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Hanig, Jessica, "Self-Study Portfolio Jessica Hanig" (2023). *Master of Education in Teacher Leadership Portfolios*. 6.

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M.Ed. Self-Study Electronic Portfolio

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Master of Education in Teacher Leadership

Educational Technology Certificate of Graduate Study

College of Education, Rowan University

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August 24, 2023

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Opening Statement

As a fourth-year teacher, I have had the opportunity to work with a diverse group of students in Kindergarten, First, and Fifth grade. I quickly made it my mission to provide students with the means necessary to achieve their individual benchmarks and goals. I want to help to instill the intrinsic motivation to learn within my students. I strive to help my students to use their unique experiences to make strong connections as they create new knowledge. I intend to lead the students to develop academic, emotional and social skill sets by promoting a positive learning environment that advocates for empathy, encouragement, and self-belief. My hope is that my students will take the knowledge learned within the classroom to be kind, empathetic, and open-minded beings outside the classroom.

By keeping up with current best practices, I can utilize new effective technologies that support student learning in the 21st century. Domain VII of the *Teacher Leader Model Standards is to Facilitate Improvements in Instruction and Student Learning*. By following my mission to deliver the best possible education within my classroom, I can effectively use technology and other instructional strategies to address issues of diversity and equity and ensure that individual student learning needs remain the central focus of instruction.

Throughout this program, I began to shift my mission to not just working toward meeting the needs of my students but to advocate for student learning and the profession as a whole. By understanding the educational policies and roles of school leaders, I can advocate for change to support my goal of student improvement. I intend to advocate for a collaborative environment where teachers work together through systemic inquiry to support student learning and

achievement. I plan to continue to value different perspectives and use collaborative inquiry to challenge the status quo and share the goal of student improvement with my colleagues.

Portfolio Assignment 1 - Domain I

METL50550 - Self-Study in Teacher Leadership

Domain I: *Fostering a Collaborative Culture to Support Educator Development and Student Learning*

The teacher leader understands the principles of adult learning and knows how to develop a collaborative culture of collective responsibility in the school. The teacher leader uses this knowledge to promote an environment of collegiality, trust, and respect that focuses on continuous improvement in instruction and student learning.

The first domain of the Teacher Leader Model Standards has to do with the teacher leader having an understanding on adult education and the use of successful professional development. Within this domain, the teacher leader assists their colleagues in fostering a collaborative culture where they work collaboratively to solve problems, make decisions, and promote positive change. To do this, the teacher leader must develop and show respect for their colleagues and strive to build an environment that is built off of trust and collegiality. Successful professional developments can be done during structured PD days run by administrators, but the most important form of professional development is done by educators with shared goals of student growth. PLCs give opportunities for educators to use their specific skill sets and share their knowledge and experiences with their colleagues to help one another toward this shared intention.

Functions

The teacher leader:

a) Utilizes group processes to help colleagues work collaboratively to solve problems, make decisions, manage conflict, and promote meaningful change;

Example 1: While taking the course, METL 50513 – Teacher Leadership in Practice, I spent a lot of time thinking about the use of PLCs in my building and their relation to this function of the Teacher Leader Model Learning Standards. In my reflection of the Domain I, I wrote, “This domain resonates with me due to the nature of promoting not only an environment where teachers can work collaboratively but one in which teachers actually use the time to share goals and professional ideas. In my district, PLCs are mandated to take place every morning before the school day begins. However, I feel as though the PLCs are not being utilized efficiently and therefore are generally not promoting meaningful change within our building. Many PLCs seem to be more of the heads or chairs sharing information and other colleagues just listening and then acting on the ideas and methods presented by the leaders. In reality, for PLCs to be effective, they should follow this domain and foster a more collaborative culture where educator development is supported through an environment that promotes active listening, diversity, discussion, meditation, and most importantly the discussion of ideas through a development of collective wisdom to improve student learning” (Gruner, 2023). Following this reflection, I choose to use my leadership roles in the district to more effectively utilize PLC time. For example, as co-chair of the Cultural Proficiency/Character Education/Equity committee in my building, I chose to stop using PLC time to teach the staff the CP modules by reading off a slideshow, but instead to have open discussions regarding important topics, and using different staff member’s skill sets to allow them to actively participate in the PLC. I also started to discuss

PLC norms at the start of every meeting, allowing staff to understand protocols for managing our time effectively with higher efforts of collaboration.

b) Models effective skills in listening, presenting ideas, leading discussions, clarifying, mediating, and identifying the needs of self and others in order to advance shared goals and professional learning;

Example 1: As a member of the Social Studies Curriculum Development Committee in my district, I often think about my role in this part of Domain I. Creating a new curriculum based on new K-5 standards was a lot more challenging and time-consuming than I had originally anticipated. After choosing a curriculum and adopting it to the standards, I had to figure out how to roll it out to 450 teachers with the goal of not just teaching them how to use the curriculum, but also while accepting feedback and making changes based on staff recommendations.

Therefore, I worked collaboratively with other members of the committee to develop and present professional development opportunities for staff to learn the curriculum. We then created and sent out Google Form surveys and spent numerous hours organizing data and then revamping pieces of the curriculum based on the feedback received. Collecting feedback based on professional development sessions gave us opportunities to identify needs and advance goals of professional learning.

c) Employs facilitation skills to create trust among colleagues, develop collective wisdom, build ownership and action that supports student learning;

Example 1: As I began to look deeper into my inquiry question, "How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?", during METL

50513 - Teacher Leadership in Practice, I thought about how I can use my newly inquired understanding of PLCs, to share my knowledge and develop collective wisdom relating to my inquiry question with the overall goal of student learning. “By participating in a collaborative culture, teachers can effectively utilize their PLCs to discuss the Eureka Math curriculum and share ideas on how to make the curriculum more accessible for all students. The priority of domain one is to improve instruction and student learning which will come with discussion and professional collaboration on this topic” (Gruner, 2023).

d) Strives to create an inclusive culture where diverse perspectives are welcomed in addressing challenges; and

Example 1: As co-chair of the Cultural Proficiency/ Character Education/ Equity committee, I work toward helping other teachers understand the importance of welcoming diverse perspectives in the efforts of student learning. I also encourage staff members to have courageous conversations that may be uncomfortable but allow for others to share their experiences and more importantly, their truth, in the process of becoming more accepting and understanding of our diverse world.

e) Uses knowledge and understanding of different backgrounds, ethnicities, cultures, and languages to promote effective interactions among colleagues

Example 1: One of the most important modules that I have taught the staff members during a Cultural Proficiency committee is the Courageous Conversation. This comes from the book, *Courageous Conversations about Race* by Glenn E. Singleton and Curtis Linton. I taught my colleagues that in order to have a courageous conversation, they must first understand where they

are entering the conversation and where they are throughout the conversation. People can come in the conversation morally, emotionally, intellectually, or reactional. But it is important to not only think about where you are coming from, but also to understand the perspectives of where others are coming from as they enter the conversation as well. Participating in conversations following this idea helped my colleagues and I understand the importance of understanding different perspectives based on experiences and knowledge, and therefore promoted effective communication and interactions among colleagues this past year.

Closing Remarks/ Summary

Having a background in Teacher Leadership and an understanding of the Teacher Leadership Model Standards is directly correlated (or at least should be) with Domain I. Understanding that adult learning is not just ongoing, but important in developing a collaborative culture of collective responsibility in the school should be a prerequisite to the profession. However, I have come to realize that not all teachers are ready to adapt to educational change and that the top-down leadership model isn't always as effective as collaboration can be. As a teacher leader, I have run into many challenges where it is hard to convince veteran teachers to take ideas from "new" teachers like me, and at times it has been difficult to continue to want to be a leader in the profession. However, I know that the only way to reach student improvement is to understand different perspectives, learn from my colleagues' experiences, and to continue to promote an environment of collegiality, trust, and respect that focuses on continuous improvement in instruction and student learning.

Portfolio Assignment 2 - Domain II

METL50550 - Self-Study in Teacher Leadership

Domain II: *Accessing and Using Research to Improve Practice and Student Learning*

The teacher leader understands how research creates new knowledge, informs policies, and practices and improves teaching and learning. The teacher leader models and facilitates the use of systematic inquiry as a critical component of teachers' ongoing learning and development.

Domain II of the Teacher Leadership Model Standards addresses the importance of research and how it creates new knowledge, informs us of current best practices and policies, and improves teaching and learning. As I worked toward my final assignment for METL 50514 - Agency in Teacher Leadership, I had the opportunity to address a problem of practice that I had experienced in education and use the process of inquiry and research to understand what needed to be changed and then use my knowledge to improve teaching and learning. Participating in the process of inquiry taught me a lot about the importance of ongoing research in education and keeping up with best practices.

Functions**The teacher leader:**

a) Assists colleagues in accessing and using research in order to select appropriate strategies to improve student learning;

Example 1: Having a Special Education certification can be beneficial in many ways. It can first help to find a job working with students with special needs, but also exposes you to different

parts of the job in which you would not have had the experience with just a general education certification. In my grade-level, there are a couple of students who struggled behaviorally this past year. My grade-level colleague, not having a Special Education certification or a background in behavior analysis, did not take any classes on ABA or de-escalation strategies. With my background and experiences, I was able to assist my colleague in understanding and applying best practices when it comes to students with behavioral concerns.

b) Facilitates the analysis of student learning data, collaborative interpretation of results, and application of findings to improve teaching and learning;

Example 1: As I took the course, Agency in Teacher Leadership, I focused on the inquiry process and using student data and analysis to improve teaching and learning. My inquiry question, "How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?" came from my experiences teaching mathematics to a diverse group of students. Test scores, exit tickets, and observational data showed that this whole-group method of teaching wasn't working for my students. After completing a literature review, I found that flexible grouping would be a more effective strategy to differentiate instruction during the allotted time block. I then developed an inquiry plan where I would use the researched best practices to redesign my instruction. Using pre-test results I grouped my students and had them spend more time focusing on their specific needs. During implementation, my co-teacher and I worked together to collect data and change the process as needed. In the end I met with my grade-level team to discuss my findings and suggest the use of flexible grouping in their classrooms as well (Gruner, 2023). This process showed the importance of student analysis and collaboration in education.

c) Supports colleagues in collaborating with the higher education institutions and other organizations engaged in researching critical educational issues; and

Example 1: As a member of the Social Studies Curriculum Committee, I had the opportunity to work together with colleagues across the district to develop a new K-5 Social Studies Curriculum based on the newly developed standards for New Jersey. As we interviewed different curriculum companies, we had to keep in mind newly researched best practices in education. For example, there were some companies that provided textbooks for students to read from without including many hands-on learning experiences. Other companies offered programs based on inquiry questions to guide instruction. As this type of learning is good for the upper grades, this type of learning wasn't supported by research for lower elementary students. In the end we went with a program that fit current best practices in education and our student's needs.

d) Teaches and supports colleagues to collect, analyze, and communicate data from their classrooms to improve teaching and learning.

Example 1: During PLC, my grade-level partners and I often work on analyzing data to improve student learning. For example, after a large percentage of students in first grade did not meet benchmark requirements on a Foundations quiz, my colleagues and I worked together to discuss different strategies that have worked in different situations. One of my colleagues suggested an emphasis on orthographic mapping. She modeled what it looks like in her classroom for us, and I was able to take her ideas and use it in a small group in my classroom. I suggested the use of nonsense words and an emphasis on word families. After our discussion and

the implementation of new strategies in each of our classrooms, we noticed a higher rate of achievement.

Closing Remarks/ Summary

In Michael Fullan's text, *Leading in a Culture of Change*, he states, "What has been discovered is that, first, people will not voluntarily share knowledge unless they feel some moral commitment to do so..." He continues by saying, "we will see that we need a new conception of learning, greater and bigger moral purpose, an understanding of the change process, and teamwork if we are to create and share knowledge" (2020). Before beginning my course work in the program, I saw myself as just a non-tenured teacher. I knew I had big ideas and that I internally questioned some strategies I was modeled by my colleagues, but I never thought of myself as someone that could even say the word change until four years and a day when I became tenured. This program has taught me the importance of understanding best practices and to always do what I can to improve student learning. A good leader not only understands the need for change and has a moral purpose, like I did, but is able to share their knowledge and create new knowledge through shared learning experiences and by keeping up with the latest educational research. Finding my voice and sharing my intentions for student success with others put me in leadership positions where I can collaborate with colleagues and learn from their experiences while sharing my own.

Portfolio Assignment 3 - Domain III

METL50550 - Self-Study in Teacher Leadership

Domain III: *Promoting Professional Learning for Continuous Improvement*

The teacher leader understands the evolving nature of teaching and learning, established and emerging technologies, and the school community. The teacher leader uses this knowledge to promote, design, and facilitate job-embedded professional learning aligned with school improvement goals.

As I reflected on Domain III during Assignment 2 in the course METL 50513, I stated, “This domain relates directly to the realm of professional development. Within this domain, the teacher leader should be familiar with the evolving nature of teaching and learning, emerging technologies, and the school community. With this knowledge, the teacher leader facilitates professional development aligned with school improvement goals. This domain requires the teacher leader to collaborate with colleagues and other school professionals to plan appropriate professional developments that promote collaboration and differentiated learning. The teacher leader should advocate for preparation and time to have these sessions that relate directly to the improvement of the school and the students' learning” (Gruner, 2023). As I continued my coursework during this program, I slowly began to understand the importance of being an advocate for the profession. By joining the Social Studies District Curriculum Committee, and the Cultural Proficiency/Character Education/Equity Committee, I allowed myself to have a voice in education and collaborate with colleagues outside of just my grade level. Sharing my research and knowledge of the profession has made me more confident in my teaching and

makes me want to continue to keep up with current trends in education and continue to share my knowledge with my colleagues following our shared goal of student improvement.

Functions

The teacher leader:

a) Collaborates with colleagues and school administrators to plan professional learning that is team-based, job-embedded, sustained over time, aligned with content standards, and linked to school/district improvement goals;

Example 1: As co-chair of the Cultural Proficiency/Character Education/Equity committee in my building, I attend district-wide meetings in which I listen to the district committee leader as she teaches us new modules to bring to the staff during PLC time. During the meetings, we also have collaborative time with other teachers, district leaders, and administrators in which we share our ideas and experiences. Attending these meetings allows for me to be apart of the five-year change process, “In keeping with the Cherry Hill School District's commitment to the pillars of character education, namely respect, responsibility, and citizenship, our vision – beginning in the fall of 2017 – is to develop a Cultural Proficiency/Equity/Character Education five year plan that addresses the goals, structure and initiatives necessary to strengthen our school community. Our commitment and goals are to create a school climate in which variety by reason of race, ethnicity, religion, gender, sexual orientation, physical appearance, social/economic class, family structure, physical or developmental abilities are considered assets and resources for personal and academic achievement. Our purpose is to teach our children and ourselves to live, learn, and work together in a vibrant and diverse world in which mutual respect is the foundation.”

(CHCLC)

b) Uses information about adult learning to respond to the diverse learning needs of colleagues by identifying, promoting, and facilitating varied and differentiated professional learning;

Example 1: As a part of the Social Studies Curriculum District Committee, I used feedback from colleagues to plan a professional development session that would help improve professional learning leading to student improvement. Using Google Forms, K-5 Social Studies teachers answered the following questions:

- 1. Which components of Impact did you find most effective for teaching Unit 1?*
- 2. Which components of Impact did you find least effective for teaching Unit 1?*
- 3. What supplemental resources (outside of Impact) did you find effective for teaching Unit 1?*
- 4. Rate the level of student engagement with the Unit 1 Inquiry Project (Grades 1-5 only)*
- 5. Please provide any comments or suggestions for the upcoming professional development.*
- 6. Please provide any additional comments or suggestions for the Elementary Social Studies Curriculum Committee.*

Using the survey results, I was able to identify the needs for professional development, and therefore crafted a professional development plan that answered the questions of the staff, rather than planning something that could be unhelpful. This included ideas on pacing, how to integrate the content into other content areas such as English Language Arts, and how to differentiate the inquiry project.

c) Facilitates professional learning among colleagues;

Example 1: During the professional development that was described above, I walked teachers through a two-hour long session on effectively utilizing the new Social Studies curriculum.

During the session, I gave the staff time to ask questions as well as time to collaborate with their grade-level colleagues from other schools using guided questions. As teachers collaborated with one another, I walked around the room and offered my own suggestions and listened to other teachers' ideas on how they used the curriculum in their classrooms.

d) Identifies and uses appropriate technologies to promote collaborative and differentiated professional learning;

Example 1: As described above, the use of the Google Form survey allowed teachers to have a voice in what they are teaching by sharing their experiences and ideas to improve student learning. This Google Form survey contributed to a successful, collaborative professional development session.

e) Works with colleagues to collect, analyze, and disseminate data related to the quality of professional learning and its effect on teaching and student learning;

Example 1: In order to efficiently analyze the collected data from the teacher's feedback after using the committee, we created a shared document where we placed feedback into different categories: what we need to change/adjust before Unit 2, what we need to change/adjust for the future, and what needs to be explained or discussed during the upcoming professional development day. Together, we each took a grade level and placed information we have gathered into the document. Then, we used the document to first look at what needs to be addressed

before the professional development day, and how we can use that information to develop a session that is meaningful to our colleagues.

f) Advocates for sufficient preparation, time, and support for colleagues to work in teams to engage in job-embedded professional learning;

Example 1: Once a month, our grade-level submits a PLC reflection log in which we document what is going well, what data we have looked at this month, what we need to work on, and how we can work toward our student improvement goals. In that document, my colleagues and I make sure to advocate for ourselves by writing down exactly what is needed to reach our goals. This includes asking for more PLC time, asking for more resources or time with math and literacy coaches, etc.

g) Provides constructive feedback to colleagues to strengthen teaching practice and improve student learning; and

Example 1: During grade-level PLCs, my colleagues and I organize our time so that we can efficiently discuss our goals for student improvement by collectively analyzing data and sharing ideas and experiences. Following our meeting norms, we encourage constructive feedback and to offer suggestions since we know that every one of us has expertise and we can all learn from one another.

h) Uses information about emerging education, economic, and social trends in planning and facilitating professional learning.

Example 1: While working on my inquiry project, as I took the course METL 50514 - Agency in teacher leadership, I knew that I needed to use emerging trends in education to find a new way to teach mathematics that would benefit the diverse group of students in my classroom.

Specifically, I looked to achieve the goal of After researching different methods of teaching such as the flipped classroom, and backward-design, I found that flexible-grouping would serve as the best-practice to support both my high-achieving students and the students who needed extra support. Following my research, I was able to share my gained knowledge with my colleagues and use PLC time to share my experiences with flexible grouping.

Closing Remarks/ Summary

All in all, the third domain of the Teacher Leader Model Standards is about understanding the constantly evolving nature of teaching and learning. Just being part of this program has given me the opportunity to push myself to keep up with current trends in education. Joining district and building committees has led me to endless opportunities for collaboration. I have learned so much in the past few years, not only from my own research and experiences, but from just talking to my colleagues, administrators, and coaches.

Portfolio Assignment 4 - Domain IV

METL50550 - Self-Study in Teacher Leadership

Domain IV: *Facilitating Improvements in Instruction and Student Learning.*

The teacher leader demonstrates a deep understanding of the teaching and learning processes and uses this knowledge to advance the professional skills of colleagues by being a continuous learner and modeling reflective practice based on student results. The teacher leader works collaboratively with colleagues to ensure instructional practices are aligned to a shared vision, mission, and goals.

As I reflected on during the course, Teacher Leadership in Practice, within this domain teacher leaders are expected to reflect on their own teaching practices based on student results and help colleagues to also use these professional skills. (Gruner, 2023). My reflection of this domain will have many references to a journal article I wrote during METL 50514 - Agency in Teacher Leadership. During the duration of this course, I decided that the structure of mathematical instruction in my classroom needed to be changed to meet the needs of the diverse learners in my classroom. After I decided on my path for inquiry, I collected student data that would direct my methods of change, conducted research on what methods would best fit the needs of my students, then continued to collect and analyze data to monitor the change and its effectiveness. This facilitation of data collection and analysis helped to improve curriculum and instruction. My findings also led to reflective dialogue in the hope that my colleagues would also choose to work toward a common goal of collaborative decision making in future planning of mathematical instruction.

Functions

The teacher leader:

a) *Facilitates the collection, analysis, and use of classroom- and school-based data to identify opportunities to improve curriculum, instruction, assessment, school organization, and school culture;*

Example 1: In response to my inquiry question, “How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?” (Gruner, 2023), I used the process of data collection and analysis to improve instruction. In the beginning of each module, the students complete a pre-module assessment to determine certain skills and concepts that need to be addressed more thoroughly during instruction. After collaboratively analyzing the results with my grade-level colleagues during a PLC, I found that many students needed support with Module 4 Topic E - Varied Problem Types Within 20 of the Eureka Math curriculum. I then used more specific data from the pre-module assessment data to split my class into three groups; below level, on level, and above level much like Benders and Craft (2016) did in their research on The Effects of Flexible Small Groups on Math Achievement in First Grade. During instruction, quantitative data, such as exit tickets were collected. Qualitative data such as anecdotal notes were taken by myself and my co-teacher as we worked with students in small groups. After the instructional day, my co-teacher and I would analyze data and reform groups to meet the students' individual needs. Working collaboratively on collecting and analyzing data contributed to the improvement of student success.

b) *Engages in reflective dialog with colleagues based on observation of instruction, student work, and assessment data and helps make connections to research-based effective practices;*

Example 1: Following my inquiry project on the effectiveness of Flexible Grouping in an instructionally diverse classroom, I reflected on my practices and hopeful next steps. After finding out that the mathematics curriculum for first grade was changing in the next school year, I reflected on my recent data collection and how to use this change effectively in conjunction with my research. “In our classroom, we are switching from Eureka Math to Eureka Math Squared, which looks to have more opportunities for providing students with accessibility and seems to be more engaging. It also offers differentiation support and is not based on a script. I plan to spend a lot of time looking through this program and finding out how I can use flexible grouping to help students using Eureka Math Squared. Since it is a new curriculum, I would also like to create a critical friend’s group with other classrooms that are also piloting this program. From there, I will keep data and notes on what is working and what is not” (Gruner, 2023). Within these critical friend groups, I intend on working on improving my instructional practice through structured conversations and collaborative learning. Sharing experiences, observations, student work, and assessment data will lead to making connections to research-based practices such as flexible grouping and make impactful decisions that lead to student improvement.

c) Supports colleagues’ individual and collective reflection and professional growth by serving in roles such as mentor, coach, and content facilitator;

Example 1: During PLC, my grade-level colleagues and I often participate in sessions in which we share our experiences and hope to gain insight through different reflective practices. For example, one of my grade-level colleagues was new to first grade this past year. Being a fifth-grade teacher for the past eight years, she had difficulty when it came to teaching sight-word recognition. Since it had been my second year in first grade, I shared different strategies I had

used to teach the skill to my low-improving students. I discussed with her strategies such as orthographic mapping, heart-words, and memory games. I talked to her about the research I had conducted on these strategies and when the strategy worked, and when I needed to find other options for instruction.

d) Serves as a team leader to harness the skills, expertise, and knowledge of colleagues to address curricular expectations and student learning needs;

Example 1: As the co-chair of the Cultural Proficiency/Character Education/Equity committee in my building, I found that there had been many PLCs where it seemed as if my co-chair was just talking *at* our colleagues - stating what needs to be done and asking who is going to do it. In my most recent course, Educational Change, I learned a lot about qualities of effective leadership and the need to build relationships in order to be an effective leader. In Michael Fullan's book, *Leading in a Culture of Change*, he discusses Lewin and Regine's (2000) philosophy of genuine relationships based on authenticity and care, "Actually, most people want to be part of their organization; they want to know the organization's purpose; they want to make a difference. When an individual soul is connected to the organization, people become connected to something deeper - the desire to contribute to a larger purpose, to feel they are part of a greater whole, a web of connection" (Fullan, 2020).

My co-chair tends to voice her frustrations at the lack of buy-in from our committee, and an even bigger lack of commitment from the people in it. Like Fullan discusses in his text, people generally do want to be a part of their organization, they just need to buy into the organizational why and feel as if they are part of change. Change happens when the leader focuses less on the

change itself, and more on the people who are doing the work. Following this idea, I decided to take the initiative and find out why each person chose to join this committee. I wanted to know what part of this organization was interesting to them, and what they wanted to get out of it. From there, I created a sign-up sheet where I broke the committee's components into different categories that members could contribute to. Teachers that had a passion for character education joined that sub-committee, and people who wanted to work on Cultural Proficiency and Equity were able to use their skills to work on what they dedicated their own professional moral purpose to.

e) Uses knowledge of existing and emerging technologies to guide colleagues in helping students skillfully and appropriately navigate the universe of knowledge available on the Internet, use social media to promote collaborative learning, and connect with people and resources around the globe; and

Example 1: A few years ago, I started my career with a background in technology and eager to connect my students to a rapidly changing world. However, I found that there were more challenges than just adapting my students to new technologies. Kindness was one thing that drove me absolutely crazy. I did not understand why students and staff and parents and administrators could not just all be kind first and foremost. Therefore, I decided to take it upon myself to use my background in technology and moral purpose to push kindness initiatives out to my community.

I partnered up with Kindness Media Studios to introduce #WorldKindnessWeek to our school community. During the week, students were to complete acts of kindness and post the pictures to

Instagram or Twitter using #StocktonKindness. This initiative not only promoted acts of kindness within the building, but also in the community. It connected our community through kindness and promoted collaborative learning and connected us with different people doing the same thing across the globe.

f) Promotes instructional strategies that address issues of diversity and equity in the classroom and ensures that individual student learning needs remain the central focus of instruction.

Example 1: As part of the Cultural Proficiency/Character Education/Equity committee, my main role is to send out resources for holiday observations and cultural observances to my colleagues. One of the most difficult tasks that I have is to make sure that I am sending out useful, appropriate activities that address issues of diversity. However, as following the district protocols, I do believe that the best way to address diversity is to allow students to learn about other cultures as well as share their own experiences. Therefore, I am proud of my work and dedicated to continuing to share resources and ideas that promote inclusion and acceptance in every classroom.

Closing Remarks/ Summary

All in all, Domain IV focuses on understanding the process of teaching and learning and using that knowledge to help advance the professional skills of colleagues. To do this, it is essential that I be a continuous learner and model reflective practices based on student results. Even though it may sound simple, I had first-hand experienced the true difficulties of this domain. Working through my inquiry project, I came across many obstacles to get the results I was looking for. Student absences, behavioral issues in the classroom, timing and pacing all

contributed to my results. In my reflection I wrote, “Even though my results seemed to show an improvement in student success, I am still not convinced that flexible grouping is the most effective way to make the Eureka Math curriculum more accessible for the diverse learners in my classroom so I will have to go back to developing a new inquiry plan for future intervention and inquiry” (Gruner, 2023). I learned from this result that even though the results may not end up as planned, it is crucial to be honest with your reflection and be hopeful that the continuation of reflective practice will lead to the goal of student improvement for all students.

Portfolio Assignment 5 - Domain V

METL50550 - Self-Study in Teacher Leadership

Domain V: *Promoting the Use of Assessments and Data for School and District Improvement*

The teacher leader is knowledgeable about current research on classroom- and school-based data and the design and selection of appropriate formative and summative assessment methods. The teacher leader shares this knowledge and collaborates with colleagues to use assessment and other data to make informed decisions that improve learning for all students and to inform school and district improvement strategies.

As I reflected on the Teacher Leader Model Standards during METL 50513 - Teacher Leadership in Practice, “Much like domain IV, this domain focuses on the use of research and reflective practices. However, this domain focuses more solely on assessments and the design and selection of appropriate formative and summative assessments used to collect data to improve instruction. Keeping up to date with recent research helps teacher leaders to understand the importance of classroom and school-based data collection and how this relates to the selection of appropriate assessment. The teacher leader also shares this knowledge with colleagues and works collaboratively to design, implement, and score assessments to best use student data and interpret it to improve educational practices and student learning” (Gruner, 2023). In this reflection, I am going to focus mostly on my grade level PLCs, since they are where my colleagues and I can effectively collaborate to choose appropriate assessments to monitor student growth and improve discussion.

Functions

The teacher leader:

a) Increases the capacity of colleagues to identify and use multiple assessment tools aligned to state and local standards;

Example 1: When cultivating a culture of learning, it is essential for educational leaders to provide sustained opportunities for teachers to build their capacity. Michael Fullan, in his book, *Leading in a Culture of Change*, describes capacity building as the ability and readiness to undertake the tensions that will always accompany change (2020). One of the four areas of capacity building is assessment which focuses on expanding skills in identifying evidence, monitoring progress, and measuring impact (Fullan, 2020). Sharing research on different types of assessment tools that align with state standards gives all students an opportunity for growth and an opportunity for the teachers to see that growth from different angles.

b) Collaborates with colleagues in the design, implementation, scoring, and interpretation of student data to improve educational practice and student learning;

Example 1: In the beginning of every school year, my grade-level colleagues and I dedicate a PLC to our student growth objectives (SGO). This past year, we decided to use our SGO to focus on student achievement in mathematics. After spending time collectively researching the most essential piece of mathematics for our specific grade level, we came across an article titled *Math Fluency* in which the authors state, “Educators and cognitive scientists agree that the ability to recall basic math facts fluently is necessary for students to attain higher-order math skills. Grover Whitehurst, the Director of the Institute for Educational Sciences (IES), noted this research during the launch of the federal Math Summit in 2003: —Cognitive psychologists have

discovered that humans have fixed limits on the attention and memory that can be used to solve problems. One way around these limits is to have certain components of a task become so routine and over-learned that they become automatic”. We also based our research around the NJ mathematical standard, 2.OA.B.2.

After deciding on the educational practice that needed the most work, we chose to use district fluency-based assessments during the first and third marking periods to assess what students know at the beginning of at the end of the school year. During the year, we used different strategies such as fluency practice, fluency sprints, and small group instruction to help students meet the benchmark. In the end, 80% of my students achieved the expected (20) correct on the end of year Fluency Benchmark.

c) Creates a climate of trust and critical reflection in order to engage colleagues in challenging conversations about student learning data that lead to solutions to identified issues; and

Example 1: During the course, METL 50511 - Teacher Leadership and Learning Communities, my project group and I worked together to see what was needed to create and maintain a productive professional learning community. From completing the rubric, we found that plans should be in place to establish rules, procedures, goals, expectations, roles, etc., for a PLC to run smoothly and efficiently. These include, focus for creating an effective group culture (getting acquainted, trust building, fostering appreciation of multiple abilities), plans for identifying goals, expectations, norms, roles, rules for identification of facilitator, recorder timer, and plans for assessing learner achievement and setting goals. (Gruner et al, 2023). In the beginning of the year, my grade-level colleagues and I established and adopted district norms for our PLC. On top

of being on time and prepared by 8:15, other meeting norms include developing an ethic of sharing, allowing group members to ask questions, to invite other teachers into our classroom, and not to say “I already do that” as a first response. Initially understanding these norms and expectations creates a climate of trust that allows for essential, yet challenging, conversations.

d) Works with colleagues to use assessment and data findings to promote changes in instructional practices or organizational structures to improve student learning.

Example 1: During my final assignment, *Sharing Results From Classroom Inquiry* for METL 50514 - Agency in Teacher Leadership, I found that non enough collaboration with colleagues was one of my biggest weaknesses when it came to my inquiry project. Even though I was able to work through my inquiry question of how to effectively differentiate a whole-group scripted curriculum through different research methods, I should have spent more time talking to different colleagues such as the district math coach, my grade level colleagues, and other stakeholders to make the most out of my research. If I was to continue my research, I would develop critical friend’s groups to evaluate the data collected and accept different approaches to finding the best way to answer my inquiry questions and promote change.

Closing Remarks/ Summary

Even though I like to think of myself as someone who is dedicated to their leadership skills, it seems to actually be one of my biggest weaknesses. Completing this reflection, and most specifically my reflection to function (d), I realized that with effective communication and collaboration with my colleagues, I could really make an impact on student learning.

Collaboration based on assessment data is something I do every day in my PLCs with my grade-

level colleagues. I understand the importance of establishing norms and expectations, and how to monitor student data. Now, this reflection has made me want to use this skill to enhance student learning through research and further inquiry.

Portfolio Assignment 6 - Domain VI

METL50550 - Self-Study in Teacher Leadership

Domain VI: *Improving Outreach and Collaboration with Families and Community*

The teacher leader understands that families, cultures, and communities have a significant impact on educational processes and student learning. The teacher leader works with colleagues to promote ongoing systematic collaboration with families, community members, business and community leaders, and other stakeholders to improve the educational system and expand opportunities for student learning.

As I reflected on this domain during Assignment 2 of METL 50513, “Within this domain, the teacher leader has a great understanding of the diverse educational needs of families and the community and therefore models and teaches effective communication and collaboration with families and other members of the community focusing on attaining equitable achievement for students of all backgrounds and circumstances. The teacher leader facilitates colleagues' self-examination of culture and diversity and works collaboratively to develop culturally responsive strategies within their own teaching practices” (Gruner, 2023). In this reflection, I am going to reference my position as the co-chair of the building and district-wide Cultural Proficiency/Character Education/Equity (CP/CE/E) Committee. My district’s mission statement has a great emphasis on Cultural Proficiency and the inclusion of culturally responsive teaching.

Functions

The teacher leader:

a) Uses knowledge and understanding of the different backgrounds, ethnicities, cultures, and languages in the school community to promote effective interactions among colleagues, families, and the larger community;

Example 1: During a PLC, my co-chair and I shared our knowledge of culturally responsive teaching and how to use it in the classroom. After thorough research, we found that the website understood.org had the best explanation of what culturally responsive teaching is and why it is so important in our line of work. This article titled, *How to use Culturally Responsive Teaching in the Classroom*, discusses current best practices and how to create a supportive classroom environment by identifying student's assets and by using a diversified curriculum. During this PLC, we shared a Google Slide Deck showing our findings, but also encouraged other teachers and staff members to share their knowledge and experience regarding creating an inclusive environment based on effective relationships and accepting different backgrounds and cultures.

b) Models and teaches effective communication and collaboration skills with families and other stakeholders focused on attaining equitable achievement for students of all backgrounds and circumstances;

Example 1: During one of our last PLC presentations of the year, my colleagues and I shared our knowledge of the Courageous Conversation. Like I talked about in my reflection on Domain I, this was, in my opinion, one of the most important modules that I taught the staff this year. The Courageous Conversation comes from the book, *Courageous Conversations about Race* by Glenn E. Singleton and Curtis Linton. "I taught my colleagues that in order to have a courageous

conversation, they must first understand where they are entering the conversation and where they are throughout the conversation. People can come into the conversation morally, emotionally, intellectually, or reactional. But it is important to not only think about where you are coming from, but also to understand the perspectives of where others are coming from as they enter the conversation as well. Participating in conversations following this idea helped my colleagues and I understand the importance of understanding different perspectives based on experiences and knowledge, and therefore promoted effective communication and interactions among colleagues this past year” (Gruner, 2023). Our hope was that our colleagues would take this information and use it in their conversations with other colleagues, families, administrators, students, and maybe even in their own personal lives.

c) Facilitates colleagues’ self-examination of their own understandings of community culture and diversity and how they can develop culturally responsive strategies to enrich the educational experiences of students and achieve high levels of learning for all students;

Example 1: Another presentation that my committee and I presented to our colleagues this year was based on understanding our own values and how these values influence their own behavior and expectations of others at work. During this activity, we had the teachers and staff think about the lessons they have learned in their family of origin and what were the values on which those lessons were based. The idea was that they would identify three values that they learned at home and that they subconsciously bring to the workplace. After identifying the values, we took the time to reflect on them by sharing them as a group. Doing this allowed us to build morale in the building through understanding each other, but also to think about their own understanding of culture and how they can use this information to contribute to a culturally responsive classroom.

d) Develops a shared understanding among colleagues of the diverse educational needs of families and the community; and

Example 1: In my classroom, I have a large class of students with very diverse needs. Working in an inclusive setting, I can have up to eight students with disabilities. It is very important to me that all students get a fair and equitable education. Therefore, in the beginning of each year I make it a point to go over each student's IEP with my co-teacher, understanding their strengths, challenges, accommodations, and modifications. I also discuss any questions with the Case Manager as well as the Speech Therapist, Occupational Therapist, and Behavioral Consultant. Collaboration between colleagues, in my experience, is the best way to provide an equitable education to all students.

e) Collaborates with families, communities, and colleagues to develop comprehensive strategies to address the diverse educational needs of families and the community

Example 1: One of the most important parts of teaching, in my opinion, is to really get to know every one of my students and to understand their backgrounds. In the beginning of each year, I send home an information sheet where I ask questions about the child and get to know a little about where they come from. On this sheet, among general information, I ask about the best methods of communication, any concerns, and if they would like to share which holidays they celebrate. This way, I can meet the needs of families and give every student an equitable learning opportunity.

Closing Remarks/ Summary

All in all, Domain VI describes a leader who not only can provide an equitable, culturally responsive education, but one that can share their knowledge and experience to help their colleagues provide a progressive education as well. Participating in the CP/CE/E committee has helped me grow into a teacher who is proud of my ability to provide an equitable education to all students while understanding the diverse needs of all learners. Our PLCs are not always perfect. There have been many times where our colleagues have expressed that they have more important things to do than to sit there and listen to us talk about Cultural Proficiency. But it is important that I remember my moral purpose and continue to share my knowledge as a teacher leader in a diverse world.

Portfolio Assignment 7 - Domain VII

METL50550 - Self-Study in Teacher Leadership

Domain VII: *Advocating for Student Learning and the Profession*

The teacher leader understands how educational policy is made at the local, state, and national level as well as the roles of school leaders, boards of education, legislators, and other stakeholders in formulating those policies. The teacher leader uses this knowledge to advocate for student needs and for practices that support effective teaching and increase student learning and serves as an individual of influence and respect within the school, community, and profession.

As I stated in Assignment 2 during METL 50513, “The final domain focuses on educational policy and understanding the roles of all the stakeholders involved in the education system. The teacher leader uses this knowledge to advocate for student needs and practices that support improving educational outcomes. This role includes working with colleagues to identify and use research to advocate for teaching and learning improvements. Taking on this role also involves selecting appropriate opportunities to advocate for students and communicating effectively with targeted audiences” (Gruner, 2023). In this reflection, I will reference my membership of the Social Studies Curriculum Committee quite often, since it has been one of my most recent roles that has allowed me to collaborate with colleagues and advocate for teaching and learning improvements. This, along with my presentation at the NAPDS conference are two examples of using my knowledge of teaching and learning to help advocate for the profession.

Functions**The teacher leader:**

a) Shares information with colleagues within and/or beyond the district regarding how local, state, and national trends and policies can impact classroom practices and expectations for student learning;

Example 1: As a part of the Social Studies Curriculum Committee in my district, I spent a lot of time reviewing the new K-6 New Jersey Standards for Social Studies. As a team, we worked to evaluate all the standards to pinpoint the changes and how we would need to integrate them into daily instruction. We also analyzed the new financial literacy standards that also needed to be addressed during the social studies block in the K-6 standards. As a part of the committee, I had to communicate my findings with my colleagues as the “why” to implementing a program change in the district. The new standards meant new expectations for student learning and achievement.

b) Works with colleagues to identify and use research to advocate for teaching and learning processes that meet the needs of all students;

Example 1: As part of the Social Studies Curriculum Committee, I was able to work with colleagues from different schools to identify and use research to help develop a new curricular resource for K-5 teachers to use during Social Studies instruction. Using our knowledge of current best practices, we chose the best program that would meet the needs of all students.

c) Collaborates with colleagues to select appropriate opportunities to advocate for the rights and/or needs of students, to secure additional resources within the building or district that

support student learning, and to communicate effectively with targeted audiences such as parents and community members;

Example 1: To meet the needs of all students in our class, my co-teacher and I spend a lot of time collaborating to ensure our lessons are equitable. While planning a lesson, we take time to look at all of our students' IEPs and how to modify the lesson so that all students reach a desired goal. Doing this takes a lot of research and a great understanding of the grade-level standards. For example, last year our students had to write a “how-to” as per district requirements. Since one of our students was still working on identifying letters and sounds, we had to accommodate her to meet the standard in a way that she could achieve it. After collaboration with her case manager, we determined that assistive technology would best fit her needs.

d) Advocates for access to professional resources, including financial support and human and other material resources, that allow colleagues to spend significant time learning about effective practices and developing a professional learning community focused on school improvement goals; and

Example 1: As a member of the Social Studies Curriculum Committee, I had a big part in interviewing different curriculum companies, and making a determination on which program we were going to go with for all K-5 classrooms. This experience allowed me to voice my concerns regarding the access the teachers would have to curricular resources considering that some programs didn't supply all resources and would have to be supplemented with teacher made resources. These decisions were all focused on school improvement goals and to encourage professional learning.

e) Represents and advocates for the profession in contexts outside of the classroom.

Example 1: In 2020 I had the opportunity to present at the National Association of Professional Development Schools Conference in Atlantic City alongside my supervisor and another one of my colleagues. (Cormier, K., D’Amico, M., & Gruner, J., February 2020) The presentation was on using Professional Development Schools to develop teacher candidates as social justice advocates. This was a very important opportunity for me to be able to begin my work as a teacher leader and advocate for the profession in contexts outside of the classroom.

Closing Remarks/ Summary

All in all, Domain VII focuses on the teacher leader understanding the profession to a higher level and using that knowledge to advocate for teaching and learning. While writing my reflections on the functions of the domain, I thought about how difficult writing this would be if I hadn’t had the opportunities of being a part of district committees, presenting at the national level, and most importantly, having good relationships with different stakeholders. It is so important to put yourself out there as a teacher leader and become a part of the positive change you wish to see.

Portfolio Assignment 8 - Reflection on Inquiry Project

METL50550 - Self-Study in Teacher Leadership

Title of Inquiry Project: Flexible Grouping as a Tool for Differentiation During Mathematics Instruction in a First Grade Classroom

Rationale: This past year, in my first-grade inclusion class of 17 students, I had three students with IEPs for specific learning disabilities, five students on intervention and referral services, five students with speech IEPs, and two students with OT concerns. During my mathematics block, I had a student who was still working with 1:1 correspondence and other various Pre-K to Kindergarten standards, as well as students who were high enough where second grade content sometimes wasn't even challenging enough. Even though we had an obvious need of high levels of differentiation in our class, the district made it a priority to teach the math curriculum with fidelity, and even more of an emphasis on following the exact script of the Eureka Math curriculum, straight from the teacher's manual.

This newly adopted curriculum is broken into very specific learning segments with tight time blocks for each segment of instruction. On top of being instructed not to divert from the script with specific language as to what teachers can say and how students respond, we also could not choose to use other resources that aren't specifically designed and correspond directly with Eureka Math. This is where my passion came in to improve the mathematics curriculum in my district, and how to make it more accessible to differentiate teaching strategies to meet the needs of all learners in my classroom.

With the desire to improve the curriculum, comes the question of accessibility. Having such a diverse range of learners in my classroom led me to question the true effectiveness of whole-group instruction. With a co-teacher, I fortunately had the ability to use co-teaching models such as parallel teaching, one teach, one assist, station teaching, and team teaching. However, it has been a struggle to find the time to really test these strategies and use inquiry to find which model would work best for our students and the goal of student improvement. Before this inquiry project, we had been using the one teach, one assist model, since our curriculum calls for a whole-group math lessons with fidelity. However, a lot of our high students were bored and therefore presented behaviors, and our students who needed more assistance were falling further behind. Therefore, the inquiry question I began to explore is, "How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?"

Results: The pre-module assessment showed 12% of students were below level, 35% of students were approaching proficiency, and 53% of students were above level. There were no students who used a tape-diagram to find their answer. The post-module assessment showed a significant increase in the number of students who completed the problem using a tape diagram - 100%. Out of the students who completed the post-assessment, 86% of students completed the work with no errors, and 14% of students showed that they understood the standard but needed further intervention. During the intervention, exit tickets showed an increase in proficiency as the lessons built upon one another. The lesson 19 exit ticket showed 93% proficiency and 7% approaching proficiency. The lesson 20 exit ticket showed 84% at proficiency, 7% showed to be approaching proficiency and 7% showed very limited understanding. The lesson 21 exit ticket

showed that 73% of students were proficient, 27% of students were approaching proficiency, and 0% of students had limited understanding. The lesson 22 exit ticket is still being completed due to loss of time. Lesson 23 was omitted at the last minute after grade-level discussion on pacing and necessary information needed for the End of Module Assessment.

During the intervention, informal assessment and informal observation showed a need for two students to move from the on-level to the below-level group. After switching their group, they were able to show proficiency. Informal observation and feedback from my co-teacher also showed that the strict timelines did not suit every student. Therefore, the below-level group was instead split into two groups of three, in which two students would work with the Special Education Teacher on all components of the lesson, while the other students would work on cooperative work using technology-based programs. Halfway through the block, the two groups would switch. I also noticed a need to stop using timers to guide instruction since my on-level students seemed to need more help than expected, and my high-level group needed next to no assistance after a few minute lesson.

The data from the pre-module assessment to the post-module assessment shows 33% growth in student achievement. 100% of students solved the problem using a tape diagram, which showed understanding of the learning goal, “Use tape diagrams as representations to solve put together/take apart with total unknown and add to with result unknown word problems”. The flexible grouping allowed for the below level students to work in small groups with the Special Education teacher to use manipulatives and utilize the teacher to get their questions answered during instruction. The above-level group was consistent in their scores and were able to use

extra time to practice higher-level concepts in relation to the standard. The on-level students showed consistent data from previous lessons before flexible grouping was used. All in all, it was found that Flexible Grouping benefits the lower-level students the most and allows for enrichment for on-level students.

The continuation of inquiry is deemed to be necessary after this process. Using the information from the results, I have found that there is a need for small group instruction in the class, but the matter in which it is done needs to be changed. I intend to look through further research on flexible grouping and how it is used in other classrooms. In our last PD though, I was thrown a curveball, which happens quite often in education. In our classroom, we are switching from Eureka Math to Eureka Math Squared, which looks to have more opportunities for providing students with accessibility and seems to be more engaging. It also offers differentiation support and is not based on a script. I plan to spend a lot of time looking through this program and finding out how I can use flexible grouping to help students using Eureka Math Squared. Since it is a new curriculum, I would also like to create a critical friend's group with other classrooms that are also piloting this program. From there, I will keep data and notes on what is working and what is not. Even though my results seemed to show an improvement in student success, I am still not convinced that flexible grouping is the most effective way to make the Eureka Math curriculum more accessible for the diverse learners in my classroom so I will have to go back to developing a new inquiry plan for future intervention and inquiry.

Application: As stated above, I plan on creating a collaborative learning environment with my grade-level colleagues as we roll out Eureka Math Squared this upcoming school year. This

inquiry project has shown me that even though a best practice might look like the best option on paper, it may not be the best option for a specific group of students, or in any specific context. During *Agency in Teacher Leadership*, I wrote a journal article which I plan to not only share with my colleagues but hope to publish for other teachers to see as well. I also plan on sharing my results with my grade-level colleagues as we plan to use Eureka Math Squared next year.

Commentary: Following my inquiry project, I am still looking to find the best practice to teach the Eureka Math curriculum to my first-grade students. As a teacher in an inclusion classroom, each year I have to take the time to learn about each and every student in my class and their individual strengths and weaknesses. I intend on conducting another literature review that will guide me to finding recent best practices and instructional methods and spend more time applying them to see what works best for my students. I also intend on spending more time collaborating with the administrators, grade-level colleagues, the district math coaches, and child study team members to analyze collected data from my inquiry.

This inquiry project mostly taught me the importance of inquiry. I learned that it is important to understand that there will always be necessary change in the classroom that can be achieved by a teacher leader. If I were to simply accept the district requirements of whole-group instruction, I would continue to see growing behaviors in my classroom as well as students who would continue to fall further behind. Even though I did not see too much success with flexible grouping particularly, I did see that small group instruction greatly benefits my students. Hopefully sharing that data with my colleagues would help them stray from more traditional

models of teaching and begin to advocate what is best for their students. I intend on continuing to practice inquiry and to always advocate for teaching, learning, and the profession.

**Portfolio Assignment 9 - Reflection from Educational Technology Certificate of Graduate
Study**

METL50550 - Self-Study in Teacher Leadership

COGS Courses to be Summarized

1. Course: *Introduction to Educational Technology*
 - Artifact: *Collaborative Technology Project*

2. Course: *Internet in the Classroom*
 - Artifact: *Peer Group Assignment - Best Practices for Evaluating Online Resources*

3. Course: *Technology for Students with Disabilities*
 - Artifact: *IEP Review Form*

4. Course: *Digital Citizenship in 21st Century Schools*
 - Artifact: *Redesign an upcoming unit to incorporate Digital Citizenship*

5. Course: *Emerging Technology Tools and the Curriculum*
 - Artifact: *Emerging Technology and Curriculum Online Portfolio*

Artifact Alignment Summaries

Artifact 1: This artifact had our group work collaboratively to create a Google Site, describing the process of making beer. To plan this project, we met and talked about what each of our

strengths were in relation to what the project entailed. For my part of the project, I created the Google Site since I had previously had the experience making one for my fifth-grade class.

While working on this project, we planned collaborative sessions where we would answer each other's questions and make sure we were all on track.

Considering this artifact was all about collaboration, I would connect this artifact mostly to Domain 1 of the Teacher Leader Model Standards, *Fostering a Collaborative Culture to Support Educator Development and Student Learning*. Following this domain, the teacher leader understands the importance of collaboration and collective responsibility when solving problems, making decisions, managing conflict, and promoting meaningful change. This project had us working collaboratively to create a project that would support our student's learning, much like the domain describes.

Artifact 2: In this artifact, my group members and I were tasked with creating a new tool to evaluate online resources based on critical thinking skills and best practices. To complete this task, my group and I worked collaboratively to research best practices to evaluate online resources from peer reviewed articles. Based on our own best qualities, we divided the project into three tasks: researching existing rubrics, identifying best practices, and finding existing research on evaluating online resources. After our initial research individually, we then shared our findings while discussing commonalities and outliers we wanted to explore further. Finally, using our research we created an online tool using the graphic-design program, Canva, that made it easy for students to use while choosing appropriate websites when conducting their own research.

This project was also a product based on collaborative efforts, as described in Domain I of the Teacher Leader Model Standards, *Fostering a Collaborative Culture to Support Educator Development and Student Learning*. This artifact had my peers and I working collaboratively to research best practices to promote meaningful change that would improve student learning.

This artifact also showed examples of Domain II, *Accessing and Using Research to Improve Practice and Student Learning* through the understanding that research creates new knowledge and improves teaching and learning. By selecting appropriate strategies based on research of best practices, we were able to create an infographic that would help students improve their own individual learning practices.

Artifact 3: During this assignment, I reviewed two IEPs from my current class and determined which students would benefit from assistive technology intervention. This assignment had me use prior research to inform my choices to benefit my students and their specific needs. This type of reflective practice are functions of the Teacher Leader Model Standards, Domain IV: *Facilitating Improvements in Instruction and Student Learning*. Functions of this Domain include facilitating the collection, analysis and use of classroom-based data to identify opportunities to improve instruction. By analyzing the student's IEP, I was able to determine that I had a student that would benefit from the use of assistive technologies such as portable word processors with visual supports to improve their learning.

Artifact 4: In this artifact, I was tasked to choose a unit that I would be teaching in the near future that didn't include any instruction on digital citizenship and modify them to incorporate

Digital Citizenship lessons and activities for students. By incorporating best practices for infusing technology into the curriculum, I was able to incorporate Digital Citizenship into a 5th grade Amistad Critical Literacy Lesson.

Following Domain II: *Accessing and Using Research to Improve Best Practice and Student Learning*, I used systemic inquiry to learn how to incorporate aspects of Digital Literacy into an already-developed literacy curriculum. By selecting appropriate strategies and applying my findings, I was able to improve the curriculum and therefore improve teaching and learning.

Artifact 5: This artifact, my Classroom Emerging Technology and Curriculum Portfolio, demonstrated my use of accessing and using research as well as assisting colleagues in selecting appropriate strategies to improve student learning, much as described in Domain II of the Teacher Leader Model Learning Standards, *Accessing and Using Research to Improve Practice and Student Learning*. To complete this assignment, I used systemic inquiry to develop a Problem-Based Project following fifth grade mathematics, literacy, and science standards. Using a Google Site, I developed a portfolio that both students and teachers have access to. The portfolio includes a research-based project, along with critical thinking and creativity-based options for assessments all based on research from best practices in current education.

Graphic Organizer

METL50550 - Self-Study in Teacher Leadership

Chapters in Teacher Leadership
How to be a Successful Teacher Leader in an everchanging world

Chapter I: Fostering a Collaborative Culture

- FOCUS ON COLLABORATION
- PROMOTE POSITIVE CHANGE
- FACILITATE MUTUAL TRUST & RESPECT

Chapter II: Accessing and Using Research

- KEEP UP WITH CURRENT BEST PRACTICES
- USE RESEARCH TO IMPROVE TEACHING & LEARNING
- ASSIST COLLEAGUES IN ACCESSING AND USING RESEARCH
- FOSTER COLLABORATIVE RELATIONSHPS

Chapter III: Promoting Professional Learning

- TEACHING AND LEARNING ARE EVOLVING
- PLAN PURPOSEFUL PROFESSIONAL DEVELOPMENTS
- ADVOCATE FOR PREPERATION AND TIME

Chapter IV: Facilitating Improvements

- CONSTANTLY REFLECT ON OWN TEACHING PRACTICES
- ASSIST COLLEAGUES IN THEIR REFLECTION PRACTICES
- FACILITATE COLLECTION AND ANALYSIS OF DATA

Chapter V: Promoting the Use of Assessments and Data

- USE DATA COLLECTION AND ANALYSIS TO DESIGN AND SELECT ASSESSMENTS
- KEEP UP TO DATE WITH CURRENT RESEARCH
- USE SCHOOL AND CLASSROOM BASED DATA COLLECTION TO MAKE DECISIONS REGARDING ASSESSMENTS

Chapter VI: Improving Outreach and Collaboration

- EFFECTIVELY COMMUNICATE AND COLLABORATE WITH FAMILIES
- FOCUS ON ATTAINING EQUITABLE ACHIEVEMENTS FOR STUDENTS OF ALL BACKGROUNDS

Chapter VII: Advocating for Student Learning and the Profession

- GET TO KNOW THE STAKEHOLDERS IN THE EDUCATION SYSTEM
- SELECT APPROPRIATE OPPORTUNITIES TO ADVOCATE FOR STUDENTS

Inquiry Project

METL 50514 - Agency in Teacher Leadership

**Flexible Grouping as a Tool for Differentiation During Mathematics Instruction in a First
Grade Classroom**

Jessica Gruner

May 1, 2023

Journal Article

Abstract

The purpose of this study was to investigate the effectiveness of flexible grouping during mathematics instruction to a diverse group of learners in a first-grade classroom. The study sought to answer the question, "How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?", after below level students were showing little progression and above level students were beginning to show behaviors during the whole-group instructional model. After a literature review used to find the best-practice that would most benefit my students, the quantitative study began with a two-question pre-module assessment to group students during the duration of one topic in the Eureka Math curriculum by below-level, on-level, and above-level. During the study students completed exit tickets to monitor progress during the study and then completed a post-assessment with similar questions to the pre-module assessment following the study. Informal observations and interviews with the other teacher involved are also included in this study. The study showed that flexible grouping is a best practice to help meet the needs of below-level students, and gives the opportunity to challenge above-level students without using any extra class-time.

Identifying a Problem of Practice

In my first-grade inclusion class of 17 students, I have three students with IEPs for specific learning disabilities, currently five students on intervention and referral services, five students with speech IEPs who get pulled twice a week, and two students with OT concerns who

attend their OT sessions twice a week. Within my classroom, I have a student who is still working with 1:1 correspondence and other various Pre-K to Kindergarten standards in mathematics as well as students who are high enough where in which second grade content sometimes isn't even challenging enough. Even though we have an obvious need of high levels of differentiation in our class, the district has made it a priority this year to teach the math curriculum with fidelity, and even more of an emphasis on following the exact script of the Eureka Math curriculum, straight from the teacher's manual.

This newly adopted curriculum is broken into very specific learning segments with tight time blocks for each segment of instruction. On top of being instructed not to divert from the script with specific language as to what teachers can say and how students respond, we also cannot choose to use other resources that aren't specifically designed and correspond directly with Eureka Math. This is where my passion comes in to improve the mathematics curriculum in my district, and how to make it more accessible to differentiation teaching strategies to meet the needs of all learners in my classroom, much as described as the second passion of Dana and Yendol-Hoppey's eight passions in chapter two of *The Reflective Guide to Teacher's Research*.

Creating an Inquiry Question

With the desire to improve the curriculum, comes the question of accessibility. Having such a diverse range of learners in my classroom led me to question the true effectiveness of whole-group instruction. With a co-teacher, I fortunately have the ability to use co-teaching models such as parallel teaching, one teach, one assist, station teaching, and team teaching. However, it has been a struggle to find the time to really test these strategies and use inquiry to

find which model would work best for our students and the goal of student improvement. So far, we have been using the one teach, one assist model, since our curriculum calls for a whole group math lesson with fidelity. However, a lot of our high students are bored and therefore presenting behaviors, and our students who need more assistance are falling further behind. Therefore, the inquiry question I began to explore is, "How can I make the Eureka Math curriculum more accessible for the diverse learners in my classroom?"

Literature Review

The Engage NY Eureka Math Curriculum was recently adopted by the Cherry Hill School District as the primary curriculum for Mathematics instruction at the Elementary level. Engage NY was originally created by and is currently maintained by the New York State of Education Department. It was New York's first effort to create standards aligned OER curriculum materials (Kaufman, et al, 2017). Educators in the district are required to follow the curriculum's highly specific distribution of instructional minutes within each lesson that is on a very specific scope and sequence. Within 60 minutes of mathematics instruction a day, students are to spend 14-16 minutes completing fluency practice activities, followed by a 5–10-minute application problem, then expected to follow a scripted whole-group concept development for 25-37 minutes with fidelity, followed by students to working independently on their problem set for approximately 10 minutes, and concluding with a 5 minute debrief and exit ticket. As the curriculum does provide students with opportunities to explain and justify their work as well as address instructional goals such as conceptual understanding, procedural skills, and application real life contexts with equal time and complexity (Kaufman, et al, 2017), it does not, however, offer time for differentiated instruction to meet the individual needs of all students.

Differentiation

Current educational trends reflect significant changes in the student population. This includes the inclusion of students with English as their second language, students with disabilities, students on accelerated learning plans, and students from diverse cultural backgrounds (Subban, 2006). Differentiation allows educators to meet the needs of all students through various use of instructional strategies while keeping in mind the importance of accommodating students with special needs and challenging those years ahead of expectation. The authors from RAND Education discuss how 24% of educators interviewed for their study suggest that Eureka Math lacks differentiated resources for achieving students and English Language Learners (Kaufman, et al, 2017).

English Language Learners. Teachers spend a lot of time planning and scaffolding because Engage NY does not provide an easy entry point for students. Teachers have to pull words apart to make sense of what is being asked of them. The lack of differentiation for ELLs are especially due to the high rigor of reading and comprehension skills (Kaufman, et al, 2017). Even though daily implementation of math word problems in the classroom greatly increases the use of understanding and vocabulary with English Language Learners, it is the math vocabulary that impacts word problem completion (Valley, 2019). With no time to differentiate these problems within a lesson, the students are being held to an expectation where they would have to understand math vocabulary without time for review or an opportunity to break down what is being asked. This goes for students who are either struggling with reading comprehension or not

reading at all, especially in a primary level classroom. The rigor and complexity may provide opportunities for achieving instructional gains for some students, but it is not appropriate for all.

Students with Disabilities. The absence of intensive instruction and intervention with students with disabilities in mathematics causes these students to lag significantly behind their peers (Jitendra, et al 2013). Teachers are expected to have strategies to help students who struggle with mathematics to gain access to the general education curriculum (Hott, et al, 2014). The authors elaborate on these strategies further by suggesting such interventions that teach problem solving skills, such as RIDE, FAST DRAW, and the TINS Strategy. They also discuss researched strategies to support vocabulary development such as to pre-teach vocabulary, the use of mnemonic devices, and the Key-Word Approach (Hott, et al, 2014).

Gifted Students. Differentiated instruction is necessary for effective instructional practice when working to meet the needs of diverse learners, especially for gifted students who are often overlooked (Livers, et al). Data collection is fundamental when looking at different types of differentiation. For example, the authors discuss the positive impact of Curriculum Compacting with gifted students. Curriculum Compacting works as an accelerated practice that bypasses content the students have already mastered and provides them with opportunities to work with more complex standards that works the students beyond their grade level expectations (Livers, et al). This aligns more directly with the National Council of Teachers of Mathematics Vision Statement which includes the need to provide enrichment programs or additional resources to help keep students challenged and engaged (NCTM, 2000). The current traditional model of whole class instruction is not giving gifted students the opportunity to live beyond their current expectations or allowing teachers time to help students with disabilities. Therefore, the

use of differentiated instructional strategies should be used in place of traditional methods of teaching to keep up with current trends and diverse populations in education.

Instructional Methods

In order for these strategies to be effective, teachers must organize their time effectively to meet the needs of all students. Therefore, teachers should consider reconstructing the traditional classroom to include students of diverse abilities, interests, and learning profiles (Subban, 2006).

Flexible Grouping. The goal of flexible grouping is to divide students into groups according to their specific strengths and abilities. This allows teachers to scaffold lessons and instruction to meet the individual needs of students and to strive within their current environment (McKeen, 2019). The author emphasizes that with flexible grouping, students can learn through interactions with peers and guidance from their teachers. Their studies show that it does not only provide flexibility to meet the individual needs of students, but also helps students who come to school lacking motivation or interest. Within this model, teachers can easily monitor behaviors and redirection strategies, develop unique relationships with students, and continually assess student performance (McKeen, 2019).

Benders, Daft, and Tracey (2016) provide research that proves how flexible grouping (The Guided Math Approach), improves math scores for first grade students. In their study, all students received a flexible grouping rotation of one hour and fifteen-minute blocks. In these groups, below level students were extracted during instructional time and grouped to provide

small group instruction with collaboration time and individual work. On level students had cooperative learning time, time to meet with the teacher to review past skills and fluency, as well as individual time to discuss misconceptions. Above level students were able to apply skills independently, work collaboratively with other students, and meet with the teacher to practice second grade CCSS enrichment skills. Their studies showed 100% proficiency with this instructional strategy by providing an opportunity to effectively manage instructional time and focus on smaller group needs (Benders, et al, 2016).

Inclusion

Flexible grouping proves the ability to provide access for all students with different types of differentiated learning strategies. Inclusion classrooms provide for even greater opportunities for differentiation with the use of co-teaching. The authors explain that in order for inclusion to be effective within the school and classroom, teachers and service providers must be willing to provide differentiated instruction and have the wherewithal to implement it within their classrooms (Obiakor, et al, 2012). Special Education and General Education teachers can work together to provide differentiated instruction to students and adhere to their individual needs. Co-teachers can use evidence-based models such as one teach, one assist, station teaching, parallel teaching, alternative teaching, and team teaching depending on the specific instructional needs of the students in the classroom. Teachers have to be flexible in teaching approaches and in adjusting the curriculum (Obiakor, et al, 2012). As for math instruction, co-teachers can utilize instructional strategies such as flexible grouping even more effectively with the parallel or station teaching models.

Conclusion of the Literature Review

As student populations are showing significant changes, current educational trends should reflect the diversity of those students' needs. Traditional methods of teaching Eureka Math should be replaced by differentiated instruction, especially within an inclusion classroom. Flexible grouping, curriculum compacting, and the flipped classroom are instructional strategies that the district should be allowing teachers to try based on the diverse needs of the learners in their classroom. As Eureka Math has a lot of great qualities such as high levels of rigor and emphasis on instructional goals including conceptual understanding, procedural skills, and application to real life concepts, differentiation strategies should be implemented to maximize the effectiveness of the curriculum and to provide better support for students with diverse needs.

Developing an Inquiry Plan

After my literature review, I found flexible grouping to be a best practice that fits the mold of exploration I was looking for. After looking through my students' pre-module assessments, I saw that a lot of students needed support with Module 4 Topic E - Varied Problem Types Within 20 of the Eureka Math curricula. This topic consists of four lessons, which was projected to take four days.

I then used the pre-module assessment data to split my class into three groups; below level, on level, and above level much like Benders and Craft did in their research on *The Effects*

of *Flexible Small Groups on Math Achievement in First Grade*. Then, I created a sample daily rotation schedule that I shared with my co-teacher during a PLC.

Sample Daily Rotation Schedule

	Below Level	On Level	Above Level
5 minutes <i>Fluency</i>	Whole Group		
15 minutes	Application Problem/Review (<i>Spec.Ed. Teacher</i>)	Concept Development (<i>Gen. Ed. Teacher</i>)	Cooperative Work Using Technology Based Programs (<i>Independent</i>)
15 minutes	Concept Development (<i>Spec.Ed. Teacher</i>)	Problem Set (<i>Independent</i>)	Concept Development (<i>Gen. Ed. Teacher</i>)
10 minutes	Problem Set (<i>Spec. Ed. Teacher there to help w/misconceptions</i>)	Student Debrief of Concept Development (<i>Gen. Ed Teacher</i>)	Problem Set (<i>Independent</i>)
10 Minutes	Exit Ticket (<i>Spec. Ed. Teacher there to help w/misconceptions</i>)	Exit Ticket (<i>Independent</i>)	Review Problem Set, & Enrichment Activity Based on Second Grade Standards (<i>Gen. Ed. Teacher</i>)
10 Minutes	Cooperative Work Using Technology Based Programs (<i>Independent</i>) <i>*Spec. Ed Teacher will circulate to help with misconceptions</i>	Cooperative Work Using Technology Based Programs (<i>Independent</i>) <i>*Spec. Ed Teacher will circulate to help with misconceptions</i>	Exit Ticket (<i>Independent</i>)

I also decided that I would collect quantitative data such as exit tickets, and a post-assessment, and qualitative data such as informal observations during small groups and informal feedback from my co-teacher. These would also drive necessary changes to grouping.

Data Collection

Student Work Samples

During the Eureka Math Equip Pre-Module 4 Assessment, students were given two questions that would be addressed during Module 4 Topic E - Varied Problem Types Within 20. Both questions address NJSL Standard 1.OA.A.1: *Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem*, which is taught in a build-upon approach in Topic E. Students were expected to use any method to complete two word problems, the first adding two addends and the second has students finding the missing addend using subtraction from a total. During intervention, all students were given an exit ticket after each lesson which consisted of one word problem. Students were expected to complete these independently unless assistance was written in their IEP.

Informal Observations and Feedback

During lessons, I observed students' behaviors, response rates, and participation as a result of flexible grouping. I also kept into consideration the timing and attention of students. I also used informal observation to track student progress and move students to a different group

when found necessary. After each lesson, I also requested feedback from my co-teacher on student performance and accommodation needs.

Results

The pre-module assessment showed 12% of students were below level, 35% of students were approaching proficiency, and 53% of students were above level. There were no students who used a tape-diagram to find their answer. The post-module assessment showed a significant increase in the number of students who completed the problem using a tape diagram - 100%. Out of the students who completed the post-assessment, 86% of students completed the work with no errors, and 14% of students showed that they understood the standard, but needed further intervention. During the intervention, exit tickets showed an increase in proficiency as the lessons built upon one another. The lesson 19 exit ticket showed 93% proficiency and 7% approaching proficiency. The lesson 20 exit ticket showed 84% at proficiency, 7% showed to be approaching proficiency and 7% showed very limited understanding. Lesson 21 exit ticket showed that 73% of students were proficient, 27% of students were approaching proficiency, and 0% of students had limited understanding. Lesson 22 exit ticket is still being completed due to loss of time. Lesson 23 was omitted last minute after grade-level discussion on pacing and necessary information needed for the End of Module Assessment.

During the intervention, informal assessment and informal observation showed a need for two students to move from the on-level to the below-level group. After switching their groups, they were able to show proficiency. Informal observation and feedback from my co-teacher also showed that the strict timelines did not suit every student. Therefore, the below-level group was

instead split into two groups of three, in which two students would work with the Special Education Teacher on all components of the lesson, while the other students would work on cooperative work using technology-based programs. Halfway through the block, the two groups would switch. I also noticed a need to stop using timers to guide instruction since my on-level students seemed to need more help than expected, and my high-level group needed next to no assistance after a few minute lesson.

Data Interpretation

The data from the pre-module assessment to the post-module assessment shows 33% growth in student achievement. 100% of students solved the problem using a tape diagram, which showed understanding of the learning goal, “Use tape diagrams as representations to solve put together/take apart with total unknown and add to with result unknown word problems”. The flexible grouping allowed for the below level students to work in small groups with the Special Education teacher to use manipulatives and utilize the teacher to get their questions answered during instruction. The above-level group was consistent in their scores and were able to use extra time to practice higher-level concepts in relation to the standard. The on-level students showed consistent data from previous lessons before flexible grouping was used. All in all, it was found that Flexible Grouping benefits the lower-level students the most and allows for enrichment for on-level students.

Next Steps

The continuation of inquiry is deemed to be necessary after this process. Using the information from the results, I have found that there is a need for small group instruction in the class, but the matter in which it is done needs to be changed. I intend to look through further research on flexible grouping and how it is used in other classrooms. In our last PD though, I was thrown a curveball, which happens quite often in education. In our classroom, we are switching from Eureka Math to Eureka Math Squared, which looks to have more opportunities for providing students with accessibility and seems to be more engaging. It also offers differentiation support and is not based on a script. I plan to spend a lot of time looking through this program and finding out how I can use flexible grouping to help students using Eureka Math Squared. Since it is a new curriculum, I would also like to create a critical friend's group with other classrooms that are also piloting this program. From there, I will keep data and notes on what is working and what is not. Even though my results seemed to show an improvement in student success, I am still not convinced that flexible grouping is the most effective way to make the Eureka Math curriculum more accessible for the diverse learners in my classroom so I will have to go back to developing a new inquiry plan for future intervention and inquiry.

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