leaders in new ways. One principal expressed regret that he hadn't done more to follow up with ATLA teachers after the training. He explained that in retrospect he could have had them help facilitate the professional development at the beginning of the year and plan throughout the year, and participate to a greater extent in the alignment of the instruction work. Tapping in to the resources that teacher leaders have to offer can lighten the load, and principals may benefit from training and ideas for how to maximize those opportunities.

## **Discussion**

This district model for teacher leadership provides an innovative case in which to examine the complex nature of distributed teacher leadership and its relationship to supporting learning. One of the strengths of the model has been the local discretion given to buildings and teachers to consider how to apply the training within their unique context. This strategy encouraged teachers to step out of their comfort zone but also to further develop their own unique skillset. This worked well for most, and worked even better when the training was tied in to other school and district initiatives, as a middle school principal explained: “We have all these pieces. How can we make this thing connect to what's going on now and bring all the pieces together? That would be something that I would want to see. I love the program. I think it's great. I just think if we can tie into some of the key pieces they we're doing right now, that would be awesome.”

Teachers and administrators also found value in setting aside time to debrief from the training. There is great value when those opportunities can be structured soon after the training while the experiences are still fresh in teachers' minds, as explained by this principal: “We really are just focused on what are you learning, what's the most important learning from this, what can we apply immediately, something we can put on the back burner, what can we use to leverage our staff and our students to be more successful either way? ...I think teachers would appreciate it too, having that solid time with the principal's undivided attention to really hear their goals and their ideas for helping our school succeed.”

In conclusion, the ATLA training provided opportunities for teachers to develop their leadership skills over a sustained period of time and provided meaningful connections to instructional practice, relationships with colleagues and engagement with school and district improvement initiatives. However, as prior studies have found, the work of teacher leadership is challenging and may be dependent on principal capacity to engage in the work, and a sustained commitment of time and resources.

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# Teacher Perceptions about Principal Instructional Leadership

Alison Brynelson, Mukilteo School District

*School principals are now expected to be instructional leaders rather than managers in order to improve teacher instruction that meets the needs of all students. The new evaluation system in Washington State provides a common definition of what should occur in the classroom. This study examined the relationship between principal instructional leadership and teacher evaluation. Principal instructional leadership was observed from the perspective of teachers at different school levels, different evaluation systems, and final evaluation scores during the first year of implementation. Using a multiple methods research design, the results indicate that teachers under the new evaluation system believe their evaluator “sometimes” or “frequently” exhibits certain leadership behaviors more often than teachers rated using the old system. Teachers with higher final summative evaluation scores and student growth ratings viewed their evaluator as exhibiting leadership behaviors more frequently than those who received lower scores and ratings. There were no differences between teacher perceptions of evaluators by school level (elementary and secondary).*

## Introduction

K-12 education across the nation has changed dramatically during the past 20 years. Teacher and principal autonomy and little accountability have been replaced with more collaboration and collective responsibility for student learning. Federal and state accountability systems now require instructional leadership to be a more prominent responsibility of principals. High quality instruction at the classroom level that yields improved student learning is now expected. Principals are expected to help teachers with this change. Teachers must understand the learning needs of their students, and principals must understand the learning needs of their teachers (Hess & Kelly, 2007; Stein & Nelson, 2003; Timperley, 2005; Wahlstrom & Louis, 2008; Elmore, 2000).

While principals were always expected to be instructional leaders, this expectation was not often met. Vast non-instructional duties such as student supervision, discipline, and parent meetings forced principals to be organizational managers rather than instructional leaders (Hallinger & Murphy, 1985; Institute for Educational Leadership, 2000; Kafka, 2009). Principal preparation programs appear to lack instructional leadership training, and the standards for entry into these programs also lack rigor, creating a pool of mediocre building leaders (Hallinger & Murphy, 1987; Institute for Educational Leadership, 2000; Hess & Kelly, 2007; Davis, et al., 2005).

Washington legislation recently changed the state’s teacher evaluation requirements to include a 4-tiered rating system, a student growth component, and the adoption of state-approved instructional frameworks. All teachers in the state are now evaluated using the new system, so instructional leadership and evaluation are now connected – both focus on improving teaching at the classroom level. Quality instruction is defined and assessed through clear rubrics, and what teachers are expected to do in the classroom and what the principal expects to see is now explicit.

Principals must be knowledgeable in curriculum and pedagogy to collect evidence on what they observe teachers and students doing to provide data for specific, effective, non-judgmental feedback (Blase & Blase, 1999; Copland & Blum, 2007; Robinson et al., 2008; Stein & Nelson, 2003). Visibility in classrooms is also important to observe individual teaching strategies to determine the necessary level of scaffolded teacher assistance (Copland & Blum, 2007; Marzano et al., 2005; Stein & Nelson, 2003; Swinnerton, 2006; Witziers et al., 2003; Sartain et al., 2011). However, teachers often perceive their evaluation as unhelpful to their instructional strategies, sometimes believing that principals may not possess the requisite skills to improve teaching (Stein & Nelson, 2003).

## Objectives, Scope, and Methods

This study examined the relationship between principal instructional leadership and teacher practice through the lens of the new Washington State evaluation system. The study had five research questions.

1. What are teachers' perceptions of their evaluator's instructional leadership?
2. Does a teacher's school level (elementary or secondary) affect the perception of instructional leadership?
3. Does a teacher's evaluation type (old or new) affect the perception of instructional leadership?
4. Does the effect of school level on perception of instructional leadership vary depending on evaluation type?
5. Is there a relationship between the three measures of instructional leadership support, teachers' summative performance evaluation scores, and student growth rating on the new system?

### *Instructional Frameworks*

An instructional framework is a set of teaching behaviors linked to improved student learning and based on research and the work of the practitioners. The heart of the three instructional frameworks available in Washington State is a shared understanding and definition of quality teaching tied to the reciprocal relationship between evaluator and teacher. The frameworks are an inquiry-based growth model, and educators learn together through the authentic use of the framework, reflective thinking, and discussion. Improvement of the instructional core occurs through frequent, focused teacher feedback based on descriptive data collection in a judgment-free environment (Danielson, 2002; Fink & Markholt, 2011; Marzano et al., 2011). The 5 Dimensions of Teaching and Learning (5D+) by the Center for Educational Leadership (CEL), the Marzano Teacher Evaluation Model, and Charlotte Danielson's Framework for Teaching are the three instructional frameworks available to school districts in Washington State (OSPI, Washington State Teacher/Principal Evaluation Project, 2014).

CEL educators created a leadership framework to guide principals in their work of improving instruction (University of Washington Center for Educational Leadership, 2012). The authors contend that effective instructional leadership is focused on learning (student and adult) and measured by improved instruction. Effective leaders cultivate a school climate where teaching is a public and reflective practice. The four dimensions of the framework are as follows: vision, mission and culture building; improvement of instruction; allocation of resources; and management of people and process. After each dimension, there are clear definitions and guiding questions to promote reflection. The development of the leadership framework is a recent example of one organization's attempt to explicitly define effective instructional leadership.

The study used definitions from the book, *Leading for Instructional Improvement: How Successful Leaders Develop Teaching and Learning Expertise* (Fink & Markholt, 2011). These authors lead the Center for Educational Leadership (CEL) where one of the three state-approved frameworks originated.

- *Instructional leadership* is leaders creating conditions for teacher learning as a public practice and guiding them in the improvement of their teaching.
- *Instructional core* is the relationship between high level content, the student as an active learner, and increasing teacher expertise.
- *Instructional framework* is a set of teaching behaviors linked to improved student learning and based on research and the work of the practitioners.

### *Context and Participants*

The study examined the views of teachers in the Mukilteo school district in Washington State. The district is located in the greater Seattle metropolitan area and currently serves about 15,000 students in 12 elementary schools, four

middle schools, two comprehensive high schools, an alternative high school, and a skills center. The district is quite heterogeneous: the largest populations of students served are white (41%), Hispanic (28%), Asian/Pacific Islanders (16%), and two or more races (9%). About half the students are from low-income homes (FRL), 13% are in special education, and 18% are English language learners (OSPI, Washington State Report Card, 2016). When the study was conducted, there were 32 building administrators (19 secondary, 13 elementary).

All teachers were asked to participate regardless of their evaluation type. The new teacher evaluation system is comprised of two different forms, comprehensive and focused. Teachers on the *comprehensive* form are evaluated on all eight of the state's criteria in addition to earning a student growth rating. Those on the *focused* form are evaluated on one criterion and must also demonstrate student growth, although they do not earn a separate growth rating. Both forms require the use of the district adopted instructional framework and teachers are rated on a four tiered scale. Educators on both comprehensive and focused are combined and referred to throughout this study as teachers on the new system. Educators who are evaluated under the traditional two tiered system, satisfactory or unsatisfactory, are referred to throughout this study as teachers on the old system.

In total, 774 teachers were asked to respond to the survey. This included regular classroom teachers and those teaching special populations (e.g., ELL, special education, Title I). Principals and teachers were assured the results would be kept anonymous and that schools and evaluators would not be identified. The survey was conducted online during the last two weeks of the school year through a link to the district's website. The final participation rate was 41%, with more teachers responding from the secondary level ( $n = 202$ ) than elementary ( $n = 118$ ). The percentage of teachers who responded districtwide on the old evaluation system totaled ( $n = 182$ ) for a 57% response rate. There was a 43% response rate from the teachers on the new system ( $n = 138$ ).

### ***Survey Instrument and Analytical Methods***

Teachers identified their principal's level of instructional leadership using the Principal Instructional Management Rating Scale (PIMRS) developed by Hallinger (1983), a widely used tool to measure instructional leadership ((Hallinger, 2011; Hallinger, Wang, & Chen, 2013). The PIMRS has 10 functions and 50 questions and uses a 5-point Likert scale to measure teachers' perceptions: 1 (Almost Never), 2 (Seldom), 3 (Sometimes), 4 (Frequently), and 5 (Almost Always). Three forms of the PIMRS now exist to allow for the differing perspectives of teachers, principals, and supervisors. The questions are identical for each form.

The survey questions used for this study measured teacher perceptions of an evaluator's instructional leadership for 15 behaviors identified in three of the survey's 10 functions: *supervise & evaluate instruction* (SEI); *coordinate curriculum* (CC); and *monitor student progress* (MSP). These three functions comprise the dimension *managing the instructional program*. While the PIMRS does not measure effectiveness or quality of instructional leadership, building administrators who "obtain a high rating on a given leadership function are perceived as engaging more frequently in instructional leadership behaviors and practices associated with principals in effective schools" (Hallinger, 2008, p. 9).

The mean for each of the three leadership functions was calculated and used as dependent variables (DV). Each function was used as a separate dependent variable because Hallinger (1983) deemed each leadership function valid and reliable. Specifically, *supervise & evaluate instruction* (SEI) ( $\alpha = .90$ ), *coordinate curriculum* (CC) ( $\alpha = .90$ ), and *monitor student progress* (MSP) ( $\alpha = .90$ ) had reliable standardized alpha coefficients.

The five research questions required three data analyses. Question 1 required descriptive data analysis because teachers were asked the perceptions of their evaluator's instructional leadership, a preexisting condition. Questions 2-4 required a causal comparison design to discover if personal attributes or experiences make one group different than another (McMillan & Schumacher, 1997). For question #2, existing data were used to determine the "cause" (school levels) on an "effect" (principal instructional leadership) (Vogt & Johnson, 2011). The independent variable



(IV) was the school level (elementary or secondary), and the three measures of instructional leadership used as dependent variables were SEI, CC, and MSP. For question #3, the study investigated whether there was a significant statistical difference in each measure of instructional leadership between those on the new and old evaluation system. Question 4 examined if the effect of school level on perception of instructional leadership varied depending on evaluation type. The study used SPSS to conduct three 2 (school level) x 2 (evaluation type) analyses of variance (ANOVA) to determine main and interaction effects. Table 1 outlines the variables in the 2 x 2 factorial ANOVA.

**Table 1: Variables used in ANOVA**

IV <sub>1</sub> School Type	IV <sub>2</sub> Evaluation Type	
School Level	New System	Old System
Elementary	DV <sub>1</sub> =Perception of Supervise & Evaluate Instruction	DV <sub>1</sub> =Perception of Supervise & Evaluate Instruction
	DV <sub>2</sub> = Perception of Coordinate Curriculum	DV <sub>2</sub> = Perception of Coordinate Curriculum
	DV <sub>3</sub> = Perception of Monitor Student Progress	DV <sub>3</sub> = Perception of Monitor Student Progress
Secondary	DV <sub>1</sub> =Perception of Supervise & Evaluate Instruction	DV <sub>1</sub> =Perception of Supervise & Evaluate Instruction
	DV <sub>2</sub> = Perception of Coordinate Curriculum	DV <sub>2</sub> = Perception of Coordinate Curriculum
	DV <sub>3</sub> = Perception of Monitor Student Progress	DV <sub>3</sub> = Perception of Monitor Student Progress

Main Effects: School Level (2) and Evaluation Type (2)

Interaction: School Level x Evaluation Type

A factorial ANOVA was used to determine whether the means of two or more groups are different and can analyze the effects of multiple IVs on a single DV (Field, 2009). Although there were three DVs in this study, each were treated independently from one another, so three separate ANOVAs were used. To control for possible Type 1 error, the Bonferroni correction was used (Field, 2009).

Question 5 used a correlational design to determine whether a statistical relationship between two sets of variables existed. Separate correlations were conducted between the following variables: a teacher’s final summative score and principal instructional leadership as defined by the three leadership functions; and a teacher’s student growth rating and principal instructional leadership as defined by the three leadership functions.

**Results**

Question 1 asked about teachers’ perceptions of their evaluator’s instructional leadership. The responses from the teacher participants (N = 320) were analyzed to determine the mean and standard deviation for each of the 15 survey questions, each of the three leadership functions that comprise the dimension *managing the instructional program*, and for all the questions combined. The frequencies of responses were also generated. The means were used as separate dependent variables when analyzing data for questions 2-5. Means and standard deviations for the dimension, functions, and survey questions are shown in Table 2.

**Table 2: Means and Standard Deviations for Managing the Instructional Program**

Functions and Survey Questions	<i>M</i>	<i>SD</i>
<b><i>Managing the Instructional Program</i></b>	<b>3.52</b>	<b>.87</b>
<b>Supervise &amp; Evaluate Instruction</b>	<b>3.65</b>	<b>.92</b>
Ensure Consistent Classroom Priorities	4.09	.90
Review Student Work	3.47	1.25
Conduct Informal Observations	3.26	1.25
Point out Teacher Strengths	3.98	1.17
Point out Teacher Weaknesses	3.47	1.24
<b>Coordinate Curriculum</b>	<b>3.34</b>	<b>1.00</b>
Make Clear who Coordinates Curriculum	3.33	1.28
Use Test Results for Curricular Decisions	3.68	1.10
Monitor Classroom Curriculum	3.11	1.22
Assess Curriculum Overlap	3.52	1.18
Participate in Review of Curriculum	3.11	1.24
<b>Monitor Student Progress</b>	<b>3.58</b>	<b>.93</b>
Meet with Teachers to Discuss Students	3.17	1.30
Discuss Performance Results	3.51	1.17
Use Tests to Assess Progress	3.91	1.09
Inform Teachers of School's Performance	3.97	1.16
Inform Students of School's Progress	3.38	1.27

*Note.* The dimension is comprised of three leadership functions. Each leadership function is comprised of 5 survey questions.

Building administrators received an average rating between 3 and 4 on each survey question from the participating teachers. Thus, these administrators exhibit consistent and fairly positive instructional leadership behaviors with their teachers in the school district. No means were generated for the frequency of leadership behaviors in the 1 (Almost Never) or 2 (Seldom) category. The top four instructional leadership behaviors received, or were close to, a *Frequently* rating (4) while those with the lowest means received a *Sometimes* (3) rating. An overview of the 15 behaviors is listed below by classification of the three leadership functions that comprise the dimension *managing the instructional program*.

- ***Supervise & evaluate instruction.*** The overall mean for this leadership function was 3.65. The behavior with the highest mean ( $M = 4.09$ ,  $SD = .896$ ), *ensures that classroom priorities of teachers are consistent with the goals and direction of the school*, was *Frequently* exhibited by the principals and assistant principals, with most responses of 4 and 5 ( $f = 251$ ). *Points out specific strengths in teacher's instructional practices in post-observation feedback* had the second highest mean ( $M = 3.98$ ,  $SD = 1.17$ ) with a high frequency of 4s and 5s ( $f = 226$ ). *Review student work when evaluating instruction* ( $M = 3.47$ ,  $SD = 1.25$ ) and *point out weaknesses in teacher instructional practices* ( $M = 3.47$ ,  $SD = 1.24$ ) received the same mean and similar frequencies for 5s and 4s ( $f = 175$ ,  $f = 161$ ) and 1s and 2s ( $f = 71$ ,  $f = 64$ ) respectively. *Conduct informal observations in classrooms on a regular basis* ( $M = 3.26$ ,  $SD = 1.24$ ) was a behavior in this function that also occurred only *Sometimes*. A high proportion of respondents rated their evaluator at either end of the scale, ( $f = 142$ ) for 5s and 4s and ( $f = 79$ ) for 1s and 2s.

- **Coordinate curriculum.** The questions in this leadership function generated the lowest mean ( $M = 3.34$ ,  $SD = 1.00$ ). However, the frequency of leadership behaviors was still perceived in the *Sometimes* range, indicating a positive teacher perception of their evaluator’s instructional leadership with these behaviors. This function had questions that produced the fifth and sixth highest means for frequency of instructional leadership behavior. The results are as follows: *use test results for curricular decisions* ( $M = 3.68$ ,  $SD = 1.10$ ) with few responses at the 1 and 2 rating ( $f = 47$ ) and *assess curriculum overlap between the school’s curricular objectives and school’s achievement tests* ( $M = 3.52$ ,  $SD = 1.12$ ) with more responses in the 1 and 2 range ( $f = 94$ ). The lowest means derived from the survey questions were tied between two questions, *participate actively in the review of curriculum materials* ( $M = 3.11$ ,  $SD = 1.24$ ) and *monitor the classroom curriculum to see that it covers the school’s curricular objectives* ( $M = 3.11$ ,  $SD = 1.22$ ). The number of 4s and 5s ( $f = 94$ ) and 1s and 2s ( $f = 123$ ) for review of curriculum materials was slightly different than monitor the classroom curriculum ( $f = 130$ ,  $f = 95$ ) respectively. The final survey question from this function is *coordinate curriculum* ( $M = 3.33$ ,  $SD = 1.27$ ) with a large number of respondents in the *Sometimes* range ( $f = 95$ ).
- **Monitor student progress.** The frequency of perceived instructional leadership behaviors in this function was also at the *Sometimes* range ( $M = 3.58$ ,  $SD = .931$ ) and contained the second two highest means between the 15 survey questions. First, principals *Frequently* ( $M = 3.97$ ,  $SD = 1.15$ ) *informed teachers of the school’s performance results in written form* with the responses of *Almost Always* and *Frequently* totaling ( $f = 224$ ). Next, *use tests and other performance measures to assess progress toward school goals* ( $M = 3.91$ ,  $SD = 1.08$ ) produced the same frequency rating as the previous question ( $f = 224$ ). *Discuss performance results with faculty to identify curricular strengths and weaknesses* ( $M = 3.51$ ,  $SD = 1.17$ ) had a high frequency in the *Sometimes* range ( $f = 101$ ). *Inform students of school’s academic progress* ( $M = 3.38$ ,  $SD = 1.26$ ) had a fairly evenly distributed frequency range. *Meet individually with teachers to discuss student progress* received the second to the lowest score ( $M = 3.17$ ,  $SD = 1.29$ ). A high proportion of responses were 5s or 4s ( $f = 135$ ) or 1s and 2s ( $f = 92$ ).

Questions 2 through 4 required a causal comparison design. School level and evaluation type were analyzed to determine if the independent variables had a main effect on principal instructional leadership. Although there were three dependent variables, they were highly correlated, so separate ANOVAs were conducted with school level and evaluation type independent variables. The results of the ANOVAs are shown in Table 3 and described below.

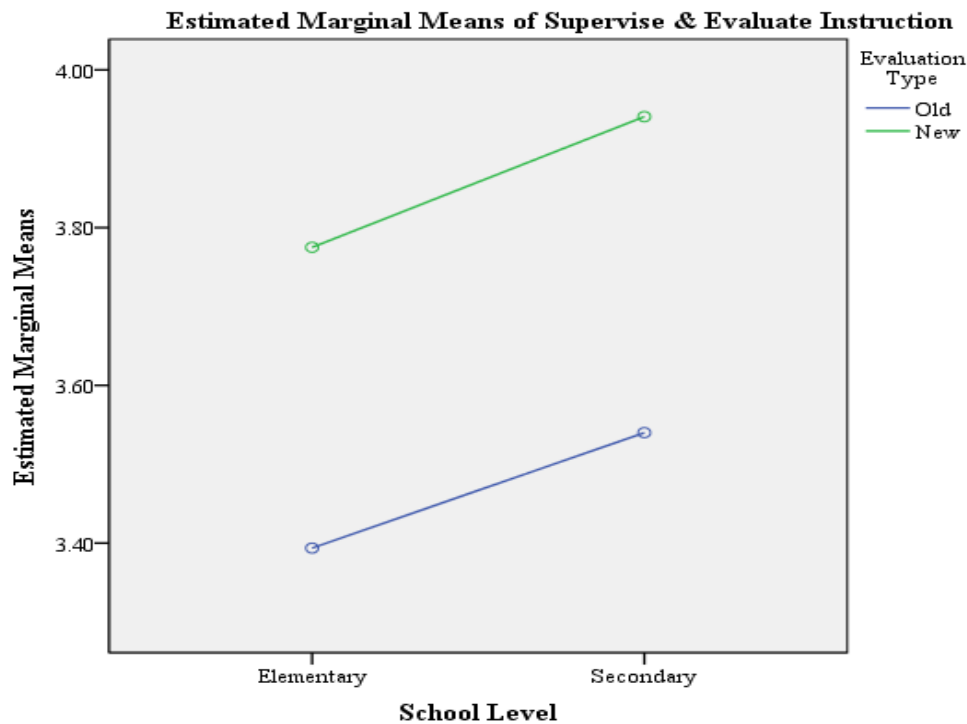
- **Supervise & evaluation instruction.** Table 3 shows that the main effect of evaluation type on SEI instructional leadership was statistically significant, but the main effect of school level and interaction effect were statistically non-significant. The means for the five survey questions that fall under this dimension were significantly higher for teachers on the new teacher evaluation system ( $M = 3.85$ ) versus those on the old system ( $M = 3.46$ ). Teachers on the new evaluation system perceived their evaluator exhibiting the following leadership behaviors more frequently: *ensuring classroom priorities are consistent with school goals*; *reviewing student work*; *conducting informal observations*; and *pointing out teachers’ instructional strengths and weaknesses*. Figure 1 shows the profile plot for school level and evaluation type level on the SEI instructional leadership function.

**Table 3: ANOVA for Supervise and Evaluation Instruction by School Level and Evaluation Type**

Factor	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
School Level	1	1.79	2.27	.138	.007
Evaluation Type	1	11.24	13.92	.000	.042
School Level x Evaluation Type	1	.01	.01	.926	.000

*Note.* Alpha set to  $p = .017$ .  $R^2 = .050$ , Adjusted  $R^2 = .041$

**Figure 1. Profile plot for Supervise & Evaluate Instruction**



- **Coordinate curriculum.** ANOVA results evaluating the relationship between school level and evaluation type on teachers' perceived frequency of their evaluator's CC instructional leadership found that the main effect of evaluation type, school level, and interaction effect was statistically non-significant (see Table 4). There was no perceived difference in elementary and secondary teachers or between those on the new evaluation system versus the old system in terms of the related instructional leadership behaviors.

**Table 4: ANOVA for Coordinate's Curriculum by School Level and Evaluation Type**

Factor	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
School Level	1	.02	.02	.899	.000
Evaluation Type	1	.00	.00	.948	.000
School Level x Evaluation Type	1	.05	.05	.826	.000

*Note.* Alpha set to  $p = .17$ .  $R^2 = .000$ , Adjusted  $R^2 = -.009$

- **Monitor student progress.** The relationship between school level and evaluation type on teachers' perceived frequency of their evaluator's MSP instructional leadership was also statistically non-significant (see Table 5).

**Table 5: ANOVA for Monitor Students Progress by School Level and Evaluation Type**

Factor	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>	$\eta_p^2$
School Level	1	2.03	2.34	.127	.007
Evaluation Type	1	.02	.02	.887	.000
School Level x Evaluation Type	1	.23	.27	.607	.001

*Note.* Alpha set to  $p = .017$ .  $R^2 = .008$ , Adjusted  $R^2 = -.002$

Question 5 asked if there is a relationship between the three measures of instructional leadership support, teachers' summative performance evaluation score, and student growth rating on the new system. Final evaluation data from teachers on the new system was used. Table 6 shows the Pearson's *r* correlations with the various leadership functions: *supervise & evaluate instruction* (SEI), *coordinate curriculum* (CC), and *monitor student progress* (MSP), followed by the results for each function.

**Table 6: Teacher Evaluation Scores and Instructional Leadership Functions Correlation Matrix**

Item	Teacher Evaluation Scores		Instructional Leadership Functions		
	Summative Score	Growth Rating	SEI	CC	MSP
Summative Score	1	.413	.167*	.085	.018
Growth Rating		1	.160*	.068	.055
SEI			1	.737	.668
CC				1	.811
MSP					1

Note. Alpha set to  $p = .05$ . \*  $p < .05$

- **Supervise & evaluate instruction.** This function had a statistically significant result with summative score ( $r = .167, p = .025$ ). Thus, the instructional leadership behaviors defined in this function had a small relationship with a teacher's summative evaluation score. Similar results were found for a teacher's student growth rating ( $r = .160, p = .031$ ). Teachers with a higher total summative performance evaluation score and student growth rating rated their evaluator's instructional leadership more positively and higher than teachers who received a lower score and growth rating.
- **Coordinate curriculum and monitor student progress.** These two functions had non-significant correlations for summative score and student growth ratings.

### Discussion, Implications, and Limitations

Overall, teachers perceived certain principal leadership behaviors somewhat positively. Teachers viewed their principal as "sometimes" exhibiting behaviors related to *supervising & evaluating instruction*, and this was true more often under the new evaluation system than under the old system. This same function also had the highest ratings among the various leadership behaviors. While teachers also perceived that their principal "sometimes" exhibited leadership behaviors related to *coordinating curriculum* and *monitoring student progress*, there was no difference between those being evaluated under the old and new systems. There were similar findings when analyzing the relationship between a teacher's evaluation score and principal instructional leadership: results were statistically significant for *supervising & evaluating instruction* but not for the other two leadership behaviors.

The new evaluation system is more time intensive, requiring principals to spend more time with teachers compared to the old system. So it is possible that the new evaluation system led to greater principal leadership behaviors in only a relatively narrow range. The results may be an artifact of an evaluation system being studied in its first year of implementation. Thus, it is too early to arrive at any definitive conclusions about the impact of the change in the evaluation system. The results are better used as baseline data for comparison purposes when research is conducted on the new system in the future. Nevertheless, the results suggest that the new evaluation system may improve certain leadership behaviors, i.e., those related to *supervising & evaluating instruction*: ensuring classroom priorities are consistent with school goals, reviewing student work, conducting informal observations, and pointing out teachers' instructional strengths and weaknesses.

Providing teachers with effective feedback is one behavior of a strong instructional leader (Blase & Blase, 1999; May & Supovitz, 2011; Robinson et al., 2008). However, principals providing feedback to teachers received mixed results. Principals were *Frequently* perceived by teachers as *pointing out teachers' instructional strengths* ( $M = 3.98$ ) but only *Sometimes pointing out their weaknesses* ( $M = 3.47$ ). This suggests that principals are more likely to converse with their teachers on what is done well rather than specific areas needed for improvement.

In a study with Chicago Public Schools, Sartain et al. (2009) found teachers' instruction positively changed when instructional leadership was executed using a common instructional framework and assessment rubrics. Although this study in one Washington school district looked at teacher *perception* of evaluators' instructional leadership, not change of instruction, there were similar findings with the Chicago study. Specifically, there was a statistically significant relationship between teachers' evaluation scores on the new system and the frequency of their evaluator's behavior in terms of conducting observations and providing specific feedback. These same instructional leadership behaviors were related to change in teacher instruction with the participants in Sartain et al.'s study.

The findings in this study should be used with caution due its multiple limitations. First, the timing of the study was not ideal. Teacher perceptions were obtained at the end of the year but before some of them had obtained their final evaluation, and this may have affected teachers' responses. The best time to get teacher feedback about principal leadership qualities needs to be studied further. Second, the response rate (41%) was not as high as desired. Technology problems prevented some teachers from completing the survey until they had their final evaluation score. If teachers started the survey and returned later to complete it when they had their final evaluation results, they could not log in again because the program used to create the survey only allowed one attempt per person. Third, teachers responding to the survey were not representative of the entire district. Analyses of the responders compared to all teachers indicate that the teachers taking the survey were more likely to be rated higher than the district-wide average (e.g., a higher percentage were rated *Distinguished*). There was also a difference between elementary and secondary response rates. And fourth, results may change once the new evaluation system has become a normal process in the school's culture. Thus, the study's results may be different if the survey is given at more ideal times, if there are fewer problems responding to the survey, if teachers are randomly assigned to participate, and if the study is conducted after the initial year of implementation.

There is also a need to develop better tools to measure instructional leadership. During the last 30 years, the Principal Instructional Management Rating Scale was widely used to measure this type of leadership. However, there are behaviors not assessed by the tool that are relevant to the instructional core and an instructional framework. Examples of these behaviors include scaffolded assistance for students, differentiated instruction, and creating opportunities for frequent, quality student discourse. The PIMRS was also created when teachers had autonomy in their curriculum and little accountability for student learning. Educational reform initiatives like state standards require district level control over certain areas of education such as standards aligned, district adopted curriculum. Thus, survey questions that fall under the *coordinate the curriculum* function may no longer be the responsibility of the principal in larger school districts.

This study in one district during the first year of a new evaluation system is a beginning look into an important issue. Further study of how teachers perceive principal feedback and evaluation is warranted. Results may differ based on the level of teacher experience, the type of evaluation provided (Comprehensive or Focused), or the size of school or district.

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# Teacher Perceptions of and Actual Equivalence Knowledge of Elementary School Students

Nicole C. Ralston, University of Portland.

*Students often exhibit misconceptions surrounding the equal sign. Discovering these misconceptions is crucial, as misconceptions not remedied may continue to persist through school with detrimental results for the student. To discover teacher knowledge of student misconceptions, a teacher survey and student assessment were implemented with 17 elementary school teachers and their students (n = 375). Findings suggest not only that students experience misconceptions surrounding the equal sign but also that teachers overestimated their students' equivalence knowledge. The results indicate that teachers may believe that their students have already mastered equivalence; that their students have learned in this in a previous grade level.*

## Introduction

There is growing research demonstrating that students often possess misconceptions surrounding equivalence and the equal sign, in that “children in the elementary grades generally consider that the equal sign means to carry out the calculation that precedes it; this is one of the major stumbling blocks when moving from arithmetic to algebra” (Carpenter, Levi, Berman, & Pligge, 2005, p. 84). Stephens and colleagues (2013), for instance, asked a group of 290 third, fourth, and fifth grade students what they thought the equal sign meant, and the majority of the students gave an operational definition by saying that it meant ‘the answer comes next’ (versus a relational definition by saying ‘the same as’). In fact, only six of these students (2%) provided a relational definition. In their often-cited study documenting the issues when applying this operational view, Carpenter and colleagues (2005) found that less than 10% of students in all elementary grades, grades 1-6, showed understanding of the correct meaning of the equal sign when given the problem:  $8+4= \_\_\_ +5$ . Overwhelming responses involved interpreting the equal sign as ‘put your answer here’, in that the most popular student answers were 12 or 17. Surprisingly, grade level was not correlated with understanding of equality: 5% of first and second graders answered correctly, 9% of third and fourth graders answered correctly, yet only 2% of fifth and sixth graders answered correctly (Carpenter, et al., 2005).

Mastering equivalence early appears to be a crucial skill prior to being successful in other areas of algebra. Byrd, McNeil, Chesney, and Matthews (2015), for example, found that operational views of the equal sign negatively predicted the algebraic thinking of 5<sup>th</sup> grade students. Similarly, researchers have discovered that possessing a relational understanding of the equal sign is predictive of better performance on solving equivalence problems and equations in middle school, and that the earlier students understood the equal sign relationally versus operationally, the higher they would perform on equivalent equation items (Alibali et al., 2007; Knuth, Stephens, McNeil, & Alibali, 2006).

Although recent research illuminates common equivalence misconceptions experienced by students, it appears that teachers may not be aware of these misconceptions. One study, for example, found that middle school teachers overestimated their students' abilities to solve equivalence tasks, believing that the majority of their students held a relational view of the equal sign (Asquith et al., 2007), while another study found that pre-service elementary teachers failed to recognize the potential of algebraic tasks to remedy common misconceptions (Stephens, 2006). No research, however, was found regarding the knowledge held by in-service elementary teachers. Given that this early knowledge may predict later algebra knowledge, and given our nation's troubles with algebra, discovering the extent of knowledge elementary teachers have of their students' misconceptions and their abilities to remedy these misconceptions is crucial, as students who continue to think of the equal sign as an operational symbol may struggle with algebra throughout school.

## Objectives and Methods

This study involved investigating both the teachers' knowledge about their students and the students' actual knowledge on algebraic equivalence. Seventeen teachers and their associated students ( $n = 375$ ) at four elementary schools in an urban school district in Washington State participated in this study. Participants included three first grade teachers and 53 first grade students, three second grade teachers (18%) and 54 second grade students, six third grade teachers and 155 third grade students, and five fourth grade teachers (29%) and 113 fourth grade students. The students within these schools were fairly diverse: 45% of students were non-White, 52% of students received free or reduced-price meals, and 13% of students were English language learners. The district performs slightly above the Washington State average on standardized assessment of mathematics. Teachers completed a teacher survey which asked them to estimate student equivalence knowledge. Then, students completed an equivalence assessment including the item  $8+4= \_\_+15$ .

## Results

The 17 teacher participants estimated that an average of 64% of their students would answer the problem  $8+4= \_\_+5$  correctly ( $SD = 15\%$ , range = 36% to 90%). An analysis of variance (ANOVA) revealed that teacher perceptions of student correct answers did not differ statistically by grade ( $p > .05$ ). Teachers in first, second, third, and fourth grade believed their students would answer this question correctly at rates of 64%, 52%, 71%, and 62%, respectively. These teachers' students answered  $8+4= \_\_+5$  correctly at an average rate of 43% ( $SD = 23\%$ , range = 11% to 96%). This is a difference of 21% and is statistically significant ( $t = 3.550$ ,  $p < .01$ ). While 43% of students ( $n = 160$ ) responded with the correct answer of 7, 40% ( $n = 150$ ) responded with the incorrect answer of 12 and 10% ( $n = 38$ ) responded with the incorrect answer of 17. Only 7% of students ( $n = 27$ ) responded with a different answer (e.g., blank, 6, 11, 13, etc.). Results did differ significantly by grade ( $p < .001$ ); however these differences were not strictly linearly proportionate. Students in first, second, third, and fourth grade answered this question correctly at rates of 36%, 41%, 55%, and 29%, respectively. Post-hoc Tukey comparisons revealed the significant difference lay between third grade and fourth grade students only (e.g., third grade student statistically significantly outperformed fourth grade students). Table 1 details these equivalence results.

**Table 1: Teacher Perceptions vs. Student Actual Knowledge on the Equivalence Item  $8+4= \_\_+5$**

Grade	Teacher Sample Size ( $n$ )	Teacher Estimated % Correct	Student Sample Size ( $n$ )	Student Actual % Correct	Difference	$t$
First Grade	3	64%	53	36%	28%	-
Second Grade	3	52%	54	41%	11%	-
Third Grade	6	71%	155	55%**	16%	-
Fourth Grade	5	62%	113	29%**	33%	-
Total	17	64%	375	43%	21%	3.550*

Note. \* $p < .01$  \*\*Results differed significantly ( $p < .001$ ) between third and fourth grade students

Several important patterns appear when the data are further examined on an individual teacher level (see Table 2 below). First, although the general pattern overall was to overestimate students' abilities, this was not the case for all teachers. While the 13 classrooms with the lowest scores all overestimated their students' abilities, the 4 classrooms with the highest scores actually underestimated their students' abilities. Second, although two teachers severely overestimated their students' abilities, overestimating by 51% and 60%, respectively, the rest of the

overestimations were surprisingly consistent, ranging from just 22% to 33%. There did not appear to be further patterns in regards to grade level, education attained, curriculum used, etc.

**Table 2: Individual Teacher Perceptions vs. Student Knowledge on the Equivalence Item  $8+4= \_\_+5$**

Teacher	Grade	Teacher Estimated % Correct	Student Actual % Correct	Difference
1	2	36%	11%	-25%
2	1	50%	19%	-31%
3	4	74%	23%	-51%
4	3	55%	23%	-22%
5	4	60%	27%	-33%
6	4	56%	29%	-27%
7	1	90%	30%	-60%
8	4	58%	34%	-24%
9	4	63%	34%	-29%
10	2	68%	39%	-29%
11	3	71%	43%	-28%
12	3	85%	52%	-33%
13	3	86%	56%	-30%
14	1	53%	59%	6%
15	2	52%	72%	20%
16	3	50%	79%	29%
17	3	79%	96%	17%

Third, when asked via an open-ended question about why they think students would answer  $8+4= \_\_+5$  incorrectly, it appears that although many teachers overestimated their students’ ability, at least some of them ( $n = 5, 29\%$ ) do seem to be aware of the potential misconceptions students can encounter. It did not appear, however, that students of teachers who were aware of these misconceptions performed at higher rates: while two of the teachers with the highest class percentages understood the potential equal sign misconceptions, so did the two teachers with the lowest class percentages. It seems that even teachers who described explicitly working on the meaning of the equal sign with their students still faced low student knowledge. For example, Teacher 2, for whom only 19% of her students solved  $8+4= \_\_+5$  correctly, said, “It’s been difficult to break many of them [the students] of thinking the space to the right of the equal sign is ‘the answer’. We’ve worked hard on using a balance scale as representation, but not all my little people understand problems like this.” Table 3 details these themes.

**Table 3: Themes of Teacher Responses Explaining Incorrect Responses to the Equivalence Item  $8+4= \_\_+5$** 

Theme	Interpretation	Examples
Students Hold an Operational View of the Equal Sign	Teachers completely understand the misconception that is occurring	<p>“They are still struggling with what the equal sign means. They have trouble seeing this as a balanced equation; rather they see it as a run-on equation. Many students want to initially put an additional equal sign after the five.”</p> <p>“They do not have the concept of balancing the two sides of the equation, they approach every problem by adding up all the digits if they see a + sign.”</p>
Students Did Not Know What to Do	Teachers somewhat understand the misconception that is occurring	<p>“They didn’t understand what to do. They saw the equal sign and gave an answer.”</p> <p>“They do not understand the concept.”</p> <p>“The equation just looks different. It seems like kids get used to seeing an equation one way and when it looks different they almost panic.”</p>
Students Have Other Mathematical Gaps	Teachers do not appear to understand the misconception that is occurring	<p>“Number sense is low.”</p> <p>“Do not understand patterns. Number sense is very poor.”</p> <p>“It is a multi-step problem.”</p>
Other Issues	Teachers may have knowledge of specific students but may not understand the overarching misconception	<p>“One student has very little retention of any math concepts. The other student has trouble attending to the task and understanding the task.”</p> <p>“They were in a hurry.”</p> <p>“We don’t have enough teaching opportunities or materials to properly teach this (or time!). We feel we have to spend more time on the other standards and this one falls to the side often.”</p>

## Discussion

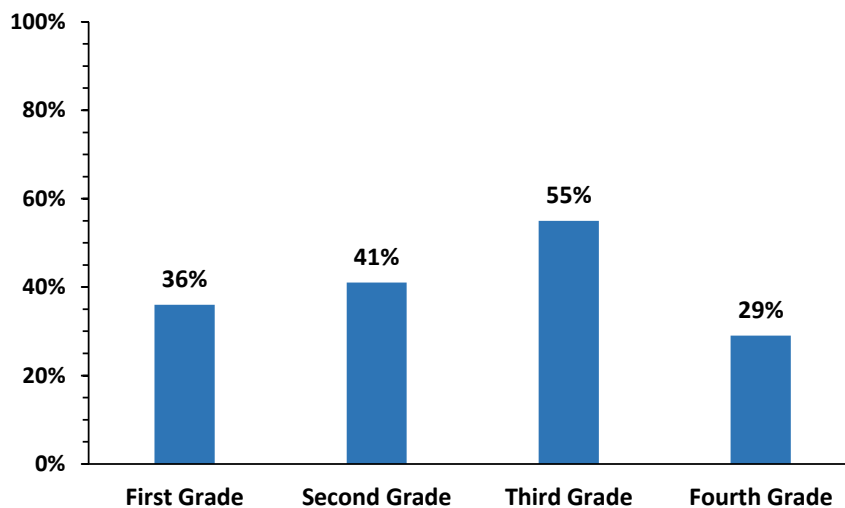
The results reveal several important points of discussion for educators and researchers. First, while students only answered  $8+4= \_\_+5$  correctly 43% of the time, teachers expected approximately 64% of their students to answer this item correctly, which was a statistically significant difference. Even more surprising was that neither the teacher perceptions nor the actual associated student results differed by grade: first grade teachers expected 64% of their students to answer correctly while fifth grade teachers also expected 62% of their students to answer correctly. Further, many of the teachers did not appear to be aware of the common student misconception of viewing the equal sign operationally instead of relationally. These data provide evidence of the probability that teachers may be unaware that students often struggle with concepts of equality and the meaning of the equal sign. Teachers may believe incorrectly that their students have already mastered equivalence; that their students have learned in this in a previous grade level. Teachers may require professional development in the area of equivalence and algebraic thinking to increase their pedagogical content knowledge. Conversely, teachers may just need to be made aware of these misconceptions and methods that can potentially remedy them.

Several researchers have investigated the results of teacher professional development on student algebraic thinking. Jacobs and colleagues (2007), for example, investigated the effects of an algebraic thinking based professional development program on 180 teachers of grades 1-5 and their associated 3,735 students, and found that teachers who received the professional development significantly increased their pedagogical content knowledge

surrounding algebraic thinking. Further, not only did teacher knowledge improve but their subsequent students performed significantly better on tests of equivalence than students whose teachers did not receive the professional development. Others have argued that just providing students with more opportunities to work with nontraditional problems (i.e., not in the format  $a+b=c$  as found most often in many of our textbooks) or by introducing the equal sign as a balancing scale like a see-saw can bolster equivalence knowledge (McNeil et al., 2006; Powell, 2012).

Second, it does appear that Carpenter and colleagues' (2005) results are supported by this study, in that students are still struggling with equivalence misconceptions as demonstrated by their answers to the problem  $8+4= \_\_ +5$ . Although not as strikingly low as Carpenter and colleagues' (2005) findings, only 43% ( $n = 160$ ) of the 375 student participants answered this problem correctly. Third, student results did not differ by grade, at least not in the way we would expect. Figure 1 displays the percentage of students solving  $8+4= \_\_ +5$  correctly by grade. As you can see, although students appear to be improving on this item from first grade to third grade, in fourth grade this score drops dramatically. In fact, fourth grade students actually performed the lowest of the four grades, in that only 29% of fourth grader students answered  $8+4= \_\_ +5$  correctly. These results are in contrast to the 'u-shaped' distribution discovered by other researchers, in which equivalence knowledge declined between first and third grades and improved between third and fifth grades (McNeil, 2007).

**Figure 1: Percentage of Students Solving the Equivalence Item  $8+4= \_\_ +5$  Correctly by Grade**



Fourth and finally, only 27 of the 375 students (7.2%) did not answer  $8+4= \_\_ +5$  either correctly (i.e., 7) or with the two incorrect yet calculated correctly alternative conceptions (i.e., 12 or 17). Of these, 7 students (2%) simply left the answer blank, perhaps because of their lack of arithmetic skills but more likely because they were confused by the format of the question. Therefore only 20 students (5%) answered incorrectly because of arithmetic issue (i.e., answering 6, 11, 13, etc.). It can therefore be concluded that the majority of incorrect answers to this problem were due to misunderstanding the equal sign and not due to deficiencies in arithmetic knowledge.

## Conclusion

Although this is a limited study with a small sample of teachers at four elementary schools in Washington State, it is clear that these initial results are interesting to the field. Although others have investigated middle school teachers' perceptions, this work appears to be the first of its kind in the area of in-service elementary school teachers' perceptions of student equivalence knowledge. The results indicate that in-service elementary school teachers may not be aware of the misconceptions students are experiencing in the area of equivalence. The teachers in this study often overestimated their students' equivalence knowledge by 20 to 30 percentage points. Teacher preparation programs may need to include targeted pre-service content and districts may need to provide professional

development in order to adequately prepare teachers to build equivalence knowledge in their students. Bush and Karp (2013) sum up the issue well: “Teachers may not realize the critical connections that students’ algebraic thinking has to numerous mathematics content areas. The misconceptions harbored by students connect to multiple topics and as such cause difficulties for students in a variety of problem situations. For example, the poor understanding of the equal sign... permeates not only algebraic thinking... but also affects success on operations with whole numbers, rational numbers, and integers” (p. 628). It is crucial that elementary school teachers possess knowledge of potential student equivalence misconceptions and also boast abilities to remedy such misconceptions, as students who are not provided with opportunities to think algebraically may continue to struggle with algebra throughout school (Alibali et al., 2007; Byrd et al., 2015; Knuth, et al., 2006).

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# When Districts Support and Integrate Social and Emotional Learning (SEL): Findings from an Ongoing Evaluation of Districtwide Implementation of SEL<sup>1</sup>

Kimberly Kendziora and Nick Yoder, American Institutes for Research

## Executive Summary

Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions (CASEL, 2012).

### The Issue

Students need more than just academic knowledge to succeed in college, careers, and personal and public life. They need to understand their own skills and abilities, manage their emotions and behavior, communicate effectively, negotiate conflict, care about others, and make responsible decisions. Social and emotional skills undergird student success—and build better citizens. When such skills are intentionally taught, practiced, and reinforced in schools, students have better behavioral, social, and academic outcomes.

Social and emotional learning (SEL) is increasingly accepted by educators and researchers as a process to cultivate life skills that foster personal development, academic achievement, and a more empathic school climate. SEL has been integrated into classes and taught in many schools, but the challenge for educators and policy makers is to better understand the most effective strategies for districtwide implementation.

### The Research

Research on students who participated in some form of SEL instruction has found short and long-term benefits in student outcomes, with most research focusing on elementary and middle grade programs.

Although most SEL research has focused on the classroom or school, AIR is in the fifth year of evaluating a first-ever initiative to promote districtwide integration of SEL into the core activities of large urban districts. The Collaborating Districts Initiative (CDI)—developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL) and funded by the NoVo Foundation and the Einhorn Family Charitable Trust—focuses on district systems, district strategic vision that includes SEL, SEL standards, professional learning, and continuous improvement to implement and integrate SEL into districts' ongoing efforts. Each of eight districts received annual grants of \$250,000 for up to 6 years.

This amount represents less than 0.04% of the average CDI district's annual budget for all expenses (this average excludes Chicago's budget, which is larger than the other seven CDI district budgets combined).

Even with this modest investment, the research shows that districts improved each year in implementing key SEL activities. Three of the measured districts showed consistent gains in school climate; four of six measured districts showed improvement in third graders' social and emotional competence; and, across the eight districts, GPA improved in four and discipline improved in six. However, other student outcomes (e.g., middle and high schoolers' social and emotional competence and student attendance) have not shown significant change to date.

### The Recommendations

Although many preschool through high school teachers—as well as college faculty and administrators, employers, parents, and students themselves—understand the potential benefits of cultivating social and emotional development, few have the time or support to enable students to build social and emotional competencies.

State, district, and school leaders should consider making SEL a priority. Doing so would entail implementing policies, standards, and guidance that support teachers and administrators to integrate SEL with academic instruction. Support is also extended to fostering best practices in behavior management, discipline, and school climate that promote healthy, safe, and nurturing environments for all students. Based on findings from this study and others, even modest investments in SEL can pay off for individuals, schools, and society.

<sup>1</sup> Originally published by the [Education Policy Center](#) of the American Institutes for Research (AIR) in October 2016. Reprinted with permission.

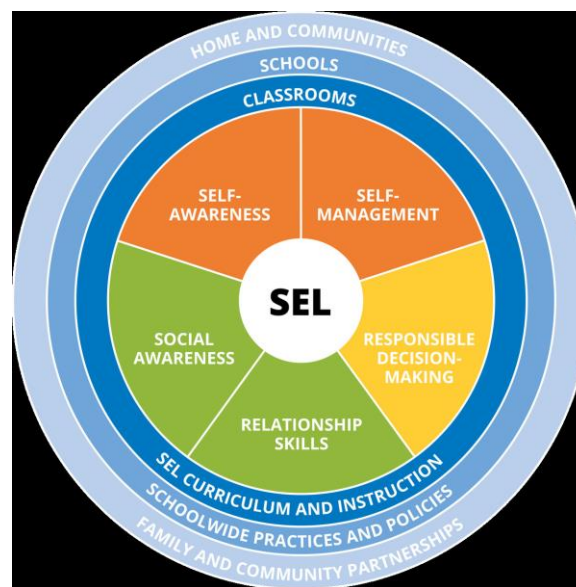
## Why Should We Focus on Social and Emotional Competencies and Attitudes?

Social and emotional learning (SEL) involves many types of learning that enable individuals to develop and use the skills, knowledge, attitudes, and behaviors to handle themselves, form positive relationships, and work effectively and ethically. These skills include recognizing and managing emotions, developing caring and concern for others, making friends, collaborating and working well with others, interacting comfortably and respectfully with people with diverse perspectives and backgrounds, resolving conflicts peacefully, making responsible decisions, and handling challenging situations constructively (Zins, Bloodworth, Weissberg, & Walberg, 2004; Weissberg, Durlak, Domitrovich, & Gullotta, 2015). Acquiring these skills and perspectives can be highly beneficial in everyday living and learning, as well as later in life—at work, in relating to others, and as responsible citizens and community members.

Social and emotional competencies align with, but are not the same as, other frameworks, such as positive youth development, emotional intelligence, employability skills, 21st-century skills, and character education. Social and emotional competencies are not a set of static personality characteristics. Rather, they are skills that can be taught to people of all ages, from early childhood on. In school, educators can take four primary approaches to implementing SEL: (1) direct instruction on social and emotional skills, (2) integration of SEL with academic content, (3) development of a positive learning environment, and (4) general teaching practices that support student development and application of social and emotional skills (CASEL, 2013, 2015; Dusenbury, Calin, Domitrovich, & Weissberg, 2015; Yoder, 2014).

CASEL identifies five social and emotional competencies, each composed of multiple skills (Figure 1). These five competencies are one of the most widely used frameworks in the United States:

**Figure 1. Social and Emotional Competencies**



Source: casel.org

- **Self-awareness**—the ability to recognize one’s emotions, strengths, and limitations, and their effects on behavior;
- **Self-management**—skills that enable individuals to regulate their emotions and their behaviors, including setting and achieving goals, perseverance, and managing negative emotions.
- **Social awareness**—one’s ability to take the perspective of and empathize with others, including those with diverse backgrounds, and to understand social and ethical norms of behavior;



- **Relationship skills**—skills that allow individuals to develop healthy, meaningful relationships with others (listening, cooperating, seeking and offering help, and resolving conflicts peacefully), and
- **Responsible decision making**—the ability to make ethical choices about behavior based on ethical standards and social norms, and an evaluate the potential effects on others.

### ***SEL Matters for Success in Life***

The development of social and emotional competence is key to success in school and in life. For example, a recent study found that kindergarten teachers’ ratings of children’s prosocial skills helped predict adolescent and adult outcomes 13 to 19 years later (Jones, Greenberg, & Crowley, 2015). The researchers found that social and emotional competencies in early childhood were strongly associated with young adult outcomes in education, employment, need for public assistance, mental health, substance abuse, and criminal activity. For example, Jones and colleagues found that a teacher’s rating of a kindergartner’s social competence was associated with a student’s increased likelihood of graduating from college and having a full-time job by the age of 25, and a decreased likelihood of being arrested. This study did not prove that social competence *caused* these outcomes, but combined with other research, it seems to make clear that developing children’s skills in these areas increases their chances of success in school, work, and life.

“If you have that kind of instruction, from kindergarten, I think that in 20 years the world will be a very different place.”

— Marc Brackett, Director of the Yale Center for Emotional Intelligence and Professor in the Child Study Center at Yale University (in Kahn, 2013)

### ***SEL Is Important in Schools***

Increasingly, school districts are recognizing the value of addressing student social and emotional competencies as an essential part of education for every student. School-based SEL programs (1) enhance students’ social and emotional competencies and classroom behavior; (2) improve attachment and attitudes toward school; (3) decrease rates of violence and aggression, disciplinary referrals, and substance abuse; and (4) improve academic performance (Durlak et al., 2011; Sklad et al., 2012; Zins & Elias, 2006).

Social and emotional competencies are particularly important, given the demands and instructional shifts toward more rigorous standards for college and career readiness (Bridgeland, Bruce, & Hariharan, 2013). For example:

- Standards require students to participate in classroom discussions and explain their points of view. Students thus need to learn communication skills and how communication must vary depending on their audience and their objective during the discussion—all of which are social and emotional skills.
- Students are more likely to become frustrated given more rigorous academic content, so they need to learn how to recognize what frustrates them and regulate that frustration to persevere.
- With increased collaborative learning, students must demonstrate more responsibility within the classroom setting—both for their own learning, as well as in learning how to work effectively with others to achieve a common goal.

“Everybody said, ‘Oh, it’s how kids achieve academically that will predict their adult employment, and health, and everything else.’ And then it turned out that for both employment and health outcomes, academic achievement actually predicted less than these other factors.”

— Mark Greenberg, Edna Peterson Bennett Endowed Chair in Prevention Research, Professor of Human Development and Psychology at Penn State University (in Kahn, 2013).

## ***Schools Can Influence Social and Emotional Development***

Since research has demonstrated the importance of social and emotional competencies for success in school and in life, educators and researchers have worked together to intervene and develop students' social and emotional competencies. For example, students who participate in a multiyear SEL program are more likely to develop social competence and reduce aggressive behaviors compared to students who do not take part (Conduct Problems Prevention Research Group, 2010; Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005), demonstrating that classroom teachers can support students in developing social and emotional competencies; specialized instructors are not required.

### ***Summary***

Given the importance of developing social and emotional competencies and of students learning in a safe, supportive school environment, the Every Student Succeeds Act (ESSA) includes new requirements for states that allow them to broaden their definition of student success. State accountability systems are now required to include an indicator of student success that goes beyond traditional achievement test scores. ESSA suggests measures, such as student engagement or school climate, that are closely related to SEL, but the critical shift is that all states must now consider how to “establish learning environments and enhance students’ effective learning skills that are essential for school readiness and academic success”—the conditions for learning.

Given the demands on teachers and students in the past decade related to mandates for testing and accountability, and given the new focus of ESSA on how states will “improve school conditions for student learning,” now is the time to provide teachers and students with the resources and support needed to focus on the whole child. True, many evidence-based and promising SEL programs and strategies are available for educators, but classroom-based approaches alone may not suffice. Policies that support the alignment and integration of SEL across the classroom, school, and district levels are vital to social and emotional learning.

### **The Research**

Research has demonstrated the importance of focusing on social and emotional skill development at the classroom level. There are powerful, comprehensive SEL programs that are able to produce improvements in students’ social and emotional competence even with imperfect implementation (Faria, Kendziora, Brown, O’Brien, & Osher, 2013). However, classroom efforts on their own, without broader district support, can show lackluster effects (Social and Character Development Research Consortium, 2010). Implementation problems, such as limited professional development or lack of administrative support, can lessen the positive impact of evidence-based SEL programming on student behavior and academic performance (Durlak et al., 2011). Currently, American Institutes for Research (AIR) is conducting research on SEL implementation in selected school districts across the country through CASEL’s Collaborating Districts Initiative (CDI), which shows the successes and challenges of introducing districtwide implementation of SEL (Kendziora & Osher, 2016).

### ***The Collaborating Districts Initiative***

In 2011, CASEL launched an initiative aimed at supporting school districts’ capacities to promote SEL for all students, called the CDI. The CDI effort recognizes that positive student outcomes depend on improving districtwide capacities and conditions. Three large urban districts (Anchorage, Austin, and Cleveland) joined the initiative in the 2010–11 school year. In 2011–12, five more districts joined (Chicago, Nashville, Oakland, Sacramento, and Washoe County, Nevada). District leaders collaborate with CASEL staff to create systemic changes in district-level activities and procedures related to SEL implementation (e.g., overarching policy guidance, staff development, action research framework, and planning and implementation tools).

## SEL IMPLEMENTATION IN AUSTIN

Austin's rollout of the Collaborating Districts Initiative—a major component of its Whole Child, Every Child initiative—involves “vertical teams” that consist of a high school and its feeder elementary and middle schools. Austin's 11 vertical teams, which support 129 schools, have all begun implementing CDI activities in each school. Each school has a SEL facilitator supported by a coach in the district's SEL department. During 2015–16, SEL began reaching all of the district's 86,000 students through multiple avenues.

For example, weekly lessons are taught and reinforced in all areas of the school. Social and emotional competencies are highlighted in academic instruction, and teachers in all content areas lead students in practicing social and emotional competencies. Afterschool providers and parents also reinforce SEL. Elementary and middle schools use the Second Step SEL curriculum, together with Peace Paths and No Place for Hate. High schools use School-Connect, a 60-lesson multimedia curriculum, as their principal-instruction resource. In six high schools, a class for freshmen develops social and emotional and study skills, and supports students as they transition to high school.

AIR's evaluation of the first 4 years of the CDI—described below—assessed, among other factors, (1) district activities related to the implementation of systemic SEL; (2) district-level outcomes based on this implementation (e.g., positive climate, stakeholder commitment, and clear roles and responsibilities for SEL); and (3) student outcomes, including social and emotional competence, academic performance, attendance, and suspensions. Collaborating each year with the districts, AIR administered such measures as staff surveys of what SEL-related activities they engaged in, teacher ratings of young students' social and emotional competence, and older students' self-reports of social and emotional competence.

To support systematic implementation of SEL efforts across districts, CASEL worked with districts on many activities to embed SEL within teaching and learning, including:

- Developing a clear SEL vision and long-term plan;
- Conducting a needs and resources assessment so that financial and human resources can be aligned to support SEL;
- Providing professional learning opportunities to all staff at school and district levels, especially those in central offices;
- Developing SEL learning standards;
- Adopting and implementing evidence-based SEL programs;
- Intentionally integrating or aligning SEL into or with other district activities, such as academic instruction, student support, and discipline; and
- Monitoring SEL implementation process and outcomes.

### About This Study

AIR has been evaluating the CDI for five years to answer these questions:

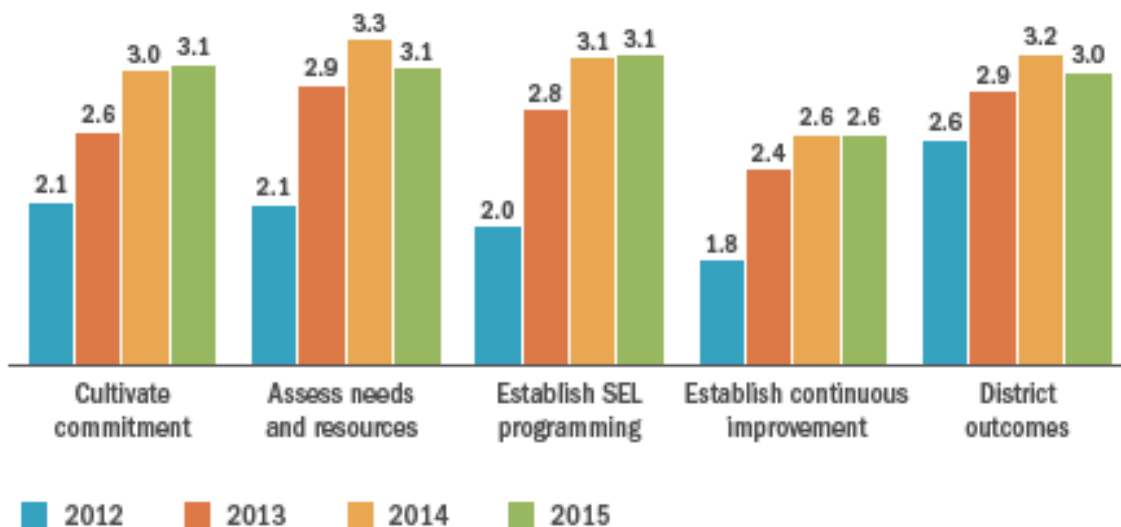
1. How well are districts implementing the activities specified in the CDI theory of action?
2. To what extent have the district outcomes identified in the theory of action been achieved?
3. What have been the early effects on student outcomes, including social and emotional competence, achievement, attendance, and disciplinary actions?

Since the multifaceted CDI begins with work at the district level (e.g., establishing a vision, assessing resources and needs, building expertise) and it is up to the districts to recruit schools, train staff, and support the implementation of SEL-focused activities in schools and classrooms, it can take many years for student outcomes to become clear.

Findings across all eight districts from 2012 to 2015 demonstrate that the 10 district-level activities and three outcomes that are part of the theory of change for the CDI have largely been realized. These district-level activities were organized into four categories: (1) cultivate commitment (create SEL vision, build central office expertise, align resources, establish communications); (2) assess needs and resources, identify district SEL needs, and determine resources to support SEL implementation; (3) support SEL programming (provide professional development, establish SEL standards, integrate SEL with instruction); and (4) establish and implement continuous improvement systems. AIR also assessed district outcomes, including positive school climate, stakeholder commitment, and roles and responsibilities for SEL implementation.

Figure 2 shows district implementation and outcome ratings using a rubric that measures, on a 1–4 scale, the extent to which the activities and outcomes noted in the CDI theory of change have been realized. Findings across all eight districts for 2012–15 for four broad areas of district-level SEL implementation (cultivate commitment, assess needs and resources, establish SEL programming, and establish continuous improvement) are shown along with district outcomes. Growth (i.e., the progression of bars from blue to green) has been notable in every area measured across districts from 2012 to 2015. Levels of district implementation remained high in 2015, but the growth rate slowed between 2014 and 2015.

**Figure 2. Initiativewide Growth on Four Activity Categories and District Outcomes, 2012–15**



**Social and Emotional Outcomes.** AIR assessed student social and emotional outcomes through teacher reports of students’ social and emotional competencies (in grade 3) or through student self-reports (in grades 7 and 10). So far, changes in students’ social and emotional outcomes are not consistently positive. For most districts, five social and emotional competencies were rated: self-awareness, self-management, social awareness, relationship skills, and responsible decision making.

Overall, results for change in students’ social and emotional competence across the years of the CDI (in analyses that controlled for student and school demographics) showed the most consistent improvements in grade 3 students’ social and emotional competence. Of 59 statistical tests of change in social and emotional competence over time, 26 were significantly positive (44%) and two were negative (3%). Thirty-one (53%) of the tests showed no significant change.

**Academic and Behavioral Outcomes.** AIR analyzed the effect of the CDI on student academic and behavioral outcomes in 2014–15 at the school level in all eight districts. Academic outcomes include reading and mathematics standardized test scores and grade point average (GPA). Behavioral outcomes include attendance, suspensions, graduation, and dropout. The available outcomes vary by district, and several districts were missing data elements. Analysts used time series analyses to discern patterns of change within each district, comparing data during CDI years to the period before the initiative began.

Overall, students’ academic performance improved in CDI implementation years relative to the 3 to 4 years before the CDI in four districts. In one district, however, high school GPA was lower in all 3 years. Attendance improved in four districts and declined in one. Suspensions decreased significantly in all six districts for which we had data. Figures 3–5 show examples of this change. Figure 3 shows high school GPA in a district where GPA was dropping before the CDI began, but the change was not statistically significant. In the first CDI year, the drop was significant. However, across the four CDI implementation years, GPA has trended significantly upward. The change from the period before the CDI is statistically significant.

**Figure 3: Sample Change in Academic Performance, GPA in One CDI District**

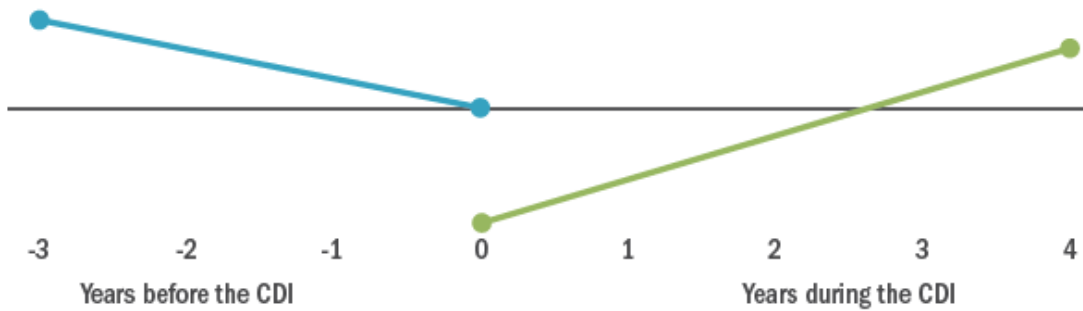


Figure 4 shows another example: change in one district’s elementary school attendance. In this district, attendance was not changing significantly in the years before the CDI and did not change significantly in the year the CDI started. However, across the four CDI implementation years, attendance has trended significantly upward. The change from the period before the CDI is statistically significant.

**Figure 4: Sample Change in Attendance**

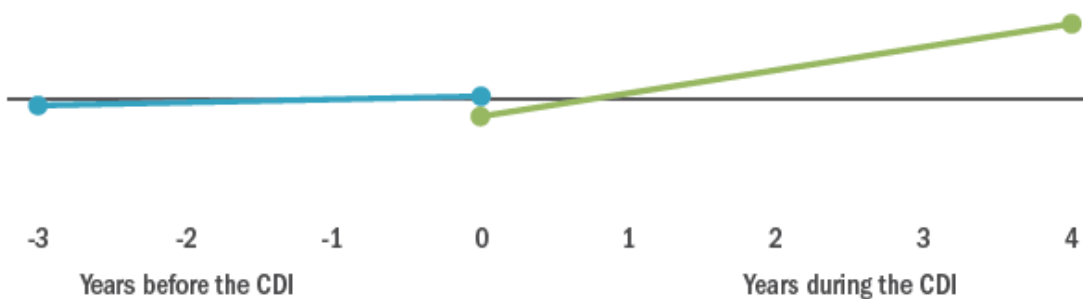
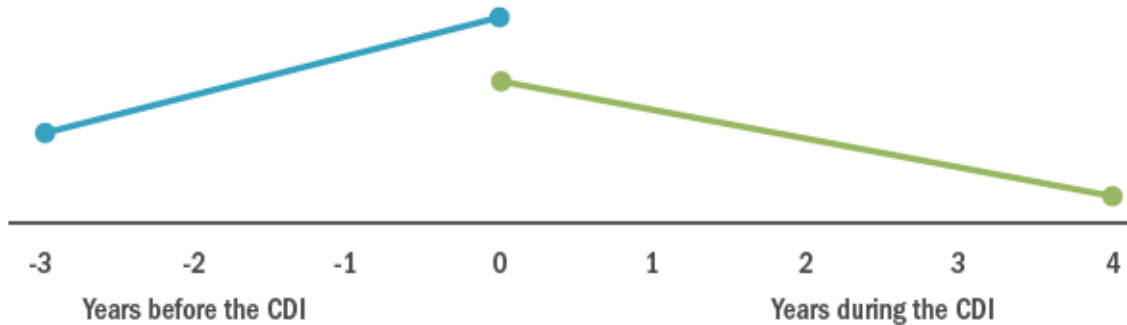


Figure 5 shows suspensions for middle and high school students in one CDI district. Suspensions were not changing significantly before the CDI began. In the first CDI year, the drop was significant. Across the four CDI implementation years, suspensions have trended significantly downward, and the change from the period before the CDI is statistically significant.

**Figure 5: Sample Change in Suspensions**



**A SUPERINTENDENT REFLECTS**

To hear some of our chiefs and some of our principals talk about the . . . impact that social emotional learning has had directly in the classroom . . . you know something good is happening. And that the impact is much stronger than I probably would have anticipated.

— A district superintendent, 2014

**Summary**

Our findings suggest that districts participating in the CDI have sustained, deepened, and broadened their commitment to SEL and developed capacities to support its implementation. Participation in the CDI and in district-initiated activities has enhanced the readiness of the districts and their schools to implement and sustain SEL. More staff and stakeholders know about it and want it, and SEL has been embedded as a pillar in strategic plans. Furthermore, districts are increasingly aligning SEL with other districtwide activities. The research demonstrates positive trends in the academic and behavioral growth of students in schools within districts with systematic SEL approaches, though these improvements are not yet seen consistently for all students.

**Recommendations**

SEL has shown significant academic, behavioral, and attitudinal benefits for students in the districts where it has been implemented. Although more research is needed to determine which SEL approaches work best at different grade levels and have the strongest long-term benefits, the benefits in the districts where it has been implemented far outweigh the costs. State and district leaders have multiple options for bringing SEL into the center of a student’s educational experience, now to be enhanced by ESSA.

*1. Make SEL a priority in school districts and states*

Although teachers say that supporting the development of social and emotional competencies is important, few think they have the time to incorporate SEL, given other demands that appear to assume a higher priority. To make SEL a priority within the state or district, state and district leaders can develop policies, guidance, and/or standards that specifically address student social and emotional competencies (Dusenbury, Newman, et al., 2015; Yoder, 2015).

By developing policies and guidance documents, state and district leaders build a vision—with the input of educators and families—about the social and emotional skills and competencies that the state or districts want students to develop in school and benefit from for a lifetime.

Policies and guidance can include ways to connect SEL to other behavioral and academic supports (e.g., disciplinary policies or restorative practices), processes for integrating SEL into other important district efforts (Yoder, 2015), or the development of SEL standards.

Through developing SEL standards, educators receive information about the developmental progression of social and emotional skills and competencies across grade levels. Good SEL standards are freestanding and comprehensive, yet demonstrate a connection to other academic subjects. They should be developed in conjunction with other policies and guidance documents that focus on SEL and should include provisions for additional resources and supports (e.g., implementation guides and professional learning experiences) to enact the standards (Dusenbury, Newman, et al., 2015).

## 2. *Integrate SEL into academic instruction*

As with academic skills, students need opportunities to learn, develop, and apply their social and emotional competencies. Students can develop social and emotional competencies through multiple avenues (Dusenbury, Calin, et al., 2015), including:

- Explicit skill instruction, in which educators take instructional time to teach social and emotional competencies. For example, a lesson might focus on how to take the perspective of others and on the importance of students understanding viewpoints besides their own.
- Incorporating SEL through general teaching practices. For example, a teacher might incorporate group work to solve a math problem, reinforcing individual and collective responsibility during the lesson so students understand the positive and negative consequences of the way they participate in the group activity.
- Integrating social and emotional competencies into academic instruction. For example, a social studies teacher might take 15 minutes at the beginning of a lesson to teach problem-solving skills. This new skill could be applied later during a lesson on Lewis and Clark, allowing students to use their problem-solving skills while analyzing the exploration of Lewis and Clark.

## 3. *Create environments that promote SEL*

Another approach to integrating SEL is by developing a positive learning environment and creating the conditions for learning (Osher & Kendziora, 2010). Students in a healthy, safe, supportive, and challenging environment have greater capacity to focus on academic content and are more likely to engage in school. Environments that support SEL:

- Develop a discipline policy that supports inclusionary practices (e.g., restorative practices) and encourages students to regulate their own behavior;
- Ensure that each student has an adult to whom he or she can turn for assistance and guidance;
- Engage students to be active members of the school community with a voice of their own;
- Set high behavioral and academic expectations for all students, taking into account student differences and baseline social and emotional and academic competencies;
- Support adult social and emotional competencies, as well as relationship building among staff members; and
- Engage parents and the school community to support student social and emotional competencies.

#### 4. *Provide training and support for SEL programs and practices*

To implement SEL practices effectively, and support the development of the whole child, educators need training and support in all aspects of implementing SEL. Ways to support and train teachers include techniques to:

- Provide professional development on what SEL is, why it is important, and how it connects to academic skills;
- Collaborate with evidence-based SEL programs to give teachers the training, resources, and tools to teach social and emotional skills (see the [CASEL Guides](#) for a list of evidence-based SEL programs for preschool and elementary schools [2013], and for middle and high schools [2015]);
- Incorporate SEL practices into classroom observations, walkthroughs, and peer observations, providing feedback to educators on SEL practices; and
- Implement professional learning communities that allow educators to discuss SEL practices.

#### 5. *Coordinate efforts to support all systems*

Efforts to promote SEL work best when they are coordinated and aligned with other district programs and initiatives. District leaders play a critical role in creating supportive policies and providing funding and time to integrate SEL into the district's core functions. Specific areas for SEL integration include:

- Existing programs that support students' interpersonal and intrapersonal skills, character, or self-discipline;
- Instructional programs that promote student engagement, persistence, and collaboration;
- Academic curriculum across subjects;
- School improvement plans that target school-level efforts;
- School-based or school-linked counseling or mental health services;
- Afterschool programs and out-of-school-time efforts;
- Programs for college and career readiness, particularly those on employability or 21st-century skills;
- Tiered intervention systems, such as Positive Behavioral Interventions and Supports (PBIS), which promote positive, prosocial behavior among all students, as well as Multi-Tiered Systems of Support (MTSS), which support the needs of all students; and
- Behavior management and disciplinary practices, such as restorative practices, which support student inclusion (rather than exclusionary disciplinary practices).

Focusing on SEL may actually be an antidote to fragmentation. Some districts have used SEL as a framework to organize and consolidate many related, but previously disconnected efforts, such as student engagement, discipline, and service learning. When adults bring an SEL "lens" to all school activities—modeling SEL to establish a learning culture and climate of connection and safety—they enable students to experience the relevance of SEL lessons in many aspects of their lives.

#### 6. *Use data to assess progress*

Assessing students' social and emotional competencies is a complex yet important area to consider when providing support and resources to districts and schools on implementing SEL. Although SEL assessment is still an emerging area, recent guidance has been published on when and how to assess student social and emotional competencies (AIR, 2015). In AIR's Ready to Assess suite of tools, there are five major factors to consider when deciding whether to collect and analyze data on student social and emotional competencies:



- **Purpose.** Determine reasons to collect data on student social and emotional competencies—for accountability reasons, to communicate about SEL, or to provide information to the district, school, or classroom teacher about students’ needs or ways to improve practice?
- **Rigor.** Identify how rigorous the assessment is. Is it comprehensive enough and well established enough to be a valid and reliable measure of social and emotional competencies? The level of rigor needed depends on the assessment’s purpose—a formative purpose may not require as high a degree of rigor as an assessment for accountability.
- **Practicality.** Consider the feasibility of implementing the chosen assessment. To determine the practicality, consider the age of the program or initiative in question and the number of youth being served.
- **Burden.** Review the potential implementation burden. Take staff capacity, infrastructure requirements, data use, budget, and risks to teachers, staff, students, and families into account. For example, many SEL assessments are teacher reports of student competencies, which could take a considerable amount of time.
- **Ethics.** Consider the potential risks and benefits based on the stated purpose, rigor of the assessment, and the practicality and burden of implementing the assessment.

### **SEL IMPLEMENTATION IN TENNESSEE**

As part of its Safe and Supportive Schools (S3) grant, the Tennessee State Department of Education (TDOE) partnered with the Center on Great Teachers and Leaders (GTL Center) to develop a toolkit that connects instructional practices that support SEL with the Tennessee Educator Accelerator Model (TEAM), Tennessee’s evaluation system. The toolkit helps educators implement teaching practices that support SEL and improve their practices found within the TEAM observation rubric, not practices that would modify TEAM or include SEL as part of it. Through the toolkit and other supports, TDOE connected practices that support SEL with the practices already supported through the TEAM evaluation system. Supports for teachers include example classroom videos, example activities, and classroom look-fors, while administrators get guidance on how to discuss SEL with their staffs. The toolkit has been positively received by educators across Tennessee, and TDOE is currently developing online modules to help teachers learn more about the practices.

### **Conclusion**

Research shows that SEL is a proven strategy to support the social, emotional, and academic enrichment of students. Teachers across the country have endorsed it (Bridgeland et al., 2013). However, educators indicate that they will be able to implement programming most effectively when they have quality professional learning experiences and administrative support from their schools and districts. The CDI demonstrates that it is possible for large urban school districts to adopt and maintain SEL as an essential element of education, even amid budgetary stress and leadership turnover. AIR’s work, alongside that of our partners at CASEL, has begun to document how districts are beginning to embed and integrate SEL into their policies and practices. As more states and districts focus on “whole child” concepts and metrics under ESSA, the promise of using SEL to help students be successful in school and life may begin to take hold.

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## Books Worth Having on Your Shelf When Providing Services to Highly Capable Students

Jann H. Leppien, Whitworth University

Castellano, J.A., & Frazier, A.D. (Eds.). (2011). *Special populations in gifted education: Understanding our most able students from diverse backgrounds*. Waco, TX: Prufrock Press Inc.

Learning to identify and serve diverse and under-represented students in gifted programs should be of concern to school districts. This book brings together leading experts in the field who provide both knowledge of and leadership experience with gifted students from diverse backgrounds.

Cross, T.L. (2011). *On the social and emotional lives of gifted children* (4th ed.). Waco, TX: Prufrock Press Inc.

Gifted children have social and emotional needs that need to be recognized and attended to in the classroom. The author guides us through an examination of the lives lived by gifted students, their social emotional characteristics and behaviors, friendships and family relations that support them, and influences that shape their social and emotional lives and identity development. The book also explores these issues with gifted underachievers, gifted culturally diverse students, and twice-exceptional students.

Davis, J.L., & Moore, J.L.(Eds.). (2016). *Gifted children of color around the world: Diverse needs, exemplary practices and directions for the future (advances in race and ethnicity in education)*. Bingley,WA, UK: Emerald Group Publishing Limited.

Gifted students of color oftentimes go unnoticed and unsupported, despite their high potential for talent. This book provides readers with information on serving diverse gifted students, such as teaching to their strengths and incorporating cultural learning. This edited volume is a valuable resource for school administrators and teachers as it offers practical approaches for becoming more culturally aware and responsive to the academic, psychosocial, emotional, and intellectual needs of students of color who have immense academic potential but do not have access to enhanced or accelerated programming.

Dixon, F.A., & Moon, S.M. (Eds.). (2015). *The handbook of secondary gifted education* (2nd ed.). Waco, TX: Prufrock Press.

For highly capable students, adolescence is both a time of potential and great vulnerability. The authors address the nature of gifted adolescents – their characteristics, needs, and individual differences. This books aspires to help educators build critical, comprehensive, and in-depth educational opportunities for gifted secondary students, which are research-based and designed to support students' various needs.

Eckert, R.D., & Robins, J.H. (Eds.). (2017). *Designing services and programs for high-ability learners: A guidebook for gifted education* (2nd ed.). Thousand Oaks, CA: Corwin Press.

This updated text provides educators with a comprehensive guide and reference manual to support the types of decisions that need to be considered when designing programs and services for highly capable students. The guidebook provides recommendations, guiding principles, and strategies for dealing with a particular aspect of program planning based on the *National Association for Gifted Children Programming Standards* as a way to assist educators in developing high quality gifted programs that are based in research and best practice.

Gentry, M. (2014). *Total school cluster grouping and differentiation: A comprehensive, research-based plan for raising student achievement and improving teacher practice* (2nd ed.). Waco, TX: Prufrock Press.

The cluster grouping model allows for differentiated learning for all types of students, not just the gifted, by reducing the range of achievement levels in the classroom and focusing on the specific learning needs of students. This book offers research-based application methods for implementing cluster grouping in the school

environment, while also providing suggestions for staff development, evaluation, management, and support of the whole child.

Hebert, T.P. (2011). *Understanding the social and emotional lives of gifted students*. Waco, TX: Prufrock Press Inc.

The social and emotional lives of gifted students are complex and require educators who are knowledgeable in recognizing characteristics and behaviors, especially in gifted students from diverse backgrounds, or who are twice-exceptional, or who underachieve. Combining theory with the latest research, this book offers educators suggestions on how to support the social emotional needs of gifted students, as well as how to provide a gifted-friendly classroom environment.

Hertzog, N.B. (2008). *Early childhood gifted education: The practical strategies series in gifted education*. Waco, TX: Prufrock Press.

We want young gifted children to pursue and develop their strengths, while immersing themselves in a rich and inquiry-based school environment. This book presents a concise overview of important topics in gifted education and offers a plethora of strategies for teachers and parents to support young children as they empower them to pursue their natural desire for learning and to develop their gifts and talents.

Karnes, F.A., & Bean, S.M.(Eds.). (2015). *Methods and materials for teaching the gifted* (4th ed.). Waco, TX: Prufrock Press.

Gifted learners have distinctive and varied needs that require instructional practices, best practice strategies, in-depth support, and evaluation that meets their unique needs. This book offers curricular strategies and resources that are aligned with the *National Association for Gifted Children Program Standards* and provide support to educators who require knowledge of instructional methods that can address the academic and social/emotional needs of highly capable students.

Mendaglio, S., & Peterson, J.S. (Eds.). (2007). *Models of counseling gifted children, adolescents, and young adults*. Waco, TX: Prufrock Press.

Counseling gifted students requires the use of effective techniques, understanding of roles, and knowledge in the unique needs of the gifted. This book offers just that by providing readers of all experience levels the research and expert guidance in how to best counsel gifted individuals. This text is invaluable to counselors who are working with gifted persons in counseling situations.

Neihart, M., Pfeiffer, S., & Cross, T.L. (Eds.). (2016). *The social and emotional development of gifted children: What do we know?* (2nd ed.). Waco, TX: Prufrock Press.

This book remains the only comprehensive summary of the empirical research on the social and emotional development of gifted students by recognized authorities in the field. The text focuses on the critical importance of the issues of culture, context, and identity in understanding social and emotional development of children. The book includes chapters on peer pressure and social acceptance, resilience, delinquency, and underachievement, and provides research summaries on special populations while also addressing the psychosocial aspects of talent development and gifted performance.

Renzulli, J.S., & Reis, S.M. (2014). *The schoolwide enrichment model: A how-to guide for talent development* (3rd ed.). Waco, TX: Prufrock Press.

*The Schoolwide Enrichment Model* (SEM) is a student-centered model based on successful practices originally developed for programs for gifted students. This guidebook provides educators with step-by-step insights into how to develop their own SEM program based on their unique student population, resources and location. The model helps educators to look at the students' strengths, interests, and learning preferences to capitalize on these

assets through a variety of methods for engaging and challenging students who demonstrate or show potential for giftedness.

Tomlinson, C.A., Kaplan, S.N., Renzulli, J.S., Purcell, J.H., Leppien, J.H., Burns, D.E., Strickland, C.A., & Imbeau, M.B. (2009). *The parallel curriculum: A design to develop learner potential and challenge advanced learners* (2nd ed.). Thousand Oaks, CA: Corwin Press.

This book offers a comprehensive look into the *Parallel Curriculum Model*, providing readers with insights and strategies for designing curriculum to develop learning potential and to ensure persistently escalating challenge for advanced learners. The model is based on an assumption that it is very important for advanced learners to work with curriculum and instruction designed to serve as a catalyst for their continued advancement as thinkers and learners. To ensure escalating challenge for advanced learning, curriculum developers and teachers must have an understanding of what advanced curriculum looks like and a mechanism for incorporating such challenge in curriculum, which this text addresses through a discussion of varying parallels or ways of thinking about curriculum design as one moves from novice to expert in the various disciplines.

Webb, J.T., Gore, J.L, Amend, E.R., & DeVries, A.R. (2007). *A parent's guide to gifted children* (3rd ed.). Scottsdale, AZ: Great Potential Press, Inc.

This books offers parents of gifted children background information on giftedness and provides practical guidance in areas of concern for parents. This book serves as an in-depth primer for families, while it explores some of the traits, issues, challenges, and concerns of providing children and adolescents with optimum growth experiences.

### **About the Author**

**Jann Leppien**, Ph.D., is an associate professor and the Margo Long Endowed Chair in Gifted Education at Whitworth University in Spokane, Washington. She is the coauthor of *The Multiple Menu Model: A Practical Guide for Developing Differentiated Curriculum*, *The Parallel Curriculum: A Design to Develop High Potential and Challenge High-Ability Students* and editor of a series of related books illustrating sample units designed using the Parallel Curriculum Model (PCM).

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