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CONTENTS

Note from the Editor

This issue has articles related to the topic "*Moving Forward, Not Going Back*," providing a space for educators to reflect on the tumultuous years we just experienced and to consider what we've learned along the way. Additional articles on educational topics relevant to the Pacific Northwest are also included in this issue.

WERA Educational Journal (WEJ) has shifted to an annual publication. We are seeking submissions for the 2023 issue. *WEJ* is a collection of academic papers, professional reports, book reviews, and other articles and summaries of general significance and interest to the Pacific Northwest education research and practitioner community. Topics in *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.

- COVID-related educational challenges
- Early childhood education
- Curriculum and instruction
- State and national standards
- Professional development
- Special populations (e.g., gifted, ELLs, students with disabilities)
- Assessments and their relationship with other variables
- Early warning indicators
- Social and emotional issues
- School and district effectiveness
- Teacher and principal evaluation
- Education finance and policy
- Educational technology
- Educational leadership
- Remote learning

We encourage the submission of condensed versions of dissertations and theses that are reader-friendly. School and district practitioners are encouraged to write for *WEJ*. Manuscripts for the 2023 issue are due August 1, 2022. For 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, email smithant@uw.edu.

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Supporting Mathematical Modeling for Emergent Bilinguals (EB):
One Elementary School Teacher's Story

Rejoice Akapame and Robin Angotti

Mathematical modeling, by nature, is well suited to the use of innovative pedagogical strategies such as collaborative group work and formative assessment techniques. In this research study, one elementary school teacher implemented mathematical modeling tasks to teach number sense, geometry, algebra, and linear modeling. After participating in a year-long professional development program focused on mathematical modeling and pedagogy, the teacher made changes to the content and used collaborative learning and formative assessment practices. Analysis of assessment results using a t-test showed that students made significant gains with the largest increase in mathematics achievement being realized by emergent bilingual students.

Introduction

The Guidelines for Assessment and Instruction in Mathematical Modeling Education (GAIMME) defined mathematical modeling as "a process that uses mathematics to represent, analyze, make predictions or otherwise provide insight into real-world phenomena" (2019, p. 8). In addition, the modeling Common Core standards for mathematical practice state that "mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace" (Common Core State Standards for Mathematics (CCSSM) 2010, p. 7). Thus, mathematical modeling is a way to incorporate authentic, "real-world" problems with high cognitive demand that are of interest to students into the mathematics curriculum. These types of problems increase proficiency and engage students in mathematics. Students must understand the general and academic language to be able to interpret the problem situation and extract the mathematics needed to find a solution. This can be challenging for many students but particularly for emergent bilingual students who are learning both new content and language. Teachers who may already find it challenging mathematically and pedagogically to incorporate these types of problems may be particularly ill-equipped to address the needs of emergent bilingual students. This paper details the journey of one such teacher.

The research featured in this paper was part of a small, funded professional development project in rural Western United States in which mathematics teachers were engaged in creating mathematical modeling problems and enacting them in their highly interactive classroom environments. It comprised a two-part summer institute augmented with three additional workshops throughout the year. The emphasis of this professional development was on increasing mathematics teacher subject-matter knowledge and pedagogical skills to support learning for all students. A particular emphasis was on fostering language and content development of emergent bilingual students through mathematical modeling to broaden opportunities for this group of students. The case study featured in this article gave insight into the following questions:

1. How does incorporating mathematical modeling help emergent bilinguals learn mathematics?

2. What pedagogical strategies are effective for helping emergent bilinguals solve mathematical modeling problems?

The following sections discuss literature on mathematical modeling and pedagogical practices for increasing collaboration in mathematics, particularly related to how these impact the mathematical understanding of emergent bilingual students.

Theoretical Framework

We use Gutierrez's (2009) theoretical framework on equity to more deeply understand the relationship of access to mathematical modeling activities and the achievement of emergent bilingual students. We share Gutierrez's belief that "equity is ultimately about the distribution of power—power in the classroom, power in future schooling, power in one's everyday life and power in a global society" (Gutierrez, 2009, p. 5). Gutierrez conceptualizes her equity framework in terms of four dimensions along two axes. The first axis, called the dominant axis, has *Access* on one end and *Achievement* on the other, the two elements often operating in tension with one another. Access relates to available student resources that allow students to participate in mathematics. This could include such things as a rigorous curriculum, teacher quality, availability of technology, and classrooms conducive to learning (Gutierrez, 2009). Achievement, on the other end of the dominant axis, relates to class participation, standardized test scores, and participation in courses that lead to a solid base in mathematics. The dominant axis "measures how well students can play the game called mathematics" (Gutierrez, 2009, p. 6).

Gutierrez's second axis, termed the critical axis, places *Power* on one end and *Identity* on the other. Examples of power include who gets to talk, who has opportunities to do interesting mathematics that can be used to explore and solve societal problems, and more. Identity involves consideration of race, gender, ethnicity, and how these are valued in contexts such as classrooms. The critical axis considers students' lived realities and resources in ways that help them become citizens who are capable of changing the system. Gutierrez (2009) suggests that equity is only possible if all four dimensions are considered.

Using Gutierrez's equity framework, we sought to examine the effect of incorporating mathematical modeling and the pedagogical strategies that support its successful application on emergent bilingual students' achievement in mathematics. In order to address this question, we first reviewed prior research, examined student data from a year-long professional development project, and drilled down to specific case studies of participating teachers, one of whom is featured in this paper, to get a clearer picture of factors that contribute to success.

Literature Review

Curriculum - Mathematical Modeling

To most students, mathematics is dry, boring, and irrelevant, and teachers have long struggled with making it meaningful in a real-world context, hence the proverbial question "when are we ever going to use this?" Mathematical modeling is one way to spark student interest, because it "links mathematics and authentic real-world questions" (Cirillo et al., 2016, p. 5). Mathematical modeling moves students beyond solving traditional textbook problems that use a predetermined procedural approach to arrive at a single correct answer and opens students up to a conceptual

understanding of mathematics as it applies to solving authentic, messy, open-ended, real-life tasks that do not have one right answer. This enables students to see the value in learning mathematics by helping them understand how mathematics is applied to the real world. For these reasons, mathematical modeling opens the door to mathematics for many students as it enables students with a wider range of achievement to be successful, leading to engagement and meaningful mathematical learning (Scott-Wilson et al., 2017), increased confidence in mathematical abilities, and improved attitudes toward mathematics (English & Watters, 2004; Lesh & Doer, 2003).

In order to solve a mathematical modeling problem, a student first has to be able to read and make sense of the problem situation, simplify it, and then abstract it to a mathematical model. Once they have a potential solution, they have to validate their solution in the problem situation and test it to see if there is a better solution. This requires students to work bi-directionally between real-world problems written out in words and abstract mathematical formulas (Bonotto, 2013; Lesh & Doerr, 2003). For emergent bilingual students with a limited grasp of English, this can be overwhelming and lead to decreased participation.

With the initiation of Common Core School Standards for Mathematics (CCSSM), there is renewed curricular emphasis on conceptual understanding; this makes it imperative that *all* students be exposed to problems that are more complex than can be learned through rote memorization. However, this requires teachers to create and engage students to solve rich mathematical tasks with high cognitive demand, such as mathematical modeling problems, which can be daunting from the perspective of creating and implementing the curriculum.

Mathematical modeling problems that are of interest to students are intrinsically tied to their physical and cultural environment; consequently, they are rarely commercially available. They are difficult for teachers to create, and, if taught at all, these problems are reserved for advanced classes. Underrepresented groups, which comprise the majority of emergent bilingual students, are typically funneled into lower-level courses where rote, abstract mathematical content is predominant. These students have limited to no access to interesting mathematical content even though research has shown that "students need opportunities to understand mathematics through activities that allow them to make sense of things in the world" (Horn, 2006, p.76).

In addition to the noted complexities of creating the curriculum, implementing mathematical modeling in the classroom presents challenges. Implementation requires language-rich classrooms (Leinwand, 2009) as students must make sense of real-world situations, validate solutions, and explain their reasoning. Most mathematics teachers have limited knowledge of pedagogical strategies that can foster this type of learning environment.

Pedagogy - Collaborative Learning
Solving mathematical modeling problems requires students to be able to ask questions around a real phenomenon, define a mathematical model that is an abstraction of the phenomenon in order to estimate the parameters of the model, and identify the assumptions in their model. This process works effectively when students are collaborating, communicating, and critiquing each other's thinking. Studies show that high concentrations of emergent bilingual students showed significant gains in mathematical achievement when immersed in classrooms where they were

engaged in small collaborative learning groups (Brandy, 2013) involving authentic problem-solving and innovative use of technology, (Banes et al., 2018; Lopez, 2010), two important components of mathematical modeling. These students showed significant gains not only in computation, but also problem-solving and language acquisition (Trautman & Howe, 2004). Thus, *access* to mathematical modeling, by its nature, is especially well poised to help emergent bilingual students *achieve* in mathematics, which defines both ends of the dominant axis outlined in Gutierrez (2009).

Studies have shown that emergent bilinguals are capable of effectively participating in classroom discussions as part of collaborative learning (Banes et al., 2018). Moschkovich (2013) recommended that emergent bilingual students have access to mathematics that supports conceptual understanding, participate in mathematical discussions as they learn to use English, utilize multiple representations of abstract mathematical concepts, and communicate their thinking. These experiences as well as classroom environments which value native language and lived experiences of students also help emergent bilinguals with language-acquisition skills.

Banes et al. (2018) "identified five key features for effective mathematics discussion: (1) variety of approaches, (2) opportunities to speak, (3) equitable participation, (4) explanations, and (5) connection to ideas" (pp. 417-418). In the current study, an attempt was made to foster student participation through the use of culturally relevant challenging mathematical modeling problems, pedagogy that supports communication among students, formative assessment that informs classroom decisions, and the integration of technology. All of these are embedded within the mathematical modeling process. However, incorporating mathematical modeling with innovative, group-oriented classroom teaching while working with emergent bilingual students also requires a broader skill set than many teachers are prepared for in teacher education programs.

Methodology

This is a mixed-methods case study of one elementary teacher who successfully implemented mathematical modeling tasks with emergent bilingual students while he engaged in a year-long professional-development experience. Qualitative data for this study included an open-ended survey, teacher interview, and lesson plans. The survey was administered at the beginning of the Summer Institute in June 2016 and at the end of the June 2017 workshop. A 60-minute recorded interview was conducted with the teacher in May 2017. The interview and the survey responses were analyzed using Qualitative Narrative Analysis (QNA). Quantitative data consisted of students' pre-and-post Measures of Academic Progress (MAP) assessment results. MAP assessments are computerized adaptive tests provided by the Northwest Evaluation Association (NWEA) that measure students' instructional level in math, reading, and language usage. The MAP was administered in the fall of 2016 and spring of 2017 and provided growth data in varying strands such as geometry and algebraic thinking. A paired two-tailed *t*-test was conducted to explore differences between pre- and post-test scores.

Participants
The participants of this case study were an elementary-school teacher and his first- and second-grade students. The teacher is a Mathematics Specialist for grades K-5 who works with struggling mathematics and Special Education students. Both the teacher and the students were

Latino, and all the students in this study had an Individualized Education Program (IEP). The first-grade class had nine students while the second grade had 17 students. The participants were purposely selected because of the teacher's outstanding success in implementing mathematical modeling tasks using pedagogical strategies such as collaborative learning and formative assessment.

Pedagogical Strategies
The pedagogical strategies featured in this research were implemented in the case-study classroom by the teacher who learned them in the professional development project previously discussed. These strategies were 1) utilizing open-ended, big, messy problems with multiple entry points, 2) making use of group work to foster collaboration for problem solving, and 3) employing community assessment ideas such as gallery walks for students to compare and refine potential solutions. These pedagogical strategies were chosen because they are congruent with the recommendations for teaching mathematical modeling by the GAIMME report (2009) and are consistent with the Equity Framework outlined by Gutierrez (2009).

Mathematical modeling requires big, open-ended, messy problems which promote reasoning and problem-solving so that students see themselves as "doers and sense makers of mathematics," (Barry 2019). Thus, utilizing these types of problems allows students to build procedural fluency as well as conceptual understanding. This speaks to the dominant axis in Gutierrez (2009) that encompasses access and achievement.

Mathematical discourse, which is central in mathematical modeling, helps emergent bilingual students practice both content and language (Moschkovich, 2013). Working together on problems with multiple entry points also allows students with varying mathematical skills to have access to important mathematical concepts. It also gives every student a voice in problem-solving. This addresses Gutierrez's (2019) critical axis of power and identity.

The teacher in this study used gallery walks to help facilitate meaningful discourse. A gallery walk is an activity where groups of students display their collaborative work on a poster much like an art exhibit and then go around the room visiting all other groups' posters. In order to generate a discussion about the work done by their classmates, students post a comment and/or a clarifying question (San Francisco Unified School District, n.d.). Once each group of students has analyzed all other group posters, they return to their own poster and review the comments and/or clarifying questions left by their peers. Students then have the opportunity to utilize the work they saw on other posters and the feedback on their own to modify their work if necessary. Analyzing, assessing, and iterating their model are integral parts of the modeling process (GAIMME, 2009). The gallery walks were a vehicle for doing this work. Finally, in service of a whole-class discussion, the classroom teacher utilizes information from the clarifying questions left on the posters. This type of classroom process helps students become citizens of their classroom environment and addresses the critical axis of Gutierrez's (2009) framework.

Case Study

Nick (pseudonym) teaches in a small, rural school surrounded by orchards in the rural Western United States. Most of Nick's students are emergent bilinguals whose parents work in the orchards or packing sheds. Nick has been a Mathematics Specialist for grades K-5 for six years

and works with struggling mathematics and Special Education students. In an interview, Nick described how he used a state achievement test to track students' growth as he implemented what he learned in the mathematical modeling professional development workshops. To provide access to rigorous curricula, he designed locally and culturally-relevant mathematical modeling lessons to teach number sense, geometry, algebra, and linear modeling. He shared that the biggest change in his teaching was to emphasize and encourage collaborative learning and hands-on activities, which provided students an opportunity to participate fully in relevant mathematics. His students worked in groups and discussed their learning which "was particularly helpful to my [emergent bilingual] students." The sharing of ideas and the group discussions also allowed individual students to "pick up skills or knowledge from group members that they did not have in a non-threatening way." He implemented gallery walks that he was exposed to during the Summer Institutes where students examined the work of other groups and received feedback. He used them as a formative assessment and allowed students to re-address their solutions and make any changes they thought necessary to their work. He shared, "The changes I made in how the learning is structured, is directly inspired by the [professional development] workshops."

Nick also explained how he brought local relevance into the mathematics lessons by talking about the three bridges that surround their town. "I wanted to use something that they see every day. Every day, the bus goes over the bridges, and I get them to think about it." Students in his 3rd- and 4th-grade mathematics class built bridges with toothpicks and marshmallows, which provided an opportunity to talk about right and obtuse angles as well as applied mathematical modeling. He excitedly proclaimed, "Every kid wanted to participate. They didn't hang back!" He explained his reaction when he saw the increase in his students' achievement test scores: "I was impressed because my 2nd graders…I have never seen this. They made 26-point gains but the average gain for one year is usually 16 points for 2nd grade. I saw the same pattern for 1st graders. I asked myself, 'What did I do differently this year?' and I did five-to-six exercises this year using techniques learned in the professional development project."

Student Pre/Post Assessment Results

An analysis of students' test scores using a two-tailed paired *t*-test revealed statistically significant differences between students' Fall 2016 and Spring 2017 scores as shown in Table 1. Overall, the first graders made a 28-point gain while the second graders made a 26-point gain.

Table 1
Overall MAP Mathematics Scores in Fall 2016 & Spring 2017

Grade	Mean Fall 2016 MAP Score	Mean Spring 2017 MAP Score	Standard Deviation	p-value	N
1st	146.78	174.67	8.00	0.000*	9
2nd	189.88	215.82	9.74	0.000*	17

*Significant at p<.01
**includes Special Education students

Additionally, MAP assessment scores for the geometry component also showed significant increases for the 13 students who participated in the new lessons with geometry-oriented

learning objectives as shown in Table 2. Out of 20 possible points, student' scores increased from a mean score of 2.54 to a mean score of 19.23. The difference was statistically significant (p<.01).

Table 2
Geometry Strand MAP Score in Fall 2016 & Spring 2017

Grade	Mean Pre-MAP Geometry Score	Mean Post MAP Geometry Score	Standard Deviation	p-value	N
2nd	2.54	19.23 (out of 20 maximum)	1.70	0.000*	13

*Significant at p<.01

Discussion and Conclusion

Data collected through teacher interviews indicated Nick used a variety of strategies to provide *access* to complex mathematics to *all* students. The pre/post assessments administered to students showed improved mathematics *achievement* and application of mathematical reasoning for all Nick's students, with the largest gains by students classified as below proficient and those enrolled in Special Education. This addresses the dominant axis of Gutierrez's (2009) equity framework. The increased scores were attributed to using complex mathematical problems with multiple entry points and the critical nature of making lessons that connect to students' lives, which also addresses the critical axis in the domain of *identity*. By facilitating activities where all students' voices were valued and where students had the opportunity to do interesting mathematics to explore and solve societal problems, Nick also addressed the *power* domain of Gutierrez's (2009) critical axis. Nick's joy of discovery of the benefits of intentionally grouping students for effective learning and for lowering the affective filter for emergent bilingual students speaks to an increase in his teaching efficacy and his cultural teaching efficacy.

This study examined one classroom teacher's success when implementing mathematical modeling tasks combined with a collaborative learning environment. It is no way implying that all teachers will have the same success. Changing from traditional teaching practices to a more open and collaborative classroom that "simulates the work of professionals who actually engage in mathematical modeling" (Cirillo et al., 2016, p. 14) is not a simple task. Ultimately, the willingness to implement the ideas found in this paper takes courage on the part of classroom teachers. The work of developing tasks and implementing collaborative learning effectively using messy problems with multiple solutions is labor-intensive, takes thoughtful preparation, and requires careful orchestration of classroom activities. It is a process that many teachers are unprepared to take on without significant support.

Any teacher interested in mathematical modeling should consider the pedagogical strategies outlined above. It is important to attend to the content and the open-ended nature of the problems the students are trying to solve. Unfortunately, those problems are rarely available commercially and require teachers to develop new content or modify existing content to make it more relevant to students' lives. Additionally, these types of problems require students to work together, discussing their ideas, solving problems, and assessing the feasibility of their solutions. Thus, the teacher's classroom becomes louder with the students more engaged in solving rich

mathematical problems. Teachers would need to be prepared for a shift in how learning is happening in their classrooms.

Since this is a single case study, caution should be used in drawing broad conclusions. However, this study does bring up the need for more research on how mathematical modeling fosters language acquisition. This suggests further research that separates the impact of the content of mathematical modeling from the impact of collaborative learning on emergent bilinguals.

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"A Bright Spot in an Otherwise Dreadful Professional Development Year:" Reflections of a Community-Centered Professional Learning Community

Eric Hougan and Grace I. Blum

Professional Learning Communities (PLCs) are an effective way of supporting educator learning and retention. This article highlights the work of implementing a virtual PLC that intentionally sought to center community assets and strengths during the context of the COVID-19 pandemic. A survey of the PLC participants indicated that the PLC approach positively impacted completion of their Professional Growth Plans (PGPs) and signaled areas of growth for future PLC work.

Introduction

Intentional, purposeful professional learning communities (PLC) can be an effective way to support educator retention because providing educators with opportunities for *collaboration* is an important factor in teachers' choice to remain in the field (Charlton & Kritsonis, 2009). PLCs are an opportunity for strong mentorship and induction support for novice teachers, which can be especially critical for educators from underserved communities. Teachers who participated in comprehensive mentoring/induction support programs were more likely to report having a positive first-year teaching experience and more likely to remain teaching at the same school (Carver-Thomas & Darling Hammond, 2017; Ingersoll & Strong, 2011). Another critical factor affecting retention is *teachers' ability to influence student learning* (Charlton & Kritsonis, 2009). Providing opportunities for teachers to set specific goals based on their students' needs, implement an action plan, and evaluate these goals within a PLC allows participants to see and reflect upon the direct impact this work has on their students.

During the 2020-2021 academic year, Central Washington University (CWU) received a professional learning grant from the Washington State Professional Educators Standards Board (PESB) to support educator retention through the development of PLCs. Specifically, Social Emotional Learning (SEL) was the content focus of our PLC. This PLC supported participants in developing their own personalized professional growth plans (PGP) in which educators set their own goals, aligned them to Washington State SEL standards, designed an action plan, and collected evidence documenting movement toward achieving their goals.

Considering the isolating context of the COVID-19 pandemic, we—the PLC facilitators—intentionally designed the PLC to include meaningful social-emotional supports for participants working on their individualized PGPs. Also, we intentionally sought to humanize the virtual interactions by being authentic and infusing joy and humor within our conversations (Love, 2019; Muhammad, 2020). The PLC design was further informed by various asset-based pedagogies, including funds of knowledge (Moll et al., 2006) and culturally sustaining pedagogies (Paris & Alim, 2017) that intentionally seek to center the varied ways of knowing, being, and doing, that each of the participants brings to the learning community. Further, we sought to center the dynamic practices and selves to facilitate a critical, additive, expansive vision of teaching and learning within our PLC (Paris & Alim, 2017). Participants engaged in ongoing dialogue and critical reflection upon the oppressive systems our participants and their

students were a part of. We further modeled culturally sustaining pedagogies in our approach to facilitating each of the in-person meetings. Finally, as facilitators, we worked to decolonize the syllabus traditionally used in SEL training to center more voices of BIPOC scholars and critical pedagogies inclusive of indigenous ways of knowing.

Project Design & Overview

The PLC met virtually (via Zoom) four times during the 2020-2021 academic year due to the ongoing safety concerns of COVID-19. This approach afforded convenience, such as eliminating drivetime necessary to meet face-to-face, and providing an opportunity for our educators to connect from across the state, especially in remote, rural areas. And in response to participants' needs related to feelings of being overwhelmed from teaching virtually during COVID-19, two optional meetings were later added to allow participants to hang out and work together on completing various aspects of their PGPs. Each PLC meeting focused on a particular theme related to SEL and also allowed for time for participants to work on their PGPs. Several key features were considered in the design of each PLC session. First, participants were divided into special interest groups (SIGs) that met in smaller breakout rooms during each PLC session. These SIGs were formed out of shared interests in particular topics related to SEL. Second, a variety of pedagogical strategies and tools were utilized to facilitate learning in a virtual environment, including a Canvas Course Resource page, PadLet, and Zoom breakout rooms. Next, the PLC was facilitated by four experienced educators, two of whom also acted as grant coordinators, and two were teacher leaders within their respective school communities. Finally, each session was designed to create multiple opportunities for participants to learn from and with one another.

Participants
Sixteen participants, from across the state, volunteered to be in the PLC which included twelve classroom teachers, two paraeducators, one counselor, and one librarian. A majority of the participants were educators of color (81%) and had 1-3 years of experience in their current role (71%).

Methods
After the last PLC meeting in May, we (as the grant coordinators) administered a nine-item survey to all participants. The response rate was 63% (10 participants completing the survey). The responses were anonymous. The survey utilized a combination of open-ended questions (e.g., "Describe what (or combination of factors that) brought you to join and do this PLC work") and Likert scale questions (e.g., "Taking into account your reasons for coming to this work and reflecting over the year, to what degree did the PLC experience support your professional goals with SEL?").

The purposes of the survey were to 1) understand the degree to which the PLC was beneficial to participants in completing their SEL-focused professional goals, 2) elicit participants' perceptions of which features of the PLC were meaningful, and 3) identify areas for improvement in the PLC approaches and supports. The survey responses generated qualitative and quantitative data. To analyze the descriptive, open-ended response, we employed qualitative methods that included iterative readings of the responses with an open-coding approach,

allowing us to capture emerging patterns and themes. The quantitative results were analyzed using basic statistical methods.

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Results

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PLC Provided Support to Participants' Social-Emotional Well-Being and Professional Growth Goals

It is no exaggeration that being an educator during the 2020-21 AY was difficult because of the challenges of the COVID-19 pandemic, and participating in professional development activities was no exception. And, leaning into SEL literature, educators must first take care of themselves in order to teach effectively, especially with students with trauma (Romero, Robertson, & Warner, 2018). In response, our PLC efforts first centered on our participants' social and emotional needs; at each meeting, participants were encouraged to, if they chose, express the state of their well-being before launching into our agenda of action items. For example, during one of our breakout room sessions, one participant, in tears, shared how she was on the brink of giving up. After a difficult day of virtual teaching, she shared openly with the PLC about the overwhelming challenges she was experiencing. Another participant shared that he had chosen to attend the optional PGP work sessions, not because he needed to work on his PGP but rather he wanted to do grading and hang out—signaling a need to be in community and not feel isolated. In addition, many participants shared how the PLC positively impacted their socio-emotional health with one of our themes focused on self-care.

Based on survey results, the PLC had a positive impact on participants' professional growth, especially in light of the challenges of the pandemic. One participant succinctly wrote:

> *I really appreciate the four of you for organizing this opportunity and allowing me to be a part of it. It was a bright spot in an otherwise dreadful professional development year.*

Participants were asked to what degree did the PLC experience support their professional (PGP) goals with social-emotional learning. Eighty percent of the participants selected "to a great extent." The thematic reasons for this response were a sustained focus and deeper learning of SEL (with an equity lens), a sense of community belonging, and access to resources. Below are comments representing these themes, respectively.

> *It [the PLC] really has helped me understand how I can change my SEL curriculum in my own classroom to meet student needs. Not just the compliance that they normally teach us SEL is.*

> *I felt that I was connecting with like-minded educators and did not have to start at square one when discussing social justice issues.*

> *I also loved the guest speakers, the podcast, and readings we engaged in- especially loved the fact that everything was presented with an equity lens. Everything was relevant and powerfully engaging.*

The remaining participants indicated that the PLC experience "somewhat" supported their professional SEL goals, and the reasons for their responses varied. One participant wrote that the PLC "would have had an even higher impact if the year had not been so scrambled and disjointed, in general." Her comments reflected the tumultuous context in which the pandemic impacted the implementation of her goals. The other participant shared that the PLC focused too much on the teacher role versus their role as a counselor.

Varied Learning Resources
A key feature of the PLC design was to provide meaningful information and resources from varied sources to facilitate participants' learning. In survey responses participants highlighted how they learned from both the resources provided *to* them and shared *among* them in the PLC. Resources provided *to* the participants included both instructional modules containing research and practitioner-oriented articles, podcasts, and videos centered on various SEL-related topics. Here are a few illustrative participant responses on the perceived value of these resources:

> *[The] articles were really helpful, it gave context and examples of what other teachers were doing.*

> *Each meeting provided relevant articles, podcasts, and instructional practice ideas that gave me learning opportunities and a challenge to see things in a new perspective.*

In addition, several nationally renowned guest speakers were invited to speak on various topics of expertise, including educator self-care and trauma-informed teaching. While participants were not asked explicitly in the survey about the guest speakers, several participants commented on this particular feature of our PLC, such as "I really appreciated the guest speakers (shea, Kelly, and Annalisa)," and "[the] guest speakers were excellent to have."

Participants also spoke about how they valued the opportunities to learn *from* one another and help each other with their PGPs. In particular, several participants wrote about the importance of "connection." For example, one respondent wrote, "The connection opportunities, in particular, were a strength..."

Understanding some of the personal knowledge and expertise that several of our participants had coming into our PLC, the grant facilitators invited two of them to lead the session on trauma-Informed teaching. Participants noted appreciation and the value of learning from the experiences of their co-participants. For example, one educator wrote, "Hearing about the experiences of my peers as they figured out what their students needed this year helped me keep grounded and motivated in that work."

Areas of Improvement
The survey results yielded insights on how the PLC experience could be improved. A design feature of breaking the whole PLC into special-interest groups (SIGS) for certain times during the meetings was viewed on average as "valuable" but in comparison to the other features (e.g., having a theme each week and having fellow participants present) ranked lower in perceived value. While the intention of using SIGs was to build deeper connections and community with

educators with similar SEL interests, this feature had constraints. One major constraint that emerged was that the SIGs were too task-orientated on completing the PGP compared to engaging in community sharing and learning. Here is one illustrative comment on SIGs:

> *I liked the idea of SIGs, but I felt we never fully utilized them as ways to really explore the work. They became more task-oriented instead of community oriented at times. I think that mostly came from the need to get the PGP work done, which I totally understand. So I'd say SIGs or some other home group or small group would be great in the future, but with more of a focus on using the time for shared learning and community and less about task review or share-out.*

Another constraint with utilizing the SIG feature was participants met with the same participants within their SIG throughout the academic year. Participants indicated a desire to meet in small breakouts with the other participants outside of SIG to further engage in meaningful community learning and sharing.

Finally, participants indicated a need for additional time to share and learn about SEL and how it relates to their practice emerged as another area of improvement. In designing the number of meetings and the length of these meetings, we intentionally tried to balance providing adequate time for educators to learn about SEL and complete their PGP, while being cognizant that these educators have competing demands on their time. Yet, overwhelmingly, despite meeting after a long workday and feeling tired by the end of the day, a majority of participants signaled the need to expand the meeting time—and a few shared they would prefer to have additional meetings—to allow for deeper learning and sharing within the PLC. For instance, one respondent expressed the need for more time:

> *I understand the need to set lots of time aside for creating the actual documents for our personal growth [plans], but the discussions around student need and self-care were so exciting and vital—I wish there was more time for that community discussion.*

Discussion and Implications

From the onset of designing the PLC approach to implementation, we strove toward community solidarity with our participants by investigating and bringing forward participants' funds of knowledge and culturally sustaining pedagogies within our learning community. Specifically, we fostered opportunities for participants to share their expertise, knowledge, and experiences. Furthermore, we facilitated ways for participants to teach and learn from each other and share resources. In light of the classroom challenges brought on by the COVID-19 pandemic, the connections and supportive community of the PLC were a critical component to participants' social-emotional well-being. While our initial design of the PLC considered participants' own social-emotional goals as articulated in their PGPs, we did not anticipate how the PLC itself would become a source of social-emotional strength-building for the participants themselves. The community formed through our PLC may have been the lifeline to many of our participants navigating the challenges of teaching during the pandemic.

Overall, it's reasonable to assert that this community-solidarity effort was beneficial for the participants. The survey results reflect that a) the PLC supported participants in their professional growth plans, b) all respondents noted that they wished to participate in our PLC next academic year, and c) the centering of community was a key factor to their professional learning and choosing to return for continued professional development next year.

It is noteworthy that in the work toward community solidarity, there is an investment of time and effort needed on behalf of both the facilitators and participants, but this investment comes with constraints. Participants overwhelmingly expressed their desire to have more time in discussion with one another and more time in community with one another. Yet, we also observed that several participants of the PLC were only able to engage with the PLC asynchronously as scheduling conflicts arose, preventing them from attending the PLC real-time. Pressing questions arise when considering the time challenges and constraints that full-time educators experience:

- *How can we enhance a PLC experience that allows for sufficient time to cultivate meaningful relationships while being mindful of other constraints: educators' busy lives/schedules, managing PGP completions and logistics (e.g., where to find forms), etc.?*
- *How can we ensure the PLC structure (e.g., number of meetings, length of the meetings) and approaches are responsive to participants' emergent needs?*

These questions and others may help guide us as we reflect upon the next iteration of our work in future PLCs. Specifically, we hope to better bridge the dual priorities of 1) supporting our participants in the PGPs and 2) cultivating community solidarity among and with our participants. At times these dual priorities conflicted with one another, as considerable PGP-session time was spent helping participants understand the procedures and processes related to the completion of their PGPs. In this next iteration, we will lessen conversations around procedures ("task-oriented" activities) and increase deeper conversations around the authentic problems of practices participants hope to address through their personalized PGPs. From our reflections as facilitators and in analyzing the survey responses, we will continue toward greater community solidarity within the PLC work by centering participants' funds of knowledge and collectively working together toward meeting participants' individual and shared goals. In doing so, we hope to further foster a learning community that provides social-emotional support as we navigate the ongoing challenges of teaching during the pandemic.

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Engaging Spanish Speaking Parents: A Case Study of Leveraging a Virtual Platform to Empower Families

Catherine Carrison and Adriana Garcia

This essay provides an overview of a local English Language Learner (ELL) Department's efforts to engage Spanish-speaking families during the COVID-19 pandemic. Through the tireless and innovative work of its Spanish Speaking Family Liaison, the ELL Department was able to keep many ELL families connected to the school district and their children's schools during closures and subsequent remote and hybrid learning sessions. As a result of leveraging a virtual platform, the Liaison found creative ways to engage and educate families and also give them greater access to district and school staff as well as community resources.

The Need

Without question, school districts across the country have faced unprecedented challenges to facilitating learning during the COVID-19 pandemic. Among these challenges has been establishing meaningful avenues of communication with families. Seeking effective ways to connect with and engage parents during remote learning has been a pressing need, not only for supporting students academically, socially, and emotionally, but also for providing guidance and encouragement for parents. This has been especially true for our Multilingual and English Language Learner (M/EL) families. Under normal circumstances, cultural and linguistic differences can contribute to a disconnect in the important relationship between home and school (Barr & Gibson, 2013; Epstein et al., 2018; Jeynes, 2003). The situation has been exacerbated by the abundant logistical and communicative challenges faced during the pandemic. Over the past year and a half, the barriers previously present for multilingual families have become even more significant. Many of these obstacles, such as insufficiently translated information or reduced access to technology, etc., have led to diminished communication, increased misunderstandings, disengagement, and even isolation among our culturally and linguistically diverse families.

This article shares the story of what one Family Liaison did to overcome barriers and empower the district's Spanish-speaking families during remote and hybrid learning. The foundational theory and research supporting this work are anchored in the importance of leveraging and developing the social and cultural capital parents already possess and will need to fully engage in the education of their children (Bourdieu, 1998; Bourdieu & Passeron, 1990; Coleman, 1988; Freire, 1993; Hurley, 2017; Schaller, Rocha, & Barshinger, 2007; Turney & Kao, 2009). It is our hope that this story will serve as a useful tool in guiding and strengthening our support of and work with multilingual families.

Pre-Pandemic

With a population of just over 3,000 M/EL students, most of whom are Spanish speaking, the English Language Learner (ELL) Department of Evergreen Public Schools works diligently to establish ways to enhance relationships with and support for families. For well over a decade, the ELL Department facilitated a *Parents as Natural Leaders Program* for parents of M/EL students. Parents were invited to participate in this multilingual program by ELL paraeducators in the schools who also attended meetings with and interpreted for parents.

The purpose of the program, which originated and evolved from a partnership with the Washington Alliance for Better Schools (2021), was three-fold. First, participating parents (mostly mothers) attending the monthly meetings received training in a myriad of topics related to district processes, instructional practices, and community resources. Second, parents were trained and invited to volunteer in their children's schools and classrooms. Third, *Natural Leader (NL)* parents developed peer relationships within the group and gained greater understanding of one another's cultures. These parent leaders also became an additional support and point of contact for other M/EL parents in schools. Broadly and most importantly, the *Parents as Natural Leaders Program* provided a non-threatening place and way for multilingual parents to actively partner with the school district and their children's schools. This valuable opportunity fostered engagement as well as agency. In most cases, these *NL* parents developed relationships with office staff and teachers who may have otherwise remained strangers. As an added benefit, some of the *NL* parents were eventually hired as ELL paraeducators. In a few of these cases, after participating in one of the district's para-to-teacher certification partnership programs, *NL* parents even became bilingual teachers in the district.

In addition to the *Parents as Natural Leaders Program*, the Spanish Speaking Family Liaison assigned to the district's ELL Department also hosted monthly meetings with Spanish-speaking parents at several school sites throughout the district. Each gathering focused on a different topic that, through conversations with parents, the Liaison determined to be a need. For instance, sessions offered information for parents on time-sensitive issues such as college, financial aid, and other applications important for student engagement and success. These meetings, which were held in Spanish or interpreted into English, provided relevant and much-needed information for parents. And like the *Natural Leaders'* program, they drew parents into schools while providing a safe place for them to learn about the district and school systems in order to support their children.

Meeting the Need in the "New Normal"

Unfortunately, due to the restrictions placed on in-person gatherings as a result of the pandemic safety measures, the *Parents as Natural Leaders Program* was put on hold and in-person meeting groups at schools were discontinued. This was particularly problematic since, in the

midst of school closures and remote and hybrid learning models, the district's M/EL families urgently needed prompt and accurate communication and guidance about pressing issues ranging from homework help and Internet access to mental health resources and support. Because of this critical need, the Family Liaison developed an avenue to stay connected with and engage the district's Spanish-speaking parents.

Once schools closed, parents were faced with the new reality of having to connect with teachers and other school staff remotely through the district's Zoom and other virtual platforms. Although this was a mode of access unfamiliar to many M/EL parents, it made sense to leverage this resource since teachers and other support staff were using Zoom to connect with students. Additionally, since each student had been assigned a district laptop for working at home, parents would now also have access to a device. Even though there had been increased publication of strategies and guidance for connecting with families virtually, many M/EL families were still overwhelmed with the logistics involved in this new reality (Bair & McBride, 2009; Colorín Colorado, 2021; Gallardo et al., 2020; Ibañez et al., 2020; NEA, 2021; Robertson, 2020; Snipes, 2020). In short, employing some of these strategies would not only serve to connect the Liaison with families, it would afford parents the timely opportunity to gain a better understanding of the virtual platform and the devices used by their students.

Weekly virtual parent meetings were held in Spanish via Zoom on Wednesdays from 1:00-3:00 p.m. (the day and time determined through parent surveys to be most convenient for the majority of the parents). Utilizing the district and school messaging system, the Liaison invited the M/EL parents she regularly supported to join. The Liaison connected with parents individually to ensure they had the Zoom meeting links, passwords, and understood how to access the platform. As parents shared meeting information with their peers, the weekly attendance increased. Weekly agenda topics were determined by the needs identified from conversations with parents and as well as relevant district events and deadlines.

Table 1 provides a sample of the topics, events, and resources covered in the weekly meetings. The Liaison or other expert guest speakers shared information about district procedures and policies, application processes and deadlines, community events, and various district and community resources available to support families. The weekly agenda was driven by district timelines as well as the perceived and expressed needs and interests of parents. When feasible, bilingual guest speakers were invited to present. When this was not possible, interpreting was provided by either the Liaison or another Spanish-speaking staff member. Most of the parents attending were mothers, but fathers occasionally joined the group when they were able. In an effort to help parents feel safe to share and to protect their privacy, these virtual meetings were not recorded.

Table 1

Sample Agenda Items for Weekly Virtual Parent Meetings

District and State-related Topics	• Covid19 and vaccination updates • Free & Reduced Lunch applications • Logging into the school system to complete health attestations and check student attendance, homework, and grades • Completing College Bound applications • High School and Beyond Plans • District assessment schedule • Spanish Dual Language Program information • District Equity Committee and Affinity Group updates • Q & A with school principals regarding remote learning • Grab-n-Go Lunch pick up locations and times • Nutrition • EBT access and updates • Self-care tips
Community Events	• SeaMar Community Health Center Back to School Vaccinations • Summer Playground and Lunch Program • Learning Camps • Mental Health Solutions • Socio-emotional Learning & Community/Family Groups
Community Resources	• School District website resource page • Public Library • Columbia Language Translation Service • Boys and Girls Club • Food Bank • Mexican Consulate

As the school year progressed, noting that many of the mothers were feeling isolated and stressed, the Liaison developed a series of five informative virtual seminars to present during *La Semana Nacional de la Salud de la Mujer* or National Women's Health Week. The sessions included a rich line-up of expert guest presenters and covered an array of health-related topics including breast-care awareness, nutrition, mental health, identity, and diabetes. In preparation for this week-long series, the Liaison collected a variety of donated products from local health organizations and packaged them in gift bags to distribute to each participant. As a culminating activity, the gift bags were presented to participants in a drive-thru event in the district parking lot (Figure 1).

Figure 1
Gift Bag Event

Reflections

Parents who participated in the virtual meetings this past year have repeatedly expressed their gratitude for the virtual meetings, and they hope the meetings will continue even when in-person meeting is possible. They look forward to the gatherings and say they feel welcome. In addition to having a direct line of communication with the district, they say that it is good to have a place where they can come to talk when they feel isolated. One parent shared, "Yo no tengo familia o amigos aquí y ahora ya me siento parte del grupo, ya tengo a alguien aquí" (*I don't have any family or friends here—now I feel that I am a part of the group—that I have someone).* As a result of these meetings, parents shared that they feel like they are a family and are more supported by the district.

As the Liaison considers the benefits of meeting virtually, she wishes she had hosted them sooner:

> *I would have been able to connect with working parents who couldn't participate as a Natural Leader or join one of the school-based in-person groups. Now they can call in with Zoom. Even when they are working, they might still be able to listen to the meetings. I let them know, if they hear something in the meeting that they want more information about but can't ask in the moment, they can contact me when they are available.*

These meetings are working for parents and will undoubtedly continue to be a part of the ELL Department parent outreach and support for Spanish-speaking families.

In reflecting upon the lessons learned from this project and moving forward through and beyond the pandemic, the Liaison is considering a few adjustments to support this work. She plans to advertise the meetings more widely so new parents will join the group. For instance, connecting with school-based ELL paraeducators and English Language Development (ELD) teachers will facilitate disseminating meeting information directly to parents as will using the district's website, Facebook page, and other social media platforms. Additionally, she anticipates the time of the meetings may need to be later in the day since many parents must use their students' laptops to join the meetings. With students learning in-person at schools, parents will need to wait until students are home before having access to these laptops. Finally, the Liaison plans to incorporate more district and school staff members as presenters to share information with parents. In this way, both parents and staff benefit by becoming better acquainted with one another. Parents will have more familiarity with district personnel and the district team will gain more insight into Spanish-speakers' thoughts and concerns. As the Liaison put it, "These relationships are built on trust. To the parents, I am the voice of the district. District leaders also need to build this relationship with our families." In order for this essential relationship to develop, parents need to hear from and directly engage with district leadership. This is even more critical during these times when parents cannot physically be at schools or other district events and are relying upon district-led outreach to stay informed.

Moving Forward

Based on the overwhelmingly positive responses from parents, it's clear that the virtual meetings were a success. It is critical that the positive momentum built through last year's gatherings continues. Although students are back in classrooms this fall, school-site volunteers and in-person meetings are still on hold, a circumstance that makes it that much more important for M/EL parents to have access to essential information and resources in support of their children. The Liaison affirms that virtual meetings are a tool she will continue to use and expand upon with families. It allows for greater interaction and increases the possibilities for new activities and parental-engagement opportunities. As she reflects, "Virtual activities make it possible for parents to be a part of the community. They can participate without leaving home in the evenings

or having to worry about child care." This experience demonstrates that if districts work to ensure their multilingual families have access to technology and support them in using it, the opportunities are bountiful. The investment of time and effort makes it possible for families to engage and be a part of the school and district community and to more effectively support their children at school.

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ESOL Online Instructional Strategies: Bringing Equity to Virtual Education

Lauri Walker

The shift to virtual education has exposed the magnitude of inequitable access to the educational resources and support necessary to adequately meet the needs of students who are Emergent Bilingual (EB). From the wide-spread school closures of the past year and a half, we have learned many lessons and discovered an array of virtual tools that can continue to serve EB students far beyond the season of comprehensive distance learning. Educators need to think about ways to provide quality instruction using online tools to assist with bridging equitable access to both the language and content of schools. This article focuses on tools, resources, and strategies teachers can utilize in any setting to support EB students.

Introduction

For decades now, educators have used technology in the classroom to enhance and differentiate instruction. Reaching a 1:1 student-to-device ratio was a desired outcome in the push for 21st-century skills, which are imperative for young people as they enter universities, the military, or the workforce. This effort to meaningfully integrate technology as a useful tool to support learning and equitable access plodded along until March 2020, when the COVID-19 virus reached pandemic proportions. Immediately, school districts not only had to mitigate the spread of disease among the students and staff, they also had to find an alternative solution to providing meals, family services, and most importantly, education, to the thousands of students served by each district. In the rush to offer something consistent for the 2020-2021 school year, many school districts opted for a fully virtual educational format known in some states as Comprehensive Distance Learning (CDL). Based on my observations during the Fall 2020 trimester, students attended online meetings with their teachers at set times each day to check in, ask questions about assignments, and learn new materials, usually with the additional support of a learning management system (LMS). With so many unknowns about the virus, virtual classrooms were the most feasible way to keep students and staff safe while still providing learning opportunities and social connections. This method was effective for many students: those who had parental support, technological proficiency, Internet accessibility, and access to the language of instruction and materials (García, 2020). But for other students, the virtual classroom experience made clear the magnitude of inequitable access to educational resources and support required for students who are emergent bilingual (EB) to reach their educational goals.

During CDL, my colleagues and I struggled to connect with many of our students, particularly with our EB students. Providing adequate support comparable to what they would have received in a face-to-face space was extremely challenging. However, the lessons we learned from this wide-spread event forced us to see online learning tools in new ways that can be used to support students and families moving forward. Online learning does not have to stop informing the ways we think about quality instruction, in fact, "[q]uality online instruction should entail solving digital divide issues regarding students' race, class, language, disabilities, and gender" (Shin & Seger, 2016). Through a literature review, this article will focus on strategies teachers can implement to help their EB students succeed in any setting using virtual supports.

Literature Review

The literature regarding virtual education (Farhud, 2020; Macgilchrist, 2019; Scott, 2020; Shin, 2020; Warschauer et al., 2004), both prior to and during the COVID-19 outbreak, has made clear the array of inequities faced by EB students. Unequal access to technology, specifically Internet connectivity, has created a digital divide and opened up an opportunity gap that, "threatens to create an increasingly larger body of undereducated and underserved Latin[x students], expanding social and economic stratification within the United States ever further" (Warschauer et al., 2004, p. 563). Even with sufficient technological resources, the way the technology is currently being used has only served to "exacerbate entrenched inequalities" (Macgilchrist, 2019, p. 77). More specific criticisms include: "injustice in global education...lack of face-to-face communication skills…[and] replacement of memorizing versus perception" (Farhud, 2020, p. i). The lack of high-quality and comprehensive-instructional time is of special concern for EB students due to the inequitable access to social and cultural capital that would allow them to use technology more effectively (Shin, 2020). Educators face their own set of challenges in that they must be proficient not only in their content area and pedagogy, but also in technology. Teachers must also reevaluate their online teaching practices and effective use of technology as an instructional support, especially now that the initial pivot to virtual learning has passed and they can spend more time reflecting on what is best for their students (Scott, 2020) and how to meaningfully integrate instructional strategies that utilize technology as a tool to support student learning.

Strategies

In order to mitigate the lost opportunities for in-person support and to ensure past inequities are not replicated moving forward, research indicates that educators must have the intent of creating online lessons for EB students that provide support and ensure opportunities for growth (Farhud, 2020; Macgilchrist, 2019; Scott, 2020; Shin, 2020; Warschauer et al., 2004). Supporting students meaningfully through online resources is not as simple as just taking the assignment that would normally be done on paper in a classroom, making it a PDF, and uploading it to the LMS. Purposefully integrating online tools to support EB learning requires an invested consideration of how the online tool meaningfully supports both language access and content understanding. Having a clear sense of what is most essential for supporting EB students is helpful in making this task less daunting.

The GO TO Strategies: Scaffolding Options for English Language Learners, K-12 (Levine et al., 2013) provides a list of five principles to adhere to:
1. Teach the language and skills required for content learning.
2. Incorporate ways to support students in thinking about and drawing from their life experiences and prior knowledge.
3. Use visuals, demonstrations, etc. to provide students with opportunities to produce language (speaking or writing).
4. Engage students in using English to accomplish academic tasks.
5. Teach thinking skills and learning strategies to support students in becoming independent learners.

In this section, we will explore resources that teachers can provide for their EB students to achieve each principle.

Principle 1: Assisting Literacy and Content Knowledge

This principle of assisting literacy and content knowledge goes to the heart of the challenges content-area teachers face if they are to support their EB students adequately. So what are teachers to do? Concerning the inequitable access to the Internet, teachers can work with their school districts, the State Office of Education, and local Internet providers to find free or low-cost solutions for Internet access. Many national Internet providers have stepped up to provide free or low-cost services for students. Some school districts pay for cell phone "hot spots." Of course, this is only a short-term fix, and there is still much more that needs to change if universal Internet access is to be achieved. Teachers can also ensure they offer online instructional resources that will benefit their EB students. Fortunately, a multitude of education companies have used the pandemic to offer quality materials that are available to everyone.

Some of the most utilized resources for assisting literacy and content knowledge are Newsela and Commonlit. These two sites are similar in that they both offer news articles and primary sources that can be read aloud, modified in terms of lexile level, or translated into another language. The sites differ in that Newsela requires a paid subscription and Commonlit is free of charge. Most online resources now provide a read-aloud and/or translate option. Other options include using the closed-caption option for videos and films and the teacher creating a YouTube video of the lesson with visual aids and added support for EB students. If time allows, teachers could also set up breakout rooms to work with students in smaller groups (Mahmood, 2020).

Principle 2: Activating Prior Knowledge

Most teachers understand that activating prior knowledge is an essential strategy for getting students to think about and connect to what they are going to learn. For EB students, drawing from an asset-based pedagogical framework is paramount. Emergent Bilingual students come with their own unique experiences, community, cultural wealth (Yosso, 2005), and funds of knowledge (Little & Chesworth, 2017; Moll, 2019). Teachers will continue to come from homogeneous backgrounds (mostly white, female, monolingual, middle class), while the student population will increasingly become more diverse (primarily students of color from working-class backgrounds) (Howard, 2003). Considering that the majority of teachers are of European descent and middle-class (Schaeffer, 2021), teachers need to encourage their students who are emergent bilingual to actively participate in accessing their own life experiences and knowledge in order to provide a foundation for new information. Conceptboard.com allows teachers to create interactive Know, Want to Know, Learned (KWL) charts, Venn diagrams, and other graphic organizers that provide endless possibilities for creativity. Other tools for accessing prior knowledge in an online environment include creating an anticipation guide in Google Forms, using the chat feature for discussion in virtual meetings, and setting up breakout rooms to encourage participation from quiet students. With all of these tools, multilingual communication should be encouraged.

Principle 3: Using Visuals and Demonstrations

Visual aids and teacher modeling have always been excellent tools to support student learning. For EB students, these resources offer "understanding and participation boosters," which enhance their ability to acquire a second language (Halwani, 2017). YouTube.com is a fantastic source for educational videos. *The Language Lady* channel contains several videos covering

multiple content areas. Each video focuses on specific strategies to assist educators in supporting EB students. The *Simple History* channel offers rich content students are able to connect with; these animated short videos use easy-to-understand language to cover a wide range of geographical regions and historical time periods. Storyboardthat.com is another helpful site that encourages student participation. Students can create their own storyboards or cartoon strips using pre-drawn images of locations, characters, and settings. This is particularly helpful for newcomers and early learners because they can show their understanding of content even if they are unsure of the vocabulary. Supplying a home-based set of manipulatives or artifacts and sharing or uploading pictures and video lessons are additional ways teachers can provide more visual tools.

Principle 4: Using English in Academic Tasks

Holding space for EB students to practice using the variety of English they are comfortable with is essential for any subject area, especially as students are emerging in their English language development. Students should also be encouraged to engage in translanguaging when possible and purposed. Translanguaging, as defined by García (2020), is the ability of a student to use their entire language experience, regardless of social or political language boundaries. Flipgrid.com allows teachers to post a prompt students can respond to in a short video. EB students can do this at home and feel more confident in expressing themselves verbally. Weebly and YouTube are other formats that allow for students to show their content knowledge using their own words in a fun and interactive way. Scavenger hunts and storytelling activities during virtual meetings create a community environment where students can interact with each other in addition to using English to express their knowledge. It is important to remember to refrain from correcting EB students if they pronounce or spell something differently. Accept these differences as part of their learning process.

Principle 5: Creating Independent Learners

Helping a student become an independent learner is one of the most important things an educator can do. By working to instill a sense of curiosity and purpose, and providing the tools students need to set and attain their goals, educators are giving them skills that last a lifetime. CDL provides the opportunity to work with small groups or individual students. Developing a relationship with EB students, having one-to-one or small group sessions, getting to know their interests and backgrounds, will build trust and confidence in you as their teacher. Help students think about and articulate in writing or orally their goals and aspirations by setting accessible milestones. There is a plethora of online tools (Calendly, Google Forms, Google Calendar, Slack, Discord, Class Dojo, Canvas and other LMS platforms, and Remind) that can be used to create a visual roadmap or checklist as well as to communicate with students regularly. These tools make it easy to plan before and after grading periods to check for progress and plan for improvement.

Conclusion

The COVID-19 pandemic has brought a multitude of challenges, many of which we will be dealing with for years. However, thanks to renewed public interest in how we educate our children during times of crisis, there are also new opportunities for growth and change. Lessons learned include the fact that educators do not have to stick to time-honored traditions (standardized tests and categorizing students by language proficiency) that are out of date and out of touch with our society (García, 2020; Scott, 2020). We have seen resiliency, tenacity, and

ingenuity as educators around the world work to provide some form of normalcy for their students. We must allow the growth and change to continue and not fall back on old ineffective habits that did not serve all students, especially the most vulnerable. The shift to virtual education and the use of virtual tools to support learning does not mean educators cannot provide equitable access to resources for their EB students, and bridging the digital divide is imperative in the 21st century (Warschauer et al., 2004). Access to technology is a necessity, not a luxury, but it is not the only issue. By using available online tools and focusing on the five principles of assisting literacy and content knowledge, activating prior knowledge, using visuals and demonstrations, using English in academic tasks, and creating independent learners (Levine et al., 2013), teachers can provide quality online learning for their emergent bilingual students.

Implications
The implications lead to what is described as *difficult loving care* (García, 2020). In her reflections on the impact of the pandemic crisis on all children, but especially Latinx children, García advises educators to do more than focus on externally-imposed criteria by addressing how language has been used to other certain segments of societies throughout history. This should be done with the empathy of a shared traumatic experience such as the one we are currently living through. Shifting gears in this way not only allows teachers to reconnect with their students, it also allows emergent bilingual students the space to pick up and carry on with their educational goals.

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Positive Outlier Schools: Illuminating Strengths of American Indian/Alaska Native, Black, Latino/a, and Students Experiencing Poverty

Greg Lobdell, Janet Gordon, John Steach, Gene Sharratt, Ceni Miles,
Erich Bolz, and Roni Rumsey

School administrators and educators are responsible for creating conditions that illuminate and build upon students' strengths. This study identified 38 Washington State schools successfully removing barriers and creating conditions allowing the strengths of Black, Latino/a, American Indian/Alaska Native, and students experiencing poverty to shine. Interviews of 238 individuals revealed practice-based evidence showing when the learning environment is set up for success, students make steep, continuous academic gains.

Positive outlier schools:
- create trust and a family-like atmosphere
- embrace the strengths of diverse students' cultures and ethnicities
- integrate relevant and family-engaged education into K–12 schooling
- repurpose building leadership teams to equity leadership teams
- empower diverse students to teach others about racism based on lived experiences
- eliminate deficit-based vocabulary

Background/Study Context

While the school selection phase was completed pre-pandemic, this study occurred during a time called the "twin pandemics"—the COVID-19 pandemic and intertwined structural racism in America. As schools closed, the pervasive inequities affecting students of color within our education system became inescapably apparent. For the school leaders and educators in this study, the pandemic experience confirmed what they knew already about the qualities of a school environment that illuminate the strengths of diverse students, including the need for an unshakable belief that all students can succeed.

### Finding Positive Outliers in Washington State

Out of the nearly 2,400 public schools in Washington State, this study identified 46 schools (2%) across all levels (elementary, middle, and high schools), urbanicities, and geographical areas. Positive outliers were identified using the five most recent years of student-level data available (2014-15 to 2018-19). Both academic and student engagement factors were used: Reading and mathematics performance on the Smarter Balanced Assessments, student attendance, English-language acquisition, percentage of ninth graders on track for high school, high school course rigor (participation in college-credit-bearing courses), graduation rates, and percentage of students enrolling in post-secondary education, including career and technical education programs, two-year programs, and four-year universities (Figure 1).

Figure 1

Defining a Positive Outlier

English-Language Arts	Math	Attendance	EL Progress	9th Grade on Track	Dual-Credit Participation	Graduation Rate

For each of these measures, per year, per subgroup, calculate Predicted Performance

Using this predicted performance

Actual Performance	−	Predicted Performance	=	Residual *Positive=Outperform, Negative=Underperform*
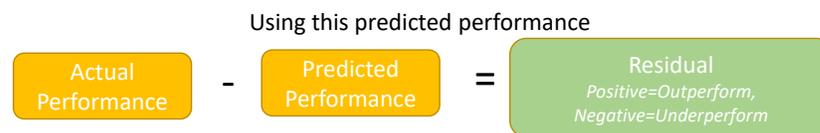
Schools designated in the positive outlier identification phase of the study were characterized by:

- *Positive outlier performance* in a majority of indicators for which they had data. For elementary and middle schools, at a minimum, this had to include ELA, math, and attendance. For high schools, this had to include ELA, math, attendance, and graduation rate;

  and

- Show a *positive trend of improvement* in a majority of indicators for which they had data over the 2014–15, 2015–16, 2016–17, 2017–18, and 2018–19 school years;

  and

- In the student group of interest, be *at or above the state in percentage of enrollment* for that student group.

For each of the student groups, American Indian/Alaska Native, Black, Latino/a, and students experiencing poverty, the performance for each group was compared by school based on data regressions relative to free and reduced-price lunch eligibility percentage. Residuals from these linear regressions surfaced those schools furthest from the regression line, and thus, those schools that were the "positive outliers" (McCoach et al., 2010). Z scores were generated for the most recent year as "performance" and also compared to Z scores of the three-year averages (2014-2017) to identify "improvement". Performance and Improvement were combined for all applicable variables for each school. Positive outliers were those schools far exceeding the performance of their peers for a student group of interest (Figures 2 & 3). In each of the eight performance measures, the schools had to be positive outliers in all the measures, further demonstrating the excellence exhibited on both academic and non-academic measures. Selection was performed blind with a de-identified data set.

Figure 2

Positive Outlier Regression Result Example

Grandview School District: McClure Elementary
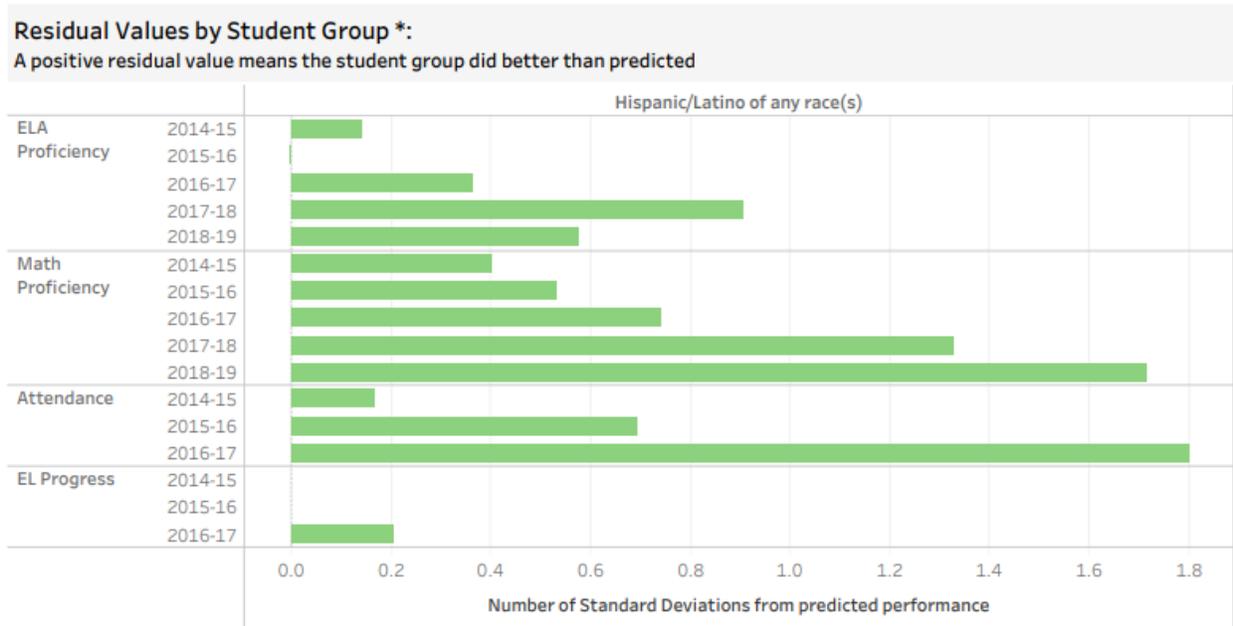
Figure 3

Sample Outlier Graduation Rate Comparisons to Washington State (Latino/a Students)
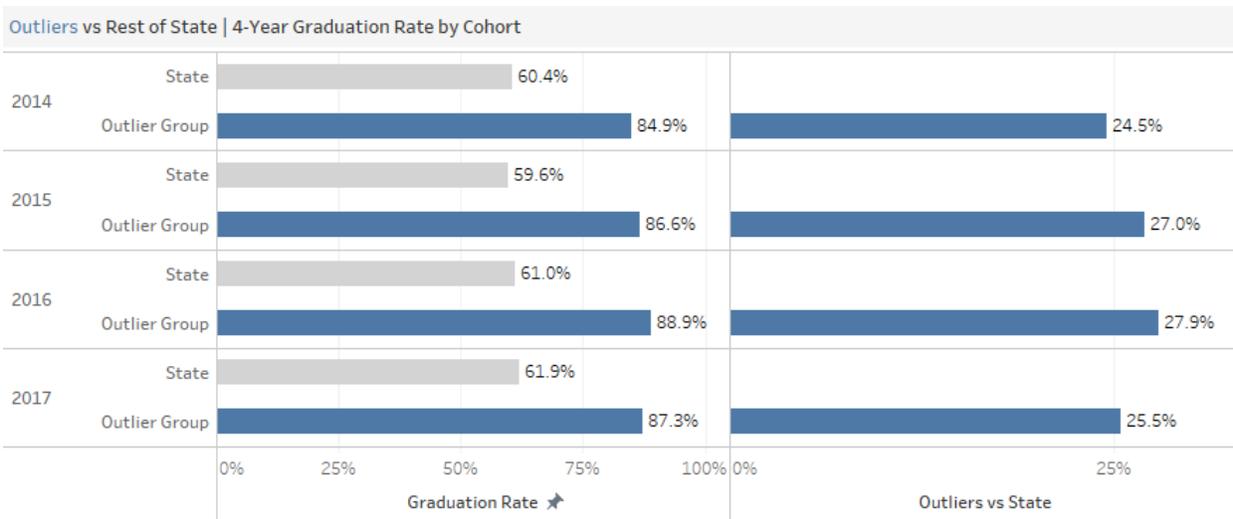
Of the 46 positive outliers identified, 38 participated in the study's second phase to determine characteristics present in these schools. Information on program/initiative emphasis was collected prior to performing interviews. District administration and building principals were

interviewed first for each outlier school. Principals were asked to identify diverse and separate focus groups of four-to-six members of teachers, students, and parents. Interviews were performed using an established protocol (Figure 4), transcribed, and analyzed using Dedoose software in an iterative grounded-theory approach leading to final study findings.

Figure 4
Sample Focus Group Interview Protocol

Teacher and Staff Protocol
Your school has been recognized as exceptional in a variety of ways that helps students make excellent progress in learning. We would like to learn about your strategies, programs and other things that potentially have influenced your school's ability to make continuous improvement. Thank you for coming and agreeing to share your experiences so we can learn from you.
Please share with us your name and your professional background, years in this building, as well as any other information you feel may be relevant to our study.

1. *Please share the "top three" factors that you believe are associated with your school's success in demonstrating continuous student improvement.*

2. *Please identify the professional development activities that have had the greatest impact on you and which have you felt were effective in promoting continuous student improvement?*

3. *Please describe the attributes of your school culture that have had the greatest impact/contribute to continuous student learning?*

4. *Please describe the ways that you work with other school staff. How do you collaborate to support student learning?*

5. *Describe the school's level of cultural proficiency and how your personal development has been supported.*

6. *How do you actively engage students in their own learning? (For secondary- how are student leaders involved in promoting/improving student learning?*

7. *How does your school evaluate school improvement and student success? For example, what measures do you use and how often do you conduct evaluations?*

8. *In what ways does the school help to mitigate challenges faced by students?*

9. *For staff, how does the school a) recognize/celebrate staff assets and strengths, and b) support the social and emotional health of staff?*

10. *What is being done to successfully engage parents in the school, especially those parents who have not been engaged?*

11. *What programs and activities have strongly influenced the school's and students' continuous improvement?*

12. *In what way does school leadership influence continued student improvement? How is the leadership of the school structured?*

13. *Did preparing for this interview, give you a sense of the good work that you are doing at your school? Was it helpful for you to do this interview from your perspective?*

14. *Finally, what else would like to share about your school or student's success? What did we not ask that you would like to share?*

Study Findings

Surprisingly, 16 of the outlier schools were previously in the bottom 5% of Washington State schools. Referred to as *struggling schools* in the state accountability framework, federal No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA), these schools are testimony that all schools can create an upward trajectory for all students. The upward trajectory began with a catalyst sparking upward momentum and included: (1) new leadership; (2) an emotional charge; and (3) a strong commitment to community to begin the difficult work of transformation. This was often accompanied by manifestations of servant leadership philosophy across administrative levels.

School leaders in outlier schools helped staff recognize and affirm they could do better. "We are fed up … we are not a dropout factory," asserted an administrator who recalled the time they committed to begin transformative work. Throughout the years, school leaders continued to rally school staff with an emotional charge to improve student graduation and attendance rates, staff attrition, and community support for funding.

School leaders and staff made deliberate decisions to improve. They made commitments to the community and intentionally turned to the knowledge of people who have lived experience or have studied issues related to diversity, equity, inclusion, and racism. Rather than dismiss an insight or fall into racial arrogance, the administrators set out to learn from experts and challenge assertions historically embedded in their school systems that created barriers.

The study revealed that outlier schools work to serve as brokers between families, community, and students, providing human and capital resources supporting students who are at the heart of the system (Figure 5). The community, families, and school operate as a "giant school family" prioritizing equitable collaboration, thus departing from traditional power dynamics present in some education systems. This fosters information flowing between families, community, and the school—key information that helps administrators and teachers create student-centered environments for strong academic and social-emotional health.

Figure 5
"Giant School Family" Dynamics
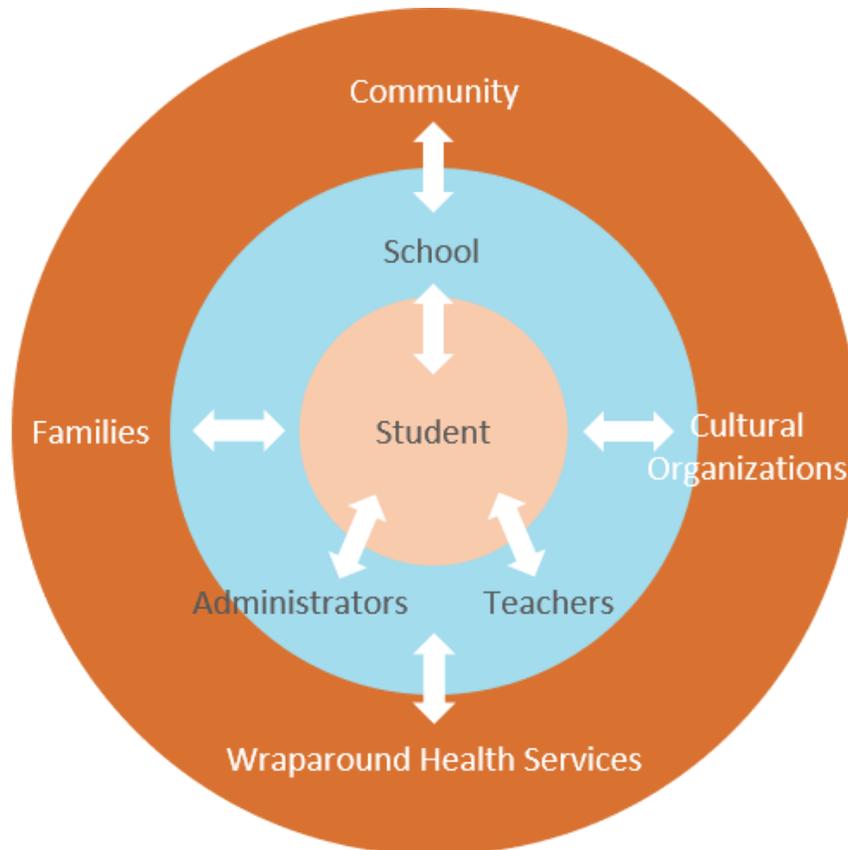
School leaders approached transformational work to become an equity-based school with a sense of urgency. They worked to communicate, promote, and embody specific values. They took actions supporting values and, when completed, achieved outcomes illuminating diverse students' strengths. Examples of what schools valued and prioritized are:

- fostering school as an extension of family and community
- supporting student and school staff social-emotional wellness
- creating a safe space for staff to take risks and grow professionally
- enabling and supporting students to work at their highest cognitive level
- prioritizing equity in instruction and grading practices
- building an anti-racist culture

These values are illustrated using quotes from the focus groups (Table 1). The table shows the through line between actions the schools took in support of the value and outcomes achieved supporting illumination of students' strengths.

Table 1
Building Level Values, Supportive Action, and Outcomes Illuminating Students' Strengths

Values (Building Level)	School Actions in Support of Value	Outcomes That Illuminated Student Strengths
"We are a giant school family."	– Shift habits and practices to better serve the community. – Prioritize creation of a sense of belonging/connectedness to school. – Witness effective listening exhibited by all staff.	– Increased community trust in school. – Greater participation of families as leaders influencing schools' actions. – Equitable collaboration with families. – Shared responsibility for all students.
"Our district has pushed 'generational wellness' … not just for our students, but for teachers as well."	– Embed demonstrations of SEL throughout school day. – Establish SEL team to advocate for and remind teachers about mindfulness and self-care.	– Strengthened bonds between school staff. – Increased collective responsibility to provide SEL support. – Elevated teachers at their best to serve students. – Maintained happy, satisfied school staff.
"It's a no judgement zone and people are here to help you process and reflect."	– Create of safe spaces for administrators and teachers to refine skills. – Promote interdependence not independence between teachers. – Ensure continuous vertical and horizontal staff collaboration to improve student outcomes.	– Improved trusting nurturing environment for employees. – Increased eagerness, enthusiasm to continue to learn and grow professionally. – Increased comfort in staff to engage in critical conversations about equity. – Increased willingness of staff to be vulnerable and open to building trusting relationships with peers, administration, students, families, and the community.
"Every grade level has a gifted teacher that is a transitional bilingual teacher."	– Examine critically system-level factors that create barriers. – Instill an "above grade level" mentality in educators. – Offer continuous ways that students can work at their highest cognitive level.	– Equitable provision of gifted program. – Steep increases in morale and sense of belonging of students and their families. – Reduction of student boredom and diminished difficulties in classroom. – Deeper student understanding of instructional content.

Values (Building Level)	School Actions in Support of Value	Outcomes That Illuminated Student Strengths
"Are kids failing because they don't know the content or because they're not complying with our expectations of turning work in?"	– Eliminate mechanisms that increase the number of students failing classes. – Implement more equitable and accurate grading practices.	– Reduction of students failing classes. – Increased students engaged in learning and sharing their knowledge.
"We've made a real commitment to becoming an anti-racist organization."	– Provide continuous professional learning on ethnic, racial, and cultural diversity. – Implement multi-tiered systems of support. – Use restorative discipline practices. – Eliminate deficit-based language.	– Improved equity-focused school. – Improved strengths-based School culture, acknowledging that all students bring strengths to schools. – Deepened understanding of anti-racism. – Improved understanding of diverse perspectives including those from students of sovereign Tribal Nations. – Improved culturally-relevant curriculum.

Student Voice at the Heart

At the student level, administrators, teachers, and support staff promote student voice in everyday processes, curricula, and formal and informal activities. Structures are in place to center students' voices in decision-making and needs-identification processes to make improvements in their school-day experience. This helps ensure initiatives can survive changes in leadership.

Adults are not the only equity leaders in these schools. Exemplifying a framework of relational power as opposed to unilateral power (Warren, Tompson, & Saegert, 2001), students take a leadership role in educating peers and teachers about race. This perspective requires less dependence on institutional agents (e.g., schools) to serve as gatekeepers in the equity quest equity (Ishimaru et al., 2016).

Carrying out transformational work to become an equity-based school, leaders took actions supporting students' values that surfaced during student focus groups. These actions promote outcomes illuminating diverse students' strengths. Examples of what students valued and prioritized are:
- building a school culture focused on equity and anti-racism
- fostering school as an extension of their cultural and personal identity

- being agents of change, especially to support their peers
- exercising student leadership
- learning knowledge, skills, and abilities that enable a post-secondary family-living wage

These values are illustrated using quotes from student focus groups (Table 2). The table shows the through line between actions schools took in support of the value and outcomes achieved supporting illumination of students' strengths.

Table 2
Student Values, Supportive Actions, and Outcomes Illuminating Students' Strengths

Values (Students)	School Actions	Outcomes That Illuminated Student Strengths
"[We have] a club called STARS, that is Students Talking about Race Safely, … who want to be the social justice warriors for equity."	– Create ways for students to educate teachers and student peers about race. – Arrange informal learning structures like clubs and student-led events. – Invite students to take on leadership roles to influence school culture.	– Increased comfort of teachers and school staff when talking about issues of race. – Increased staffs' knowledge about the culture of the community they serve. – Increased cultural proficiency across the student population.
"We have a lot of learning experiences where we can contribute our differences within ethnicity, culture or even genders."	– Center students' cultural strengths and identity in courses. – Invite students to create a school campus that reflects student identity and culture. – Create opportunities for sharing of students' families' oral histories. – Invite diverse motivational speakers.	– Stronger personal identity. – Increased sense of belonging of student and families on school campus. – Increased engagement in content areas. – Higher academic achievement scores.
"We see a little of our responsibility to get [our peers] on track."	– Foster a sense of accountability in students for their peers. – Create a peer-to-peer mentorship program.	– Increased student agency as student leaders. – Increased students' sense of responsibility. – Increased students' sense of purpose.
"A lot of what I'm taking in school now influences my future … financial literacy … you already have a pre-mindset of what it will be like before experiencing it."	– Increase dual credit courses offered at high school. – Align career connected learning for both 4-year post-secondary education and trades. – Increase life-skills and financial literacy course offerings.	– Increased post-secondary enrollment. – Increased community trust and engagement.

Students shared enthusiasm to help reduce gaps in school staff members' knowledge about culture and the communities they serve. Outlier schools supported student clubs (e.g., Black Lives Matter, Latino/a Club, etc.) to act as a valued resource increasing staff cultural sensitivity and awareness. Empowered high school students in clubs planned and delivered professional development to staff and provided an honest account of race and racism as a social construct. This is an example of an "equity culture" where student voices are honored and they are provided opportunities to confront and change some of the oppressive structures that they may be privileged or harmed by (Fullan & Malloy, 2019).

Students are the agents of change. Empowered students expressed personal responsibility not only for their academic success but also for their peers' success. They embody the same care and guidance they received from school staff and extend it to peers. Cultural strengths and identity are centered at these schools, reducing students' need to straddle a line between home and school, and feeling the exhausting need to be a different person in each place.

The schools focused on preparing students for post-secondary endeavors: entrepreneurship, career, and/or college. Many administrators and students interviewed described the dual-credit program's benefits. Schools are responsive to families' desires, including finding opportunities to earn a living wage locally through entrepreneurial and professional trades, as well as providing a jumpstart for students to earn a college degree.

Family and Community

In focus groups, family members were forthcoming about their positive experiences with the schools and feelings of respect, inclusion, and trust. Their responses can be categorized into three overarching values: (1) a student-centered environment; (2) regular communication; and (3) opportunity to share family voice, especially around culture.

Families placed a high value on a student-centered environment and described school administrators, teachers, and staff as dedicated people who care about and can be trusted with students. Schools provide students with engaging, context-specific learning opportunities, both formal and informal: after-school activities, arts, music, sports, social activism, and culture. Families prioritized regular communication from administrators and teachers. Communication occurred by email, mobile text messages, phone, U.S. post, and video conference calls about upcoming events, announcements, and students' academic progress. Parents expressed appreciation for accessing a web portal to check student progress, homework assignments, and grades. Families trusted the school to keep them informed.

Lastly, families valued invitations to district-wide events and opportunities to better understand the school planning process. They valued the ability to provide input into curricula choice especially around culture-based instruction. Family members applauded schools for recognizing

the urgency to develop a mentor program designed to foster a sense of belonging, identity, and agency so that students remain engaged in school.

Best Practices

Outlier schools engaged in best practices, including: (1) equitable access to high-quality teachers and principals for all students; (2) clear and visible learning objectives for all students; (3) a culture of lifelong learning among school staff; (4) continuous collaboration between staff at all levels, and (5) data-driven decisions within schools. To help classroom teachers provide instructional approaches illuminating the strengths of diverse students, a checklist of outlier school strategies is offered below.

Checklist for Instructional Strategies with Students at the Heart
- ✓ Provide ways for gifted non-English speaking students to work at their highest cognitive level.
- ✓ Identify students' current content knowledge within their own epistemology and worldview.
- ✓ Expand student expectations to include their social context and community in responses.
- ✓ Self-reflect on language used that could be considered deficit-based and change to asset-based.
- ✓ Create flexible assignments so students can incorporate their passions.
- ✓ Be a listener and learner of students' races, ethnicities, and cultures, and incorporate this learning into content.
- ✓ Grow student leaders and demonstrate the value of their feedback by taking action.
- ✓ Develop a deeper understanding of sovereign Tribal Nations who are advocating for American Indian/Alaska Native students and how that advocacy work fits into the goal of equity.

Call to Action

As students return to in-person learning following up to a year of online instruction and isolation, adopting the practices of the outlier schools can address the mounting social and emotional needs of students. Specifically, 1) creating a "giant school family" through targeted family communication and engagement strategies and 2) establishing a student-centered environment heavily embedded in student voice will not only meet current student needs but set a foundation for a more inclusive and equitable school culture.

The findings suggest schools must prioritize the development of an "equity culture," defined by Fullan and Malloy (2019) as "one that centers the voices and experiences of those most underserved in all decisions" (p. 5). Each outlier school made significant, continuous improvement in student academic and nonacademic outcomes. While they all started from a similar place in the public K–12 school system and each rejected historical narratives and

established structures and supports illuminating the strengths of AI/AN, Black, Latino/a, and students experiencing poverty, they are all at different places on their equity journey.

Within these schools there are those doing the righteous work to stand up for and encourage student and family agency throughout their school experience and to eliminate the overt and covert institutional racism that exists in the education system (Young, 2011). As such, school leaders and educators are called to build relational trust, enhance capacity of teacher efficacy, initiate processes engaging authentic student, teacher, and community voice, consistently interrogate the current system, and realize hope. As cultural strategist, Durrell Cooper states,

> *...that despite all of the historical evidence to the contrary, that one day Black, Indigenous and People of Color (BIPOC) students, could inhabit a full life of liberation from the structural oppression and violence enacted upon them daily by the very same system meant to lead to their emancipation (2020, p. 2).*

Illuminating the strengths of diverse students requires systemic change to dismantle unproductive systems put in place when the U.S. public school system began. Replacing unproductive systems with systems that promote a student-centered equity-based culture requires that school leaders, teachers, and staff be aware that communities and families have essential knowledge needed to inform school improvements.

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Journal Information

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