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How Elementary Teachers Determine Meaningful Homework Assignments

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The Office of the Provost

Walden University
2019

Abstract

How Elementary Teachers Determine Meaningful Homework Assignments

by

Whitney Rae Bennett-Perro

MA, William Paterson University, 2000

BS, Slippery Rock University, 1986

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

May 2019

Abstract

A self-study at a local elementary school revealed that homework assignments appeared to be at lower levels of Bloom's taxonomy, and students were inadequately prepared for summative assessments that required the application and critical thinking levels of Bloom's taxonomy. Formative assessment data, ideally, drives teachers' instructional decisions in the classroom. The purpose of this qualitative case study was to better understand the formative assessment processes that drive instructional decision making. The conceptual framework by Chappuis and influenced by Black and Wiliam includes the strategic process for successful formative assessment teaching and learning. The research questions explored the use of homework as a formative assessment in classrooms. In this intrinsic case study, data collection included face to face interviews with 10 general education Grade 3-5 teachers in 2 different schools within the same, a 2-week document analysis of homework assigned in language arts and mathematics, and a focus group of participants. The data were analyzed with open coding followed by axial coding to determine themes. Member checking and triangulation were used to ensure validity and accuracy. The themes that emerged from the coded data identified ineffective teacher use of feedback, self-assessment, and learning targets—essential practices of the formative assessment process. Improving the formative assessment process for teaching and learning may encourage positive social change through promoting teacher self-efficacy and collaboration through a professional development paired with a professional learning community. This study may also lead teachers to change their formative assessment processes and provide guided instruction that enhances student learning outcomes.

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Dedication

This study is dedicated to my amazing son, Connor. He is my inspiration to keep trying and to never give up. This study is also dedicated to my mother who is not here to see the end of this journey. Finally, it is dedicated to "Sweetheart," who made me feel so special, and for whom I am profoundly grateful.

Acknowledgments

I would like to thank all the members of my dissertation committee for their support and assistance through this journey. I would like to thank my family and friends who have helped me reach this accomplishment. Thank you to Dr. Anissa Harris who kept picking me up when I was ready to walk away. Finally, I would like to thank my father and brother for believing in me.

Table of Contents

List of Tables

List of Figures

Section 1: The Problem

During the school year, teachers have opportunities to assess student learning and to use this evidence to adjust instruction. It is important to align the different assessments teachers use to guide instruction. Formative assessments provide feedback teachers and students use during the course of instruction (Hattie, Fisher, & Frey, 2016). This type of assessment differs from summative assessments that occur after an instructional unit and require a decision that learning occurred (Clark, 2012). The seminal work of Black and Wiliam (1998) broadly defined *assessment* to include all activities that gather diagnostic information to change teaching and learning. Modern researchers such as Adesope, Trevisan, and Sundararajan (2017) and Metcalfe (2017) still use the same definition. Under this definition, formative assessment includes many aspects of classroom activities. Some of the activities include observation, discussions, and analysis of homework and tests. Assessments are considered formative when the data collected is then used to adjust instruction and learning. These adjustments are intended to meet student needs more completely (Dixson & Worrell, 2016).

In this case study, I investigated the local problem: the possible misalignment of formative and summative assessments. In this section, I explain the conceptual framework along with homework practices as a formative assessment. I provide local evidence of the problem and document the constructs of the problem in the literature review. This section also includes a description of the significance and implications of this research along with the research questions developed from the literature.

The Local Problem

At the local school, the problem was that the process for developing homework to formatively assess student learning did not appropriately align with the student outcomes required by the higher-level summative assessments given in the classroom and on standardized tests. At the local setting, a school self-study revealed that homework assignments appeared to be at lower levels of Bloom's taxonomy and failed to adequately prepare students to perform at the application and critical thinking levels of Bloom's taxonomy (Bloom, 1956). Student homework required identification of terms, definitions, and content knowledge, but did not prepare students to perform the more complex critical thinking problem solving items on summative assessments. There was a gap in practice as to the expected student cognition to complete homework and perform proficiently on summative assessments. This study was an exploration of the misalignment between formative and summative assessment at the local school in an effort to align instruction, assessment, and student outcomes.

Students benefit from consistent teaching at higher levels over time (Gregory & Kaufeldt, 2015). When their thinking skills improve, their overall performance should improve (Mishra & Kotecha, 2016). This practice is critical in elementary classes to prepare the learners for the rigor of tests such as the Partnership for Assessment of Readiness for College and Careers (PARCC, 2017) one of two approved assessments for the Common Core State Standards (CCSS). Student scores on the PARCC did not reflect mastery of the subjects English language arts or mathematics. Additionally, local school data revealed that much elementary homework related to mathematics was mostly drill

and recall level. Exploring the discrepancy in formative and summative assessment may be of value to the students and stakeholders at this local venue.

<div align="center">**Rationale**</div>

Evidence of the Problem at the Local Level

During a self-study at the local school, teacher comments indicated that teachers felt properly prepared to implement program changes in the classroom and reinforce knowledge level content. Teachers also received training to provide guidance on using these programs and their feedback indicated the training was adequate. Furthermore, teacher lesson plans aligned with CCSS. However, the findings from the self-study document review indicated that teachers did not have a uniform policy or paradigm for assigning homework that always supported the content of the lesson plans.

In May 2012 the local Board of Education created and adopted a homework policy (see Appendix B). Available to all parents and teachers, the new policy provided suggested time lengths, parameters, and appropriate goals for formative homework assignments. Although the administration did not realize it at the time, the new policy did not provide guidance for developing formative assessments that specifically reinforced higher-order thinking skills or that prepared for proper evaluation by summative assessments. Student summative scores for reading and mathematics on the PARCC assessment continued to be below expectations. There appeared to be a gap in practice between the homework that was assigned and completed and proficient performance on summative assessments.

According to the superintendent of schools, during an administrative meeting, principals noted a lack of alignment with homework assignments—the formative

reinforcement activities—and the required student test outcomes—the higher order/application activities required on summative assessments. For example, on the state test, students were required to analyze a literature passage and provide different points of view or thematic interpretations. However, in classroom practice, students only practiced recalling events, identifying characters, or matching knowledge level content. The lack of practice in critical thinking—examining and articulating a point of view and assimilating it with thematic interpretation—was problematic for the leadership team that noted this gap in practice. Local school meeting agendas provided by administrators indicated efforts to encourage teacher use of appropriate formative and summative assessments. However, student performance in reading and mathematics, as evaluated by the summative PARCC scores, were still below expectations.

According to comments provided by a local principal, the incongruence between formative and summative assessment still exists and is causing teacher, student, and parental frustrations. The local administration confirmed that teachers felt prepared to teach their content area, they felt adequately trained to teach their content area, and their prepared lesson plan content aligned with the state standards. In this investigation into the formative and summative assessment practices of the local general education teachers, I sought to provide understanding to improve instruction and student outcomes.

Evidence of the Problem from the Professional Literature

Properly aligned formative assessments replicate learning activities that ready learners for summative assessments. Formative assessments provide teachers and students opportunities to determine where students are relative to the learning outcomes. They serve as valid indicators of student performance and are useful in guiding the

teaching process. Summative assessments identify the content and process of learning towards desired outcomes. Proper alignment of the two assessments is critical for effective student learning (Dolin, Black, Harlen, & Tiberghien, 2018; Gulikers, Biemans, Wesslink, & van der Wel, 2013).

Formative and summative assessments include the collection of information that informs the learning process. Both serve different purposes; however, they both are part of an integrated system. The two types of assessments are cohesive mechanisms of the larger progression of assessment, instruction, and curriculum (Gulikers et al., 2013; Lau, 2016). Embedding formative assessments in tandem with summative assessments creates a possibility to improve results for all learners (Brookhart, 2017; Kibble, 2017). For the teacher, a strong representation develops of where a student is comparative to the learning standards. The more a teacher knows about each student, the better the teacher can modify instruction to assure that all learners continue to achieve.

Definition of Terms

Exit ticket: A teaching-learning technique to provide teachers feedback on a particular skill or concept (Moss & Brookhart, 2019). The exit ticket is linked to the objective of the lesson.

Meaningful homework: Homework that has a targeted academic purpose, a positive influence on student's sense of competence, and is personally relevant and promotes ownership (Vatterott, 2011). Additional characteristics of meaningful homework include the following: (a) designed to meet learners where they are academically, (b) develops motivation and success (Wieman & Arbaugh, 2014), (c) matches students' individual interests, (d) includes challenging tasks, (e) does not

arbitrarily frustrate students, and (f) enhances students' motivation to learn (Bergmann, 2017). In this study, *meaningful homework* referred to formative assessments that have these characteristics and are properly aligned with summative assessments.

Significance of the Study

This study was unique as it was designed to address an incongruence between formative and summative assessments in a local district's elementary schools. As this district already had appropriate curriculum programming and professional development in place to address the content required by the CCCS, it is vital that instructional practice required reinforcement activities designed to develop real-life application and critical-thinking skills for all students. Without the ability to apply basic knowledge to more meaningful and abstract scenarios, students lack life-skills required to successfully integrate with their local and global communities (Bailey, Jakicic, & Spiller, 2014). Investigating the possible misalignment of formative and summative assessments in this local district provided valuable information for creating a streamlined instructional practice of teaching and assessment. This study addressed the gap in practice of assigning homework at a higher level of cognition to prepare students to perform proficiently on summative assessments. Doing so created learning opportunities for the local stakeholders and provided rich data to make evidence-based changes needed for student achievement and instructional improvement. It additionally revealed deficits in teacher practice or assessment skills that the district could then support with training or professional development.

Guiding/Research Questions

Instructional practices related to higher-order thinking and formative assessment may challenge teachers. Homework, a formative assessment, is assigned nightly in many schools with the intention of improving achievement. However, homework's relationship to achievement has been inconclusive (Cooper & Valentine, 2001; Fan, Xu, Cai, He, & Fan, 2017; Gustafsson, 2013; Luo et al., 2014). The types of homework assigned to elementary students do not always reflect higher-order thinking skills. Past researchers have explored the amount of homework given at various grade levels (Cooper, Lindsay, Nye, & Greathouse, 1998; Fisher & Frey 2014; Power et al, 2015), parental involvement (Cooper, 1989; Wilder, 2013), and stressful interactions with homework (Cooper et al., 1998; Pressman et al., 2015). There is little research on improving formative assessment practices to better address expected elementary students' learning outcomes, such as critical thinking skills.

Through this case study research, elementary teachers in Grades 3-5 shared their processes for developing homework to formatively and summatively assess student learning outcomes. Despite the district homework policy for elementary teachers, there remained a gap in practice relative to the expected level of student cognition required (a) to complete homework and (b) to perform proficiently on summative assessments. To better understand the current processes for developing homework that properly aligned with both formative and summative assessments practices in two local elementary schools, the central research question was:

RQ: How do elementary teachers in Grades 3-5 incorporate formative assessment strategies with homework to prepare students for summative assessments?

In order to provide a broader view of this study, three subquestions were included:

SRQ1: How do teachers prepare, select, or create formative assessments in their

classrooms?

SRQ2: How do teachers use data from formative assessments to prepare

instruction?

SRQ3: How does homework align with summative assessments?

The research questions guided this study. Developing a matrix helped align the literature,

research questions, interview, and focus group questions (see Appendix C). The questions

focused on formative assessments and homework practices as a classroom assessment in

a broad spectrum of various tools designed to measure or assist in student achievement.

Better understanding the homework processes in this local venue provided valuable

insight into the nature of the problem as well as possible solutions to the problem.

Review of the Literature

In the age of accountability and American students consistently having mediocre

scores on international assessments, there is a need for smarter homework (Meng &

Marco, 2016). Many teachers only have general guidelines for assigning homework for

their elementary students. Guidelines include how often to assign homework, how to

grade homework, or even how long a student spends on homework. These guidelines do

not address how to develop meaningful homework assignments that support expected

student outcomes. The conceptual framework discussion of formative assessment is

followed by a thorough discussion of the literature as regards to how homework could be

considered a formative assessment that could influence classroom instruction.

The purpose of this qualitative case study was to better understand the formative assessment processes that drive instructional decision making. The first part of this section presents Black and Wiliam's (1998, 2006) and Chappuis's (2005) theory of formative assessment. Next, I discuss effective instructional practices in formative assessments. Finally, I present literature that focuses on formative assessment as it relates to elementary Grades 3-5 teachers.

I compiled and analyzed research from peer-reviewed journals, books, and school and district data to conduct the research review. I conducted a search using Walden University's resources including Educational Research Complete and ERIC databases. I also conducted Internet searches using Google Scholar. Keywords in my searches included *homework, homework and achievement, parents and homework, parental assistance, homework and parental struggles, family stress, learner-centeredness, student perceptions of homework, homework and motivation, differentiating homework, thoughtful homework, amount of homework, Brookhart, traditional homework, homework practices, No Child Left Behind, elementary homework, history of homework, New Jersey Department of Education, halo effect, Partnership for Academic Readiness for Career and Colleg*e, and *Common Core Standards.* Specific terms were used to search for the conceptual framework section of this study as there was not much research literature on the topic of homework as a formative assessment. Key terms for the conceptual framework included *misalignment of formative and summative assessments, feedback, assessments, self-assessing, learning targets, goal setting, diagnostic assessments, authentic assessments, Black and Wiliam, differentiated learning, theory of formative assessment, Chappuis, summative assessments* and *formative assessments.* In addition, I

used the reference section of current articles that I found to locate additional research on the topic.

The Conceptual Framework

This study was guided by the formative assessment theory postulated by the seminal work of Black and Wiliam (1998; 2006) and articulated by Chappuis (2005) into a strategic process framework. In an effort to guide educators through the best practices to appropriately apply formative assessment in classroom instruction, Chappuis articulated three key questions that framed the analysis in this study:

- Where am I going?

- Where am I now?

- How can I close the gap?

In order to effectively answer these key questions, Chappuis (2005) developed a systematic formative assessment process with seven specific strategies for teachers:

- Strategy 1: Provide a clear and understandable vision of the learning target.

- Strategy 2: Use examples of strong and weak work.

- Strategy 3: Offer regular descriptive feedback.

- Strategy 4: Teach students to self-assess and set goals.

- Strategy 5: Design lessons to focus on one aspect of quality at a time.

- Strategy 6: Teach students focused revision.

- Strategy 7: Engage students in self-reflection and let them document and share their learning. (pp. 40-43)

Tracing the instructional decision-making processes of teachers responding to these three key questions and application of these seven strategies revealed insight regarding the local teachers' use of best practices relative to formative assessment in the classroom. Therefore, the application of the key questions and strategies for best formative assessment practice were embedded throughout this study. In order to support the veracity and research-base of Chappuis's framework, it is important to understand its seminal underpinnings.

Historical Development

Chappuis's framework is based upon the extensive research findings of Black and Wiliam (1998). Recognized as the seminal researchers in aggregating findings on formative assessment, Black and Wiliam's (1998) compilation and analysis of 250 research studies resulted in an extensive discussion on 14 key characteristics of formative assessment. The study did not include any predefined theoretical basis, but from it, they derived five broad headings to determine the best practices or characteristics of those successfully using formative assessments. Black and Wiliam (1998) did not rely on a single principle about formative assessment, but rather focused on weaving the different characteristics into the broad categories. The broad headings included:

- Sharing success criteria
- Classroom questioning
- Comment-only marking
- Peer-and self-assessment
- Formative use of summative tests

As facilitators integrate these formative assessment practices into teaching and learning, student learning improves. According to Black and Wiliam (1998), the changes were "amongst the largest ever reported for educational interventions" (p. 141) and lowest achieving students benefitted the most. Ramaprasad (1983) stated that this summative work by Black and Wiliam "was, and remains, powerful evidence for the value of formative assessment" (p.7). In their later work, Black and Wiliam (2009) narrowed these broad headings into three key domains of focus that are reminiscent of Chappuis's (2005) key questions:

- Establishing where the learners are in their learning.

- Establishing where they are going.

- Establishing what needs to be done to get them there.

Black and Wiliam's (2009) establishment of these three key domains referenced the work of Ramaprasad (1983) and not Chappuis's (2005) study. Black and Wiliam's work (1998, 2009) clearly prepared the foundation for other researchers and theorists to define and apply their work.

Key Questions

Chappuis (2015) credited Atkin, Black, and Coffey (2001) with the articulation of the three key questions, as they "translated the conditions [of formative assessment that] Sadler describe[d]" (p.10-11) in a 1989 summary of how effective formative assessment is critically connected to the students' own abilities to monitor their own learning during the actual process. According to Atkin et al., Sadler's key concepts are best articulated in these three questions:

1. Where are you trying to go? (identify and communicate the learning and performance goals);

2. Where are you now? (assess, or help the student to self-assess, current levels of understanding);

3. How can you get there? (help the student with strategies and skills to reach the goal). (Atkin et al., 2001, p. 14)

Chappuis said that "Sadler's conditions as represented in these . . . questions frame what is called 'Assessment *for* Learning'—formative assessment practices designed to meet students' information needs to maximize both motivation and achievement, by involving students from the start in their own learning" (p.11).

Black and Wiliam's (1998) synthesis of formative assessment also concluded that it was most effective when students were empowered to self-direct and own their learning. Chappuis (2005) noted the four following "necessary components of formative assessment" (para.2) from Black and Wiliam's findings:

- Clear learning targets.

- Feedback with respect to the learning target.

- Self-assessment.

- Specific steps to improve.

With these four components supported in the instructional opportunity, students are able to continuously self-monitor progress toward the learning target with the three key questions: Where am I going? Where am I now? How can I close the gap?

Chappuis (2005), Heritage (2010), and Black and Wiliam (2006) each noted that formative assessments were a planned and cyclical process; not events in a learning experience. As such, teachers who purposefully engage students with the seven strategies for formative assessment create learning opportunities with continuous engagement, assessment, and growth (Chappuis, 2005, 2015). Figure 1 includes a visual representation of the framework for the formative assessment process, tracing the key questions that learners are taught to use while teachers apply appropriate strategies in tandem.

Where am I going?

1. Provide clear & understandable vision of the learning targets & success criteria.
2. Use examples of strong and weak work.

Where am I now?

3. Offer regular descriptive feedback during the learning.
4. Teach students to self-assess and set goals.

How do I close the gap?

5. Use evidence of student learning to determine next steps.
6. Design focused instruction, followed by practice with feedback.
7. Provide students opportunities to track, reflect on, and share their learning progress.

Figure 1. Researcher created visual for Chappuis's framework for the formative assessment process detailing key questions to guide students and seven strategies to guide teachers.

Chappuis's framework also is rooted in seminal research as well as relevance to the problem and approach in this study. As shown in Table 1, Chappuis's (2005) formative assessment framework, the three key questions as well as the seven strategies for effective formative assessment, all align with the best practices researched by Black and Wiliam (1998, 2006, 2009).

Table 1

Comparison of Chappuis's and Black and Wiliam's Formative Assessment Characteristics with Three Key Questions

Key questions	Chappuis's formative assessment strategies	Black & Wiliams' formative assessment characteristics
Where am I going?	1. Provide a clear and understandable vision of the learning target.	1. Action to close the learning gap
Where am I now?	2. Use examples of strong and weak work.	2. Peer assessment
	3. Offer regular descriptive feedback.	3. Feedback quality
		4. Discourse between learner and teacher
How can I close the gap?	4. Teach students to self-assess and set goals.	5. Students self-assess during the learning process
		6. Students create with assistance from teacher process goals
	5. Design lessons to focus on one aspect of quality at a time.	7. Choice of task by learner
		8. High quality questions
		9. Mastery learning
	6. Teach students focused revision.	10. Frequent assessments
		11. Student formulation of strategies
	7. Engage students in self-reflection and let them document and share their learning.	12. Perception by learner of the gap
		13. Self-perception of the learner's effort and ability
		14. Task motivation

With the three questions as the rudder, the development and analysis processes in this study follow Chappuis's (2005) theoretical model for effective instructional implementation of formative assessment practices. Throughout the literature review and data analysis, I traced the foundation for best practices for successful formative assessment in an effort to better understand the current processes for developing homework that properly aligns with both formative and summative assessment practices in two local elementary schools.

Components of Assessment for Learning

Formative assessments occur while the students are still learning. Yan and Cheng (2015) explained formative assessments are *for* learning, and summative assessments are *of* learning. Formative assessments are active and intentional learning processes that are typically embedded within the instructional process. They allow teachers and students to collaborate and assemble documentation of learning with the intention of improving skill acquisition. A formative assessment is about gauging progress toward a learning goal, giving feedback, and teachers along with students filling in the gaps. The underlying purpose of formative assessments is to advance learning (Fisher & Frey, 2014; Mikhwanazi, Joubert, Phatudi, & Fraser, 2014). Students discover how to learn when formative assessments are used consistently in the classroom. Students become self-regulated learners by gathering evidence and taking ownership of their learning. Formative assessments are appropriate for every grade level and every subject.

As noted by Chappuis (2005), there are four essential components in the formative assessment process: (a) learning targets, (b) feedback, (c) self-assessment, and (d) specific steps to improve. Each element must be in place to have an effective

formative assessment practice that is useful for improving teaching and learning. Understanding the components for effective formative assessment is essential in the analysis of instruction and learning.

Learning targets. The first essential element in the formative assessment practice is the articulation of and path to clear learning targets. Teachers must be clear on what they want the students to learn (Brookhart, 2017; Mandinach & Gummer, 2013). For example, if the students were asked to use vivid vocabulary, the formative assessment should require the vivid vocabulary. The students have evidence based on criteria to see how their work compares to the objective. The students understand what they do well and where they could improve with clear learning targets. A learning target is more than just noting the objective on the board; it helps students and teachers monitor the learning process. Students, however, must understand what the targets mean. Assignments must align with the learning target, as this alignment is where the target is translated into action. The learning target is the initial step in the formative assessment practice.

Feedback. Feedback is another essential element of formative assessments. Feedback is the teacher's intentional response to student work to improve learning (Clark, 2015). Feedback can be written, oral, or demonstrated. Using feedback provides opportunities for students to grow by giving them knowledge of their work that they might not understand on their own (Brookhart, 2016; Clark, 2015). Feedback provides the students information on what to do next. The use of feedback relies on two elements to successfully improve learning. For example, if the class was asked to complete a mathematical story problem involving dividing and then multiplying to find a total cost; feedback on a formative assessment might include where to place the decimal point. This

type of feedback is different from a summative assessment that the teacher might just mark as correct or incorrect. The first part of feedback is for teachers to interpret the evidence from student work against the set criteria or rubric. The second part of feedback is informing the student what should come next towards the learning target (Brookhart, 2016). Feedback can build on strengths and improve weaknesses. Feedback enhances cognitive processing (Brookhart, 2016). These strengths and weaknesses transfer to students setting learning goals.

Self-assessment. Self-assessment encourages learners to take control of their learning by allowing them to target their learning and help gather information along the way to see how they are doing. Self-assessment activates students as the owners of their learning (Forster & Souvignier, 2014; Lipnevich, McCallen, Miles, & Smith, 2014). It is a form of feedback to oneself. This information on what to do next guides the students in answering the question *How can I close the gap?* For example, a student receives feedback about using vivid language. The student would then self-assess to determine if at least five examples of vivid language are included in upcoming assignments. It is the continuous process of how to learn. The clear targets and the feedback moved students towards self-assessment and achieving the desired outcomes. In addition, specific steps to improve in formative assessments must also be well developed.

Specific steps to improve. The final component of the formative assessment process is providing the students with specific steps to improve (Chappuis, 2005). This includes the types of questions teachers ask. Teachers should use formative assessments to ask higher-order questions to ascertain if learners are understanding the content, and not just recalling the concepts. Strategic teacher questioning through formative

assessments scaffolds learners as they move from thin or passive understandings; to a deeper conceptual change (Clark, 2015). Despite professional development and training, teachers' questions lack quality and rigor, as they are frequently low-level and quickly asked recall questions (Brookhart, 2017; Mikhwanazi et al., 2014). These types of questions lessen student engagement. Teachers must specifically plan for strategic questions that are connected to the learning targets. These questions require students to think beyond factual recall. Questions that require thinking about a learning target as opposed to right/wrong answers help students show evidence of learning (Brookhart, 2016). One example would be instead of asking what is the capital of Pennsylvania, ask the students to think of the state and why the founders chose to locate the capital in Harrisburg. The students think about their prior knowledge to create new understandings. However, the teachers cannot be the only ones asking questions. In the formative assessment process, students are encouraged to contemplate and ask meaningful questions. Through inquiry, students can construct their understanding.

Search Terms

The literature review for this study consisted of primary sources, scholarly articles, and books, with most being published within the last 5 years. For this study, 231 articles were researched and considered for inclusion in this study. The research was narrowed to 138 articles which were critically reviewed. Studies that were not peer-reviewed or current were omitted. There were 102 articles published within the last 5 years included in this study. Seminal research on homework was included to establish the historical perspective. The seminal research included 36 articles published more than 5 years ago. There seemed to be an absence of research on the subject of homework as a

formative assessment so the seminal research was necessary. Information for the literature review also included first-source academic journals and texts.

In the literature review the components of formative assessments and assessment practices were discussed. An overview of how homework has changed throughout modern times in relation to historical events was explored. A view of differentiating homework assignments and student perceptions were examined in this review. Finally, teacher preparedness related to using homework as a formative assessment was investigated.

Review of the Broader Problem: Assessment Practices

A challenge for teachers is to create a learning situation that allows learners to develop skills and conceptual understanding. For this learning to occur, teachers must have a strong comprehension of their students' learning levels (Hondrich, Hertel, Adl-Amini, & Kleime, 2016). Without this level of knowledge, a classroom teacher cannot fully know where a student is in the learning process. Dann (2014) stated it was critical for educators to continuously determine students' learning. Classroom assessments should reflect the instructional processes along with the individual students (Metcalfe, 2017).

Teachers create a learning environment by the assessments they choose (Brookhart, 2017). These choices include the format of the assessments, frequency, purpose, and the feedback given to students. In addition, the choices a teacher makes pertaining to assessments reflect the knowledge of the content, students, assessment principles, and instructional practices. To think about it even further, assessment decisions reflect the teacher's attitudes, philosophy, training, skills in assessment, and

classroom climate. Effective teachers incorporate various means to gather information about individual student learning (Dixson & Worrell, 2016; Li & DeLuca, 2014).

Types of Assessments

Teachers include multiple types of assessments into their instruction. Assessments are tools for collecting information (Dolin et al., 2018). These assessments range from formal testing, including teacher-made and standardized tests, to informal testing like interviews of students. Assessments assist teachers in planning instruction, determining student achievement, and evaluating curriculum (Black, 2015; Hawe & Parr, 2013). There are four types of assessments: authentic, diagnostic, summative, and formative. Each has its benefits and drawbacks.

Authentic assessments. Authentic assessments develop skills and competencies along with academics. The assessments are worthwhile, significant, and meaningful. For example, a student would be required to read and write for a real life situation. In authentic assessment, the process itself is just as important as the student product. Instead of recalling facts, students create a *product* to show their mastery of a subject. Examples of products include songs, poems, blogs, exhibits, short films, or an interactive webpage. An authentic assessment allows students to express their individuality. Students engage in higher-order thinking because they are asked to apply knowledge and skills for authentic purposes and not just recall information. Because authentic assessments involve real-world tasks, they are likely to be more motivating and interesting to students (Danish & Omar, 2015). The authentic assessment shows the best evidence of learning because the student must show they can apply the information or skill taught by creating a product (Rowe, Herrington, & Brown, 2014). An authentic assessment is a way for measuring

student learning through student-centered, active learning strategies that assist in developing lifelong learning. Examples of active learning strategies include decision-making, communication and cooperation.

Authentic assessments are longer and more complex than traditional assessments. Authentic assessments allow students to demonstrate what they have learned by completing tasks that have real-life relevance and meaning. Authentic assessments can complement traditional types of assessments. Students take control of their own learning with authentic assessments. However, they must be guided and taught the smaller tasks prior to the larger task of an authentic assessment. This level of assessment differs from more traditional assessments that are developed by teachers. More planning is required by the teacher to develop authentic assessments. Another difference is that traditional assessments require correct responses, while an authentic assessment not only requires a product or performance, but also a justification to the answers. This makes grading authentic assessments more difficult; however, rubrics can provide the criteria for grading.

Diagnostic assessments. Diagnostic assessments occur before instruction. Another term used interchangeably is preassessment. A diagnostic assessment examines what a student already knows. The assessment also provides for what difficulties a student may encounter which might limit his/her engagement in learning. The assessment can provide the current knowledge of a student; however, it should not be used alone to assess. The assessments focus on one content area or domain and provide information on prior knowledge. One example is the Informal Reading Inventory (IRI). The IRI is an assessment that provides evidence about the students' reading abilities. Pretests and self-

assessments are examples of diagnostic assessments. Other examples include journal entries and KWL charts. KWL charts are begun with a new unit or chapter. KWL is what a student knows, what the student wants to know and at the end of instruction, what the student learned. The *K* stands for knowledge, or what you know, and provides the diagnostic data for a teacher. For example, if a class was starting a new unit on famous historical figures in civil rights, the students would list people they knew in the k column. The teacher would use the list to determine the amount of knowledge the student and the entire class has before starting the unit and use this information to determine appropriate pedagogy.

Diagnostic assessments assist teachers in developing lesson plans, determining resources, and in differentiating instruction. The assessments do not contribute to grades, but provide a baseline for teachers as they assess what a learner already knows. This type of assessment may also be used when a problem arises with a student and more information is sought. Diagnostic assessments involve the gathering and evaluation of detailed data. The assessments can also determine a reference point for understanding how much learning has occurred after the completion of learning activities. The assessments help teachers diagnose the strengths and areas of need for each student. Diagnostic assessments have a significant role in improving outcomes for students.

Summative assessments. Summative assessments usually happen at the conclusion of a block of learning, like at the end of a unit, and measure the level of understanding. Teachers perceive assessments as mostly summative and use these tools to assign grades (Dixson & Worrell, 2016), or quantify achievement. Summative assessment is considered an evaluation of learning and is another tool used to measure

content knowledge. Summative assessments measure student growth after instruction, and are cumulative by nature. Summative assessments are given periodically and appraise the efficacy of programs, goals, and the alignment of curriculum. Examples of summative assessments include final exams, written and oral products, and standardized tests. The standardized tests include district benchmarks and end of unit or chapter tests. Summative assessments also provide data that may indicate student progress relative to standards (Hawe & Parr, 2013). Grades are frequently the sole outcome of summative assessments indicating whether the student has an acceptable level of knowledge. This outcome is due to the nature that results of summative assessments are not returned swiftly to students. This limits the feedback provided to the student and in many cases the student cannot be reassessed. Or, if the student retakes a summative assessment, it is much further past the presentation of material.

Formative assessments. For formative assessments to be effective, they need to be part of a full system of components working together to facilitate learning (Bennett, 2011). However, the collection of data with a formative assessment is not enough. According to Antoniou and James (2014), formative assessments provide information related to student progress allowing for instruction to be modified. Routinely using the data to decide what to do next with students is critical in the formative assessment process (Li & DeLuca, 2014). Formative assessment is intended to be cyclical or continuous. Learning intellectual or social skills requires practice in a supportive environment and feedback (Nicol, Thomson, & Breslin, 2014). Including homework as a formative assessment revealed students' learning processes to the teacher and with targeted feedback helped the learner achieve. Dann (2014) suggested that teachers needed

to explore how their instructional practices are developing learning. Table 1 provides a

comparison/contrast of the characteristics of each type of assessment and its most

appropriate or common use in classroom instruction or for evaluating student learning. .

Table 2

Characteristics and Common Use of Four Types of Assessment

	Characteristic	Assessment Type			
		Authentic	Diagnostic	Summative	Formative
	Format	Projects, demonstrations	Multiple choice; fill-in-the-blank	Final exams; paper/pencil	Exit slips; self-assessment
	Student Cognition or Behaviors	Synthesize learning to a finished product	Requires correct responses	Requires correct responses	Students revise efforts and reassess
Time & Timing	When to Use	End of unit	Prior to term or unit	End of unit	Embedded in instructional process
	Implementation	Several days or weeks	Part to full teaching period	Full teaching period	Minimal time at any point in class
	For Preparation	Time consuming to develop	Usually pre-developed or commercially prepared	Time consuming for teachers or prepared by publisher	Minimal time
	For Grading	Time consuming	Immediate	Take time to be returned	Immediate
	Purpose	Evaluate abilities in real world context	Identify what student knows	Assigning a grade; measure achievement	Provide immediate feedback
Content Knowledge	Type of	Metacognitive	Factual	Factual; Conceptual; Procedural	Procedural; Metacognitive
	Application of	Analyze, evaluate, create	Recall, understand	Recall, understand, apply	Recall, understand, apply, analyze
	Integration of	Wide range of skills and knowledge	Isolated skills and subjects	Isolate particular skills or facts	Wide range of skills and knowledge

Best Assessment Practices

Teachers should incorporate a balance of assessments to ascertain a clear picture of a students' learning. A balance is using a mix of formative, summative, authentic, and diagnostic that will provide educators the ability to know where students learning needs are related to specific outcomes. Effectively using a balance of assessments is an integral part of information gathering (Hawe & Parr, 2013). The more teachers understand where learners are in the learning process, the better they can adjust their instruction. Using a balance of assessments ensures all students move forward in their learning and achievement. Learners need to participate in the assessment process. Involving students can be accomplished through weaving assessment and feedback opportunities throughout the learning experience. Often, applying best practices provides a framework for learning and investigation to address gaps in learning or instruction. In the local school, the role of formative assessment is out of balance, indicating a critical instructional gap.

Formative assessments engage students in learning. For formative assessments to be effective, they need to be part of a full system of components working together to facilitate learning (Bennett, 2011). However, the collection of data with a formative assessment is not enough. Routinely using the data to decide what to do next with students is critical in the formative assessment process (Wylie & Lyon, 2015). Learning intellectual or social skills requires experiences in a supportive setting and feedback (Sadler, 1989; Van der Kleij, Vermeulen, Schidkamp, & Eggen 2015). Dann (2014) indicated that teachers need to examine how their instructional practices are guiding

learning. When using homework as a formative assessment, it can inform the students'

learning processes to the teacher and, with targeted feedback, help the learner achieve.

Frequent assessments, like formative assessments, identify current knowledge and

steps for reaching desired goals. Formative assessments take place during the process of

learning and are embedded in the learning activities. Establishing clear curricular goals

and using formative assessments to understand where the student is relative to the goal

allows for differentiation to occur (Tomlinson & Moon, 2013). In one study, students

who received formative assessments embedded, and qualitative feedback during

instruction, scored higher than students who were given traditional assessments (Yin,

Tomita, & Shavelson, 2013). The timeliness of formative assessment results allows

teachers to adjust instruction quickly. This adjustment can occur while learning is in

process. The assessments are ongoing and dynamic and deliver information during the

instructional process (Dolin et al., 2018). The assessments inform next steps for both

teachers and students and promote further learning.

Local Problem and Formative Assessments

When considering the description of formative assessment developed by Black

and Wiliam, (1998), Sadler, (1998), Chappuis (2005), and Popham, (2008), homework is

a formative assessment. Formative assessments require teachers in the local school to

impart assessment outcomes to learners and to use the evidence from the assessments to

plan for instruction (Mikhwanazi et al., 2014). Using formative assessments allows

teachers in the local school to modify their teaching to immediately meet the needs of the

learners. Formative assessments provide the local teachers a strong understanding of

where the student is on the learning continuum (Cunha et al. 2018). It is an ongoing

opportunity to provide feedback to the students so they can improve learning. Feedback is

an essential element in formative assessments. Homework as a type of formative

assessment may not be properly implemented in the local classrooms. If formative

assessments are implemented and aligned to expected levels of student cognition, student

performance improves (Bennett, 2011; Black & Wiliam, 1998; Hayes & VanCamp, 2015;

Schoenfeld, 2014). Investigating the formative assessment practices at the local school,

therefore, may provide insight into local student performance scores on summative

assessments.

Educational Formative Assessment Practices

Assessment practices play an essential role in educational settings. Currently,

assessment practices used by teachers are often based on traditional methods and not

research-based best practice (Antoniou & James, 2014; Vatterott, 2015). The demand to

educate all students to elevated levels makes the need for quality assessments based on

research, not on tradition or opinion. Strandberg (2013) noted a shift from norm

referenced assessments designed to sort students to criterion referenced assessments

designed to measure student attainment of standards. The challenge of how to properly

assess student learning is one that has been in existence since the development of large

scale organized public education. Stewart (2012) reported finding over 4,000 books,

essays, articles and studies related to the area of assessment. Some of these findings date

back to 1933. Political and societal pressures have forced educators to rethink many of

the culturally embedded instructional practices and to consider research-based

methodology. In order to better understand the local gap related to instruction and the evidenced low student achievement scores on summative assessments, it is important to know the historical and modern perspectives as well as the best practices for designing and implementing homework as formative assessment tool that informs instructional decisions.

Homework is the most prevalent and problematic form of teacher driven classroom assessment used in a school setting (DeLaet et al., 2015). The attitudes towards homework have shifted multiple times based on societal viewpoints over the last 100 years of education history (Gunderson, Park, Maloney, Belock, & Levine, 2017). Vatterott (2017) stated homework consisted of rote learning focusing on reading, writing, arithmetic in earlier educational settings. Gil and Scholssman (1996) noted that during the late 19th and early 20th century homework promoted rote memorization; there was no attention to the four components of strong formative assessment practices. During that time, school attendance was irregular and classrooms were multi-age. After fifth grade, many students left school to work (Farrell & Danby, 2015). Students focused on reading, writing, and arithmetic. Learning required students to memorize or recite in school, so they needed to practice repeatedly at home. This type of homework lacked the four essential components of formative assessment. Learning goals were met related to memorization; but feedback, goal setting, and the types of questions important to formative assessments were not properly designed or considered. This misapplication of the four components of formative assessment can be historically traced based upon the culture of assessment and student achievement.

Instructional Tradition

Assigning homework is an enduring instructional practice which has seldom been examined. However, there were detractors against homework. Doctoroff and David (2017) discussed a 1901 California law that abolished homework for all children under the age of 15. Again, in the 1940s, the general theory was that homework was intrusive, and students needed more fresh air (Cooper, 2001). Progressive education was on the rise and educators questioned homework. Medically, pediatricians were increasing in numbers and began voicing concerns on the effects of homework and the well-being of children. Pediatricians began to prescribe more outdoor exercise (Vatterott, 2017). However, after World War II, critics of constructivism and Dewey started the back-to-basics movement (Watkins & Stevens, 2013).

With the launch of Sputnik in 1957, international academic competition resulted in teachers creating and assigning more homework in order to keep students busy about learning. Americans were concerned that students were not prepared to compete, so more homework was recommended. Homework was regarded as a tool to accelerate learning. Homework became the tool for the purpose of education and a means to support a stronger national defense policy (Gill & Schlossman, 2004). However, the focus was on the quantity of homework rather than the formative assessment process.

In the 1960s, leaders believed that homework provided too much strain on learners (Cooper et al., 1998). The unrest in the nation during the 1960s and 1970s led to a more open curriculum allowing choice for students. The practice of allowing choice aligned with goal setting, which is a practice of formative assessments. However, the

choice was more about whether to complete activities or not as opposed to what steps are taken to reach a learning goal. The Vietnam War and the civil rights movement sparked debate about homework and other educational practices. The National Education Association (NEA) proposed in 1966 to limit the amount of homework for older students and called to eliminate homework entirely for early elementary children. The stance taken by the NEA supported parents' argument that children should have fun and unwind. Parents and the NEA wanted the amount of homework lessened, but the components of formative assessments were not considered. However, the views of political leaders soon shifted again.

Homework for Academic Success

After the dissemination of *A Nation at Risk* (National Commission on Excellence in Education, 1983), policy makers determined homework was the key to ending mediocrity in schools. The report hinted at school success being responsible for economic success and that academic excellence was needed. The commission asserted that time dedicated to homework was effective and it was a necessity to assign more homework to students in all grades. Again, consideration of what makes for a good formative assessment—learning goals, feedback, goal setting and the types of questions—was not considered in this assertion. Additionally, the U.S. Department of Education published *What Works* in 1986. This report also recognized homework as a useful learning procedure. In 1989, Cooper began his study on homework practices. The findings showed homework did have a beneficial outcome on achievement for secondary students.

However, the study indicated little to no effect on achievement for elementary students. At the time, little media attention was paid to these findings.

The 1990s once again kept the focus on the importance of homework to meet higher educational standards and improve achievement and the quality of the work force (Kalenkoski & Pabilonia, 2017). This focus was carried through to 2002 with the No Child Left Behind Act (NCLB) placing demands on school districts to have 100% of the learners meeting specific competence levels on state assessments. These state assessments were summative. The importance of formative assessments and the types of questions to prepare for the summative assessments was not addressed. According to Watkins and Stevens (2013) homework was an expectation with this Act. Then in 2009, the National Assessment of Educational Progress (NAEP) showed a national concern with regard to reading scores. The report indicated zero improvement in reading of fourth graders and only a one-point gain for eighth graders. Feedback and types of questions on formative assessments were not analyzed, yet the conclusion was that more homework was needed.

Changes in Homework Assignments

During the 21st century, homework was once again viewed as an intrusion (Doctoroff & David, 2017; Vatterott, 2017). More frequently, articles were published that younger students and parents felt overwhelmed with homework. Even the definition of *homework* itself changed from *work done at home* to *work during noninstructional time* (Bembenutty, 2011). In 2000, a district in New Jersey changed its homework policy limiting the amount of homework assigned, including over the weekend, and disallowing

teachers to count homework as a grade (Kohn, 2007). The district only addressed the factor of how much time was spent completing homework, but not the formative assessment practices related to homework. The district received national attention for this policy. Attitudes towards homework have mirrored societal tendencies and educational ideology along with historical events driving the movement for or against homework. However, the trends have not reflected learning goals, feedback, goal setting, and types of questions which are all essential components to formative assessments.

Recently, the Organization of Economic Cooperation and Development (2016) found American students' mathematics and reading scores flat or unchanged over eight years in the Program for International Student Assessment (PISA). In the study, 26% of 15-year old students were low performing in mathematics, and 17% in reading between 2003 and 2012. There was an increase in science scores with fewer low-performing students. OECD determined students who completed 6 to 7 hours of homework each week were 70% more likely to be high performing in mathematics (Burhan, Yunus, Tovar, & Burhan, 2017). The OECD did not address the feedback provided or types of questions found on the homework; they only addressed the amount of time spent on homework.

Appropriate Homework Practices for Formative Assessment

Traditional homework consisting of routine worksheets or any other activities that only concentrate on rote memorization is still the most common type of homework assigned (Neason, 2017; Varlas, 2016). When considering the essential components of formative assessments (learning goals, feedback, goal setting, and types of questions),

traditional homework does not provide a teacher with the information to inform future instruction. Drill and practice and rote memorization do not reflect best practices for improving student achievement. American learners are expected to know, understand and apply skills instead of memorizing information (No Child Left Behind [NCLB], 2002). Epstein (1988) indicated that elementary teachers consider homework design including the types of questions and feedback. Dueck (2014) encouraged homework practices that promote investigation and inquiry through the types of questions.

Reflect research findings. Despite the limitations of research on homework there are two bodies of knowledge which can affect the use of homework (Vatterott, 2017). The first is that there is a large amount of research on how children learn. This research can lend insight on how to develop proper homework that reinforces learning. The other is reflective practice on classroom processes by teachers to understand what works and what does not. Reflection alone; however, cannot change practice. Teachers need to understand how homework can increase student learning when it is used as an effective form of assessment for learning.

Promote learning. Educators would agree the goal for students is for them to have self-discipline, to improve their intellectual skills, and to feel confident as learners (Varlas, 2016). Students who do not complete homework assignments can begin to experience gaps in learning which become greater over time and lessen their motivation to learn. Poorly implemented homework practices compound this problem into constant failure (Polikoff & Porter, 2014). It is important for teachers to enact quality homework practices which promote the learning process.

Standardized test scores often are often used to define achievement, and in some schools, homework is misused as a tool to improve achievement rather than to improve instruction and learning as intended. McLeskey, Waldron, and Redd (2014) showed that homework appeared to have little influence on achievement as defined by state level summative tests at the elementary levels, but more at the secondary levels. This discrepancy in achievement results could be because at the elementary level the attention is more on basic skills reinforcement and at the secondary level it is more on content. The older work of Kohn (2007) showed the absence of any correlation between homework and achievement. Nunez et al. (2015) indicated no advantage for regularly assigned homework. The types of homework assignments at the elementary level that are reasonable include drill, practice and reinforcement of ideas (Meng & Munoz, 2016). The researchers define reasonable as appropriate and realistic for a student's developmental level. However, Pendergast, Watkins, and Canivez (2014) reported students might not complete homework that is boring and routine. An example of this would be repetitious worksheets. If teachers have a strong understanding of students' experiences while doing homework, meaningful homework and its relevance can increase (Gustafsson, 2013). Teachers showingthey supported and cared about students along with having conversations about homework can increase the likelihood of positive experiences (Valle et al., 2016). Homework completion can be a tenuous point between teachers and students, especially if it surrounds the amount of time completing homework as opposed to the assignment helping a student meet a learning goal.

Goal-oriented. Research is limited about student views on homework, but Wilson and Rhodes (2010) and Ekici (2014) determined two commonalities expressed by students. The first was if teachers did not grade homework or return it in a timely manner, students felt like they wasted time doing the activity. The second perception was that students wanted to see how homework has a connection to current subject matters and how it has an impact. Flunger, et al. (2017) determined students preferred homework that was interesting and completed more assignments if they liked the topic. Fernandez-Alonso, Alvarez-Diaz, Suarez-Alvarez, & Munoz (2017) and Vatterott (2017) indicated homework was useful when it was connected with instructional objectives.

Homework should have guiding questions and learning goals set forth by the formative assessment research. Teachers need to make students cognizant of the learning target for which the homework is designed. Vatterott (2015) stated teachers should primarily emphasize on quality of homework and mastery of key skills then quantity. Moving the focus of assigning homework to content and purpose and away from time or quantity should be the goal of elementary teachers (Meng & Munoz, 2016). Also, teachers should inform students of the learning target of the homework. Assignments with learning goals are stronger and more well-received.

Feedback. Providing students with feedback is a critical strategy for improving achievement. Descriptive feedback is a powerful instructional strategy to assist students with their learning (Hawe & Parr, 2013). Formative assessments provide this type of feedback. Students need to understand what they do well on with assessments. Conversely, students should receive specific input to help them reach their next level of

learning. Positive feedback given in a supportive manner has been shown to increase

student learning (Bennett, 2011; Black & Wiliam, 1998; Schoenfeld, 2014).

The main concentration in formative assessments is a focus on learning (Black &

Wiliam, 2010) that, according to Sadler (1989) naturally creates a focus on teacher

instruction. In many traditional schools, homework is a learning activity that serves as

formative assessment of learning. Sadler's comments on formative assessments may be

directly relevant for homework practices as was noted that formative assessments benefit

the teacher providing feedback to make educational decisions and to students helping

them determine personal strengths and weaknesses. Feedback is a key aspect in formative

assessments. Many times homework is the artifact that is used to provide teachers and

students feedback on learning (Adesope et al., 2017).

Harkes, Rakoczy, Hattie, Besser, and Klieme (2014) noted that feedback was the

most powerful component that influences learning, positively or negatively. For feedback

to be positive, it must address where the learner is going and what is needed to achieve

the next goal. It should focus on the task and not the learner. The goal of feedback is to

reduce the difference between the current level of knowledge and the next objective

(Strandberg, 2013). Feedback should be specific, clear, and simple.

To be the most effective in improving achievement, feedback needs to be specific,

timely, and evaluative. This type of feedback allows students to set individual goals.

When given specific and timely feedback from a formative assessment, the student still

has time to take action and close the learning gap. Formative assessments provide

descriptive knowledge about student work that the student can use to better individual

achievement. When students receive concise feedback that is also generalizable they develop a better idea of what to do differently the next time (Bennett, 2017). If homework is the feedback artifact in a classroom, purposeful design and implementation can help it best guide the learner positively.

According to Cooper (1989), teachers could respond in four different ways to homework assignments. The first way is by demonstrating how the homework could have been more accurately completed. Teachers assign a grade to the assignment which is used towards a final grade. Teachers can provide either verbal or written praise or criticism. Finally, teachers provide incentives like no-homework passes or extra recess. Cooper (1989) reviewed 13 articles and found that evaluative feedback ranked higher than shorter comments like *good work*. However, it is noteworthy that Cooper (1989) found that with disadvantaged students, incentives in conjunction with verbal praise increased homework completion possibly improving performance in school. Whichever feedback strategies teachers choose, monitoring homework is important as it acknowledges students' efforts (Vatterott, 2017).

According to Valle et al. (2016), teachers use homework to gather insight about students' understanding and for planning future lessons. Similarly, teachers assign homework to gather information regarding students' insight and challenges. However, when compared to other types of assessments, Langberg et al. (2016) found completion of homework assignments as last in importance. First in importance was the student's achievement in relation to their peers followed by achievement analogous to state and local standards. In another study, Martinez, Stecher, and Borko (2009) determined

teachers who valued homework completion gathered more information on student performance. These teachers had additional information on their students. Homework can also guide future instruction when it is a formative assessment.

Homework as a formative assessment allows students to integrate new learning if the essential elements just discussed are noted. Homework will allow students' feedback to improve learning and time to use that feedback. Hawe and Dixon (2017) found providing feedback after learners have attempted a solution leads to more self-regulation. Zimmerman and Kitsantis (2014) characterized self-regulation through a repetitive process. The process includes: forethought, performance, and self-reflection. The first phase, forethought, is the goal-setting and calculated planning. The next phase, performance, includes application and self-checking. The feedback received from a formative assessment is external to the learner, but becomes part of the information students use for learning. The feedback provides students insight about their work, in this study homework, to help them grow. The final phase, self-reflection, contains evaluation and monitoring of the outcomes. van Loon and Roebers (2017) noted if self-regulation takes place in the classroom, the learners are performing each phase independently. Zimmerman and Kitsantis' (2014) model of self-regulation required the students to take responsibility for their capabilities including determining their targets and establishing if the targets were achieved. Formative assessments encourage students to become self-regulated learners (Bennett, 2011; Yan & Cheng, 2015). When considering the design of homework, the level of questioning is important. Additionally, the homework assignments must match the learning goal.

Differentiated for learners. A common concern about homework from teachers is students do not complete some or all of the homework assigned. Lipnevich, MacCann, Bertling, Naemi and Roberts (2012) found in their study of elementary students' emotional reactions that many students reported boredom and discouragement when it came to homework. The sample included 451 students (225 male, 214 female and 12 who did not report gender) in a Northeastern public school. The participants completed a questionnaire in the presence of a teacher. Bempechat, Jin, Neier, Gillis, & Holloway, (2011) in their study on homework of low-income students showed that if homework is not perceived as purposeful to the students or beneficial to the teacher, it may discourage some students from learning. Many years of research has shown that students differ in their developmental levels and students learn differently. Despite this information, teachers continue to apply the same approach to homework (Spencer, 2014).

Homework assignments that are not differentiated for individual differences in student abilities, learning styles, structure and difficulty undermine student motivation (Flunger et al., 2015; Katz, Eliot, & Nevo, 2014). Teachers need to consider the four essential components of formative assessments for homework. When assignments are given to all students without consideration for their differences, teachers are in contrast to formative assessment strategies. Each of the four components has a direct link to the necessity for differentiated homework. Learning goals, feedback, goal setting and the types of questions in formative homework account for individual differences and needs of each student.

Create connection to content. Finally, students may feel that homework completion is a practice of control for many teachers (Hsu & Kuo, 2016). One form of control noted in this study was homework given as a punishment. Another example of homework used as a way to control students is providing a no-homework pass used as a reward for good behavior in class. In each of these examples, homework is not used to extend learning, but as a practice of teacher control over students. Vatterott (2017) further explored whether homework is assigned by a teacher to connect to classroom learning, or is it assigned because the teacher said to do homework. In some classes, homework compliance could count as much as 50% of the final grade (Fisher & Frey, 2014). A student, who receives an A on every test, yet does not complete homework, could receive a failing grade when individual teachers use homework as control over students. Conversely, some students may be earning higher grades by just completing homework and not really learning (Challenge Success, 2012). Dueck (2014) completed a study on comparing homework completion data to in-class test results to enhance the learning process. He suggested that homework completion is behavioral rather than academic and warned against adding an act of compliance to the grading scale. The practice of assigning homework can be indicators of a student's responsibility, personal management, and commitment to practice and skill improvement though having homework contribute to a high percentage of the overall grade does not indicate how well a student knows the course content (Reeves, Jung, & O'Connor, 2017).

Students should view homework as vital to their learning; however, as long as students see homework as something being done to them, it is not their work, but the

teachers' work. For students' ownership, they need to have the chance to set goals, reflect on their progress, and adjust their learning goals (Merrill et al., 2017). Self-reflection allows students to feel power with their learning, how they learn it, and how to show they learned it (Hawe & Dixson, 2017). Self-reflection should not be limited to students. If students do not complete a homework task, teachers need to reflect if the task was appropriate.

Standards and Learning

Learning is driven by what students and teachers do in a classroom (Schopf, 2014). Teachers need to manage varied challenges of a large group—sometimes 30 or more children: teachers scaffold learning in the present, but also guide or push students to be better learners in the future. Standards may assist with this process. The CCSS initiative changed classroom instruction. The CCSS has clear expectations with specific goals and high standards. There are 10 anchor standards in reading, writing and mathematics. Each of the 10 standards is presented in Grades K-12 (Common Core State Standards Initiative, 2017a). The standards convey intellectual growth occurring throughout the educational span (Bailey et al., 2014; Calkins & Ehrenworth, 2016). For example, Reading Anchor Standard 2 is students will "determine central ideas or themes of a text and analyze their development; [and] summarize the key supporting details and ideas" (Common Core State Standards Initiative, 2017b, Key Ideas & Details, Reading Standard 2). In first grade, students will retell stories with details. In Grade 3, students will determine a central theme or moral of a story. In Grade 8, students will not only

determine a central theme but also demonstrate how the theme is developed. Finally, in Grade 12, students will analyze how the themes develop and interact across text.

The CCSS emphasize higher-level comprehension skills. Even primary elementary learners are required to analyze multiple sources, noting the similarities and differences in the points of view (Calkins & Ehrenworth, 2016). This expectation is much different from earlier standards focusing on lower level skills like phonemic awareness, vocabulary, and comprehension. Reading complex texts is a hallmark of the standards. The CCSS also places equal weight between reading and writing (Calkins & Ehrenworth, 2016). Critical citizenship is another importance of CCSS. Students are asked to read and write about who is making a claim and where the evidence is. Teachers are now placing more focus on nonfiction in language arts and conceptual understanding in mathematics (Anderson & Dryden, 2014).

The impact of CCSS on teachers caused other changes. A Harvard study indicated 82% of mathematics and 72% of English Language Arts teachers changed at least half of their instructional materials and practices (Coburn, Hill, & Spillane, 2016). A survey of 1500 English and mathematics teachers indicated they also had key instructional shifts due to the CCSS. Mathematics teachers indicated a shift away from procedural skills to an emphasis on conceptual awareness and real-world mathematics applications. English teachers in Grades 4-8 noted a shift towards nonfiction reading and a stronger emphasis on writing. Mathematics teachers identified school instructional improvement strategies including more targeted observations by administrators with specific suggestions; embedding standards-aligned learning goals in assessments and more professional

development opportunities. The study did not find any correlations between a specific instructional strategy and improved student performance for English teachers (Durand, Lawson, Wilcox, & Schiller, 2015).

Aligning the standards allows districts to think about how learners develop understanding of key concepts and practices across multiple grades. The standards, curriculum, assessments, and the development of materials are critical in supporting students in building integrated understanding (Bailey et al., 2014). The CCSS specify skills and knowledge and provide teachers guidance on important content to be taught. Providing teachers content standards, curriculum materials, aligned assessments, and professional development will guide them to coordinate their instruction and student achievement will improve (Polikoff & Porter, 2014). Instructional time should also be considered along with both the content and quality (Chang, Wall, Tare, Golonka, & Vatz, 2014). However, alignment of standards, instruction and tests has provided mixed results that are challenging to interpret and compare (Simkin & Striver, 2016). There does not appear to be established criteria for judging the strength of the alignment. In one study by Schmidt, Cogan, Houang, and McKnight (2011), the district/state level socioeconomic status indicators showed a significant relationship between achievement and content coverage. Despite a common set of standards, there are still significant differences in mathematical learning opportunities. In another study, Polikoff, Porter, and Smithson (2011), discovered that a large portion of the test content did not align with the standards and the content is at a lower level. The same study also discovered between 17% and

27% of the material on the standardized tests did not align with any of the documented standards.

If educators concentrate on standards and accountability, but ignore the structures of teaching and learning, teachers will not have the support needed to improve learning (Black & Wiliam, 2010). Most of the public attention is focused on national external tests. There is a belief in the United States that testing alone will improve learning (Graham, Herbert, & Harris, 2015). However, these summative tests provide poor models for formative assessments. The models are weak, as the tests provide overall summaries of achievement and not helpful diagnosis to improve learning. Students need to be involved in the assessment as well as learning process. Involving students can be accomplished through formative assessment and providing appropriate feedback (Metcalfe, 2017).

Teacher Preparedness for Formative Assessment via Homework

In a study by Tas, Vural, and Oztekin (2014) teachers were asked if they thought they received sufficient training regarding formative assessment practices (e.g. homework) during their college teacher education programs. More than 50% of the participants ($N = 97$) reported they had not received enough training on how to properly prepare homework. A lack of preparation would present a challenge for teachers—they cannot apply best practices that they do not know and they cannot properly assess their own homework practices without knowledge and application. Moreover, students' motivation and effort towards homework is influenced by teachers' homework practices (Rudman, 2014). For example, the quality, frequency, content connection, and

feedback/guidance provided by teachers are influential in student attitudes and responses. Students benefit when there is a range of difficulty with homework; they are shown how it is to be completed, allowed time, and provided timely, useful feedback. With best practices applied, homework is a worthwhile method of assessing, adjusting, and improving instruction as well as learning (Zare, Cox, Murphy, & Bayas, 2017).

There are four hallmarks of formative assessments including setting goals, feedback, types of questions, and connection to learning goals. When used effectively these hallmarks can improve student achievement and raise teacher quality (Clark, 2015). It is a continuous process that requires all four components to be successful. For example, providing feedback in isolation of the three other components may not yield the same results. Formative assessment is a complex process and implementing it well requires consistency and quality. To ensure formative assessments are done at the highest level of quality, there needs to be a systematic and intentional inquiry into classroom assessment practices.

Implications

By providing insight into how teachers are using homework to formatively assess students, a possible outcome for this study might be the need for professional development. A professional development opportunity might provide instruction for teachers on how to use homework formatively to support higher order thinking skills. Teachers could learn various skills and strategies including how homework best functions as formative assessment that drives instruction. Teachers could also learn about best practices for assigning, grading, and supporting homework. Another possible implication

of this study would inform local policy on expectations for teachers to support critical

thinking through meaningful homework. This research could have an immediate impact

in the local setting. Readers of this study may reflect on their practices and consider

changes. Social change could come in the form of addressing misconceptions that prevent

formative assessments from being a common practice. Teachers could better understand

that formative assessments are not special tests to show what a student knows. Teachers

could also understand that formative assessments are not add-on programs that they must

adopt into their current practices. This study could create a path for using classroom data

to drive decision making directly related to instructional decisions and achievement. This

research could foster a data-based decision-making classroom culture for teachers and

students.

Summary

Through this qualitative case study, I attempted to further understand the local

teachers' decision-making processes when developing homework assignments to

formatively assess student learning. The conceptual and theoretical frameworks for this

study include Bloom's taxonomy, backward design planning theory, and differentiated

learning theory. All three support the hallmarks of formative assessments including

learning goals, feedback, goal setting, and types of questions. Homework is a formative

assessment intended to guide instructional practices and provide feedback to students.

Homework best represents formative assessment when it includes the four key

components of quality formative assessments. The research on formative assessments

provided the foundation from which to explore teacher perceptions, decision-making and

understanding the use of homework as a classroom assessment. By investigating how teachers use homework as part of a classroom assessment in the Northeastern United States, change in practice can occur. Section 2 contains the research methods for this qualitative study including the methodology, data collection procedures, and the role of the researcher. In Section 3, I discussed the project and implications for social change. Finally, in Section 4, I reported the strengths of the project, reflections and recommendations, as well as any limitations.

Section 2: The Methodology

The purpose of this study was to better understand the processes Grade 3-5 teachers use to develop homework to formatively assess student learning outcomes. Formative assessments can have a truly transformative effect on the classroom environment (Black & Wiliam, 2010). Through proper application, teachers may become more effective, students may become actively engaged, and they both may become intentional learners. The central research question in this study was:

RQ: How do elementary teachers in Grades 3-5 incorporate formative assessment strategies with homework to prepare students for summative assessments?

In order to provide a broader view of this study, three subquestions were included:

SRQ1: How do teachers prepare, select, or create formative assessments in their classrooms?

SRQ2: How do teachers use data from formative assessments to prepare instruction?

SRQ3: How does homework align with summative assessments?

This qualitative case study developed a deeper understanding of the teachers' decision-making processes, their perceptions of the use and understanding of homework as a formative assessment tool. In this section, I explain the research design and approach, the research questions, the local setting, the sample of participants, and how the data were analyzed.

Research Design and Approach

The purpose of this qualitative intrinsic case study was to better understand the current processes in the local district for developing homework that properly aligns with both formative and summative assessment practices. The research design logically derived from the research question to understand teacher practices related to using homework as a formative assessment. The selected research design that best aligned with the purpose of the study, conceptual framework, and the central research question was a qualitative case study with an intrinsic or exploratory focus (Creswell, 2013). Through a case study, I provided rich descriptions from a group of people that aligned with the intent of the study (Lewis, 2015). From this information, I hoped to gain a deeper understanding of teacher practices. I chose this method as it offered the best means by which to develop a thorough understanding of the problem.

Case Study Design

According to Merriam (2009), "a case study is an in-depth description and analysis of a bounded system" (p. 40). A case study is used when a researcher wants to answer the questions how or why (Yin, 2014) or to better understand what is going on in a particular case. These two questions helped drive the rationale of choosing case study within the qualitative tradition for this study. The purpose of a case study is not to manipulate behavior, but rather to understand or assess what is happening.

A case study provided an opportunity to explore teachers' practices. The case is bounded by the unit of analysis, local setting, and specific time boundaries (Yin, 2014). The unit of analysis for this study was Grade 3-5 teachers in two different elementary

schools within a district. There are only two elementary schools in the district serving Grade K-5. The study had a time boundary of two semesters, Summer and Fall 2018, to collect data. The case study effectively allowed me to collect data about the teacher decision-making processes related to using homework as a formative assessment, thus supporting the purpose of the study.

Types of case studies. The first is instrumental case study. Instrumental case study provides insight into a situation (Creswell, 2013). Instrumental case study was not appropriate for this study, as the practices of several elementary teachers were explored. The second type of case study is a collective case study or multiple case study. The researcher considers one issue or concern in a multiple case study; however, multiple cases are selected to highlight the concern (Creswell, 2013). For example, a multiple case study includes several programs from several sites to show different perspectives. The multiple case study option was rejected because several sites and programs were not appropriate. Intrinsic case study was the most appropriate type of study for the purpose and guiding research question of this study.

Intrinsic case study. An intrinsic case study has limited transferability by nature and is based on a researcher's interest in a phenomenon more than it is based on generalizing findings to other populations or cases (Hyett, Kenny, & Dickson-Swift, 2014). According to Stake (2006), an intrinsic case study is exploratory in nature, a characteristic that appropriately aligned with the purpose and guiding question for this study. As a researcher, I was intrinsically interested in the practices of assigning

homework. Intrinsic case study was also appropriate because this type of study is not intended to build theory (Stake, 2006).

Because there is a lack of research in the area of homework as a formative assessment, intrinsic case study allowed a comprehensive understanding of how elementary teachers use homework as a formative assessment to prepare students for higher level summative assessments. For this study, the case was elementary teachers and the context was the school or classroom. An intrinsic case study highlighted the uniqueness of this setting as the case was bounded by a specific place, the two elementary schools. Case study illustrates a unique case that was described and detailed. Yin (2014) noted data are analyzed in the context of its use in an intrinsic case study. In this study, the data collected from the elementary teachers in a suburban district were analyzed to determine if homework was being used formatively to prepare students for higher level summative assessments.

Justification

The main objective of this case study was to better understand the current processes for developing homework that properly aligned with both formative and summative assessments. Therefore, the qualitative tradition reflected in a case study was the most appropriate method. Many other research designs were considered, but not selected for this study. In the qualitative tradition, there are five types of studies.

Narrative research. One type of qualitative study is narrative research. Narrative research explores the life of an individual. The method of narrative research relies on narratives or stories to explore (Creswell, 2013). Data are gathered from one or two

individuals through the documentation of their stories and experiences. Narrative research was not appropriate for this study because telling the stories of individual experiences did not support the research question.

Phenomenology. The phenomenological approach is designed to understand the essence of a lived experience. This type of study describes a common experience (Creswell, 2013). I rejected phenomenological study because this type of study explored the lived experiences of several individuals and would not be appropriate for understanding teachers' practices. The teachers in this study were not able to make the time commitment for the type of in-depth interviewing required for a phenomenological study.

Ethnography. I also rejected ethnography. Ethnography describes and interprets a cultural-sharing group (Creswell, 2013). An ethnographer is interested in shared patterns involving a large group. In addition, the researcher is usually immersed within the group's day-to-day lives to study the interactions. This type of approach was not appropriate as the study was not about a group sharing the same culture.

Grounded theory. Grounded theory develops a theory grounded in data from the field. It moves beyond description to generate or discover a theory (Creswell, 2013). Grounded theory was also considered because this study on homework matched a post-positivist paradigm. The participants all go through the process and the eventuation of the theory might explain the application or provide a framework for future research. Theory generation did not focus specifically on what teachers understood about homework as a

formative assessment. Because this was the specific focus of this study, grounded theory as a research design was rejected.

Quantitative methodology. In addition to a qualitative approach, another research design considered for this study was quantitative. According to McCusker and Gunaydin (2014), quantitative research uses mathematical data to provide answers to specific questions. I considered and then rejected a quantitative methodology because the study centered on the need to understand how teachers use homework as a formative assessment. A quantitative methodology would not provide the in-depth data needed to answer the research questions.

The most effective design for this study was intrinsic case study because a conceptual framework, formative assessments, already existed. This study may not represent other cases or a particular problem, but the case itself is of interest.

Participants

The study occurred in a suburban district located in Northeastern New Jersey. The district has two elementary schools, a middle school, and one high school. The sites for the study were the two district elementary schools that each educates children in Grades K-5. One of the elementary schools receives Title 1 funding and has 50 teachers, while the other does not receive this federal funding and has 47 teachers. Grades 3-5 was targeted in this study. In 2017, each grade level had approximately 80 students at each building for a total of 160 students in each grade level for the district.

Criteria for Selecting Participants

The sample for this study was purposeful (Lodico, Spaulding, & Voegtle, 2006), a technique that is used when the researcher identifies key informants to include in the study. *Key informants* are participants having specific knowledge of the investigated topic (Lodico et al., 2010). The participants in this study were selected from the two participating elementary schools in the local district. To be included in this study, a prospective participant must have met the following criteria:

- be a general education teacher in Grades 3-5 at one of the elementary schools in the district and

- assign homework as part of classroom instruction and assessment processes.

A purposeful sample consisting of Grades 3-5 teachers who assign homework provided understanding, insight, and information-rich data for this study. I made a courtesy phone call to each building principal explaining the study.

Number of Participants

The goal of qualitative research is to rely on the participants' perspective of the problem to be studied (Creswell, 2012). The total population of teachers in the two local elementary schools was 97; there were 18 teachers in Grades 3-5. There were nine teachers at each school that taught Grades 3-5. The number of actual participants was derived from the number of teachers who fit the criteria and who agreed to participate in the study. The desired sample was nine teachers, three from each Grades 3-5 at either elementary school. The actual number of participants was 10 teachers.

As gender was not a factor in this study, participants were either male or female. The optimal sample had at least one teacher from each building for each grade level. Interviews are time consuming to collect appropriate information, so a smaller sample was optimal (Hancock & Algozzine, 2011). This sample allowed for deeper inquiry per participant. In addition, Morse (2000) noted fewer participants are required when the topic is straightforward. Therefore, a sample size of 10 was acceptable based upon the best practices and the parameters of the study. The number of study participants is outlined for each grade level in Table 3.

Table 3

Number, Grade Level Taught, and Years of Experience of Participants

N	Grade	Year(s) of experience
1	3	< 3
1	3	4-8
2	3	9-12
0	3	13 >
1	4	< 3
1	4	4-8
0	4	9-12
1	4	13 >
1	5	< 3
0	5	4-8
1	5	9-12
1	5	13 >

Procedure for Gaining Access

Once Walden Internal Review Board (IRB) approval was secured (approval number 0328153), I sent a letter of cooperation that included the IRB approval number to the superintendent of schools requesting permission to conduct the study in the local district (see Appendix D). I sought participation of teachers in the two school settings. Initial contact requesting access was made through the district e-mail from my Walden University e-mail. Because the teachers' e-mails are on the public district website where any person may access these addresses, it was appropriate for me to use this address to send an invitation to participate e-mail. The invitation e-mail contained information about the time frame, purpose of the study, and the population being researched. A consent form was attached to the Invitation to Participate e-mail. Prospective participants were encouraged to respond via their private, confidential e-mail or by phone if they were interested in participating. I personally spoke with all interested participants to qualify them for the study (see Appendix E for qualification form). If qualified, I set an interview date, time, and place that was convenient for the participant.

Method for Establishing Relationships

I served as the interviewer and as the primary collector of documents with the outcome of learning from the participants. Having a small sample and following best interview practices allowed me to maintain rapport with the participants (Flick, 2014). Before the interview and focus group, I engaged in casual conversation with the participant(s) to establish rapport and ease. I reminded participants that my role was to learn more about their practices. According to Flick (2014), assuring participants during

the interview and focus group that there is no right or wrong answer helps establish a relationship. I provided opportunities for participants to ask any questions and encouraged them to speak freely without fear of reprisal by emphasizing that their names and the school identity were protected through the use of pseudonyms. Finally, I offered to provide the participants with a summary of their data findings for review of accuracy before submitting the final copy to Walden University.

Measures of Ethical Protection

I sought approval from Walden University's IRB prior to conducting the research. This approval was required to ensure the study is low risk to all participants. IRB approval certified there were no ethical issues that would harm the participants in the study. This study did not include any vulnerable participants; for example, minors, subordinates, or students of the researcher. Participants did not receive any compensation, gifts, or payments. I completed the National Institutes of Health (NIH) training course (Certificate # 1222240) on the ethical protection of human research participants (Appendix F) and adhered to these practices throughout the study.

Confidentiality, consent, and protection from harm was critical in this study. Several safeguards to protect participants' rights were implemented including:

- Research questions and study expectations were reviewed verbally and in writing so participants understand.

- Written consent was received from each participant.

- Participants were informed of all data collection requirements.

- Participants were able to decline participation or leave the study at any time.

This study was voluntary and confidential. Pseudonyms were used in place of teachers' names in the study. For example, in the study, I stated *Teacher A, Teacher B* to guarantee confidentiality. The study was not discussed with anyone in the district and data collected will be kept secured (i.e. password-protected) on one computer for 5 years after which time all the documents will be destroyed. Each teacher had opportunity to keep a printed or electronic copy of the consent form for his or her records.

Data Collection

Data were collected through personal interviews, a focus group, and a document review. I followed data collection procedures using systemic steps (Hancock & Algozzine, 2011). The interviews and focus group data generated themes from the participants' personal formative assessment practices. The document review added depth to the study and triangulation of data. My goal as a researcher was to gain rich, thick, in-depth information from the participants. The Instrument Data Alignment Matrix (see Appendix C) provided evidence of how each collection tool/item aligned with the research questions and literature for this study. The data collection phase lasted approximately 5 weeks.

According to Creswell (2012), qualitative research is exploratory and used to gain an understanding or insight. This experience places the researcher in the position of being the primary research tool throughout the process of gathering data (Merriam, 2009). The central research question is: How can elementary teachers in Grades 3-5 better use homework as a formative assessment to prepare students for standardized tests?

To ensure a depth of understanding of this case study, there were sub-questions around this topic. The sub-questions include:

SRQ1: How do teachers prepare, select, or create formative assessments in their classrooms?

SRQ2: How do teachers use data from formative assessments to prepare instruction?

SRQ3: How does homework align with summative assessments?

To answer the research questions, I provided a description of the phenomena related to teachers' decision-making processes and practices related to formative assessments. I gathered data for these descriptions through interviews, document analysis, and a focus group.

Interviews

The use of semistructured interviews was appropriate for answering the research questions in this study. Marshall and Rossman (2016) explained qualitative interviews as conversations led by a researcher to gather detail and insight about the stated topic. Conducting interviews was chosen to fully understand elementary teachers' processes of developing homework to formatively and summatively assess student learning outcomes.

Plan. I conducted interviews in Summer 2018 after IRB approval. There were 17 teachers who met the criteria for the study. I qualified the 10 teachers who expressed interest in participating via the phone. The qualification questions (see Appendix E) were answered by the 10 participants qualifying them for the study. After qualifying the teachers who agreed to participate, I sent each an e-mail from my Walden University e-

mail to their personal, confidential e-mail reiterating the purpose of the study and confirming the date, time, and place for the interview. Each participant was reminded about privacy and anonymity through the use of pseudonyms, and the right to withdraw at any time. The informed consent was e-mailed to each participant from my Walden University e-mail to their personal, confidential e-mail. I requested the e-mail return of the signed form within 72 hours. I provided a copy of the signed consent form to participants for their records at the interview if they did not already make a copy.

I ensured the participants were not inconvenienced by the data collection process. Yin (2014) supported a 1-hour case study interview: long enough to follow protocol, short enough to maintain an open-ended, conversational approach. One interview was scheduled with each teacher and kept to 1-hour sessions respecting the teacher's time. Teachers had a voice in scheduling the interviews. They were given the option of meeting at a time and location that was convenient for them. All of the teachers chose to be interviewed in their classrooms. The interviews each lasted between 40 to 70 minutes. As it was summer, scheduling was easier and teachers were setting up their classrooms and had more flexibility with their time.

Protocol. The Instrument Data Alignment Matrix (see Appendix C) indicated the relation of the interview questions and their alignment to the research questions. The semi-structured, individual interviews followed the interview protocol found in Appendix G. The interview protocol was developed based on the research questions and literature. The protocol provided consistency as the questions were asked in the same order, using the same wording, with each participant. Creswell (2012) noted the importance of

developing a relationship or rapport with the participants, as the researcher spends time with each participant. Probing questions were used to ensure thorough responses from the teachers and to facilitate richer, more in-depth answers as needed.

Tracking data. I audio taped the individual interviews for later transcription. I scheduled the interviews during the summer and upon completion of each interview, I transcribed the personal interviews audio recordings as soon as possible after the interviews. Transcripts were documented in a word processing program. Each interview question was noted, and responses were documented below each interview question. Using this process allowed me to see emerging understandings that were discovered while coding the data. I took notes during the interview which complemented the use of audio recordings. I documented the memos or notes in a word processing program as soon as possible after the interviews. I transcribed all the interviews during a 16-day period.

Document Analysis

As the local problem related to the misalignment of formative to summative assessments, viewing homework assignments and lesson plans in the context of the summative PARCC assessment improved understanding about the local situation. Documents and artifacts are another form of qualitative data (Lodico et al., 2010; Merriam, 2009) and may be photographs, videos, films, memos, letters, diaries, clinical case records, and memorabilia to supplement information. The rationale for document analysis was to support and enrich the description of the participant understanding of the phenomena being examined (Yin, 2014). Examining the internal and external artifacts

allowed a broader perspective concerning the classroom application of homework. In this study, purposeful sampling (Lodico et al., 2010) was also used for document retrieval. Documents for language arts and mathematics were chosen because these are subject areas that are tested annually on the PARCC.

        Plan. At the interview, I asked each participant to provide documents for analysis. I ensured the participants were not inconvenienced by asking for documents only from a specific 2-week period. There was a 3-week delay between when the interview occurred and the ability to collect documents for analysis. This delay was due to the fact that interviews were conducted when school was not in session. Using a small window and collecting limited documentation allowed me to respect teachers' time. Each participant was asked to prepare a single copy of each language arts and mathematics homework assigned during the 2-week period following the interview. Each participant was asked to provide examples from three students of completed, deidentified homework assignments from language arts and mathematics classes for each day during the first 2-weeks of the school year.

        The teachers were asked to choose an exemplary homework sample, an average homework sample, and an example from a student who struggled with homework. Teachers collected homework from the same three students. The homework was deidentified, but the teacher labeled the examples as Student 1, Student 2, and Student 3 consistently during the 2-week period. They also provided a copy of the original assignment. All 10 participants provided the requested documents, although one teacher did not label the student work. It also appeared that different student samples were

provided during the course of the 2-week period. The teacher just sent random samples of homework and not the same 3 students as suggested. Teachers submit lesson plans on a web-based program called OnCourse. I collected lesson plans that included homework assignments and lesson objectives for the first 2-weeks of school following the interview. I asked the teachers to print their language arts and mathematics lesson plans during the 2-week interval. All of the participants provided these plans. Collecting these artifacts daily was estimated to take 10-15 minutes. Teachers determined if they wanted to collect the documents daily, weekly, or at the end of the 2-week window.

I gave each participant a self-addressed, stamped document mailer which I coded for the participant. The mailer included the Document Collection Instruction Sheet (see Appendix H) indicating that the following artifacts should be sent to me: (a) original homework assignments, (b) student completed assignments, and (c) lesson plans. I included my contact information on the instruction sheet in case there were any questions. I sent one teacher a reminder e-mail to provide the documents via the mailer. The teacher did provide the documents shortly after receiving the reminder e-mail.

Protocol. These documents were valuable to corroborate information and be an additional data source to validate the findings. I developed the Document Analysis Guide (see Appendix I) to ensure that the documents would be analyzed in a procedural manner that gathered data regarding the research questions. The information documented on the guide, like feedback and types of questions, stemmed from the literature review. The guide provided consistency of what is noted for each document review. The homework assignments were considered *external communication.* External communication refers to

materials produced by organizations for public consumption (Bogdan & Biklen, 2007).

The lesson plans were considered *internal communications*. Internal communication

refers to materials circulated inside an organization—in this study, the schools (Bogdan

& Biklen, 2007). Incorporating internal and external documents complemented and

triangulated with the other data collected in this study.

Tracking data. I used the Document Analysis Guide (see Appendix I) to manage

my descriptive notes about the artifacts. Upon receiving a returned mailer, I labeled all

artifacts to match the code of the participant. I found I could not use one set of documents

provided as the teacher did not send the consistent same three student work samples, but

random samples of homework that were not labeled. Therefore, I only analyzed samples

from 9 of the 10 participants. I entered my observations and comments regarding the

homework assignments on the Document Analysis Guide which was scanned into my

personal computer. This was time consuming as there were many documents to analyze.

In addition, I recorded observations and comments related to the lesson plans as well as

the noted objective on the document analysis guide. The hard copy of the assignments,

lesson plans, and document analysis guide was stored in a personal, locked file drawer.

Focus Group

Focus groups offered an additional level of data gathering and perspective that

may not be found in interviews (Coule, 2013; Dilshad & Latif, 2013). The intent of the

focus group was to allow participants to elaborate on their positions or perspectives on

homework as a formative assessment. The purpose of the focus group was to obtain a

diverse perspective and to add to the collected data (Krueger & Casey, 2014). In addition,

the interactive feedback used during the focus group helped reduce a possible *halo effect*. According to Lodico et al. (2006), the halo effect occurs when an initial impression influences subsequent observations rendering them less accurate. During interviews, for example, teachers may provide answers that they assume the researcher wants to hear rather than answering truthfully. Providing a second opportunity for teachers to share honestly may improve the accuracy of the data (Lodico et al., 2006). Teachers may feel more connected to me after the interviews and may share more freely during the focus group.

The focus group provided two opportunities for participants to share responses. First, focus group prompts were provided on large poster paper to guide a brief discussion among all participants. In order to transition between the discussion questions, each participant was also invited to electronically submit a confidential polling response to two belief statements using a web-based polling application called *Nearpod*. In this focus group, each participant had opportunity to respond orally and also electronically to different types of prompts relative to formative assessment practices. When participants were invited to the focus group, they were asked to bring their phone, iPad/tablet, or laptop computer in order to facilitate this activity. I also had back up devices for participants to use in case someone forgot a device or one failed to function properly.

Plan. Upon participant arrival for the focus group, I provided introductions and set up guidelines for the focus group activities: the focus group prompts and the belief statement responses. All 10 of the teachers I interviewed also participated in the focus group. The focus group took place in the local public library in their private meeting

room. I arrived 45 minutes early to set up the technology for the Nearpod and the poster paper. As the participants entered, I greeted the teachers, thanked them for coming, and gave each person an index card providing directions to access the Nearpod polling application, our group name; and an individualized user name. All of the participants brought their own technology. I assisted any participants that needed help setting up for the activities. Participants had time to log into the application. A test prompt was sent to each participant to ensure everyone had access. There were no challenges to accessing the application.

The focus group started promptly on time. As a group, I provided a brief introduction of the problem in this study and provided verbal instructions for the activities. I explained that Nearpod was an interactive tool that would be used during the focus group to provide confidential responses to additional focus group statements. I explained that after each group discussion questions each participant would receive two statements through Nearpod with instructions to indicate the extent or level of agreement with the statement. Each statement was followed by a Likert scale of 1-4 with 1 indicating "I do not agree" and 4 indicating "I completely agree" with the statement, allowing an anonymous response to the belief statement. Additionally, I answered any questions about the instructions.

One teacher asked about the anonymity of her responses and I assured her that all responses would be confidential. I also reminded the teachers that they could stop participating in the focus group at any time. All of the participants remained for the entirety of the focus group. I encouraged participants to share their thoughts, feelings, or

experiences related to the prompts provided in the discussion. I also encouraged them to respond truthfully to the belief statements presented electronically. Teachers participated freely in the focus group with the exception of one teacher. The teacher did respond to the Nearpod statements, but did not fully participate in the focus group discussion. She appeared to be listening as she did nod her head in agreement several times during the discussion.

Focus group prompts. As I began the focus group discussion, I displayed one sheet of poster paper with a single prompt from the Focus Group Prompts (see Appendix K). There were seven Focus Group Prompts and the group had 10 minutes to orally respond and discuss each prompt. I used my phone as a timer and needed to advance the discussion to the next question after each 10-minute interval. I audio recorded the focus group discussion.

Belief statement responses. During the focus group, participants provided real-time, anonymous, interactive feedback facilitated by Nearpod—a web-based, interactive assessment tool that allowed me to poll the participants regarding statements about assessment processes. After each prompt in the focus group, I transitioned to the next prompt by sending two belief statements—one at a time—to the participants via the Nearpod application. Each participant privately viewed the belief statement on his or her personal device and responded anonymously to each statement by choosing a Likert scale item. These responses took 1 minute or less. Responses to the belief statements indicated the participant's level of agreement or disagreement with the belief statement. Providing this confidential means of responding culled honest responses from the participants

relative to the local problem. The belief statements addressed best practices that were derived from the literature and included learning goals, feedback, types of questions, and goal setting. Gathering this data allowed participants to share their feelings about formative assessment practices with a thin veil of privacy that encouraged forthright responses (Lodico et al., 2006). The application provided results which were accessed after the focus group.

The focus group concluded when I cycled the group through all 7 prompts and 13 belief statements. Participants had opportunity to ask me any questions in the group or individually after the session. The discussion on the Focus Group Prompts lasted approximately 80 minutes; the belief statement prompts lasted 15 minutes allowing 10 minutes for introductions and closure.

Protocol. I planned one focus group. All interviewees were invited to attend and all did participate. This allowed for the desired number of participants who participated in the interview process. I sent participants an e-mail from my Walden University e-mail to their personal, confidential e-mail confirming the date, time, and location of the focus group. The focus group took place at the end of August at the local public library. I reminded the participants about privacy and anonymity through the use of pseudonyms during the focus group, and the right to withdraw at any time. The focus group lasted approximately 95 minutes at a local public library with Wi-Fi access after school hours approximately 2 weeks after the last interview.

In order to prepare for the focus group, I wrote each focus group prompt on poster paper. These discussion prompts (see Appendix K) were generated from the Instrument

Item Alignment Matrix (see Appendix C), a document that visualizes the extrapolation of this study's research questions from the literature. Using discussion prompts that were connected to the literature regarding the local problem was a method of insuring that the necessary data were gathered to address the local problem. I also prepared the belief statement prompts (see Appendix J) in the Nearpod application so they were ready to share with the participants throughout the focus group session.

Tracking data. An audio recorder was used to document the focus group session. I did not video record the focus group, but I audio recorded it to be transcribed starting the day after the focus group. Transcribing took approximately 4 days to complete. Immediately following the focus group, I journaled my observations and comments. I took reflective notes on the individual and group responses immediately after the focus group ended. I entered the notes into a word processing program. The same day, after the completion of the focus group, I accessed the Nearpod application poll created from responses to the belief statements and viewed them individually and in an aggregated form. Nearpod automatically created a PDF report which was downloaded and printed out. I also took reflective notes on the individual and aggregated results. I entered the notes into a word processing program. The hard copy of the poster paper was stored in a personal, locked file drawer.

Protective Measures

I took several protective measures including backing up all data on my computer, using an external hard drive, and saving data on a USB drive. Hard copies of all documents and all transcribed and organized data will be maintained for 5 years from the

conclusion of the study. After this time, the hard copies will be destroyed, the data will be deleted from the hard drive of the computer, and the external hard drive. The USB drive will be destroyed.

Role of the Researcher

As the sole researcher for this case study, I was responsible for the design, implementation, and reporting of the research. I qualified the participants, collected, and recorded teacher data from one-to-one interviews, a focus group, and document analysis. I have been a middle school administrator in the district for 9 years. I do not, nor have I ever worked at the sites of the study. Although I am familiar with district practices and policies, teachers under my direct supervision did not participate in this study. I did not know the teachers at either elementary school. Participation in this study did not affect any relationship with me and the teachers because the teachers were in different buildings and I did not have supervisory influence over them.

Finally, I avoided biases and was sensitive to contrary evidence. I avoided bias by not identifying with one person while being negative towards another. Rubin and Rubin (2005) stated the researcher "examine any preconceptions and feelings that might slant the research and with this understanding in mind, work to formulate questions to offset any possible biases" (p. 82). As the researcher, I remained objective and flexible. During interviews I consciously withheld my opinion. To also minimize the effect of potential bias, I recorded thoughts in a reflective journal. These written notes provided an awareness of potential bias, as they were transparent through the data collection and

analysis. I had participants member check a summary of the findings to ensure what I heard was what the participant meant.

Data Analysis

Data analysis is the organizing of the collected data to make sense of the findings Glesne (2011). In addition, data analysis involves categorizing and interpreting findings. Glesne (2011) and Merriam (2009) indicated that data analysis occur at the same time as the data collection process. This method allows the researcher to reflect as the study develops. Coding was completed 2 weeks after the final interview and the focus group. The entire process of coding and data analysis took 4 weeks.

Coding Procedures

Creswell (2012) explained *coding* as the process to categorize data allowing themes to unfold. As I coded and developed themes from the interviews and focus group; I also analyzed the homework assignments collected (see Appendix I). Each document and student artifact was reviewed for its connection or alignment with the: (a) objective noted in the lesson plan, (b) level of questions asked, and (c) type of feedback provided. Zucker (2009) recommended a three-step method to coding and data analysis. The first stage is describing the experiences. The next stage is to describe meaning, and the final stage is the focus of analysis. As Zucker (2009) indicated, a code was assigned to words or phrases found in the data. These codes captured the basic concepts and categories of the case study. Open and axial coding was applied to all data gathered. The coding process identified common themes and categories.

Open coding. Open coding is usually the first stage of making sense of the data. Open coding involves looking for distinct concepts and categories within the data. The benefit of open coding is that concepts are developed from the raw data and can be grouped into conceptual categories. Open coding builds a descriptive framework for later analysis (Saldana, 2013). After I transcribed the interviews and focus group sessions, I began the first stage of coding. I read through the data several times and began to create tentative labels summarizing what was occurring. I highlighted and marked the text data indicating concepts related to the research question. Different colored highlighters distinguished broad concepts and categories. For example, if teachers consistently discussed grading homework, I used the same color highlight. Feedback on homework became a concept. The highlighted codes were identified for further analysis. Predetermined codes were not used. I was primarily focused on the text to define concepts and categories.

Axial coding. Axial coding is the process of relating categories. In axial coding, the concepts and categories defined in open coding were explored as to how they are related. Axial coding is a more selective approach to looking at the data. This step is considered a cyclical act of linking data to ideas and ideas back to data (Saldana, 2013). I searched for patterns within the coded data and began to describe meaning. I reread and reviewed the text in order to identify text that supported the concepts and categories established in the open coding process. The significant coded statements were sorted and grouped into larger categories which were interpreted as themes or patterns. Coding the responses into themes organized and gave meaning to the data collected. I looked for

connections among the categories discovered in the open coding. I referred to the

spreadsheet and reflective notes to make comparisons between the responses and began

to build concepts and generalizations. Themes are an outcome of coding (Saldana, 2013).

Development of Themes

Analysis involves using the data to describe the phenomenon. Zucker (2009)

described this final stage, focus of analysis, with attention to detail, increasing clarity and

providing rigor. The themes for analysis were drawn from the research questions,

interview and focus group questions and were supported by the literature review. During

the course of interviews, other themes developed. I used these themes to look for patterns

and relationships. It was also important to revisit the data and to review and revise

coding. During this stage, I determined if the findings made sense, were credible to the

participants, and if any conclusions were transferable and able to be generalized.

Continual refinement occurred during this final stage. The codes were gradually

combined and reduced. I eliminated any overlap of codes and this provided a clearer view

of the patterns or themes. The themes were typically big ideas that allowed me to explain

what was learned in the study (Lodico et al., 2006). I summarized the findings using

narrative and tables. Data were interpreted in this final phase. The process of reviewing

the data was repeated until the research questions had been answered and meaning was

culled from the data. Saturation occurred when no new codes, categories, or themes were

surfacing from the analysis of data (Rebar, Gersch, Macnee, & McCabe, 2011).

Accuracy and Credibility

Accuracy and reliability are key components of all research. Researchers must be aware of possible risks and plan strategies to avoid them (Lodico et al., 2010). I outlined three measures attempting to address accuracy and credibility. Member checking, rich thick descriptions and triangulation were used to provide an unbiased study.

Member checking. To confirm the accuracy and credibility of the study, I used member checking to have all participants review the summary of the findings. Creswell (2013) stated member checking involves going back to those interviewed to ask if they agree with the accuracy of the summary of findings. Upon committee approval, a concise narrative description of the relevant findings from each participant's interview and the focus group was shared via confidential, personal e-mail. Instructions were provided in the e-mail. Each participant was allowed to validate the findings and provide any additional comments. Participants were asked to return their feedback within 2-weeks of receipt. Feedback provided within the 2-week time limit was considered in the final results.

Rich, thick descriptions. Incorporating rich, thick descriptions provides reliability (Merriam, 2009). Thick description includes details when describing a case or when writing about a theme (Creswell, 2013). The richness of the information and the analytical abilities of the researcher add to the credibility of the study. These descriptions should help the reader determine whether the study might be transferable to a different setting. Transferability is accomplished by providing in-depth details of the setting. I included numerous direct quotes providing support of any findings.

Triangulation. Triangulation is used to ensure the accuracy and validity of the data. According to Chowdhury (2015), triangulation assesses credibility and validates research data. Triangulation confirms the authenticity of a study. I triangulated evidence from three sources: interviews, focus groups, and documents. Multiple data sources allowed a more accurate and complete image of the study findings (Glesne, 2011).

Researcher bias. Research bias is present when a researcher provides influence in the results of a study (Galdas, 2017). I addressed research bias as I collected and analyzed the data. There was a possibility of selective interpretation to data. To avoid this bias, I used multiple sources and methods to collect and analyze data. Another bias was possibly selecting participants who reflect preconceptions. I avoided this bias by adhering to the sampling strategies outlined. I also monitored bias through the use of a reflective journal.

Procedures for Dealing with Discrepant Cases

During the data analysis there was the possibility of a discrepant case. According to Creswell (2013) a *discrepant case* involves elements of the data that do not support explanations that were emerging from the data analysis. A discrepant case was a response from a teacher that was opposite or different from others interviewed for the study. Merriam (2009) encouraged researchers to seek cases that might not conform or may challenge the expected findings. There were no discrepant cases in this study.

Data Analysis

This qualitative case study was in a suburban district in Northeastern New Jersey. The purpose of this study was to better understand the formative assessment processes

that drive instructional decision making. I explored homework as a classroom formative assessment including the strategic processes for successfully assigning homework as a formative assessment. I analyzed data involving how teachers prepared formative assessments and how they used data from the assessments to inform instruction. I analyzed how the homework assigned aligned with summative assessments and feedback provided to students for growth.
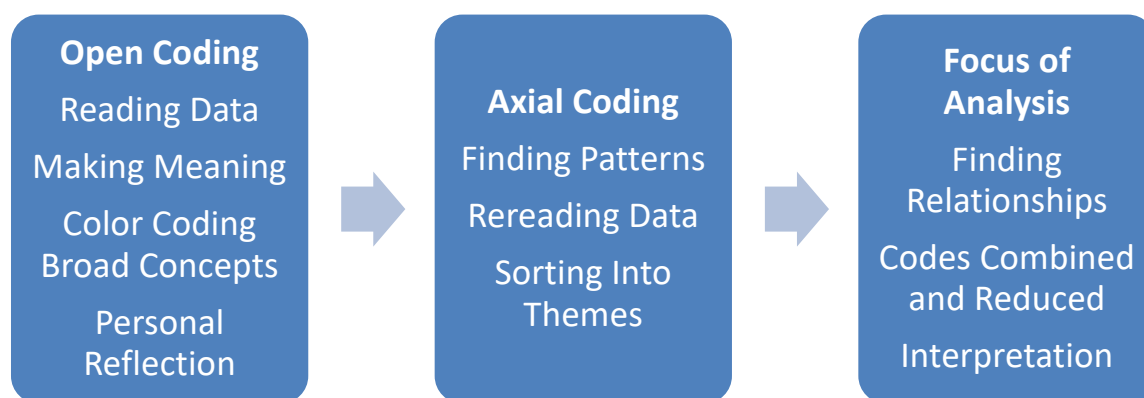
Process

A sample of 10 third, fourth and fifth grade teachers were interviewed regarding their formative assessment practices and beliefs about homework. Each of the participants interviewed also participated in a focus group. Embedded within the focus group was an online survey. I recorded the audio from the interviews and the focus group and transcribed each myself immediately using a word processor. Maintaining confidentiality, participants were identified as Teacher A through Teacher J. The survey results were downloaded as a PDF. Copies of lesson plans and homework samples from nine of the participants were received through the postal office and were immediately labeled for identification as Teacher A through Teacher I to maintain confidentiality. One teacher returned documents, but did not follow the instructions so those documents were not analyzed.

Coding

During data analysis no predetermined codes were used. I created documents for each interview question and copied responses from each participant under the interview question. I continuously read the transcripts. Open coding was applied to all data

collected and brought organization to the data. Then axial coding was used to determine how the data were connected. I used the three-step analysis set forth by Zucker (2009) as noted in Figure 2 below.

Figure 2. The three-step process used to analyze the data.

I began the analysis by reading through each of the transcribed interviews and focus group responses. I also reviewed each of the lesson plans submitted along with the student work examples. I reviewed and reflected on the research process. I then deliberately reviewed each interview and the transcribed focus group responses emphasizing making meaning of the data. I color-coded and made personal reflections to note my interpretations of themes and patterns. I used Black and Wiliam's (1998) framework as an inductive tool; assisting to gather the categories to form a descriptive whole. I looked for regularities and patterns with words and phrases. A list of codes began to develop including: *feedback, exit tickets, Do Nows, reteaching, teacher observation, conferencing, feedback, self-assessment, closure, and mini-lessons.* I

determined which data interpretations were relevant to the research questions and the local problem. Although I did not use a program to analyze data and the process was lengthy to transcribe and analyze, I felt the identification of themes was organic and meaningful. I organized the data around four themes that were consistent throughout the interviews, focus group, and documents. The themes were the formative assessment process, feedback, learning targets, and alignment to summative assessments.

Data Analysis Results

The study was guided by three research questions focused on: (a) creation of formative assessments, (b) using data from formative assessments, and (c) alignment with summative assessments. I organized the findings by each research question and the framework of formative assessments related to each question. The codes represented the pillars of formative assessments. The participants mentioned many assessment strategies used throughout the day and practices in place to document student growth. These became categories and then themes. I used teacher quotes to support the themes.

Research Question 1: Creating Formative Assessments

Teachers were asked about their understanding of formative assessments and how they develop formative assessments in their classrooms. The application of the three key questions related to the formative assessment framework was considered when interviewing teachers. The teachers were queried on how they engage students in their learning. The participants were also questioned about classroom assessments they are currently using and determining when to assess students. The formal questions aligned with the work of Black and Wiliams (1998) related to formative assessments.

Formative assessment processes. Formative assessments are planned processes (Popham, 2018); however, statements from teachers in the district did not align with this practice. Teachers discussed using exit tickets or Do Nows as a formative assessment, but did not fully articulate the process of determining where a student is, where are they going and how will they know if they got there. When asked to define formative assessments, some teachers articulated an understanding of what a formative assessment or assessment for learning was. For example, a teacher F shared, "formative assessments help the learners and teachers decide where they are in their learning." However, other teachers admitted to not knowing the difference between summative and formative assessments. In this study, 60% of the participants indicated they used formative assessments in their classroom. Teachers discussed using information from Do Nows and Exit Slips to formatively assess students. Teacher F noted, "the information I receive allows me to plan any reteaching I have to do, small group creations and future activities to be done or assignments to come."

Another teacher's understanding of formative assessments indicated formative assessments drive instruction. According to teacher J, "the data collected from all formative assessments tell me where to start with a class, what concepts need to be retaught, and when they are ready for a summative. This starts right away with a preassessment, followed with daily things like Do Now, Exit Slips, and discussions."

When queried about the differences between summative and formative assessments, not all teachers were able to articulate the difference between the two types of assessments. Teacher B used the terms quizzes and tests interchangeably and admitted

to always confusing what is a formative and what is a summative assessment. The two novice teachers consistently referred to formative assessments as *checks for understanding.* Do Nows and Exit Tickets were mentioned by each of the 10 interviewees. For example, teacher E stated, "I start each class with a Do Now. This helps me to review a previous skill and recheck for understanding, or even introduce a new skill. I then end each class with an exit slip as a final assessment." While teacher D shared she used Thumbs Up/Thumbs Down to identify levels of understanding. Teacher F indicated, "I like to look at past assessments and data to determine what my students need the most improvement in and then create assessments to help them achieve their goals."

The lesson plans submitted varied on how assessments were documented. Teachers noted in their lesson plans *formative assessments* and simply indicated "teacher observation" each of the 10 days the plans were collected. For example, Teacher D did not indicate any other forms of assessment during the 2-week period in the lesson plan other than teacher observation. Lesson plans reviewed indicated "teacher observation" frequently during the 2-week span as a method of assessment.

Lesson design. During the interviews, all teachers discussed conferencing with students during Readers/Writers Workshop as a form of formative assessment. Conferences were used widely between teachers and students as part of the language arts lessons. The district implemented Readers/Writers workshop; conferencing and mini lessons are standard components of this program. During these segments of the lessons, teachers provided feedback for growth to individual students consistently. In reviewing

lesson plans, in 90% of the language arts plans, mini-lessons were documented at least 9 of 10 days. This was a consistent practice for all 10 participants. Additionally, the elementary teachers implemented the workshop model while teaching mathematics. The workshop model promoted more small group lessons targeting specific skills.

Teachers indicated that they were comfortable making decisions on what to assign for homework. While only 60% of the participants valued homework assignments. Teacher E felt that "homework was not a gauge related to learning as the parents provided help and as a teacher, he could not discern what the student really understood." Teacher B echoed this belief stating she didn't put "a lot of weight on homework and I mostly just check that it is completed." Participants in the focus group reported homework was an extension of the work done in class or extra practice of a concept. A review of the lesson plans revealed that homework was simply noted on a daily basis or when assigned, as either a worksheet or independent reading. Several of the teachers stated they liked to review any homework as a class, but students did not always respond. No teachers in the study used homework as a punishment, but 40% have used not having homework as a reward.

A review of lesson plans revealed inconsistencies as to what was documented. All plans had an objective noted with the wording *students will*. Most of the teachers noted some type of procedure which primarily indicated 3-5 steps that would be taken during the lesson. Almost half of the teachers noted a separate closure or assessment activity. The closure or assessment documented included: teacher observation, a worksheet, listening to answers, student notebooks, and completion of journal page. One teacher

wrote, "participate actively and positively in the class lesson" as a means of assessing the students in the plans.

Research Question 2: Using Data from Formative Assessments

Teachers were asked about using data to inform their instruction and what they do with the information gathered. This research question was formulated to better understand teachers' application of the pillars of formative assessment practices. Participants discussed feedback and how students responded when they receive feedback. Finally, the teachers were asked about learning goals and what happens if a student does not appear to be learning.

Feedback. Feedback is effective when students have an exact sense of what they are trying to learn (Pearsall, 2018). If students know *where they are going*, the feedback provided about their individual progress is more accurate and relevant. Only 40% of the participants provided feedback on homework assignments. Teacher C shared, "After handing back an assessment, we have a whole group discussion where I zero in on the different issues kids had and I model correct answers on board." While teacher D indicated, "I determine deficiencies in student progress and tailor instruction to improve upon them. This should include group conferencing when deficiencies overlap." Table 4 shows feedback provided by the teachers and how often the feedback was used in the classrooms.

Table 4

Ways Teachers Provide Feedback

	Feedback provided		
Grade	Written feedback	Verbal praise	Return in timely manner
3	40%	40%	40%
4	30%	40%	60%
5	40%	40%	30%

Note. Information gathered from focus group participants.

Homework assignments returned to students did not contain feedback, but simply letter grades, vague phrases like "good work" or "well done." In one third grade class, the teacher simply marked a check, check minus, or check plus on four returned homework assignments despite the level of responses. Only 40% of the teachers provided verbal praise when returning homework, although the teachers indicated that students were genuinely open to receiving feedback. Teacher G felt more comfortable providing feedback in math as she felt it was more concrete and she could explain why a student got a problem wrong. Her feedback was more about how to fix the error. However, with reading, the same teacher felt feedback was difficult to apply for students. Additionally, the same 40% of teachers returned homework in a timely manner.

During the focus group, teachers shared they felt feedback helped students. They concurred feedback should be given on completed work so students knew where to improve. Teachers also shared students overall were receptive to feedback. The

participants responded they provided feedback through conferring with students and only indicated they provided comments on homework assignments. The comments did not collect evidence of student learning.

      Self-assessment. Students should have a role in the formative assessment process. According to Hawe and Dixon (2017) peer and self-assessments are important for students to think at a higher level about learning. By self-assessing, they can evaluate the effectiveness of their learning and adjust how they are addressing a learning goal.

      In responding to the belief statements; 80% of the teachers indicated they encouraged students to self-reflect on their homework assignments. However, when asked to share how they encouraged self-reflection the teachers only discussed making corrections on returned homework. Participants were asked how they knew students understand what they were learning and what students did when an assessment was returned. When asked during the focus group about students understanding what they were learning, Teacher E responded, "Students make reflections and corrections on the work I return. I then use this info to assess my teaching strategies. I do not always blame the students." However, the remaining teachers in the study did not encourage self-reflection. Teacher D noted, "For larger summative assessments I keep track of how many students got each question wrong, the mean, median, mode."

Research Question 3: Alignment with Summative Assessments

      Teachers were asked about the types of assessments used in their classes. In the district, the teachers referred to various standardized assessments including: Dolch sight word list, Independent Reading Levels measured by running records, PARCC, and

quarterly benchmark tests in math. Teachers also discussed reading notebook checks, math unit assessments and the Teacher College rubrics for writing. Participants were also asked about the types of questions asked on homework and how homework reinforced state standards.

Learning targets. When students understand what is required of them and take ownership of their learning goals they are more active in responding to feedback (Pearsall, 2018). Learning targets are concrete descriptions of skills, concepts, or knowledge that students are expected to learn. In this study, 100% of the teachers stated they connected homework assignments to instructional objectives or learning targets. For example, one fifth grade teacher's mathematics lesson plan stated: Students will demonstrate the ability to review and practice strategies for using partial quotients division to divide whole numbers. When applying the definition of learning targets this objective would not be considered to be a learning target. Teacher A discussed formative assessments by sharing she "utilized the results to create plans for that child when teaching. I reevaluate if it needs to be retaught, or I group students accordingly for lessons the following day."

For example, teachers would conference with a student about being a better reader or writer. Where a student struggled was discussed and perhaps a mentor text was shared with the student. The teacher suggested specific changes to apply to a writing prompt and allowed the student time to implement these changes. At follow up conferences, the students were expected to show the teacher through published pieces of work the changes and growth. However, there was not consistency across the grade levels or district on

setting individual learning targets, but more of corrective feedback to be implemented.

Teachers in Grade 3 pulled small groups of students for mini-lessons based on exit tickets

to address identified weaknesses. However, the homework assigned was the same for all

general education students with little to no differentiating for where a student was in the

learning process. Teacher E stated, "Homework is an extension and has to match with the

instruction in my class. I want the students to have self-efficacy." While Teacher A

shared, "I make sure they make connections of where they are going with the lesson."

Table 5

Percentage of Teachers Who Set Learning Goals

Grade	*n*	%
3	4	40
4	3	60
5	3	80

Note. ($n = 10$)

On average, only 60% of the teachers typically set learning goals for the students

to achieve in this study. The learning goals only pertained to reading or writing and not

towards mathematics. For example, a teacher would conference with a student, provide

feedback or suggestions for improving writing and then see if the feedback was

incorporated in the final draft of the writing prompt. Or a teacher would provide small

group instruction with a mentor text to improve reading skills, but there was no specific

learning goal set other than improving to the next reading level.

Alignment of formative and summative assessments. Summative testing is one of the most used means that teachers use to assess student progress (Pearsall, 2018). However, waiting until the end of a unit to assess progress is counterproductive. When asked about creating homework assignments with higher-order questions, 80% of the teachers indicated they created assignments with higher-order questions. However, Figure 3 indicates the mathematics homework assigned in the local study did not align with the skills expected by the Common Core Standards.
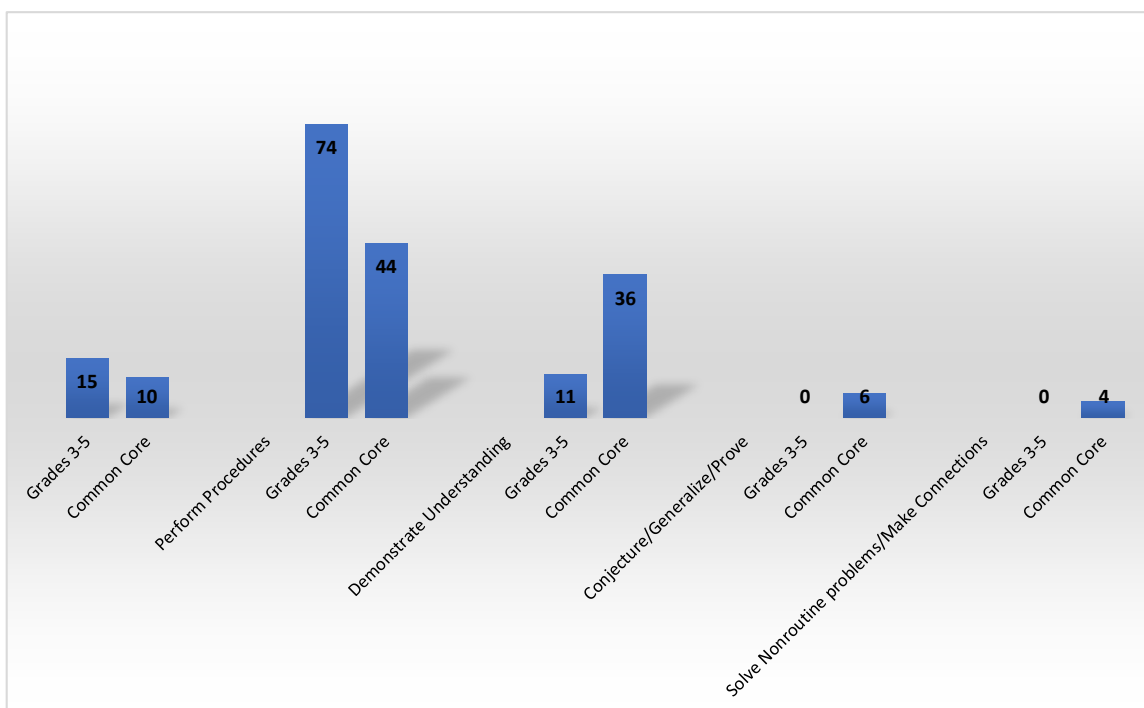
Figure 3. The comparison of homework assigned by teachers in the local district with the Common Core skills found on summative evaluations in the area of mathematics.

The documents analyzed showed the homework consistently sent home relied on the worksheets connected to the district purchased math series. All the documents collected reflected the same assignment, regardless of the student's individual needs.

Lesson plans written indicated homework was an assessment on the days assigned. For

example, Teacher D wrote in the plans: Assessment-Home Links 2 as the homework

assignment. The objective for the lesson was for the students to use information presented

in the line plots to solve problems, including problems about redistributing measurement

data. The worksheet assigned was from the math series, Everyday Math. The students

were required to complete four problems related to line plots. Many of the teachers stated

they typically used the worksheets that were aligned with the district math program

which was aligned with the curriculum. They felt this was an expectation of them. Table

6 shows the percentage of teachers who individualized homework and created homework

with higher order thinking skills.

Table 6

*How Teachers Create Homework Assignments (*n = 10)

Grade	% Higher order questions	% Individualized
3	60	10
4	60	0
5	80	20

In the subject area of language arts, all teachers assigned *read at home* as the

nightly homework assignment. Students were expected to complete a weekly log of

minutes read nightly. In addition, students completed Post-it notes indicating different

aspects of Readers/Writers Workshop. For example, when reading a chapter, the student

wrote a post-it note when finding a literacy device being studied, like author's message in

a third grade class. The next day in class, the students shared what they wrote on the post-it note. Figure 4 indicates a misalignment between the language arts homework assigned by teachers in the local district and the skill expectations of the Common Core Standards.
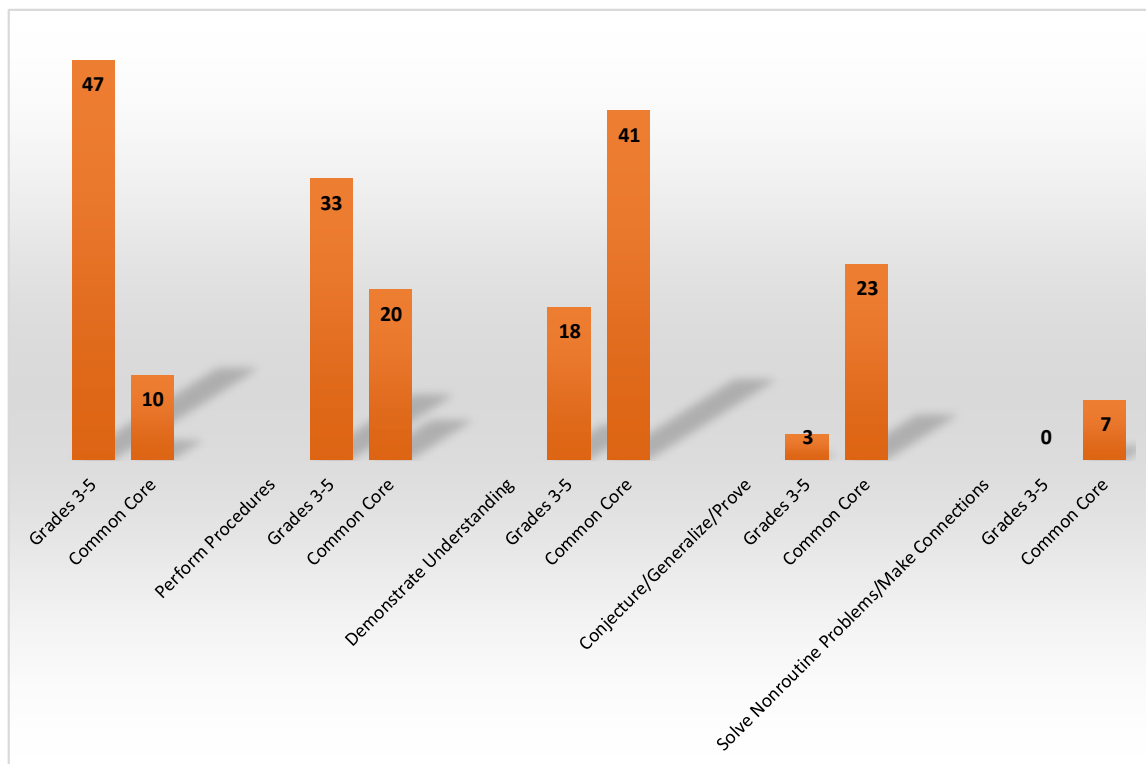
Figure 4. Comparison of percentage of practice assigned for homework and the Common Core skills found on summative evaluations in the area of language arts.

When assessing students, Teacher C stated, "I make sure students are aware of what, why and when they will be assessed. That they know the expectations and directions during an assessment. I also make sure students have an opportunity to review and ask questions after an assessment." The data analyzed reflected how the teachers in the local district interacted with the key components of the formative assessment practice as outlined by Chappuis (2005) and Black and Wiliams (1998). The teachers were asked

questions aligned with the seven practices and their responses were analyzed. A summary

of their responses is captured in Table 7 and guided the results of this study.

Table 7

Summary of Teacher Responses

Formative practices	SRQ1:	SRQ2:	SRQ3:
		Where am I going?	
Clear learning targets	Standardized tests and then group students One goal at a time to work on in writing	Use the district purchased materials Show progress during conferences	Conference about learning progression Format of unit tests considered
Strong/weak work examples	Mentor text to teach reading Turn and talk to peer Peer conferences	Examples during mini-lessons	Make corrections after test is returned Give enrichment and remedial sheets for practice Google Classroom Students to I&RS
		Where am I now?	
Provided feedback	If specific students seem to respond Constructive feedback is good	Keeping running records Complimentary Tailored to what a student can handle In math can provide concrete feedback How to fix a problem	Student appreciated and wanted to try harder Feedback in Google Classroom after writing
Self-assessing	Post it notes to share Give students choices	Switch papers to give peer feedback	Think of relevance to students Need to reach a reading level by end of checkpoints
		How do I close the gap?	
Evidence of learning	Pretests Rubrics Mini-lessons every few days	Running records for reading books Conference notes Published writing pieces	Reteach if students do not do well Relation to grade level expectations
Focused instruction	Set long- and short-term goals from assessments	Grouping Conferencing Mini-lessons	Have to follow district curriculum calendar All curriculum is aligned to district and state standards
Time to reflect	During mini-lessons to see if they understand	Not really built into the program	Make corrections when test is returned

Evidence of Quality

Data were purposefully collected and analyzed to provide credible evidence of teachers' practices and beliefs around formative assessment. I used member checking allowing all participants the opportunity to review the summary of findings. I incorporated rich, thick descriptions allowing the reader to determine if the study was transferable to a different selection. Numerous quotes were provided to support the findings. Finally, data were triangulated from three different sources: interviews, focus groups, and documents. I used multiple sources and methods to collect and analyze data to avoid bias.

Outcomes

The intent of this study was to explore data in the form of interviews, focus group, and documents to understand the process for developing homework to formatively assess student learning as it does not appropriately align with the student outcomes required by the higher-level summative assessments given in the classroom and on standardized tests. In an effort to align instruction, assessment, and student outcomes the following research questions were addressed:

RQ: How do elementary teachers in Grades 3-5 incorporate formative assessment strategies with homework to prepare students for summative assessments?

In order to provide a broader view of this study, three sub-questions are included:

SRQ1: How do teachers prepare, select, or create formative assessments in their classrooms?

SRQ2: How do teachers use data from formative assessments to prepare

instruction?

SRQ3: How does homework align with summative assessments?

The three key questions guiding the practice of formative assessments were

considered in this study as the conceptual framework along with the seven best practices

aligned to the questions. I embedded these practices: (a) feedback, (b) learning targets, (c)

self-assess, and (d) alignment to summative assessments as themes that emerged from the

data in this study.

The findings for this study revealed that teachers did not fully differentiate

between formative and summative assessments and used the terms interchangeably.

Teachers referred to quizzes and tests equally as summative assessments. They did

incorporate attempts at formative assessments, but could not name what they were doing

with the information. For example, during the day, teachers collected data regarding

student progress through Do Nows and Exit Tickets. This appeared to be a standard

practice within the two elementary schools for collecting formative data. The use of the

formative assessments was not practiced as these actions were not used to determine

where a student was in connection to their learning. Do Nows and Exit Tickets were

implemented to provide possible groupings or to indicate the need to reteach.

However, homework was not assigned and reviewed through the lens of being a

formative assessment. The teachers did not have a true process for formatively assessing

students. Mini lessons were a predominate pattern in the interviews and throughout the

lesson plans. Lesson plans written by teachers did not show a process to collect evidence

about student learning. However, the plans written by the teachers did not support any

other activities other than mini-lessons, Exit Tickets and Do Nows. Teachers should

employ systematic teaching procedures, work with students in small groups, and provide

feedback and monitor student learning adjusting the difficulty of the material to meet

individual learning needs (Vatterott, 2015).

Teachers used a variety of strategies to address student weaknesses including

conferences and mini-lessons. Teachers used multiple summative assessments relying on

the purchased programs for mathematics and language arts. Further analysis showed

feedback was not fully provided on homework assignments, learning targets were not

developed or tracked, and students were not self-assessing. The application of these

practices are all key to quality formative assessments. If all the components are not used

consistently, the teachers are not truly formatively assessing the students.

Feedback

The results of this study indicated teachers used feedback during the day in class,

but did not provide feedback on homework. Feedback was provided through mini-lessons

and conferencing 2-3 days per week in the local setting. Teachers met with students

individually or in small groups and gave mini-lessons on grammar errors. Teachers also

met with small groups targeting specific math skills. These activities were implemented

as building-wide initiatives that were expected on a daily basis. Black and Wiliam

(1998), Stiggins and Chappius (2008), and Pearsall (2018) all show research supporting

the positive effects of specific and timely feedback about learning that improved

achievement and motivation.

Rowe, Herrington, and Brown (2014) stated feedback should be provided while it is still relevant and soon after completing a task. This was not always the practice with assigned homework. Teachers were not always timely in returning papers and the feedback provided was broad and not targeted towards improvement. Additionally, feedback should be specific and easily understood by the student. Students should be provided the opportunity to show mastery after feedback is given. Flunger et al. (2015) studied ways teachers improved feedback on homework. The first improvement was on the actual homework questions and tasks allowing students to show understanding. Next, teachers provided comments to highlight strengths and areas of weaknesses and provide guidance on how to improve. Finally, students should be provided opportunities to respond to the comments and continue learning. Implementation of these feedback measures changed the view of students and homework.

Another study by Mikhwanazi et al. (2014) showed different types of feedback were provided and the study examined the impact on student performance. The study was randomized on students writing an essay. In the study, students received feedback from the teacher, no feedback, or a computer-based program. In addition, feedback was crossed with grades and no grades; praise and no praise. The results of the study indicated the most effective feedback was specific and descriptive, with no grades. According to the results of the study, when grades were given along with descriptive feedback, the performance by the student lessened.

Self-Assessment

The results of this study indicated students were not encouraged to self-assess so they were not truly part of the formative assessment process. The teachers mostly kept anecdotal notes and records for each student without involving them on where they are at in the learning process. Black and Wiliam (1998) articulate the extent that formative assessment should be used in classrooms. In their studies, they showed the primary user of assessment information is the student; however, students focus on rewards or grades. This is encouraged by teachers with more grades or points. When students focus on only maintaining good grades or enough points, they miss on authentic learning for fear of less points or a lower grade. In grade 5, the teachers were more likely to assign a letter grade to mathematics assignments. They assigned grades to prepare students for middle school. Hattie et al. (2016) determined that students are only able to self or peer assess if they clearly understood the learning targets and what mastery of the targets looked like. Black and Wiliam (1998) asserted that the ability to self-assess was a key aspect of formative assessments. Students must be able to determine where they are supposed to be headed, where they are currently, and how to close the gap. Additionally, Black and William (1998), Heritage (2010), and Schoenfeld (2014) asserted students must be taught how to self-assess and the main purpose of their learning, and what to focus on to improve.

Learning Targets

The results of this study showed teachers did not consistently create learning targets for students and they relied mostly on summative assessments to determine learning outcomes. However, through the interviews, it was discovered that the teachers

were not connecting true learning targets, but objectives developed for lesson plans. The objectives were global and intended for all learners in the class. Teachers felt if the learning objectives were written in student friendly language this created a learning target.

Classrooms should have clear learning objectives with the ultimate goals of working together to build new knowledge (Polikoff & Porter, 2014). Teachers should consciously design lessons for students being mindful of their current understanding. Lessons should be designed with students being active participants in the learning. When students are engaged in active learning their ability to understand and apply the concepts is increased (Lipnevich et al., 2012).

Discovered during this study was through the use of conferring between teacher and students, learning targets were attempted, but not formalized. No learning goals were set for students in Grades 3-5 in this study. A study completed by DeLaet et al. (2015) examined the use of learning targets and empowering students. A first grade and fifth grade class were targeted revealing students did not know what they needed to do, students did not receive descriptive feedback, they did not take responsibility for their learning, and did not reflect on their learning either. The researchers presented several strategies as an intervention including introducing key concepts at the start of the lesson, referencing learning targets through the lesson, and using individual and class graphs to track progress. The teachers also provided feedback for individualized focused learning for struggling students. Data were collected through student surveys and classroom discussions; the researchers noted an increase in student awareness of learning targets.

DeLaet et al. (2015) supported the necessity of engaging students in identifying learning targets and self-assessment strategies to monitor progress.

Alignment to Summative Assessments

The results of this study showed that running records, reading inventories and the use of unit tests generated by the adopted series were the norms for summative assessments. Students also took the yearly state test, PARCC in the spring. The running records were administered only three times per year in Grades 3-5, but were relied upon by each teacher to provide data on a students' reading level. Formative assessments were not documented or consistently used by teachers in this study. There was a disconnect between the summative assessments and the formative assessments. Most formative assessments came in the form of exit tickets based on the daily objective noted in the lesson plans. There were significant gaps between the homework assigned in mathematics and language arts with the expectations of summative state testing aligned with the Common Core Standards. Homework was not differentiated and the students were expected to complete the same assignment and the same number of problems.

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Conclusion

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This section outlined the qualitative strategies that informed the design of the study. I gathered data from teacher interviews, a focus group, and document analysis to address the research questions. I presented qualitative research methodology to address validity, reliability, and ethical considerations. Overall, the qualitative findings for this study showed teachers provided feedback during the day through mini-lessons and conferencing. However, feedback was not applied to homework assignments. The

findings showed that learning targets were not consistently incorporated with students and students were not given the opportunity to self-assess. Feedback, learning targets, and self-assessment are all key components to the formative assessment cycle. Section 3 of the study outlines a detailed description of the project. The project is centered on the research findings. Section 3 contains a rationale for choosing the project, a literature review to support strategies and the potential impact on social change.

Section 3: The Project

The purpose of this qualitative study was to explore data in the form of

interviews, focus group, and documents to understand the process for developing

homework to formatively assess student learning as it does not appropriately align with

the student outcomes required by the higher-level summative assessments given in the

classroom and on standardized tests. In an effort to align instruction, assessment, and

student outcomes, in this study I addressed the following research questions:

RQ: How do elementary teachers in Grades 3-5 incorporate formative assessment

strategies with homework to prepare students for summative assessments?

In order to provide a broader view of this study, three sub-questions were included:

SRQ1: How do teachers prepare, select, or create formative assessments in their

classrooms?

SRQ2: How do teachers use data from formative assessments to prepare

instruction?

SRQ3: How does homework align with summative assessments?

My research caused me to consider the three key questions as the conceptual

framework along with the seven best practices aligned to the questions. These practices

were (a) feedback, (b) learning targets, (c) self-assess, and (d) alignment to summative

assessments. I embedded them as themes that emerged from the data in this study.

Through my data collection and analysis there were significant findings related to

the local problem. Data triangulation assisted to corroborate the findings and assured

validity. The three methods used to apply triangulation included (a) interviews, (b) focus

group, and (c) a review of documents. Most of the data collected derived from interviews; however, the focus group and review of documents validated the themes identified in the interviews (Creswell, 2012). The focus group and document analysis added validity to the findings from the interviews and added rigor to the study (Lodico et al., 2006).

Interviews

Through the interviewing process, an overarching finding for this study revealed that teachers did not fully understand the difference between formative and summative assessments. They incorporated attempts at formative assessments, but could not name what they were doing with the information. For example, during the day, teachers discussed collecting data regarding student progress through Do Nows and Exit Tickets. This appeared to be a standard practice in the two elementary schools for collecting formative data. Teachers shared that the Do Nows and Exit Tickets implemented provided possible groupings or indicated the need to reteach.

Without a full understanding of a formative assessment and the components that compose this assessment, gaps formed in the formative assessment practice at the local level. At the local site the gaps in practice appeared in the areas of feedback, self-assessment, learning targets, and aligning formative and summative assessments.

Focus Group

The findings from the focus group indicated the local teachers were not fully implementing the formative assessment process. At the local site, the areas of feedback, learning targets, self-assessment, and aligning formative and summative assessments displayed gaps in practice. Feedback is a key component to the formative process and

teachers were not applying specific and constructive feedback. They needed to better understand the importance of feedback in the formative assessment cycle and how to provide it.

Through an analysis of the data collected during the focus group, I discovered teachers not encouraging students to self-assess and truly be part of the learning process. At times, students worked with a peer for editing purposes, or corrected their own homework, but they were not fully self-assessing. Teachers should be aware of the importance of self-assessment and how to support students with this skill.

The findings derived from the focus group also indicated teachers did not set learning targets and needed training on how to align the targets with the state standards. Teachers indicated through the focus group responses that they noted objectives on the board on a daily basis. However, the objectives were driven by the state standards and teachers noted they did not always indicate what students should be able to do.

Document Analysis

Unless all the strategies are in place to answer the questions: Where am I going? Where am I now? and How do I close the gap?, teachers are not fully implementing formative assessment practices. An analysis of classroom activities documented and completed during the day such as mini-lessons and conferencing were one aspect of formative assessments, but not the full formative assessment cycle. The activities during the school day provided students with feedback, but the activities were not connected to self-assessment or learning targets.

However, when analyzing the homework documents, the teachers did not apply effective feedback practices. A majority of the homework analyzed showed simple comments like "good job" or merely a check mark to indicate the completed assignment. Feedback needs to be specific, concrete, and promote a change in learning for students. The feedback provided on the homework documents lacked effectiveness.

In reviewing the lesson plans, formative assessments were not documented or consistently used by teachers in this study. The documentation consisted of goals created from the standards in lesson plans and broad ways to assess the students. For example, most lesson plans simply stated *unit test* after a 10-day to 2-week period. Not one lesson plan reviewed referred to a formative assessment. The local district did not develop a system for teachers to correctly incorporate formative assessment practices.

The findings from this study indicated that Grades 3-5 teachers can improve their formative assessment skills and knowledge. Responding to the findings of this study, I developed professional development workshops to help teachers build their formative assessment knowledge. Findings from the study and a literature review served as the foundation for developing this professional development to address the gap in formative assessment and homework practices. This professional development plan highlights strategies to increase teachers'- understanding of the formative assessment process and to apply learning targets, feedback, and student self-assessment when assigning homework. The formative assessment process consists of asking three questions and incorporating seven strategies in a cyclical manner to improve student learning. The themes in the study

determined the activities and the four intended outcomes. The professional development

model (see Appendix A) incorporated these activities and outcomes.

Appendix A includes the details of the professional development designed to

improve Grades 3-5 teachers developing homework to formatively and summatively

assess student learning outcomes. Daily agendas, expected outcomes, and activities

provided to the participants addressed the four themes: (a) better understanding of

formative assessments, (b) developing learning targets, (c), providing specific and

concrete feedback, and (d) assisting students to self-assess. The developed project

detailed the three questions found in formative assessment practices. In addition, the three

components of formative assessments addressed remain critical in the formative

assessment process. Data collection and analysis indicated the three strategies were not

implemented at the local setting.

In the following section, I present the goals, rationale, theoretical framework,

literature review, implementation, project evaluation, and social change implications. In

Section 3, I outline the professional development plan. A literature review and my

research established the foundation for the professional development plan. To improve

practices at the local setting by effectively incorporating formative assessment practices

related to homework assignments remains the goal of the plan. The current research

indicated professional development and professional learning communities (PLCs) as

research-based resources to improve local teacher practices. In developing the project,

Developing Effective Homework Practices, I incorporated the best practices outlined in

the research and literature review. This section also includes the activities of the 4-day

professional development.

Rationale

The design of this project brings awareness to the Grades 3-5 teachers about

effectively implementing formative assessment practices in the local district and

addresses the themes discovered in the study. An analysis of the data revealed teachers

did not differentiate between formative and summative assessments. This lack of

understanding led to the development of gaps in the formative assessment practice.

Specifically, gaps formed in developing learning targets, providing feedback, and

encouraging student self-assessment. Lacking a true understanding of the formative

assessment process also created a gap in aligning formative and summative assessments.

The project provides opportunities for teachers to learn about the formative

assessment process and how to apply learning targets, feedback, and student self-

assessment strategies to their homework assignments. Due to lack of clarity at the local

district about the differences between formative and summative assessments, I designed a

specific professional development plan. The intent of the project was to strengthen those

three strategies and to provide an overview of the formative assessment cycle so teachers

can improve their practices and student achievement.

The findings from this study and the theoretical framework formed the basis for

the creation of the professional development. Providing teachers with a sustained

engagement of learning and not an isolated encounter became the rationale for the

professional development. In addition, the PLC allowed teachers to continue their

learning in a supported manner outside the specific trainings.

Review of the Literature

Creating a professional development opportunity for teachers took research and

planning. I searched for information on implementing formative assessments in

elementary classrooms to develop the project. I used the Walden library and Google

Scholar to find peer reviewed and current articles on formative assessments and

professional development. I used the following key phrases when searching for

information for this project: *formative assessment, formative assessment cycle,*

collaborative initiatives, self-assessment, teaching self-assessment, feedback, providing

feedback, effective feedback, adult learning, effective professional development, learning

targets, collaboration, creating learning targets, formative assessment workshop

activities, and *professional learning communities.*

How to Address the Problems Found in the Study

Data collected through interviews and a focus group showed the problem at the

local level stemmed from an overall lack of understanding of what a formative

assessment is and how this type of assessment should drive teacher instruction. Teachers

face challenges with the rigor of new standards and being expected to use assessments for

data-driven decisions (Chappuis, 2014). The teachers at the local district lacked an

understanding of the key components of formative assessments including feedback, self-

assessment, and learning targets. Formative assessments help teachers anticipate any gaps

and change the learning process (Tridane, Belaaouad, Benmokhtar, Gourja, & Radid,

2015). Finally, an analysis of lesson plans and homework assignments presented a disconnect between formative assessments to summative assessments. Analysis of interview data indicated teachers relied on textbook materials and assessments.

Teachers should reframe assessment as a communication process about learning (Houston &Thompson, 2017; Turnstall & Gipps, 2016). To fully shift this paradigm, teachers need to better understand the difference between assessment *of* learning and assessment *for* learning. A review of literature revealed two effective ways to address implementing the formative assessment process. Professional development and PLCs proved to be the practices most effective in addressing the local gaps in practice. Other effective practices included policy revisions or updating curriculum. However, considering the local needs and the literature, professional development and a PLC best addressed the study findings. Professional development and PLCs were the most common practices found in my research on formative assessments.

Professional Development

The results of the literature and data from this study indicated professional development to improve the use of formative assessments in the local district. Elementary teachers need training and support to learn how to implement formative assessment practices effectively (Forbes, Sabel, & Biggers, 2015; Sanchez, Atkinson, Koenka, Moshontz, and Cooper, 2017). The teachers should be provided opportunities to interact with the material. When professional development is given in content areas, it improves both teacher practice and student learning (Andersson & Palm, 2018).

The purpose of professional development is to develop training and collaboration with the teachers. Teachers require explicit support in learning to effectively evaluate students (Forbes et al., 2015; Witmer, Duke, Billman, & Betts, 2014). Professional development creates a culture of learning. Effective professional development enables teachers to develop knowledge and skills to help students achieve. Additionally, professional development can influence classroom instruction (Fischer, et al., 2018).

Key components of professional development. When working in a PLC, teachers engage directly in the practices they are learning. They also have an opportunity to engage in the same learning activities as the students. Darling-Hammond, Hyler, and Gardner (2017) concluded well-designed professional development can lead to intended changes in teacher practice and student learning. In that study, one of the models of creating effective practice through professional development provides the teachers with a clear vision of what best practices look like. Darling-Hammond et al. (2017) defined seven considerations when developing professional development opportunities. The seven considerations include:

1. Is content focused

2. Incorporates active learning utilizing adult learning theory

3. Supports collaboration, typically in job-embedded contexts

4. Uses models and modeling of effective practice

5. Provides coaching and expert support

6. Offers opportunities for feedback and refection

7. Is of sustained duration (p 1121)

Matching the needs of the teachers with relevant activities will help teachers understand the connection to the desired outcomes.

Teacher needs. Professional development is a complex structure involving individual teachers and their interactions within school-wide systems. The professional development activities should align with real classroom experiences. This purposeful alignment results in an accumulation of knowledge by teachers (King, 2016). According to Attara (2017) teachers learn through their daily experiences. They need to develop necessary tools to take charge of their own continuous professional development.

Ongoing support. Professional development should not be an isolated encounter, but a sustained engagement of learning. Additionally, professional development should be considered a learning process undertaken throughout a teacher's professional career (Shriki & Patkin, 2016). Teachers must have continuous practice and consistency to master a new skill (Brady, 2016). Ongoing support during the professional development process gauges a teacher's readiness to change and to adjust to a new practice. This level of support allows development of knowledge and of skills embedded within the work happening in the classroom.

Reflective practice. Reflection as part of professional development provides teachers a deeper meaning to the new expected practice. Professional development activities need to support teachers in reflecting about their professional knowledge. Allowing teachers to write in journals facilitates communication. Journal writing combines writing, reading and discourse (Brady, 2016). Reflective practices in professional development should be deliberate, purposeful and structured. Reflection as

the conduit to change, promotes personal growth. Teachers can improve by consciously and systematically reflecting on their teaching experiences (Andersson & Palm, 2018). Reflection, followed by thoughtful action leads to growth. Teachers can improve by consciously and systematically reflecting on their teaching experiences (Krauskopf, Foulger, & Williams, 2018). Professional development can provide the support teachers need in seeking their own growth.

      Collaboration. The collaborative approach proves effective for school change beyond individual classrooms. When whole grade levels are involved professional development provides a broader base of understanding and support (Darling-Hammond et al., 2017; Krauskopf, Foulger, & Williams, 2018; Vangrieken et al., 2017). When teachers discuss their learning with peers, they contribute to each other's learning. This enhances the quality of professional relationships developed (Shriki & Patkin, 2016). Learning is a social event; and understanding is better applied when it occurs among people. Finally, teachers must work together as colleagues if the new professional practices are to be supported and implemented (Attara, 2017; Prenger, Poortman, & Handelzalts, 2017).

Professional Learning Community

      The literature revealed providing PLCs as a practice, supports teacher learning. Based on the framework of DuFour and Eaker (1998), PLC encourages teachers to work together to achieve a collective purpose. Work accomplished within a PLC clarifies: (a) what is it we want the students to know, (b) how will we know if students are learning, and (c) how do we respond when students are not learning (DuFour & Eaker, 1998). A

PLC avoids teacher isolation and allows a team to work collaboratively in improving student learning (Vangrieken, Meredith, Packer, & Kyndt, 2017). It is a cyclical, ongoing process where teachers work collaboratively to achieve better results for students. Significant changes towards more formative assessment practices followed after professional development (Andersson & Palm, 2018). In that study, teachers learned new ways to assess students and adjust their instruction to respond to student needs through professional development.

   Key components and effectiveness. Characteristics of an effective PLC include: shared value, vision and goals, collective learning and application, and shared individual practices. Job-embedded learning is a key to a successful PLC. This practice engages teachers directly in the practices they are learning (Vangieken et al., 2017). Teachers are given an opportunity to engage in the same learning activities as the students. In this study, those activities pertained to formative assessment practices. The PLC framework centers on teachers as the learners. Additionally, the teachers continue their learning outside of the training. The effectiveness of a PLC is based on results of previous PLCs. In a study done by Poskitt (2016), teachers shifted from being nonaware of formative assessments at the beginning of the year to having an increased awareness by the end of the year. These teachers internalized and then applied the formative process. A PLC is action-oriented and the goals are established *by* the teams and not *for* the teams. A PLC promotes intensive reflection on teachers' instructional practices. This reflection is based on daily interactions with the job-embedded learning.

Collaboration and ongoing support. Teachers in a PLC collaborate on a regular basis towards common goals and purposes. The teams are focused on gathering evidence of student learning. This continuous collaboration creates life-long learners (Burns et al., 2018). Teachers also develop a sense of belonging; as they are not working in isolation. Teachers can build a capacity for sustainable change which leads to increased student achievement (Qiau, Yu, & Zhang, 2018). One of the outcomes of a PLC is teachers working together to achieve a collective purpose. A common practice is to analyze and improve classroom practices. In essence, the teachers look at a snapshot of student progress toward a specific goal. This practice provides teachers a better understanding of their teaching philosophy. Through regularly discussing concerns related to daily practice and creating activities organized on a fixed schedule, teachers can improve their skills (Dogan & Adams, 2018). These discussions further talking points at future meetings. The teachers have a collective responsibility to advance the goal of the school or the team (Burns et al., 2018). Participation in a PLC fosters peer to peer support throughout the school year. Teachers brainstorm to solve problems, share ideas, shortcuts, and time management. A PLC allows teachers to share whether ideas are working or not.

Pairing Professional Development and Professional Learning Communities

Professional development and a PLC embody the same goals and have overlapping responsibilities. Both encourage teachers to take responsibility for their own development (Hindin, Morocco, Mott, & Aguilar, 2017). By combining a topic specific workshop designed for teacher growth with opportunities to collaborate, teachers experience more success when changing their classroom practices (Jao & McDougall,

2015; Kelly & Cherkowski, 2015). When designed well; professional development, similar to a PLC, encourages interactive exchanges. These exchanges include sharing of an individual's expertise. A relationship develops between collaboration and learning when professional development and a PLC are paired (Forte & Flores, 2017).

Although professional development could be viewed as more individual and a PLC as more collaborative they both empower teachers to better serve students. A PLC can reinforce integration of professional development practices to support teacher learning (Voogt et al., 2015). Professional development is an essential component of a comprehensive system of growth and development of teachers. By partnering a teacher's need to increase knowledge with time to reflect and be supported, an opportunity is created for deeper professional growth (Forte & Flores, 2017; Kelly & Cherkowski, 2015).

Need for Professional Development

The results of a study by Forbes et al. (2015) indicated professional development was needed to support teachers to develop an understanding of the importance of formative assessments and how to use them. In other studies, it was noted that professional development needs to be supplemented by a PLC (Dehdary, 2017; Terry, Zafonte & Elliot, 2018; Wennergren & Blossing, 2017). The overall purpose of this professional development was to change the practices currently used in the classrooms to a formative assessment culture that addresses feedback, self-assessment, and learning targets. Stewart and Houchens (2014) noted teachers had a better understanding of formative assessments as a *process* after participating in professional development. In

several studies, teachers felt more confident using formative assessments after PLC involvement (Chang, Chen, Fun, & Lin, 2016; Poskitt, 2016; Stewart & Houchens, 2014).

An increase in formative assessments could improve student learning if teachers are trained in the critical components that need to be used as a full complement. The study conducted by Dogan and Adams (2018) determined when given resources in a PLC, teachers tended to incorporate new strategies as a result. This led to improved achievement in reading, language arts, and mathematics. DuFour and Eaker (1998) noted learning improves when it is monitored on a frequent and timely basis and students are given specific feedback to improve. Additionally, Kennedy (2016) supported the practice of finding means to discover student thinking through professional development. The importance of having knowledge in the moment about student learning is critical for teachers.

Research proves the effectiveness of professional development for using formative assessments (Owen, 2016; Parry, Larsen, & Walsh, 2018; Wanner & Palmer, 2018) Because teachers were not fully aware of the components of formative assessment they are not applying feedback on homework. Formative assessments complement instruction and allow teachers to make any adjustments to their teaching in order to address student needs. The more detailed the feedback is, the more effective it is for students (Cohen, 2014; Havners, Smith, Dysthe, & Ludvigsen, 2012). The feedback loop is critical and teachers need professional development to provide concrete, constructive feedback at various stages (Owen, 2016). This allows students an opportunity to review

their work and improve before moving on. By learning to provide feedback, teachers can better assist students in progressing towards goals and what is needed to reach a goal (Cohen, 2014; Antoniou & James, 2014). Teachers need to understand the importance of collecting data at set, frequent intervals over time, and that students need time to practice and improve their skills before being held accountable (Chappuis, 2014).

The collected data revealed self-assessment was not present in the teacher practices of the local district. Students should have a proactive rather than reactive role in the classroom (Nicol & Macfarlane-Dick, 2016). Self-assessment allows for timely support so that interventions can be applied early. When students self-assess they can see their own errors and this helps inform their learning targets. Teachers require a better understanding of self-assessment so students can experience success and receive interventions when needed (Chappuis, 2014). In a study performed by Sanchez et al. (2017), peers who engaged in self-assessment performed better (n = 32) on future assessments than peers who did not self-assess ($n = 12$). Through professional development teachers can learn when students self-assess they become active participants in judging their own work and how it compares to the standard. However, continuous and timely teacher intervention is critical (Wanner & Palmer, 2018) which must be addressed through professional development. Another outcome of professional development allows for teachers to appreciate that students can think about their own work instead of someone else judging it (Sanchez et al., 2017).

At the local district, objectives were written on the board each day in student friendly language, but these objectives were not learning targets that the students have set

or over which they had any ownership. Formative assessments should reflect the content standards the students are currently learning (Chappuis, 2014). Information should be given in real time for student progress. Professional development was required to assist teachers in developing appropriate learning targets. Learning targets need to be carefully designed and implemented with teacher support to be effective (Wanner & Palmer, 2018). This information allows teachers to better tailor instruction to the unique learning needs of their students (Cohen, 2014). Formative assessment allows students to engage in their own learning. They set learning targets and the teacher provides any interventions to help them reach the targets. In addition, feedback provides opportunities to integrate clear learning targets (Chan, Konrad, Gonzalez, Peters, & Ressa, 2014). Supporting teachers in aligning feedback and learning targets clearly shows the interconnectedness of the pillars of formative assessment. Training teachers in examining students work, offering practice, and reteaching is critical in helping students reach their intermediary targets before the final goal (Chappuis, 2014).

Finally, according to the data analyzed in the study, there was no connection between the summative assessments that were given to the students over the course of a school year and formative assessments. If teachers understanding the difference between formative and summative assessments is unclear, professional development is required (King, 2016). Teachers need training to achieve alignment between intended learning outcomes, activities and assessments (Parry, Larsen, & Walsh, 2018). The purpose and function of assessments need to be considered with a balanced approach for instruction to be effective. This balance can be addressed through professional development. The way

the information is used differentiates summative from formative assessments (Houston & Thompson, 2017). Teachers need to use the correct assessments paired with proper instruction (Gordon et al., 2014). Teachers require training on choosing the best tools to accomplish their goals. Each assessment used in a classroom provides information about learning unique to each child (Houston & Thompson, 2017). Each assessment then shapes subsequent assessments. Through professional development teachers can become mindful of the goals of their assessments and how they plan to use the assessment results (Dixon & Worrell, 2016).

A professional development plan, paired with a PLC, supported the needs of teachers communicated by the data collected and analyzed in this study. Another effective practice considered was developing a new policy on formative assessment. However, the research of Hondrich, Hertel, Adl-Amini, and Klieme (2016) indicated that policies on formative assessment are isolated efforts to improve student learning. In another study by DeLuca, LaPointe, Ewan, and Luhang (2016), teachers indicated policy is more about accountability reform instead of improving student learning. Policy, therefore, makes teachers less likely to implement the formative assessment practice. Teachers do not feel they have control over their individual and unique class needs through policy. Finally, teachers expressed concerns that policies do not create lifelong learners, but promote high-stakes testing environments which do not benefit students (Nguyen & Walker, 2016). Policy review would be an option if teachers had a strong understanding of the formative assessment process and were simply not implementing the

practice. Because the data and literature indicated otherwise, a policy review was rejected and professional development paired with a PLC was the better project for this study.

Project Description

The goal of this project was to help teachers understand the key components of the formative assessment process and to apply the strategies related to homework. Training and support will be provided through professional development and PLCs during the course of a year. This project was designed to address the findings from the data analysis at the local district. The findings indicated that teachers were not consistently using the formative assessment process across the Grades 3-5 settings. A review of the literature indicated professional development and PLCs as a way to improve the use of formative assessment. Focusing on professional development could improve teacher practices, student engagement, and overall achievement.

The data from this study led to the development of this project. Professional development engaged teachers in learning practices. The activities encouraged a collaborative approach to provide a broader base of understanding and support. The purpose of the professional development and PLC was to help teachers understand the formative assessment process and how to effectively apply learning targets, feedback, and student self-assessment to improve practices.

Potential Resources and Existing Supports

The professional development for the Grades 3-5 teachers would be held in the elementary schools' media centers. The workshops would alternate between the two schools minimizing travel and costs. This project could be provided to the district with

minimal costs. Costs would include materials for the professional development activities including: chart paper, sticky notes, pens, markers, index cards, and paper. The district's established calendar includes professional development days embedded in the schedule. Utilizing this existing calendar will provide teacher availability with no costs for substitute teachers. Reference materials and additional resources would be available through the district curriculum drive.

Potential Barriers

A potential barrier could be conflicting professional development already planned for the established dates. This could be addressed by working with the superintendent and director of curriculum early in the prior year to reserve specific dates for this professional development to avoid any conflicts. Teachers could become overwhelmed with the change of using formative assessments. Being overwhelmed could be mitigated by incorporating PLCs interspersed with the actual professional development sessions. Another barrier is if teachers miss a session or are hired after the professional development is completed. This could be addressed by sharing the PowerPoint and materials with the teacher(s) and pairing them with a teacher who is excited about implementing formative assessments and is willing to spend time sharing the information gleaned.

Proposal for Implementation and Timetable

Implementation of the project will take place during the school year on the assigned professional development dates on the school calendar. There are eight days designated on the school calendar and all eight will be used. Four of the days will be for

professional development sessions and four of the days will be for PLCs. The

professional development would be scheduled from 8:00 AM-3:00 PM with a 1-hour

lunch and two short breaks (Appendix A). Teachers in the district already have

experience working in a PLC. The project will span 1-year allowing teachers time to

interact with the materials and concepts. During the course of the year, I will be available

to teachers for support as needed.

The first session involves participants setting participation norms and taking a

self-assessment on the formative assessment process. Teachers will become familiar with

the three questions determining formative assessments: (a) where am I going, (b) where

am I now, and (c) how can I close the gap. The group will develop a local working

definition of formative assessments that will guide their practice. A direction for an

upcoming PLC session will be presented and teachers will have time to reflect and

respond to an exit ticket.

The second session consists of teachers revisiting established norms and

reviewing highlights of the previous PLC session. The participants will be presented

information on learning targets and how to effectively develop them. Several hands-on

activities are provided for the teachers to interact with learning target verbs and using

Bloom's Taxonomy to create higher level expectations. Participants will receive

strategies on how to communicate learning targets to their students. The session will end

with a new direction for the next PLC session. The teachers will also reflect on the

information on learning targets and respond to an exit ticket.

The third day begins with a review of the established norms and discussing outcomes from the previous PLC meeting. In the session, teachers will learn about providing feedback and participate in activities designed to guide them on what effective feedback includes. The teachers will learn about the attributes and importance of providing feedback that is concise and designed to move students forward towards their established learning targets.

The fourth and final session will focus on developing self-assessment with students. The teachers will discover the short and long-term benefits of self-assessment. They will participate in activities designed to be used with their students. The final session will end with a time of reflection and the completion of a survey. The teachers will be thanked for their participation in the 4-day professional development series and reminded that I will be available for support or questions at any time.

Roles and Responsibilities of Student and Others

I will be responsible for designing the professional development and presenting the information to the participants. I will be responsible for the logistics and scheduling of the professional development along with providing all the materials needed for the sessions. Beyond the scheduled sessions, I will provide ongoing support if the participants have any questions or concerns during their implementation of formative assessment practices. The 20 elementary Grades 3-5 teachers will participate in the designed professional development over the course of the year. They will complete the activities and participate in the discussions and reflections embedded in the professional development. The teachers will meet as a PLC in between professional development

sessions to further explore formative assessment practices and to share their hands-on experiences with setting learning targets, providing feedback, and assisting students with self-assessments.

Participants will be expected to adhere to the established norms which include arriving on time, being an active learner, turning off devices, and staying on topic. The teachers will engage in the activities and practice their new skills. Teachers will also be expected to reflect and respond to exit tickets. Finally, the participants will complete an evaluation of the professional development series.

Project Evaluation Plan

The main goal of this project is for teachers to understand the formative assessment process and to apply the researched practices to their everyday teaching. Select questions from the original interviews will be asked again during the professional development. Noting a change in their initial responses after the professional development will be one manner to evaluate this project. Teachers will complete exit tickets summarizing the day's topic and their understanding. This feedback could provide a better understanding of their formative assessment knowledge.

At the final professional development session, teachers will complete an evaluation survey. The survey allows teachers to respond to questions about the meaningfulness of the content, knowledge gained, and any additional feedback. Information gathered at the professional development will guide future professional development in the local district

Elementary level administrators will be able to support the formative assessment professional development and implementation. Each administrator will receive an overview of the project during a district administrative meeting. I will encourage the administrators to review the materials uploaded to the district curriculum drive. During walk-throughs and formal observations, elementary principals should note the implementation of the formative assessment process including feedback, setting learning targets, and observing student self-assessment. The presence or lack of the formative assessment practices is another method to evaluate the program. Ongoing support to teachers and administrators after reviewing walk-through and observation data will be provided.

Project Implications

Social Change

This project is designed to empower teachers to better understand and incorporate formative assessment strategies related to homework assignments. The data collected in this study indicated teachers did not have a full understanding of the formative assessment process including the three questions addressed by this type of assessment: Where am I going?, Where am I now?, How can I close the gap? By providing professional development on the seven practices related to the formative questions the teachers will apply formative assessment practices to homework assignments in order to improvement achievement.

Additionally, the students will begin to learn self-assessment and partner with the teachers to be more engaged in the learning process. Students will have a better

understanding of the learning targets they are striving towards and of where they are in relation to that target. When given feedback by the teacher, the students will take steps to close the gap in reaching the target. Overall, the students gain control over their learning.

Far-Reaching

This study and project could serve as a model for other elementary schools where the formative assessment process is not being fully implemented. The professional development developed in the project could be put into practice regardless of the school or district size and demographics. Aside from finding time to provide the professional development, there is no cost to implementing the formative assessment practice. Within the local district, the formative assessment and professional development model could be incorporated at the middle and high school levels. The district could enact a plan to pilot the program at the elementary levels first and then roll the initiative to the middle school and then high school over a three-year period. The potential to improve student engagement and achievement throughout the district is a future goal. Finally, teachers could experience a paradigm shift from not consistently using formative practices to consistently using the practices to drive better instructional decisions.

Conclusion

I designed this project to provide professional development for teachers in Grades 3-5 to better understand the formative assessment practices. By implementing this project, I will assist teachers in applying the best practices of formative assessment: feedback, learning targets, and self-assessment to improve student learning. My project is a 4-day professional development with an inclusion of PLCs based on the literature

review addressing adult learning. In the next section, I discuss the reflections and

conclusion related to this study.

Section 4: Reflections and Conclusions

The purpose of this qualitative study was to understand the processes Grades 3-5 teachers use for developing homework to formatively and summatively assess student learning outcomes. The findings from this study showed that teachers did not fully understand the characteristics of formative assessment and how to effectively apply the practices of this type of assessment to homework assignments. In this section, I discuss the strengths and limitations of the project. I also explore the scholarly implications of the study, both personally and for the education community.

Project Strengths and Limitations

Two of the largest strengths of this project were it was grounded in research and it contained a comprehensive literature review. My case study research provided teachers insight into the gaps in practices regarding formative assessments and homework. Through professional development they received four professional development sessions to address (a) formative assessment, (b) feedback, (c) learning targets, and (d) self-assessment. These learning outcomes were directly related to an analysis of the findings. Another strength of this project was the use of qualitative research to gain insight into the perceptions and practices of Grades 3-5 teachers related to formative assessment and homework assignments. The participants shared their experiences pertaining to the seven formative assessment practices and how they implemented these practices when assigning homework. I created the professional development with opportunities for teachers to apply newly acquired skills and knowledge.

Finally, the workshops can be presented at any time of the school year. The reflective activities during the professional development offer deeper insight into the teacher's needs and perceptions regardless of the time of year. The exit tickets allow for adjustment and modifications for the next professional development session to better address needs at that time. Open and constructive exchanges were also encouraged during each session, which provided teachers with ongoing opportunities to practice and reflect on being life-long learners.

Limitations of the project include if teachers are newly hired during the year, they will not have access to the professional development. This could be addressed by assigning a teacher who attended the professional days to mentor and work with the new teacher to understand the process. The professional development could also be provided to newly hired teachers at the scheduled new teacher orientation held in late August. Another consideration is teacher availability for the professional development and conflicts with the established calendar and other district professional development. If this arises, the workshops could be moved to another date. A final limitation is the small sample size in this qualitative research design. Ten teachers participated in the study and this small sample size does not promote generalization to a larger population (Lodico et al., 2006).

Recommendations for Alternative Approaches

One alternative approach was a curriculum plan. This plan would have outlined the scope and sequence in language arts and mathematics and the materials needed for assessments. This was rejected because formative assessments should be fluid and

determined by where students are in the process. The district could consider implementing common formative assessments, which was not explored in this study. This project was designed to empower teachers. The professional development promoted a better understanding of formative assessments and how to best incorporate the hallmarks, feedback, learning targets, and self-assessment, into teachers' practices.

Development of the Research and the Researcher

Scholarship

To be able to look at a local problem, research, and through a scholarly lens determine a project to improve practices was a tremendous journey. I never fully understood how prestigious the title of doctorate was until I completed this journey. The ability to persevere, to focus on an end goal even when it seems very distant, is not an easy undertaking. The journey took much longer than I expected, and, at many points, I was ready to give up. As I developed into a scholar, I realized there is no quitting or giving up. Rather, I stepped away from the research in order to come back to the project with a new lens. There were setbacks and breakthroughs. These are the things that made me a scholar—pushing on when it would have been easier to walk away.

The satisfaction of looking at a problem, conducting in-depth research, and developing a solution is unmatched. The lasting impact on my personal life and hopefully for the teachers in the district is rewarding. To be able to state that I addressed a real challenge and made things better for students, parents, and educators is something I can celebrate lifelong. I can, with confidence, say I am a researcher and a scholarly writer. I can speak credibly about my project and the research behind it.

I learned to only review reliable resources and to stay current. Seminal work provided a foundation for my study, but looking at resources within the last five years was invaluable. I encourage teachers to stay current and not rely on past research, so I must do the same. I wondered if I would ever reach a point of saturation as there were new scholarly articles being published weekly and I felt I owed it to my project to research them and consider their implications for my own research. With each new article I reviewed, I had new respect for the researcher, now that I had a clearer understanding of the process.

My confidence as a scholarly writer ebbed and flowed. There were times when I could not rewrite another sentence, or I could not share my findings in a scholarly manner. There was one semester during which I did not write at all. Scholarly writing did not come easy for me. I slipped into using passive verbs too easily and was not always succinct. But I grew as a scholarly writer and my confidence grew along with me. One of the highlights of this journey was my first oral defense of the proposal. I spoke with confidence, passion, and a scholarly tone. At that point, I finally felt like a doctoral candidate.

Finding balance between being a researcher, a single parent, a family member, and a professional was not easy. There were deaths, hospitalizations, and everyday pressures that appeared during this journey. There were times that my family allowed me plenty of time to research and write. There were many weekends spent glued to the computer and plenty of work sessions that went late into the night when it was finally quiet. There were many meetings I sat through distractedly because I was thinking about

my paper or an upcoming deadline. I can say with confidence that all the sacrifices and demands ending with my dissertation were all worth it.

Project Development and Evaluation

Although I created numerous presentations over the years as a building principal, none were at the level of this project. With this study and project, I truly felt I was advancing the field of education. I developed this project based on research and designed activities that were evidence-based. I used notes and experiences from previous workshops to develop this project. The practices that I included were grounded in my comprehensive research. Even simple details like putting candy on the tables for the afternoon sessions were gleaned from years of attendance at productive workshops.

Another difference with this project was the process allowed me to identify a local problem and delve further into areas of need in the district. Through analyzing data, reviewing literature, and developing this project, I learned to select the most appropriate method to enhance teacher learning. Offering opportunities to reflect and provide feedback allowed me to better understand the teachers' strengths and needs. I aligned my project to the needs of the district and tried to create a sustainable project that will for years provide teachers with improved assessment knowledge and practices.

Leadership and Change

I was the instructional leader of a school building for many years; however, this study and project instilled the need for recognizing professional development as the most important tool in creating meaningful changes. This project addressed district-wide needs, which was a new lens for me. I was responsible for creating a shared vision and

shared values between two elementary schools. This project required true leadership to create meaningful change. As a leader I provided time and support to the teachers. I demonstrated a high level of commitment to the project and; therefore, to the teachers' success as adult learners. In order to change teachers' beliefs about the positives of professional development, I will remain dedicated to promoting this practice. I will also continue to provide ongoing support and resources for empowering life-long learners.

Reflection on Importance of the Work

My original project was designed to help not only the two local elementary schools, but any elementary school challenged by gaps in formative assessment and homework practices. As a result of this project, I was able to address the skills needed by teachers to better understand and apply formative assessment practices. Creating this project may identify other areas or skills within the district that may require change.

Implications, Applications, and Directions for Future Research

In this study I analyzed the perceptions of 10 elementary teachers from the local district regarding their use of formative assessment and homework practices. This project study has the ability to transform practices in the local district. It could promote a shift in teachers' beliefs and assessment practices to improve student learning. Although the sample was small, and the study could not be generalized to the broader teaching community, similar findings might emerge and indicate further research with a larger sample size. If the current gaps in practice were addressed by the professional development and PLC, I would conduct a yearly follow-up to track the growth of teachers. The follow-up provides feedback on any issues or ideas to improve the

professional development sessions. The intent is to hold the professional development yearly for new hires and to reinforce the learning provided.

Future research could include applying formative assessment strategies effectively to homework assignments at the middle school and the high school. The three standard questions of formative assessments: Where am I going?, Where am I now?, and How can I close the gap? are not unique to the elementary level.

Conclusion

The findings of this study showed the gaps in practice effectively using formative assessment practices when assigning homework in Grades 3-5. I interviewed 10 teachers and had them participate in a focus group for this study. The interview questions were open-ended and semistructured. The structure of the focus group also allowed for teachers to respond electronically to belief statements. Additionally, I analyzed the participants' lesson plans and homework assignments. As I gathered data, I analyzed the data. I wanted to understand the processes Grades 3-5 teachers used for developing homework to formatively and summatively assess student learning outcomes.

The problem that initiated this study was that the process for developing homework to formatively assess student learning did not appropriately align with the student outcomes required by the higher-level summative assessments given in the classroom and on standardized tests. I collected data based on the research question: How do elementary teachers in Grades 3-5 incorporate formative assessment strategies with homework to prepare students for summative assessments? As I collected data, I became aware that teachers did not fully understand or differentiate between formative and

summative assessments. I also discovered teachers were not consistently incorporating the formative assessment practices when assigning homework.

The professional development created from this study paired with a PLC has the potential to change assessment practices of elementary teachers. I created this project so teachers could better understand the formative assessment model and how this model could improve student learning. By using professional development and PLCs, schools may improve practices and increase student achievement.

This study is significant as it reveals teachers' perceptions of using formative assessment practices to create homework assignments. The results of this study contribute to the growing body of research by addressing gaps in practice at the local district.

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Appendix A: Professional Development Plan for Effective Homework Practices

Professional Development Plan for Effective Homework Practices

This professional development plan is provided to address the gaps in the formative assessment processes of elementary teachers. The goal of this project is to provide support for teachers in understanding the formative assessment practice when assigning homework. This project provides a professional development program and professional learning community to provide the skills and knowledge to effectively implement formative assessments when assigning homework.

This developed project will take place during the first semester of the school year. During the first semester there are four professional development days embedded in the district calendar. Professional learning communities meet weekly on Mondays as per the district calendar. These meetings continue the practices learned at each professional development session.

Teachers will participate in activities and reflective practices related to each learning outcome. The project and learning outcomes were based on the findings of the study. The target audience is the general education Grades 3-5 teachers at both local elementary schools. The activities for each day are prepared as slides and supporting activities outlined on worksheet pages. Video links embedded within slides, allow the presenter to have all required materials ready. Participants will receive a hard copy of the professional development materials: PowerPoint slides and appendices. These materials will also be available through the district curriculum drive.

Assessments are embedded throughout the trainings along with exit tickets and a summative questionnaire at the end of Day 4. Exit tickets are a formative assessment tool used at the end of the session for teachers to synthesize the content from the day. Exit tickets also provide feedback to the facilitator. In this 4-day, 23-hour professional development, participating teachers gain exposure to the research based best practices of the formative assessment process that help guide students to improved learning outcomes. Participants in this professional development will have the opportunity to meet learning objectives designed to improve databased gaps in formative assessment practices.

The goals of this professional development are as follows:

1. To develop an understanding of what is a formative assessment and how to create homework assignments to formatively assess student learning.

2. To develop learning targets aligned with the state standards to align formative and summative assessments.

3. To apply concise and specific feedback so students can better understand where they are at in the learning process.

4. To develop strategies to promote student self-assessment so students understand how to close the gap towards learning targets.

Appropriate implementation of this professional development curriculum will guide participants toward the accomplishment of these goals.

Table A1

Professional Development Plan Module 1-4

Location	Media Center of Local Elementary School
Purpose	To provide hands-on experiences for teachers related to the formative assessment process including feedback, learning targets, and self-assessment that will improve the homework assignment practices of the participants.
Goal for Project	The goal of this project is to provide support for teachers in understanding the formative assessment practice when assigning homework.
Local Gap in Practice	The process for developing homework to formatively assess student learning did not appropriately align with the student outcomes required by the higher-level summative assessments given in the classroom and on standardized tests.
Instructional Goals	The goal of this professional development is to: - To develop an understanding of what is a formative assessment and how to create homework assignments to formatively assess student learning. - To develop learning targets aligned with the state standards to align formative and summative assessments. - To apply concise and specific feedback so students can better understand where they are at in the learning process. - To develop strategies to promote student self-assessment so students understand how to close the gap towards learning targets.

This professional development includes four modules. Each module, contains an overview of the content, delivery, resources, and activities. Each module is also divided into sessions that address subtopics for that goal. To ensure timely and appropriate delivery of the content, the presenter explains each session of the module with an accompanying matrix that details the necessary components of the session. Following each session description are the instructional materials needed to implement that session.

In this way, the facilitator clearly finds an overview of each module, the sessions within each module, and the specific granular components of each session. An analysis of the session matrices further details the session and modular alignment with the overarching goals of the professional development.

Module 1: Introduction to Formative Assessments

The Module 1 instructional goals are to (a) develop an understanding of what is a formative assessment, (b) differentiate between summative and formative assessments, (c) create a local definition of formative assessment, (d) understand the characteristics of formative assessments, (e) understand how homework can be formatively assessed. This module lasts 6 working hours with a 1-hour lunch break. During Module 1, participants will complete five sessions to meet the goals.

Each session includes multiple steps or time segments aligned with the module and session instructional goals. The professional development plan includes a matrix with the steps for each session. The matrix includes the specific steps; stakeholders involved in the step; the actual interactive activity or learning format; the resources needed to complete the step and activity; the allocated time for the step; and the quality indicators, artifacts that may evidence the participants' accomplishment or improvement in the learning objective. This matrix designed as a guiding tool for the facilitator, may be adapted into an agenda for participants. Within the resource column of the matrix, handouts are noted in italics and presentation materials are bolded. All handouts and presentation materials are provided following each module.

Module 1: Formative Assessments

Purpose	To provide hands-on experiences for teachers related to the formative assessment process including feedback, learning targets, and self-assessment that will improve the homework assignment practices of the participants.
Stakeholders	General education Grades 3-5 teachers
Goal for Session	The goal of this session is to develop an understanding of what is a formative assessment and how to create homework assignments to formatively assess student learning.
Instructional Goals for Session	• Understand the essential questions and practices of formative assessments • Differentiate between summative and formative assessments. • Create a local definition of formative assessment. • Understand the characteristics of formative assessments • Understand that homework is a type of formative assessment

Session	Activity	Resources	Mins	Quality Indicators
1. Provide an overview of the session, establish norms, and participate in a self-assessment	PowerPoint and examples of norms provided, creation of norms and completion of self-assessment	Computer, Smartboard, sticky notes, pens, markers, marbled notebook, chart paper, tables and chairs, *Printed agenda* (Handout 1), printed **PowerPoint presentation**, index card, *Reflection of the Formative Assessment Process* (Handout 2)	65	• Whole group discussion • Creation of norms • Completion of self-assessment
2. Introduce the three formative assessment questions and 7 practices	PowerPoint and Reflection chart activity with presenter facilitation	Paper, chart paper, pen/pencil, markers	45	• Whole group discussion • Reflection chart

Module 1: Formative Assessments (con't)

3.	Create a local definition	PowerPoint and definition of formative assessments	Chart paper, markers, pen/pencil; *Black Box Definition* (Handout 3)	60	• Whole group discussion • Created local definition
4.	Understanding formative assessment characteristics	PowerPoint and discussion; Video and reflection; formative assessment activity and vignette	Chart paper, sticky notes, markers, pen/pencils, *Video Reflection sheet* (Handout 4), *Formative or Summative Sentence Strips* (Handout 5), *Characteristics Chart* (Handout 6)	60	• Whole group discussion • Video reflection • Formative assessment activity • Vignette activity • Exit ticket
5.	Understanding Homework is a Formative Assessment	PowerPoint and discussions, reading article and reflection, Give 1/Get 1 activity, video and reflection, exit ticket	*The 2Es article* (Handout 7), pens, paper, highlighters, markers, chart paper, sticky notes, speakers, *Video Reflection Sheet* (Handout 3), *Give 1/Get 1 sheet* (Handout 8), *Assessment Pulse Worksheet* (Handout 9), **Parking Lot questions**, 3x 5 index cards	120	• Whole group discussion • Article reflection • Video reflection • Give1/Get one sheet • Parking Lot notes • Exit ticket

Session 1: Overview, Norms, & Self-Assessment

The learning objectives for Step 1 are to introduce the purpose of the professional development and establish norms and procedures. In Step 1 of the session, the facilitator welcomes the participants and provides an overview of the day including the learning objectives and agenda (Handout 1). The facilitator should accept and encourage questions. The facilitator should attempt to encourage participation from all teachers throughout the activities during the day. Using PowerPoint slides 1-5, the group should create norms to be followed for all sessions. The facilitator could provide examples of what is important to a participant, like only checking cell phones during a break. The teachers create the norms with the facilitator noting the responses on chart paper. The chart paper should remain hanging during all sessions.

Each participant completes a self-assessment (Handout 2). Once completed the facilitator will ask the teachers to place the reflections face down in the center of the tables.

Session 2: Introduction of Formative Assessment Questions and Practices

In Step 2 the facilitator shares information about what is a summative assessment and what is a formative assessment. The facilitator asks for examples of each after the presentation. Using the PowerPoint slides 6-13, the facilitator shares the three questions and the practices aligned to each question with the teachers. The teachers complete a sticky note describing their success with using a formative assessment, a challenge they face and what do they wonder about formative assessments. Teachers place the sticky

note on the chart paper under the headings: Success, Challenge, and What do You Wonder? The facilitator reviews and then gives a 10-minute break.

Session 3: Creating a Local Definition

In Step 3 The facilitator instructs the participants to work together. The goal is to create a working definition of formative assessment to be used by teachers in both elementary schools. The facilitator uses PowerPoint slides 14 and 15 for this step. For the first step, everyone to jot down on individual sticky notes what they feel are attributes of a formative assessment. The facilitator encourages teachers to use their own wording. The facilitator places one piece of chart paper at each table. The teachers place their sticky notes on the chart paper. As a group, they determine common themes and create a definition of formative assessments for their table. The chart papers will be shared out and displayed around the room. The teachers collaboratively work to determine best wording and create one document from all the tables that become the working school-wide definition of formative assessments. One person volunteers to record this definition on chart paper. The facilitator provides a copy of the definition (Handout 3) to each participant. The teachers highlight key words/phrases they feel are important in the definition. Teachers discuss what they highlighted. Next, they discuss how formative assessment is a cyclical process. Then the participants discuss what are events in learning and why formative assessments are not events. Finally, the participants compare/contrast their working definition to the Black and Wiliam (1998) definition.

Session 4: Understanding Formative Assessment Characteristics

In Step 4, the facilitator guides the teachers in understanding the characteristics of formative assessments. The facilitator uses PowerPoint slides 16-20. The facilitator asks the participants to watch the video and then respond to the video reflection sheet (Handout 4). The facilitator provides the chart paper for each table with the headings on the T-Chart: Formative and Summative. The facilitator then places a Ziploc bag of sentence strips (Handout 5) and teachers decide which heading: Formative or Summative to place the strip. The participants at each table share out their decisions and explain why. The facilitator encourages participants to review and discuss the characteristics of formative assessments. The facilitator asks the teachers to review this list against, the definition created for the district, and make any changes they feel need to be adjusted.

The facilitator asks all the participants to read the vignette on the slide. They each receive the Characteristics Chart (Handout 6) and place an X under the box they each feel represents the vignette. When each individual finish with the chart, they discuss their decisions at their table group. The facilitator asks if anyone wants to share any of their thoughts with the full group. The facilitator asks each participant as the last activity before lunch to write three characteristics they learned this morning; one on each sticky note and place the notes on the chart paper labeled Characteristics of Formative Assessments. While the participants are at lunch, the responses on the chart paper will serve as a review and allow the facilitator to see if any information needs to be discussed when returning from lunch.

Session 5: Understanding Homework is a Formative Assessment

In Step 5, the facilitator helps teachers understand that homework is a formative assessment. The facilitator uses PowerPoint slides 22-29. The facilitator provides each participant with the article The 2Es (Handout 7). Participants read the article and highlight three statements from the article that are important. Each participant captures their statements on the chart paper and the group discusses similarities captured on the chart paper.

The facilitator shows this slide and allow participants 15 minutes to share their experiences when deciding to give a summative assessment. The facilitator circulates and listens, and encourage teachers to put any questions on the Parking Lot chart paper. The facilitator shows the embedded video and ask participants to respond to the Video Reflection Sheet (Handout 3). The facilitator encourages the participants to share any thoughts or reflections on the video. The facilitator asks the participants to read the "homework" on the slide. The participants write down their answers to each of these questions:

1. What is needed in order to concreate transpondilates?
2. What is produced when bractering sliphausen?
3. Why is gorflex important?
4. What is important to the future of humankind and why?

The facilitator fosters a discussion about the questions all being recall or lower level questions despite the complexity of the words. The facilitator asks teachers to think about the activity they just did and to reflect if this is similar to homework they may have

assigned. Participants complete Give 1 and Get 1 (Handout 8). They list ten ways to use

homework formatively on the left side of the paper and then stand up and talk to different

participants giving them one of their ideas and getting an idea from them. They write

their new idea on the right side of the paper. Participants return to their seats and share

out their ideas which the facilitator captures on chart paper.

The facilitator reminds participants of the upcoming PLC date on the district

calendar. The facilitator gives the Assessment Pulse worksheet (Handout 9) for their next

meeting and tells them to be prepared to share out their thoughts at the next professional

development day. The facilitator answers any Parking Lot questions and gives each

participant a 3x5 index card to respond to the Exit Ticket. The facilitator asks the

participants to put their Exit Tickets on the front table and positions himself near the door

to thank participants and to say good bye.

Module 1: Presenter Notes and Power Point Slides
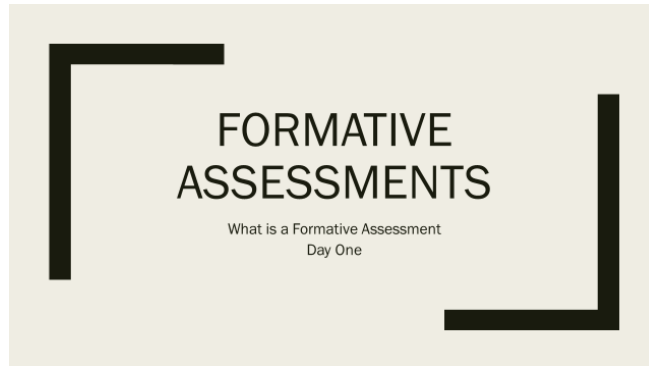
Slide 1	Facilitator welcomes participants and provides an overview of the professional development.
Slide 2	The facilitator will provide the agenda to each participant and review the goals for the day.
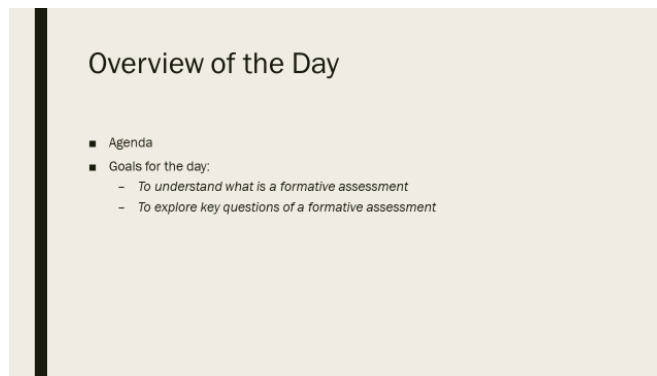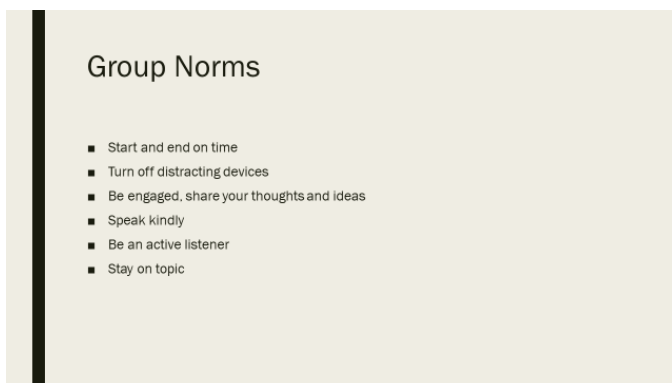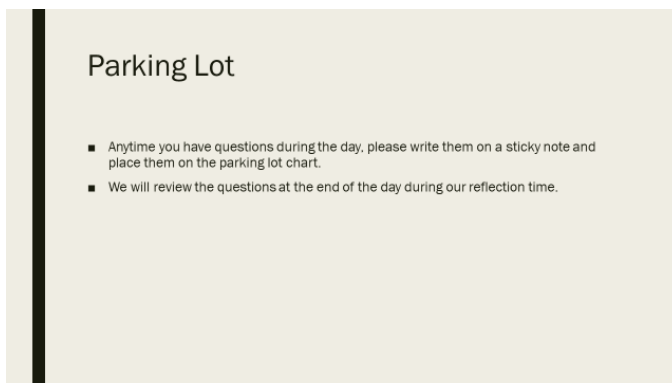
Slide 3	The facilitator will lead a discussion on what participants like about trainings and what they dislike. An example to share is that I don't like when people have side conversations during the presentation.
Group Norms - Start and end on time - Turn off distracting devices - Be engaged, share your thoughts and ideas - Speak kindly - Be an active listener - Stay on topic	The facilitator will ask for participants to volunteer what they would like to see as norms during our 4-days of professional development. The facilitator will note the responses on chart paper. When there are no more responses, the facilitator will read the norms and ask if the group agrees to the norms. The norms will be posted at the front of the room for each of the four sessions.
Slide 4	The facilitator will point to the chart paper with the words Parking Lot at the top. The facilitator will explain at any point in the day if a participant has a question, they can note it on a sticky note and place the note on the Parking Lot chart paper. The questions will be answered at the end of the session each day.
Parking Lot - Anytime you have questions during the day, please write them on a sticky note and place them on the parking lot chart. - We will review the questions at the end of the day during our reflection time.	

Slide 5

Self-Assessment

- Please complete the Educator Reflection of the Formative Assessment Process found at your table. Put an X in each box on where you feel your skills currently are with the formative assessment process.

- Complete the two short answer questions at the bottom of the page and put in the center of the table when completed.

The facilitator will give each participant the Educator Reflection of the Formative Assessment Process. The facilitator will ask the participants to honestly complete the survey and place it face down in the center of the table. The facilitator will gather the surveys during the first break.

Slide 6

Terminology
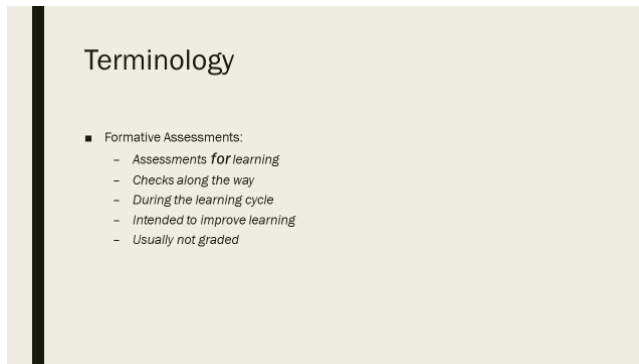
- Summative Assessments:
  - *Assessment of learning*
  - *Given at the end of a unit or chapter*
  - *Documents achievement of a student*
  - *Graded*

Summative assessments usually happen at the conclusion of a block of learning, like at the end of a unit, and measure the level of understanding. Teachers perceive assessments as mostly summative and use these tools to assign grades (Dixson & Worrell, 2016), or quantify achievement.

Summative assessments measure student growth after instruction, and are cumulative by nature. Summative assessments are given periodically and appraise the efficacy of programs, goals, and the alignment of curriculum.

Examples of summative assessments include final exams, written and oral products, and standardized tests. Grades are frequently the sole outcome of summative assessments indicating whether the student has an acceptable level of knowledge.
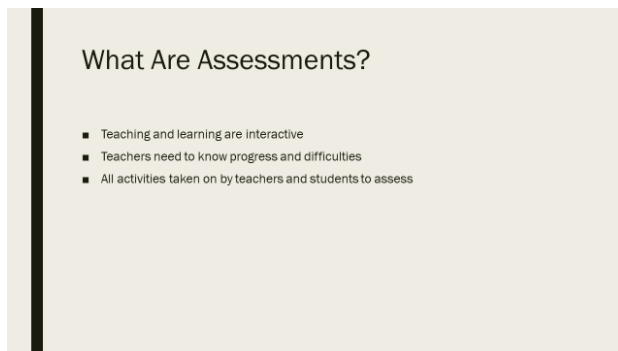
Slide 7	According to Antoniou and James (2014), formative assessments provide information related to student progress allowing for instruction to be modified. Routinely using the data to decide what to do next with students is critical in the formative assessment process (Li & DeLuca, 2014).

Terminology
 	
■ Formative Assessments:
  – *Assessments for learning*
  – *Checks along the way*
  – *During the learning cycle*
  – *Intended to improve learning*
  – *Usually not graded*
	Formative assessment is intended to by cyclical or continuous. Formative assessments engage students in learning. For formative assessments to be effective, they need to be part of a full system of components working together to facilitate learning (Bennett, 2011). Formative assessments take place during the process of learning and are embedded in the learning activities.

Slide 8	Teachers create a learning environment by the assessments they choose (Brookhart, 2017). Dann (2014) suggested that teachers needed to explore how their instructional practices are developing learning.
What Are Assessments? ■ Teaching and learning are interactive ■ Teachers need to know progress and difficulties ■ All activities taken on by teachers and students to assess	The choices a teacher makes pertaining to assessments reflect the knowledge of the content, students, assessment principles, and instructional practices. Assessment decisions reflect the teacher's attitudes, philosophy, training, skills in assessment, and classroom climate.

Slide 9	The seminal work of Black and Wiliam (1998; 2006) and articulated by Chappuis (2005) created formative assessments into a strategic process framework. Chappuis articulated three key questions which Akin expanded upon: Where are you trying to go? (identify and communicate the learning and performance goals); Where are you now? (assess, or help the student to self-assess, current levels of understanding); How can you get there? (help the student with strategies and skills to reach the goal). (Akin et al., p. 14)

Reflection

- Think about your current assessment practices.
- On the chart paper note your successes, challenges and what you wonder about related to assessments.

Slide 10	The first essential element in the formative assessment practice is the articulation of and path to clear learning targets. Teachers must be clear on what they want the students to learn (Brookhart, 2017; Mandinach & Gummer, 2013). A learning target is more than just noting the objective on the board; it helps students and teachers monitor the learning process.

Formative Assessments

Where am I going?

How can I close the gap?

Where am I now?

Slide 11	Feedback is another essential element of formative assessments. *Feedback* is the teacher's intentional response to student work to improve learning (Clark, 2015). Feedback can build on strengths and improve weaknesses. Feedback enhances cognitive processing (Brookhart, 2016).
Where am I going? Learning targets — Where am I going? — Examples of strong and weak work	Self-assessment encourages learners to take control of their learning by allowing them to target their learning and help gather information along the way to see how they are doing. Self-assessment activates students as the owners of their learning (Forster & Souvignier, 2014; Lipnevich, McCallen, Miles, & Smith, 2014).
Slide 12	The final component of the formative assessment process in providing the students with specific steps to improve (Chappuis, 2005). This includes the types of questions teachers ask.
Where am I now? Feedback — Where am I now? — Self-Assessment	Strategic teacher questioning through formative assessments scaffolds learners as they move from thin or passive understandings; to a deeper conceptual change (Clark, 2015).

Questions that require thinking about a learning target as opposed to right/wrong answers help students show evidence of learning (Brookhart, 2016). |

Slide 13	The group will create a working definition that will be used by the Grade 3-5 teachers in the district.

Group Activity

Create in your group a definition of formative assessments → Our school-wide definition of formative assessments

| Slide 14 | Black and Wiliam's (1998) compilation and analysis of 250 research studies resulted in an extensive discussion on 14 key characteristics of formative assessment. The study did not include any pre-defined theoretical basis but from it, they derived five broad headings to determine the best practices or characteristics of those successfully using formative assessments. Black and Wiliam (1998) did not rely on a single principle about formative assessment, but rather focused on weaving the different characteristics into the broad categories.

As facilitators integrate these formative assessment practices into teaching and learning, student learning improves. According to Black and Wiliam (1998) the changes were "amongst the largest ever reported for educational interventions" (p. 141) and lowest achieving students benefitted the most. |
|---|---|

Inside the Black Box

- All those activities undertaken by teachers that provide information to be used as feedback and by their students in assessing themselves to modify teaching and learning activities.

- Black, P., & Wiliam, D. (1998). *Inside the Black Box: Raising Standards Through Classroom Assessment.* London, UK: Kings College.

Their definition: All those activities undertaken by teachers that provide information to be used as feedback and by their students in assessing themselves to modify teaching and learning activities. Is the definition guiding this professionaldevelopment.

Slide 15

Differences Between Formative and Summative Assessments

- What do you expect to learn about your students with this assessment?
- What kind of questions do you ask your students about their learning?
- Do you use the information you have collected as a way to inform instruction?
    - When?
    - With whom?

Yan and Cheng (2015) explained formative assessments are for learning, and summative assessments are of learning.

Teachers include multiple types of assessments into their instruction. Assessments are tools for collecting information (Dolin et al., 2018). These assessments range from formal testing, including teacher-made and standardized tests, to informal testing like interviews of students.

Teachers should incorporate a balance of assessments to ascertain a clear picture of a students' learning. A balance is using a mix of formative, summative, authentic, and diagnostic that will provide educators the ability to know where students learning needs are in related to specific outcomes.

Slide 16	The group will participate in an activity to determine if an event is a summative or formative assessment and discuss why.

Formative or Summative

- In your group, determine whether the activity on the sentence strip is a **formative assessment** (checks along the way) or a **summative assessment** (test, exam, or project). Place the strip under the correct heading.

Slide 17	For formative assessments to be effective, they need to be part of a full system of components working together to facilitate learning (Bennett, 2011).

Video

Wisconsin DPI. (2017, January 31). Identifying Effective Formative Assessment Practices [Video file]. Retrieved from http://www.youtube.com/watch?v=ZJSbv1OKKk&t=3s

Collection of data with a formative assessment is not enough. According to Antoniou and James (2014), formative assessments provide information related to student progress allowing for instruction to be modified.

Routinely using the data to decide what to do next with students is critical in the formative assessment process (Li & DeLuca, 2014).

A formative assessment is about gauging progress toward a learning goal, giving feedback, and teachers along with students filling in the gaps.

Slide 18

Characteristics of Formative Assessments

- To improve learning and achievement
- Completed while learning is in progress
- Focused on the learning process
- Collaborative with students and teachers
- Fluid and ongoing process
- Gather evidence to make adjustments for continuous improvement

According to Chappuis (2005), there are four essential components in the formative assessment process: (a) learning targets, (b) feedback, (c) self-assessment, and (d) specific steps to improve. Each element must be in place to have an effective formative assessment practice that is useful for improving teaching and learning.

Chappuis (2005) developed a systematic formative assessment process with seven specific strategies for teachers:

- Strategy 1: Provide a clear and understandable vision of the learning target.
- Strategy 2: Use examples of strong and weak work.
- Strategy 3: Offer regular descriptive feedback.
- Strategy 4: Teach students to self-assess and set goals.
- Strategy 5: Design lessons to focus on one aspect of quality at a time.
- Strategy 6: Teach students focused revision.
- Strategy 7: Engage students in self-reflection and let them document and share their learning. (pp. 40-43)

Slide 19	Participants will complete an activity based on the vignette and determine if the action is a formative assessment characteristic or not.

Teacher Vignette

- Read this vignette:
    - A teacher is finishing a lesson on a new learning target and conducts a quick check for student understanding in order to plan for the next lesson. She asks the class to give her a thumbs up if they are confident in their understanding of the new material, a thumbs to the side if they have a question about the new material, or a thumbs down if they do not understand the ne material and need extra help.
- Look at the Characteristics Chart and place an X in each box that reflects the vignette.
- Discuss in your group

Slide 20	Lunch break for 1-hour

Lunch

- Lunch break is 12:00-1:00 PM.
- Please report back on time.

Slide 21	Formative assessment activities are planned in advance and designed to gather data. The key is to create activities and ask questions that make students' thinking explicit. Plan for comments that are descriptive and prescriptive. These types of comments lead students to judge the quality of their work and to monitor themselves as they produce new work. Formative assessments allow teachers to pause at essential points and check if students understand and then make

Characteristics of Formative Assessments

- Please write three (3) characteristics of formative assessments on individual sticky notes and add to the chart paper.

	instructional adjustments along with feedback.
Slide 22 **The 2Es** ■ Read the article: The 2Es ■ Reflect ■ Choose three statements that stood out to you and write them on the chart paper ■ Share out as a group ■ Kroog, H., King-Hess, K., & Ruiz-Primo, M.A. (2016). The 2Es: Implement effective and efficient approaches to formal formative assessment that will save time and boost student learning. *Educational Leadership, 73*(7), 22-25.	Frequent assessments, like formative assessments, identify current knowledge and steps for reaching desired goals. Formative assessments take place during the process of learning and are embedded in the learning activities. Establishing clear curricular goals and using formative assessments to understand where the student is relative to the goal allows for differentiation to occur (Tomlinson & Moon, 2013). The timeliness of formative assessment results allows teachers to adjust instruction quickly. This adjustment can occur while learning is in process.
Slide 23 **Table Discussion** ■ How do you know when students have had enough time to practice and are ready for a summative evaluation?	Formative assessment is an ongoing reflection to adjust teaching. It is a process that occurs every day and has a direct impact on learning. Formative assessment allows teachers to look for patterns in student learning and immediately make adjustments. There are four steps aligned to formative assessments: • Understand the goals by looking at the standards • Envision proficiency and what it looks like • Purposefully designed by teachers

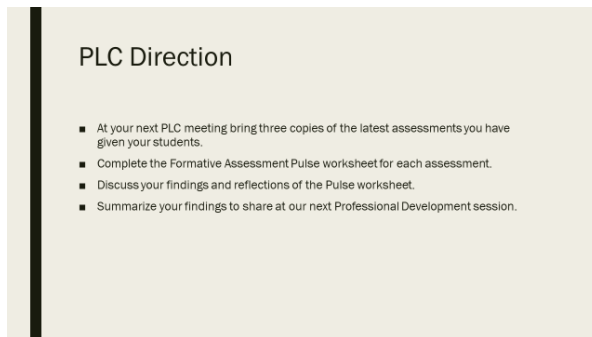|	• Feedback to adjust learning
Slide 24 **Conocreation of Transpondilates** ■ In order to conocreate transpondilates one needs to bracter sliphausen. Bractering sliphausen allows gorphlext to be produced. Gorlex is a key ingredient used in the conocreation process. Without gorflext, transpondilates will not be created with the density needed to perform adequately when used in the boonecting process. Boonecting is important to the future of humankind because of its ability to remove orphene from brandicide. ■ Depka. E. (2015). *Bringing homework into focus: Tools and tips to enhance practices, design, and feedback.* Bloomington, IN: Solution Tree Press	When considering the essential components of formative assessments (learning goals, feedback, goal setting, and types of questions), traditional homework does not provide a teacher with the information to inform future instruction. Drill and practice and rote memorization do not reflect best practices for improving student achievement. American learners are expected to know, understand and apply skills instead of memorizing information (No Child Left Behind [NCLB], 2002). Dueck (2014) encouraged homework practices that promote investigation and inquiry through the types of questions. Pendergast, Watkins, and Canivez (2014) reported students might not complete homework that is boring and routine. An example of this would be repetitious worksheets.

Slide 25
 	
 Using Homework Formatively
 	
 ■ Should be a formative assessment that checks for understanding or helps prepare students for summative assessments.
 ■ In standards based systems, homework should not be graded.
 ■ Grading while still learning sends the wrong message to students.
  – Students are penalized for lack of mastery early in learning, even though mastery was achieved later.
 ■ Give 10/Get 10
  – What are some ways to "mark" formative assessments?
 	
  – Vatterott, C. (2015). *Rethinking grading: Meaningful assessments for standards-based learning.* Alexandria, VA: ASCD
	Homework should have guiding questions and learning goals set forth by the formative assessment research. Teachers need to make students cognizant of the learning target the homework is designed for.
	
	 Teachers should inform students of the learning target of the homework. Assignments with

learning goals are stronger and more well-received.

Sadler's comments on formative assessments may be directly relevant for homework practices as was noted that formative assessments benefit the teacher providing feedback to make educational decisions and to students helping them determine personal strengths and weaknesses.

Many times, homework is the artifact that teachers and students to provide feedback on learning (Adesope et al., 2017).

Slide 26

PLC Direction

- At your next PLC meeting bring three copies of the latest assessments you have given your students.
- Complete the Formative Assessment Pulse worksheet for each assessment.
- Discuss your findings and reflections of the Pulse worksheet.
- Summarize your findings to share at our next Professional Development session.

Professional learning communities are based on the framework of DuFour and Eaker (1998). A PLC encourages teachers to work together to achieve a collective purpose.

Work accomplished within a professional learning community clarify: (a) what is it we want the students to know, (b) how will we know if students are learning, and (c) how do we respond when students are not learning (DuFour & Eaker, 1998).

Characteristics of an effective PLC include: shared value, vision, and goals, collective learning and application, and shared individual practices.

A PLC is action-oriented and the goals are established *by* the teams and not *for* the teams. A

	PLC promotes intensive reflection on teachers' instructional practices.
Slide 27 **Reflection and Exit Ticket** ▪ Parking lot questions ▪ Exit ticket: – *Name the three key questions of formative assessments.*	Reflection as part of professional development allows teachers deeper meaning to the new expected practice. Professional development activities need to support teachers in reflecting about their professional knowledge. Allowing teachers to write in journals facilitates communication. Journal writing combines writing, reading and discourse (Brady, 2016). Reflective practices in professional development should be deliberate, purposeful and structured.
Slide 28 **References** ▪ Black, P., & Wiliam, D. (1998). *Inside the Black Box: Raising Standards Through Classroom Assessment.* London, UK: Kings College ▪ Depka, E. (2015). *Bringing homework into focus: Tools and tips to enhance practices, design, and feedback.* Bloomington, IN: Solution Tree Press ▪ Kroog, H., King-Hess, K., & Ruiz-Primo, M.A. (2016). The 2Es: Implement effective and efficient approaches to formal formative assessment that will save time and boost student learning. *Educational Leadership, 73*(7), 22-25. ▪ Moss, C.M. & Brookhart, S.M. (2009). *Advancing Formative Assessment in Every Classroom.* Alexandria, VA: ASCD ▪ Vatterott, C. (2015). *Rethinking grading: Meaningful assessments for standards-based learning.* Alexandria, VA: ASCD ▪ Wisconsin DPI. (2016, March 23). Formative assessment (Strategic assessment system, part 1). [Video file]. Retrieved from https://www.youtube.com/watch?v=h800hQ32IlQ&t=8s ▪ Wisconsin DPI. (2017, January 31). Identifying Effective Formative Assessment Practices [Video file]. Retrieved from http://www.youtube.com/watch?v=ZfSbv10KKk&t=3s	References consist of primary sources, scholarly articles, and books, with most being published within the last 5 years.

Module 1: Handouts

Handout 1: Agenda

Time	Topic	Activity
8:00-8:15	Introductions and overview of the day	Handouts
8:15-8:30	Establishing norms	Chart paper and sharing norms
Session 1		
8:30-8:45	Parking Lot	Explain parking lot chart paper
8:45-9:05	Self-Assessment	Individual Reflection of the Formative Assessment Process
Session 2		
9:05-9:15	Terminology and what are assessments	Group discussion
9:15-9:30	Reflection of current assessments	Note success/challenges/ and wonderings related to assessments on chart paper
9:30-9:50	Three formative assessment questions and seven practices	Facilitator presentation
9:50-10:00	Break	On your own
10:00-10:30	Create group definition of formative assessment	Sticky notes on chart paper; group combines notes to create group definition; share group definitions and create one definition to be used by district
Session 3		
10:30-10:50	Formative or Summative	Group work to determine type of assessment, video and reflection
10:50-11:30	Teacher Vignette	Individually read and mark characteristics; discuss in group
Session 4		
11:30-11:50	Characteristics of formative assessments	Group review of morning knowledge, video
11:50-12:00	Housekeeping	Facilitator
12:00-1:00	Lunch	On your own

1:00-1:30	Article	Read individually and then share three statements in group
Session 5		
1:30-1:45	Practice before summative assessments	Table discussion
1:45-2:00	Formative Assessments	Video and reflections
2:00-2:10	Conocreation of Transpondilates	Individual practice
2:10-2:30	Formative homework assignments	Group activity, Give 1/Get 1
2:30-2:45	PLC Direction	Facilitator presentation
2:45-3:00	Closing	Reflection on learning and exit tickets; Questions from parking lot

Handout 2: Reflection of Formative Assessment Process

Outcomes	Beginner	Intermediate	Expert
The teacher effectively communicates learning targets.	Students are aware of the learning targets.	Students are consistently made aware of the learning targets.	Students clearly understand the learning targets and base their activity on the achievement of the learning target.
The teacher effectively collects formative data.	The teacher uses basic observation and questioning to gauge student engagement.	The teacher uses high quality observation, questioning, and specialty tools to gauge if students are engaged and moving toward the learning target.	The teacher uses high quality observation, questioning, and specialty tools to gauge if students are engaged and moving toward the specific learning target.
The teacher effectively uses feedback.	The teacher provides students with praise.	The teacher provides students with feedback.	The teacher provides students with timely, specific and nonjudgmental feedback moving them towards the specific learning targets.
The teacher effectively supports self-assessment with learners.	Learning is mostly directed by the teacher.	Students take an active role in their own learning.	Students take an active role in their own learning including gathering formative data to achieve specific learning targets.

Handout 3: Black Box Definition

Please highlight the words or phrases that are important to you in this definition of formative assessment.

■ All those activities undertaken by teachers that provide information to be used as feedback and by their students in assessing themselves to modify teaching and learning activities.

Black, P., & Wiliam, D. (1998). *Inside the Black Box: Raising Standards Through Classroom Assessment.* London, UK: Kings College.

Handout 4: Video Reflection Sheet

New information I learned...	I agreed with...
Video Title:	
Questions I now have...	I disagree with...

Handout 5: Formative or Summative Sentence Strips

During learning cycle
Focus on what students still need to understand
Used by the teachers to identify and give feedback about where the students are in their learning
Purpose is to improve learning
Belief is that success is achievable
Continuous, Consistent, Constant
Usually ungraded
End of a learning cycle
Focus on what students did or did not know
Used to rank and sort students
Purpose is to document achievement
Threat of punishment, promise of reward
Periodic: Occasional, Yearly
Graded

Handout 6: Formative Assessment Characteristics Chart

	Based on specific learning targets	Designed by teachers	Elicits evidence of student learning	Informs instruction	Involves students	Provides specific, actionable, immediate feedback
Teacher A After looking around the room at the student's thumbs up/down, the teacher notes which students she needs to conference with about misconceptions and questions. Since the majority of students showed a thumbs up, the teacher continues with the lesson.						
Teacher B The next day, she confers with the students who had a question or a misconception. The students from that group who feel confident join the thumbs up group to continue practicing.						
Teacher C Next, the teacher confers with the students who had their thumbs down who still had questions to re-teach the lesson and provide guidance as necessary to ensure understanding. The next day, all students complete an entrance slip assessing the new material. The teacher rechecks student comprehension and the formative assessment cycle continues as students' needs arise.						

Handout 7: The 2Es Article

Kroog, H., King-Hess, K., & Ruiz-Primo, M.A. (2016). The 2 Es: Implement effective and efficient approaches to formal formative assessment that will save time and boost student learning. *Educational Leadership, 73*(7), 22-25.

Handout 8: Give 1/Get 1

Give One	Get One

Fote, L. & Joseph, M. (2015). *On the Road to Student Success: Designing Lessons with the Common Core.* Dubuque, IA: Kendall Hunt.

Handout 9: Pulse Worksheet

Description of the Assessment (When did it take place, what was the format, timing, time limit, etc.):

Skills/Content That You Assessed:

Type of Assessment	Use of the Assessment (Check All That Apply)		My Purpose for the Assessment
□ Written □ Oral □ Private Conference □ Project □ Portfolio □ Essay □ Cooperative activity □ Presentation/ Performance □ Other	Formative (*For* Learning) □ My students and I entered into the assessment with the intention to learn more about where we are headed, and how we are going to get there. □ My students and I used it to monitor excellence during the process of learning. □ My students and I used it for goal setting	Summative (*Of* learning) □ I used it to evaluate overall student performance at the end of a unit of study or lesson. □ I used it to evaluate specific skills and/or knowledge at the end of a lesson or unit of study.	□ To analyze and direct lesson planning (content/process □ To identify student needs □ To compare with other evidence of learning □ To contribute toward final grade □ To report to student/parent □ To help my students set goals
My Students' Role During the Assessment (Check All That Apply)			**Assessment Source**
□ Were aware of the skills and/or content to be assessed □ Knew when they would be assessed □ Helped develop the assessment □ Identified specific strategies that they would use to succeed □ Were aware of the criteria for success beyond what is constituted a passing score □ Had a rubric, checklist, or other way to monitor and regulate themselves during the assessment			□ Textbook □ Teacher made □ Another source □ Teacher-modified or refined

Moss, C.M. & Brookhart, S.M. (2009). *Advancing Formative Assessment in Every Classroom.* Alexandria, VA: ASCD

Module 2: Learning Targets

The Module 2 instructional goals are to (a) develop an understanding of what is a learning target, (b) learn how to write a learning target, (c) understand how to communicate learning targets, (d) understand how learning targets should align with homework. This module is scheduled to last 6 working hours with a 1-hour lunch break. During Module 2, participants will complete five sessions to meet the goals.

Each session includes multiple steps or time segments that are aligned with the module and session instructional goals. The professional development plan includes a matrix with the steps for each session. The matrix includes the specific steps; stakeholders involved in the step; the actual interactive activity or learning format; the resources needed to complete the step and activity; the allocated time for the step; and the quality indicators, artifacts that may evidence the participants' accomplishment or improvement in the learning objective. This matrix is designed as a guiding tool for the facilitator and may be adapted into an agenda for participants.

Module 2: Learning Targets

Purpose	To provide hands-on experiences for teachers related to the formative assessment process including feedback, learning targets, and self-assessment that will improve the homework assignment practices of the participants.
Goal for Session	The goal of this session is to develop an understanding of what is a learning target in formative assessment practices and how learning targets should be aligned with homework assignments.
Stakeholders	General education teachers in Grades 3-5
Instructional Goals for Session	• Develop an understanding of what is a learning target • Learn how to write a learning target • Understand how to communicate learning targets • Understand how learning targets should align with homework.

Session	Activity	Resources	Mins	Quality Indicators
1. Provide an overview of the session, review norms, and reflect on PLC	PowerPoint and review norms, discussion of PLC	Computer, Smartboard, sticky notes, pens, markers, paper, chart paper, tables and chairs, *printed agenda* (Handout 1), printed **PowerPoint presentation**, index card, Parking Lot chart, Pulse Worksheet (Handout 8)	30	• Whole group discussion • Sharing of PLC
2. Introduce what are learning targets in the formative assessment process.	PowerPoint and discussion, view video and reflect, activity on why to create learning targets	Speakers, *Video Reflection Sheet* (Handout 2), pen/pencil	90	• Whole group discussion • Reflection on video

Module 2: Learning Targets (con't)

3. Learn how to write learning targets	PowerPoint, discussion, video and reflection, K-U-D model, ABC activity	*ABC Verbs* (Handout 3), *Learning Target Verbs* (Handout 4), two different color highlighters, pen/pencil, *Bloom's Taxonomy* (Handout 5), *Practice Learning Targets* (Handout 6), *State Standards* (Handout 7), chart paper, marker	120	• Whole group discussion • Completed K-U-D target • Bloom's Taxonomy • Practice Learning Targets • State Standards
4. Develop ways to communicate learning targets with students.	PowerPoint, discussion; band activity	Pen/pencil, paper, chart paper, marker, gold paper strip, marker, pen/pencil, paper clip	60	• Whole group discussion • Band activity
5. Connecting learning targets and homework	PowerPoint and discussions	**Parking Lot questions**, 3x 5 index cards	60	• Whole group discussion • Parking Lot • Exit ticket

Session 1: Overview and PLC Reflection

The learning objective for Session 1 is to establish the goals for the day and to share outcomes of the previous PLC session. The facilitator uses slides 1-5 to begin the module sessions. Facilitator welcomes participants and provides them with a copy of the agenda (Handout 1) and PowerPoint. The facilitator gives them a brief overview of the day including there will be a break in the morning and afternoon and that lunch will be on their own and last one hour. The facilitator asks participants to fold the index card the long way and write their name on the card to display on the table.

The facilitator asks the participants to quickly review the norms set last meeting. If there are any changes to the norms, the facilitator notes them. They also review use of Parking Lot. The facilitator encourages the discussion of the Pulse Worksheet (Handout 8) completed by the teachers at the previous PLC meeting.

Session 2: Introduction of Learning Targets

The facilitator reminds the participants about the three formative assessment questions discussed in the first training. The facilitator uses slides 6-12. The facilitator highlights the first question Where am I going? and how the activities today, including setting learning targets, help answer this question. The facilitator engages the participants in a discussion about the important aspects of creating learning targets. Facilitator plays the media clip embedded in the slide. After watching the clip, the participants complete the Video Reflection Sheet (Handout 2) and discuss in a table group and then in the whole group. The facilitator asks the participants to think about learning targets they may have given to their students. The teachers write 5-6 of these targets to prepare for the next activity. The facilitator asks the participants to review each learning target they wrote and

answer the questions on the slide for each learning target. If they were unable to answer

yes for one of the questions, they should try to adjust the learning target so it reflects the

question. At the end of the activity, participants share out what they noticed about their

learning targets with the group.

Session 3: How to Write Learning Targets

The facilitator reviews the progression of learning targets and how this is also a

continuous path of setting targets, working towards them, and finally evaluating the

progress towards the targets. The facilitator uses slides 13-25. The facilitator introduces

the K-U-D model. The model outlines the three areas teachers need to consider when

developing learning targets. The first area is what do we want students to understand. The

next area is what do we want them to know and the last area is what do we want the

students to actually do. The facilitator reviews that what we want students to understand

is more aligned to an essential question or big idea. For each unit a teacher is working in

there would be 1-3 ideas they want students to understand. The facilitator asks the

teachers to think about the unit they are currently working in for mathematics and to

write down 2-3 big ideas they want the students to understand in this unit. The facilitator

shares that what we want students to know are the outcomes for the unit. The teachers

think about the unit in mathematics from the previous slide. They look at the 2-3 big

ideas they want the students to understand. Now the teachers list 4-5 things they want

students to know at the end of the unit.

The facilitator explains that some learning targets might come from this list of

what we want students to know. The facilitator explains the final step towards writing a

learning target is to decide what the students must do at the end of the unit. These are

actionable tasks that can be measured. For example, the student will write the definition of photosynthesis. The teachers now look at the list of tasks they wanted students to know from the previous slide and try to create 1-2 actionable targets they want students to do. The facilitator explains that this is where most learning targets are formed.

The facilitator discusses the next few activities help participants learn to write strong learning targets. The learning targets are a key in the formative assessment process as it answers the question: Where am I going? for everyone. The facilitator reviews the key components noted on the slide. The facilitator provides the participants with the ABC Verbs sheet (Handout 3). The teachers list 1-2 learning verbs for each letter. The facilitator sets a timer on the Smartboard for 5 minutes. After 5 minutes, the teachers share who was able to use the most letters using verbs out of 26 letters. The facilitator encourages the teachers to share some of their more unusual verbs used. They then circle the five verbs they commonly use when creating learning targets.

The facilitator provides a list of Learning Target Verbs (Handout 4) and teachers highlight the **know** verbs in one color and the **do** verbs in another color. They share in their table groups the verbs highlighted. If there are any verbs that contradict highlighted colors the participants should defend why they thought it was either a **know** verb or a **do** verb. The facilitator provides teachers with a copy of Bloom's Taxonomy (Handout 5). The participants work independently to create three learning targets in the area of language arts for each level of the taxonomy. The participants then share their learning targets with their table peers and volunteers share with the group an example of a learning target for each level of the taxonomy.

The facilitator provides each participant a copy of the sentences listed on the slide (Handout 6). The participants write yes or no if they think the learning target is well written. The participants discuss at their table groups why they chose yes or no and defend/support their responses. The participants then come together as a group and share out what they thought about each target and why.

During the lunch break the facilitator places a specific grade level state standard for ELA and mathematics (Handout 7) on each table. The facilitator welcomes the participants back from lunch and asks them to review the standards on each table. They use the Understand-Know-Do model to create 2-3 learning targets for each provided standard. They write the U-K-D model and the learning targets on chart paper to share with the entire group when they are finished. The group offers suggestions for the shared learning targets created.

Session 4: Communicating Learning Targets

The facilitator opens a discussion about different ways to communicate learning targets to the students. Each table group then develops a list of ways that they created to share learning targets. The groups come back together and one person volunteers to capture any new ideas from the whole group onto chart paper. The facilitator encourages participants to write down these suggestions for their future personal use in the classroom. The facilitator provides each participant the materials to create a gold goal band. The participants follow the steps to create a gold goal band related to a learning goal just created in the prior activity. The facilitator discusses implementing the activity in class and encourages teachers to share other activities similar to the gold goal band they could develop and use.

Session 5: Learning Targets and Homework

The facilitator shares with the participants the need for homework assignments to align with students' learning targets. The discussion leads to the need for differentiated homework and practice based on the student's learning targets. The facilitator reminds participants of the upcoming PLC date on the district calendar. The facilitator encourages participants to complete the activity and be prepared to share out their thoughts at the next professional development day. Facilitator answers any Parking Lot questions and gives each participant a 3x5 index card to respond to the Exit Ticket: (a) Name three learning target verbs that are new to you, (b) Why are clear learning targets important to formative assessment. The facilitator asks the participants to put their Exit Tickets on the front table and the facilitator positions herself near the door to thank participants and to say good bye.

Module 2: Presenter Notes and PowerPoint Slides
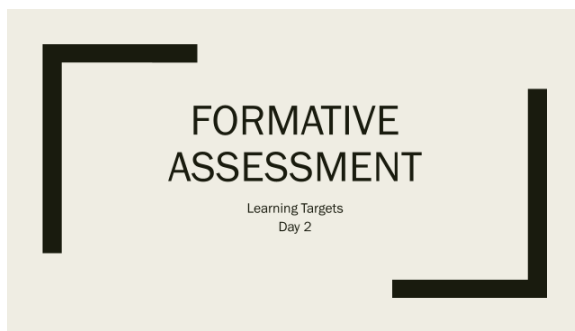
Slide 1	Facilitator welcomes participants and provides an overview of the professional development.
Slide 2	The facilitator will provide the agenda to each participant and review the goals for the day.
Slide 3	The facilitator will ask the participants to review the norms created in the first module. The norms will be posted at the front of the room. The participants will have an opportunity to change or add any norms.
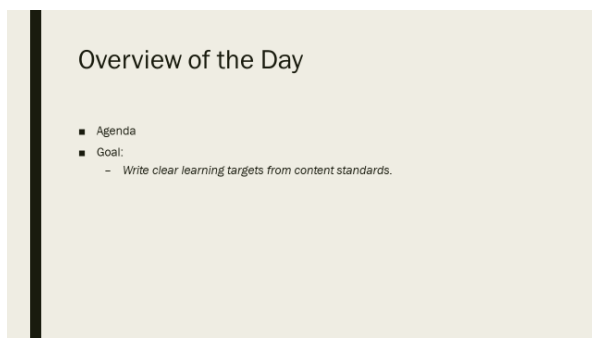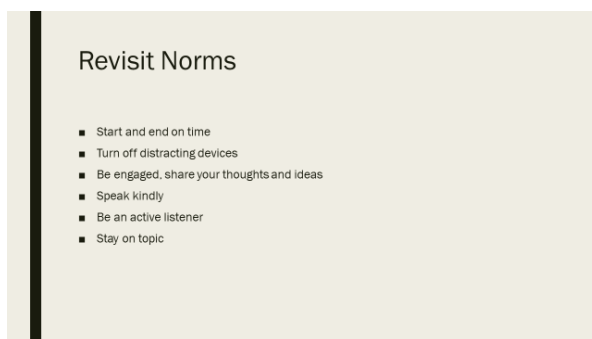
Slide 4	The facilitator will review the chart paper with the words Parking Lot at the top. The facilitator will explain at any point in the day if a participant has a question, they can note it on a sticky note and place the note on the Parking Lot chart paper. The questions will be answered at the end of the session each day.
Parking Lot ■ Please write down any questions you may have on a sticky note and place on the parking lot chart. ■ We will address any questions during reflection time at the end of the day.	
Slide 5	The facilitator will ask participants to share their reflections on the Pulse Worksheet (Handout 8) and encourage all participants to share out their experiences noted on the worksheet.
PLC Review ■ Share highlights of your PLC discussion about formative assessments and the Pulse Worksheet completed in the PLC.	
Slide 6	In their later work, Black and Wiliam (2009) narrowed these broad headings into three key domains of focus that are reminiscent of Chappuis' (2005) key questions: Establishing where the learners are in their learning; Establishing where they are going; Establishing what needs to be done to get them there.
Formative Assessment Questions Where am I going? How can I close the gap? Where am I now?	
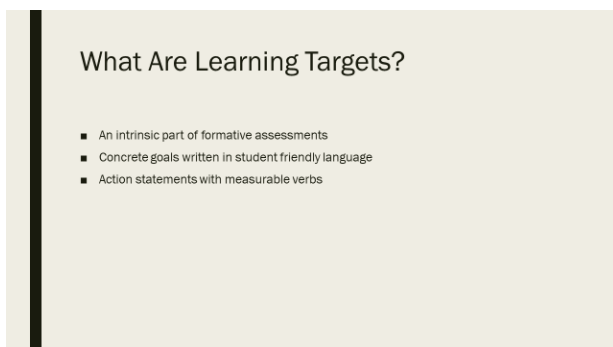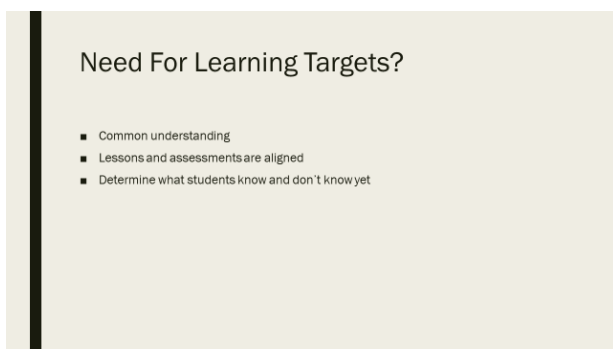
Slide 7	The first essential element in the formative assessment practice is the articulation of and path to clear learning targets. Teachers must be clear on what they want the students to learn (Brookhart, 2017; Mandinach & Gummer, 2013).
What Are Learning Targets? ■ An intrinsic part of formative assessments ■ Concrete goals written in student friendly language ■ Action statements with measurable verbs	
	A learning target is more than just noting the objective on the board; it helps students and teachers monitor the learning process.

Slide 8	Assignments must align with the learning target; as this alignment is where the target is translated into action. The learning target is the initial step in the formative assessment practice.
Need For Learning Targets? ■ Common understanding ■ Lessons and assessments are aligned ■ Determine what students know and don't know yet	

Slide 9	Establishing clear curricular goals and using formative assessments to understand where the student is relative to the goal allows for differentiation to occur (Tomlinson & Moon, 2013).
Importance of Learning Targets ■ Sharing learning targets and criteria for success is the top formative assessment strategy (Heritage, 2010; Moss & Brookhart, 2009; Wiliam, 2011).	

| Slide 10	The key for learning and teaching is the success criteria. Students need to know the purpose of learning and the evaluative notion of what it takes to be successful. When students are part of the solution they are more engaged.

Practice

- Write down 5-6 learning targets you have given your students.

Slide 11	Formative assessments provide the local teachers a strong understanding of where the student is on the learning continuum (Cunha et al. 2018).

Your Turn

- Review your targets and ask yourself:
  - Are the targets based on the content standards?
  - Are they focused or broad?
  - Can you determine if the student reaches the goal?
  - Are they clear to the students?
  - Do you check if all the students understand the learning targets?
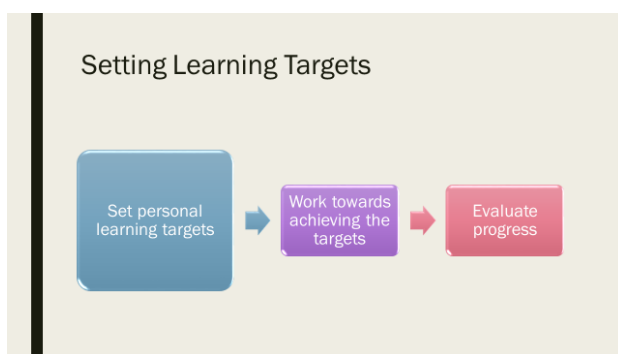
Slide 12	Fernandez-Alonso, Alvarez-Diaz, Suarez-Alvarez, & Munoz (2017) and Vatterott (2017) indicated homework was useful when it was connected with instructional objectives. Assignments with learning goals are stronger and more well-received.

Setting Learning Targets

Set personal learning targets → Work towards achieving the targets → Evaluate progress
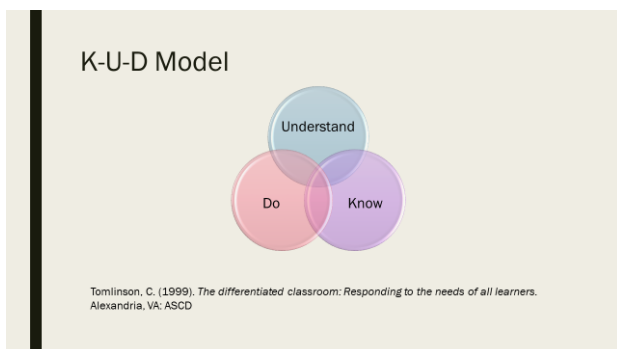
Slide 13	A precursor to sustained, effective differentiation is determining what is essential for students to know, understand, and do (KUD) as the result of a unit.
K-U-D Model Understand Do Know Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: ASCD	Many teachers have not thought about their curriculum in that way, and, therefore, developing KUDs can be frustrating at the outset. Without a KUD format (or some other format that specifies essential knowledge, understanding, and skills), teachers tend to give advanced students more work, to give strugglers less work, and to provide related but ill-focused choices for student work. High-quality differentiation hinges on stating and focusing on what students should understand. Developing those understandings will enable students to recall, retrieve, and transfer what they learn (Tomlinson & Moon, 2013).
Slide 14	Many years of research has shown that students differ in their developmental levels and students learn differently. Despite this information, teachers continue to apply the same approach to homework (Spencer, 2014).

Understand
 	
■ What should students understand?
  – *Essential questions*
  – *Big ideas*
■ Not learning targets
■ 1-3 per unit
■ I want students to understand......
  – *From here we build learning targets*
	Homework assignments that are not differentiated for individual differences in student abilities, learning styles, structure and difficulty undermine student motivation

(Flunger et al., 2015; Katz, Eliot, & Nevo, 2014).When assignments are given to all students without consideration for their differences, teachers are in contrast to formative assessment strategies.

Bempechat, Jin, Neier, Gillis, & Holloway, (2011) in their study on homework of low-income students showed that if homework is not perceived as purposeful to the students or beneficial to the teacher, it may discourage some students from learning.

| Slide 15 | The practice of assigning homework can be indicators of a student's responsibility, personal management, and commitment to practice and skill improvement though having homework contribute to a high percentage of the overall grade does not indicate how well a student knows the course content (Reeves, Jung, & O'Connor, 2017). |

Know

- What students should **know**
  - *Places*
  - *Definitions*
  - *Facts*
  - *Rules*
  - *vocabulary*
- We develop **some** learning targets

For student's ownership, they need to have the chance to set goals, reflect on their progress, and adjust their learning goals (Merrill et al., 2017).

Slide 16	Aligning the standards allows districts to think about how learners develop understanding of key concepts and practices across multiple grades. The standards, curriculum, assessments, and the development of materials are critical in supporting students in building integrated understanding (Bailey et al., 2014).

Do
 	
■ What students should be able to **do**
■ Measurable action verbs
  – *Show*
  – *produce*
■ **Most** learning targets	

Slide 17	Polikoff, Porter, and Smithson (2011), discovered that a large portion of the test content did not align with the standards and the content is at a lower level. The CCSS specify skills and knowledge and provide teachers guidance on important content to be taught. The CCSS has clear expectations with specific goals and high standards.
Activity-ABC Verbs ■ Think about verbs you link to learning targets. ■ Complete the sheet writing 1-2 verbs per letter. ■ Let's see who can come up with the most letters used! ■ Circle the five verbs you regularly use.	
Slide 18	Learning is driven by what students and teachers do in a classroom (Schopf, 2014). The types of homework assignments at the elementary level that are reasonable include drill, practice and reinforcement of ideas (Meng & Munoz, 2016). Pendergast, Watkins, and Canivez (2014) reported students might not complete homework that is boring and routine.
Learning Target Verbs ■ Review the list of learning target verbs ■ Highlight **Know** verbs in one color ■ Highlight **Do** verbs in another color	

Slide 19	Bloom created a taxonomy of measurable verbs to help describe and classify observable knowledge, skills, attitudes, behaviors and abilities. The theory is based upon the idea that there are levels of observable actions that indicate something is happening in the brain (cognitive activity.) By creating learning objectives using measurable verbs, teachers indicate explicitly what the student must do in order to demonstrate learning (Adams, 2015).
You Try ■ Review the list of verbs found on Bloom's Taxonomy ■ Create three learning targets at each level	
Slide 20	When students are engaged in active learning their ability to understand and apply the concepts is increased (Lipnevich et al., 2012).

Let's Practice
 	
■ Read the following learning targets
  – I can learn about the phases of the moon.
  – I can explain what events led up to the Boston Tea Party
  – I can understand the parts of an essay
  – I can solve an equation
  – I can work in a group to read and discuss an article about pollution
  – I can identify characters, setting and plot.
  – I can complete the worksheet on days in Spanish by the end of the period.
  – I can create a Venn diagram to compare characters in Wonder.
  – I can determine the volume of a cylinder.
  – I can describe and give examples of how Native Americans used stories.
■ Write yes or no if you think the learning target is well written or not
■ Pair up and discuss your response and defend it if needed
■ We will review responses as a group	

Slide 21	Lunch break for 60 minutes
Lunch ■ Lunch Break is 12:00-1:00 PM ■ Please report back from lunch on time	
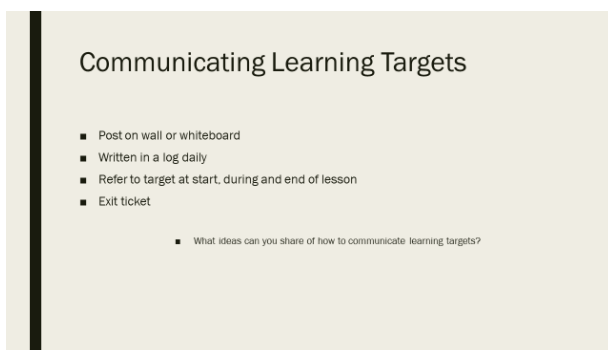
Slide 22	If educators concentrate on standards and accountability, but ignore the structures of teaching and learning, teachers will not have the support needed to improve learning (Black & Wiliam, 2010).
Writing Target Learning Practice ■ Look at the standards placed on your table. ■ As a group create learning targets for each of the standards.	The standards convey intellectual growth occurring throughout the educational span (Bailey, Jakicic, & Spiller, 2014; Calkins & Ehrenworth, 2016).
Slide 23	Learning targets are concrete descriptions of skills, concepts, or knowledge that students are expected to learn.
Communicating Learning Targets ■ Post on wall or whiteboard ■ Written in a log daily ■ Refer to target at start, during and end of lesson ■ Exit ticket ■ What ideas can you share of how to communicate learning targets?	When applying the definition of learning targets posted objectives would not be considered learning targets. A study completed by DeLaet et al. (2015) examined the use of learning targets and empowering students. A first grade and fifth grade class was targeted revealing students did not know what they needed to do, students did not receive descriptive feedback, they did not take responsibility for their learning, and did not reflect on their learning either. The researchers presented several strategies as an intervention including introducing key concepts at the start of the lesson, referencing learning targets through the lesson, and using individual and class graphs to track progress.
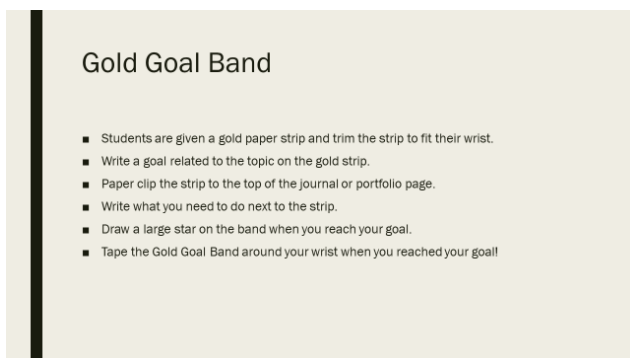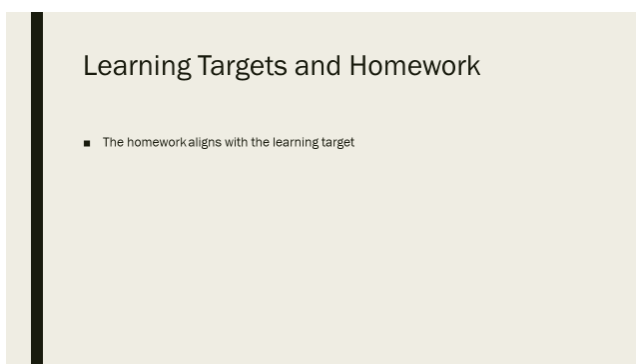
Slide 24	DeLaet et al. (2015) supported the necessity of engaging students in identifying learning targets and self-assessment strategies to monitor progress.
Gold Goal Band ■ Students are given a gold paper strip and trim the strip to fit their wrist. ■ Write a goal related to the topic on the gold strip. ■ Paper clip the strip to the top of the journal or portfolio page. ■ Write what you need to do next to the strip. ■ Draw a large star on the band when you reach your goal. ■ Tape the Gold Goal Band around your wrist when you reached your goal!	Learning targets need to be carefully designed and implemented with teacher support to be effective (Wanner & Palmer, 2018). Teachers must specifically plan for strategic questions that are connected to the learning targets.
Slide 25	Feedback provides opportunities to integrate clear learning targets (Chan, Konrad, Gonzalez, Peters, & Ressa, 2014).
Learning Targets and Homework ■ The homework aligns with the learning target	Critical to examine student work and offer practice, reteach or redirect so students can reach their intermediary targets before the final goal (Chappuis, 2014). Students; however, must understand what the targets mean. Assignments must align with the learning target; as this alignment is where the target is translated into action.
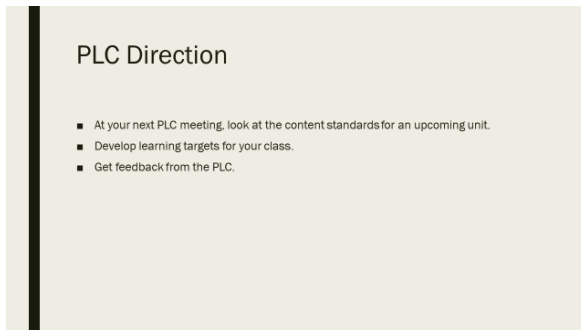
Slide 26

PLC Direction

- At your next PLC meeting, look at the content standards for an upcoming unit.
- Develop learning targets for your class.
- Get feedback from the PLC.

Professional learning communities are based on the framework of DuFour and Eaker (1998). A PLC encourages teachers to work together to achieve a collective purpose.

Work accomplished within a professional learning community clarify: (a) what is it we want the students to know, (b) how will we know if students are learning, and (c) how do we respond when students are not learning (DuFour & Eaker, 1998).

Characteristics of an effective PLC include: shared value, vision, and goals, collective learning and application, and shared individual practices.

A PLC is action-oriented and the goals are established *by* the teams and not *for* the teams. A PLC promotes intensive reflection on teachers' instructional practices.

Slide 27	Reflection as part of professional development allows teachers deeper meaning to the new expected practice. Professional development activities need to support teachers in reflecting about their professional knowledge.
	Allowing teachers to write in journals facilitates communication. Journal writing combines writing, reading and discourse (Brady, 2016). Reflective practices in professional development should be deliberate, purposeful and structured.
Slide 28	References consist of primary sources, scholarly articles, and books, with most being published within the last 5 years.

Module 2: Handouts

Handout 1: Agenda

Time	Topic	Activity
8:00-8:15	Review and Agenda	Greet participants; review the activities for the day and the agenda
Session 1		
8:15-8:30	Revisit Norms and Parking Lot	Ask if they want to change any norms from last meeting and remind about using the Parking Lot for questions during the day
8:30-8:50	PLC Review	Group discussion on prior PLC topic
8:50-9:00	Three formative assessment questions	Group review of the three questions
9:00-9:30	What are learning targets?	Facilitator presentation
Session 2		
9:30-9:55	Learning targets	Video and reflection
9:55-10:05	Break	On Your Own
10:05-10:45	Understand-Know-Do	Individual and Group Activity
10:45-11:45	How to Write a Learning Target	Verb Game Bloom's Taxonomy
Session 3		
11:45-12:00	Housekeeping Items	Facilitator review
12:00-1:00	Lunch	On Your Own
1:00-1:45	Writing Learning Targets	Table Activity with standards
1:45-2:05	Communicating Learning Targets	Group Discussion; Gold Goal Band

Session 4		
2:05-2:25	Learning Targets and Homework	Group Discussion
Session 5		
2:25-2:40	PLC Direction	Facilitator Presentation
2:40-3:00	Closing Activity	Reflection on learning and exit tickets; Questions from parking lot

Handout 2: Video Reflection Sheet

New information I learned...

I agreed with...

Video Title:

Questions I now have...

I disagree with...

Handout 3: ABC Verbs

Directions: Think of action verbs you associate with learning. Try to finish the sentence "I Can_____" with what you want your students to be able to do. Try to think of a verb that starts with each of the letters listed below. No more than two (2) verbs per letter!

A _____   N_____

B _____   O _____

C _____   P_____

D _____   Q_____

E_____   R_____

F _____   S_____

G _____   T_____

H _____   U_____

I_____   V_____

J_____   W_____

K_____   X_____

L_____   Y_____

M_____   Z_____

Handout 4: Learning Target Verbs

Know

- list, tell, describe, relate, locate, write, find, state, name, identify, label, recall, define, recognize, match, reproduce, memorize, draw, select, write

Do

- explain, interpret, outline, discuss, predict, restate, compare, describe, summarize, convert, construct, distinguish, determine, create, plan, hypothesize

Anderson, L.W., Krathwohl, D.R. (Eds.) (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of educational objectives* (Complete ed.). New York, NY: Longman

Handout 5: Bloom's Taxonomy

Remember		
List	Choose	Repeat
Label	State	Choose
Name	Underline	Define
Tell	Arrange	Memorize
Describe	Recognize	Identify
Select	Find	Match
Understand		
Summarize	Demonstrate	Show
Execute	Translate	Illustrate
Classify	Interpret	Rephrase
Compare	Predict	Contrast
Explain	Outline	Interpret
Restate	Estimate	Discuss
Apply		
Calculate	Model	Complete
Apply	Develop	Use
Solve	Construct	Sketch
Execute	Perform	Conduct
Analyze		
Categorize	Analyze	Classify
Compare	Diagnose	Contrast
Simplify	Distinguish	Differentiate
Relate	Theorize	Debate
Appraise	Inspect	Test
Evaluate		
Conclude	Investigate	Justify
Interpret	Evaluate	Determine
Prove	Support	Decide
Choose	Defend	Deduct
Interpret	Measure	Recommend
Argue	Assess	Compare
Create		
Compose	Integrate	Combine
Create	Build	Develop
Formulate	Modify	Predict
Design	Invent	Propose
Devise	Establish	Synthesize

Anderson, L.W., Krathwohl, D.R. (Eds.) (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of educational objectives* (Complete ed.). New York, NY: Longman

Handout 6: Practice Learning Targets

1. I can learn about the phases of the moon.

2. I can explain what events led up to the Boston Tea Party.

3. I can understand that an essay is divided into three main parts: an introduction, body, and conclusion.

4. I can solve an equation.

5. I can work in a small group to read and discuss an article about pollution.

6. I can identify characters, setting, and plot.

7. I can complete the worksheet on the days of the week in Spanish by the end of the period.

8. I can create a Venn diagram to compare the characters in *Wonder*.

9. I can determine the volume of a cylinder.

10. I can describe and give examples of how Native Americans used stories in their culture.

Handout 7: Grade Level Standards

NJSLSA.R6. Assess how point of view or purpose shapes the content and style of text.

NJSLSA.W3. Write narratives to develop real or imagined experiences of events using effective technique, well-chosen details, and well-structured event sequences.

3.OA.D8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

3.MD.B3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.

NJSLSA.W7. Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.

4.NF.A2. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbol >, =, < and justify the conclusions, e.g., by using a visual model.

4.MD.A3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or text using valid reasoning and relevant and sufficient evidence.

5.NBT.B5. Fluently multiply multi-digit whole numbers using the standard algorithm.

5.G.A2. Represent real-world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

www.state.nj.us/education/cccs/2016/ela; www.state.nj.us/education/cccs/2016/math

Module 3: Providing Feedback

The Module 3 instructional goals are to (a) recognize effective feedback, (b) understand the importance of feedback, (c) provide positive feedback, (d) apply feedback to homework. This module is scheduled to last 5 working hours with a 1-hour lunch break. During Module 3, participants will complete five sessions to meet the goals.

Each session includes multiple steps or time segments that are aligned with the module and session instructional goals. The professional development plan includes a matrix with the steps for each session. The matrix includes the specific steps; stakeholders involved in the step; the actual interactive activity or learning format; the resources needed to complete the step and activity; the allocated time for the step; and the quality indicators, artifacts that may evidence the participants' accomplishment or improvement in the learning objective. This matrix is designed as a guiding tool for the facilitator and may be adapted into an agenda for participants.

Module 3: Providing Feedback

Purpose	To provide hands-on experiences for teachers related to the formative assessment process including feedback, learning targets, and self-assessment that will improve the homework assignment practices of the participants.
Goal for Session	The goal of this session is to develop an understanding of what is effective feedback and how to apply feedback formatively to homework.
Stakeholders	General education teachers in Grades 3-5
Instructional Goals for Session	• Recognize effective feedback • Understand the importance of feedback • Provide positive feedback • Apply feedback to homework

Session	Activity	Resources	Mins	Quality Indicators
1. Provide an overview of the session, review norms, and previous PLC reflections	PowerPoint, review norms, share reflections of previous PLC activity	Computer, Smartboard, sticky notes, pens, markers, marbled notebook, chart paper, tables and chairs, *Printed agenda* (Handout 1), printed **PowerPoint presentation**, index card, Parking Lot	45	• Whole group discussion • Parking Lot
2. Learning about effective feedback	PowerPoint, read and discuss two articles on feedback, view a video and discuss, facilitator presentation	*Article* (Handout 2), *Video Reflection page* (Handout 3), speakers, pen/pencil, *Article* (Handout 4), highlighters	90	• Whole group discussion • Video reflection
3. Understand the importance of feedback	PowerPoint, hands-on activity, review of feedback continuum, view video and discuss, facilitator presentation	*Feedback Practice worksheet* (Handout 5), pen/pencils, speakers, *Video Reflection* (Handout 3)	90	• Whole group discussion • Activity • Video reflection

Module 3: Providing Feedback (con't)

4.	Applying positive feedback	PowerPoint. Read article and discuss, create a single-point rubric	*Article* (Handout 6), highlighter, markers, chart paper, *Single-Point Rubric* (Handout 7), pen/pencil	60	• Whole group discussion • Single point rubric
5.	Applying feedback to homework	PowerPoint and discussions, exit ticket	*Homework Samples* (Handout 8), pen/pencils, Parking Lot questions, *Sentence Strip* (Handout 9), **Exit Ticket**	45	• Whole group discussion • Parking Lot • Exit ticket

Session 1: Overview and PLC Reflection

The learning objectives for Session 1 is to establish the goals for the day and to share outcomes of the previous PLC session. The facilitator uses PowerPoint slides 1-5 to begin the module sessions. Facilitator welcomes participants and provides them with a copy of the agenda (Handout 1) and PowerPoint. The facilitator gives a brief overview of the day including there will be a break in the morning and afternoon and that lunch is on their own and last one hour. The facilitator asks participants to fold the index card the long way and write their name on the card to display on the table. The facilitator asks the participants to quickly review the norms set last meeting. If there are any changes to the norms, the facilitator notes them. The facilitator also reviews use of Parking Lot.

Session 2: Effective Feedback

The facilitator leads a discussion on the second question in the formative assessment process-Where am I now? The facilitator uses PowerPoint slides 6-11. The

facilitator provides the participants with a copy of the article "Beyond Grades and "Gotchas" (Handout 2) to read independently. After reading, the participants choose three statements that were meaningful to them and note them on chart paper hanging in the front of the room. When everyone notes their statements, the facilitator leads a discussion about the statements noted on the chart paper.

The facilitator leads a discussion on the research by Tomlinson and Moon about not grading formative assessments. The facilitator plays the video clip and asks teachers to complete a Video Reflection page (Handout 3). After reflecting, the teachers share their thoughts with the table group and then the whole group. The facilitator provides each participant a copy of the article The Secret of Effective Feedback (Handout 4). The participants silently read the article and highlight or jot notes as a response to the article. After everyone completes reading the article, they share their responses with the table group and then share out with the entire group. The facilitator leads a discussion about what each of the attributes look like as listed for effective feedback. The facilitator asks teachers to reflect on their own practices and if they apply these attributes consistently when providing feedback to students.

Session 3: Importance of Feedback

The facilitator leads a discussion on the research connecting learning targets and feedback. The discussion focuses on the teachers understanding the interconnectedness of the two practices. The facilitator uses PowerPoint slides 12-15. The facilitator provides each participant with the Feedback Practice worksheet (Handout 5). The participants read the list of examples and place a check in the correct box related to the feedback. When completed, the participants discuss at their table the questions noted on the slide. As a

table group, they then rewrite the statements that do not provide useful feedback to statements that do provide effective feedback. They share their feedback with the entire group.

The facilitator asks the participants to look at the chart and reflect on their practices and determine where they are at on the continuum. They jot down ideas on what they feel they should do to move up the continuum in their personal classroom practices. The facilitator shares the video clip with the participants. After viewing the clip, the participants complete a Video Reflection sheet (Handout 3). They share their responses within their table group first and then share with the whole group.

Session 4: Positive Feedback

The facilitator leads a discussion about providing positive feedback to encourage growth. The facilitator uses PowerPoint slides 16-18. At the tables, the participants discuss what they feel leads to a cognitive response and what leads to an emotional response. The facilitator asks the participants at each table to share out their examples for the whole group. The facilitator provides each participant with a copy of the Article Do They Hear You? (Handout 6). The participants read the article and reflect. They highlight three statements in the article, move to a piece of chart paper and write their statements on the paper. As a group, the facilitator leads the discussion about common statements highlighted and why.

The facilitator leads the group in creating a Single-Point Rubric (Handout 7). Each participant creates a single-point rubric related to an upcoming assessment for their classrooms. The participants share their rubrics at their table groups and if any participants are willing; share the rubrics with the whole group.

Session 5: Applying Feedback to Homework

The facilitator uses PowerPoint slides 19-23. The facilitator provides participants at each table samples of homework (Handout 8) completed by students for them to apply feedback. The participants exchange papers and review/make suggestions on the feedback and discuss as a table group. As a whole group, the facilitator leads a discussion about how they felt about the type of feedback they provided and if it was a challenge or relatively easy to provide this type of feedback. The facilitator reminds participants of the upcoming PLC date on the district calendar. The facilitator encourages the participants to complete the activity and be prepared to share out their thoughts at the next professional development day. The facilitator answers any Parking Lot questions and gives each participant a sentence strip (Handout 9) to respond to as the Exit Ticket. The facilitator asks the participants to put their Exit Tickets on the front table and the facilitator positions herself near the door to thank participants and to say good bye.
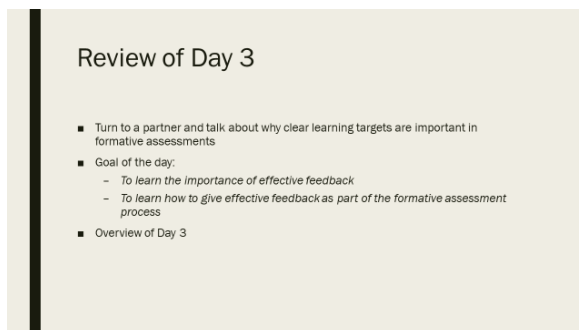
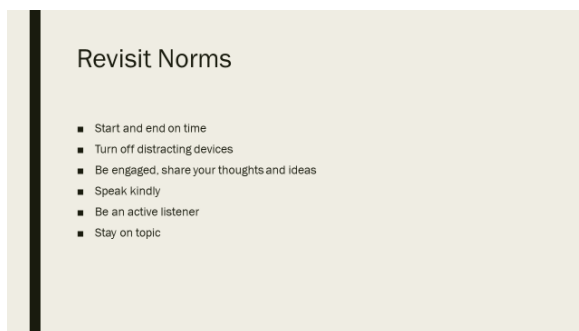**Module 3: Presenter Notes and Power Point Slides**
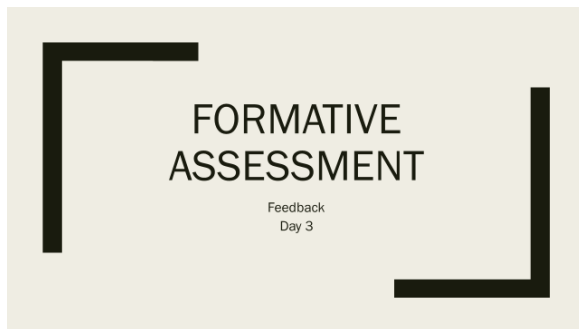
Slide 1	Facilitator welcomes participants and provides an overview of the professional development.
FORMATIVE ASSESSMENT Feedback Day 3	

Slide 2	The facilitator will provide the agenda to each participant and review the goals for the day.

Review of Day 3
 	
■ Turn to a partner and talk about why clear learning targets are important in formative assessments
■ Goal of the day:
  – To learn the importance of effective feedback
  – To learn how to give effective feedback as part of the formative assessment process
■ Overview of Day 3	

Slide 3	The facilitator will ask the participants to review the norms created in the first module. The norms will be posted at the front of the room. The participants will have an opportunity to change or add any norms.
Revisit Norms ■ Start and end on time ■ Turn off distracting devices ■ Be engaged, share your thoughts and ideas ■ Speak kindly ■ Be an active listener ■ Stay on topic	

Slide 4	The facilitator will review the chart paper with the words Parking Lot at the top. The facilitator will explain at any point in the day if a participant has a question, they can note it on a sticky note and place the note on the Parking Lot chart paper. The questions will be answered at the end of the session each day.

Parking Lot

- Please write down any questions you may have and place them on the parking lot chart paper.
- We will address any questions during our reflection time at the end of the day.

Slide 5	The facilitator will encourage participants to share their experiences from the previous PLC meeting.

PLC Review

- Share out about the learning targets you created and your thoughts on the process of writing learning targets.

Slide 6	The formative assessment theory postulated by the seminal work of Black and Wiliam (1998; 2006) and articulated by Chappuis (2005) into a strategic process framework. In an effort to guide educators through the best practices to appropriately apply formative assessment in classroom instruction. Chappuis articulated three key questions that framed the analysis in this study: Where am I going? Where am I now? How can I close the gap?

Formative Assessment Questions

Where am I going?

How can I close the gap?

Where am I now?

| Slide 7 | Teachers perceive assessments as mostly summative and use these tools to assign grades (Dixson & Worrell, 2016), or quantify achievement. |

Grading or Feedback

- Read the article: Beyond Grades and "Gotchas"
- Reflect
- Choose three statements that stood out to you and write them on the chart paper
- Share out as a group

- Tomlinson, C. (2016). Beyond grades and "gotchas." *Educational Leadership, 73*(7). 89-90.

Teachers perceive assessments as mostly summative and use these tools to assign grades (Dixson & Worrell, 2016), or quantify achievement.

Grades are frequently the sole outcome of summative assessments indicating whether the student has an acceptable level of knowledge.

Slide 8

Grading or Feedback

- Instead of grading formative assessments, provide focused, descriptive and meaningful feedback.
- Routinely grading formative assessments impedes learning.
  - *Misrepresents the learning process*
  - *Students focus more on getting good grades than on learning*
  - *Makes the classroom environment seem unsafe*
    - Tomlinson and Moon (2013)

When students focus on only maintaining good grades or enough points, they miss on authentic learning for fear of less points or a lower grade.

Slide 9

Video
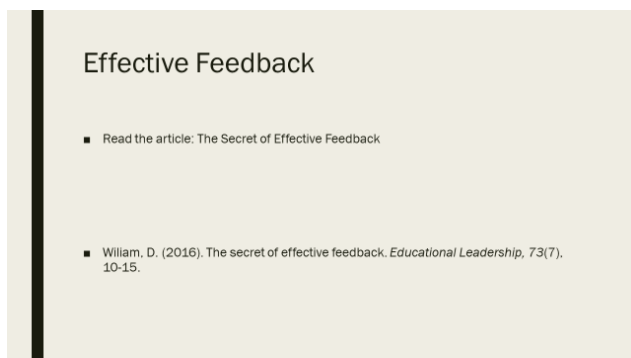
Educational Scotland. (2016, July 15). Feedback on learning [Video file]. Retrieved from https://www.youtube.com/watch?v=n7Ox5aoz4ww

Formative assessments provide feedback teachers and students use during the course of instruction (Hattie, Fisher, & Frey, 2016).

A formative assessment is about gauging progress toward a learning goal, giving feedback, and teachers along with students filling in the gaps.
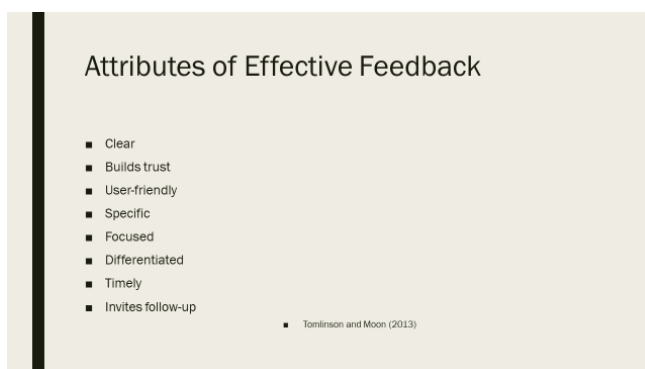
| Slide 10 | Feedback is the teacher's intentional response to student work to improve learning (Clark, 2015). Feedback can be written, oral, or demonstrated.

Using feedback provides opportunities for students to grow by giving them knowledge of their work that they might not understand on their own (Brookhart, 2016; Clark, 2015). |
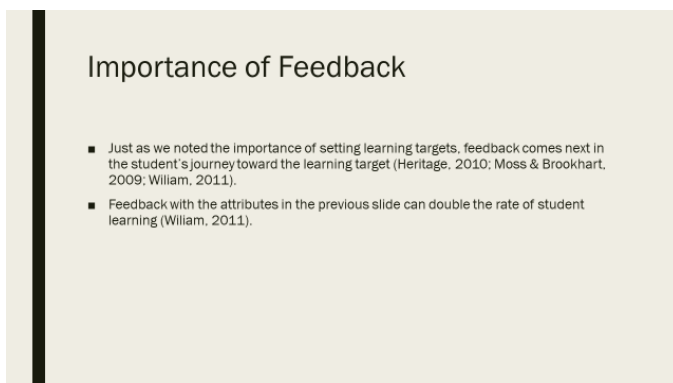|---|---|

Effective Feedback

- Read the article: The Secret of Effective Feedback

- Wiliam, D. (2016). The secret of effective feedback. *Educational Leadership, 73*(7), 10-15.

Slide 11	The use of feedback relies on two elements to successfully improve learning. For example, if the class was asked to complete a mathematical story problem involving dividing and then multiplying to find a total cost; feedback on a formative assessment might include where to place the decimal point. This type of feedback is different from a summative assessment that the teacher might just mark as correct or incorrect. The first part of feedback is for teachers to interpret the evidence from student work against the set criteria or rubric. The second part of feedback is informing the student what should come next towards the learning target (Brookhart, 2016). Feedback can build on strengths and improve weaknesses. Feedback enhances cognitive processing (Brookhart, 2016).

Attributes of Effective Feedback

- Clear
- Builds trust
- User-friendly
- Specific
- Focused
- Differentiated
- Timely
- Invites follow-up
  - Tomlinson and Moon (2013)
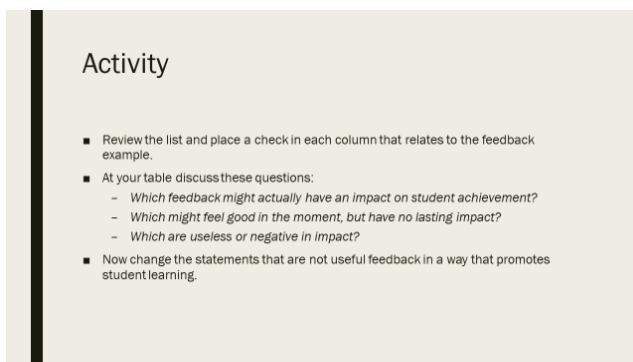
Slide 12 **Importance of Feedback** ■ Just as we noted the importance of setting learning targets, feedback comes next in the student's journey toward the learning target (Heritage, 2010; Moss & Brookhart, 2009; Wiliam, 2011). ■ Feedback with the attributes in the previous slide can double the rate of student learning (Wiliam, 2011).	Students who received formative assessments embedded, and qualitative feedback during instruction, scored higher than students who were given traditional assessments (Yin, Tomita, & Shavelson, 2013). Providing students with feedback is a critical strategy for improving achievement.

Slide 13
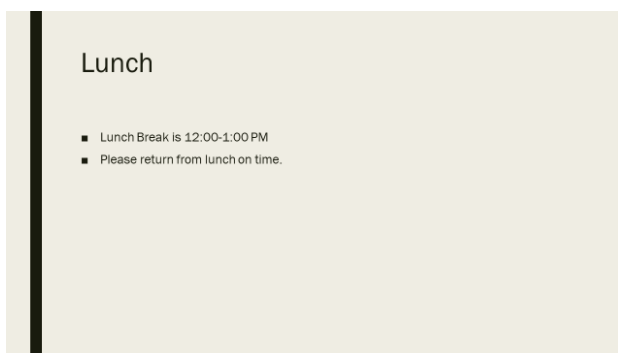 	
 Activity
 	
 ■ Review the list and place a check in each column that relates to the feedback example.
 ■ At your table discuss these questions:
    – Which feedback might actually have an impact on student achievement?
    – Which might feel good in the moment, but have no lasting impact?
    – Which are useless or negative in impact?
 ■ Now change the statements that are not useful feedback in a way that promotes student learning.
	Descriptive feedback is a powerful instructional strategy to assist students with their learning (Hawe & Parr, 2013). Formative assessments provide this type of feedback.
	
	 Harkes, Rakoczy, Hattie, Besser, and Klieme (2014) noted that feedback was the most powerful component that influences learning, positively or negatively.

Slide 14 **Lunch** ■ Lunch Break is 12:00-1:00 PM ■ Please return from lunch on time.	Lunch break for 60 minutes

Slide 15	Students who received formative assessments embedded, and qualitative feedback during instruction, scored higher than students who were given traditional assessments (Yin, Tomita, & Shavelson, 2013).

Feedback Continuum

Not Yet Achieved	Developing	Teaching	Leading
The teacher does not provide different types of feedback.	The teacher provides feedback about the task, about the processes of the task, and about self-regulation, but these feedback offerings may not be scaled to match the learning progress of the student. Feedback is more like praise.	The teacher selects the type of feedback conducive to provide a clear understanding of how a student is doing relative to the learning goal and providing feedback about • the task • processing the task • self-regulation Praise is kept separate from feedback	The teacher supports colleagues in the ability to select the type of feedback most conducive to providing the students a clear understanding of how they are doing relative to the learning targets. Teacher supports colleagues in their ability to keep praise separate from feedback.

Slide 16	Learners need to participate in the assessment process. Involving students can be accomplished through *weaving assessment* and feedback opportunities throughout the learning experience. Learning intellectual or social skills requires experiences in a supportive setting and feedback (Sadler, 1989; Van der Kleij, Vermeulen, Schidkamp, & Eggen 2015).

Video

LSI: Learning Sciences International. (2018, September 17). Strategy 3: Providing feedback that moves learning forward [Video file]. Retrieved from https://www.youtube.com/watch?v=vdk9ysWJXQ

Slide 17	Feedback can build on strengths and improve weaknesses. Using feedback provides opportunities for students to grow by giving them knowledge of their work that they might not understand on their own (Brookhart, 2016; Clark, 2015).

Feedback

- Feedback doesn't always need to be negative
- Highlight excellence, but be specific
- Feedback should elicit thinking and not defensiveness
    - *Cognitive response from a student rather than an emotional response*

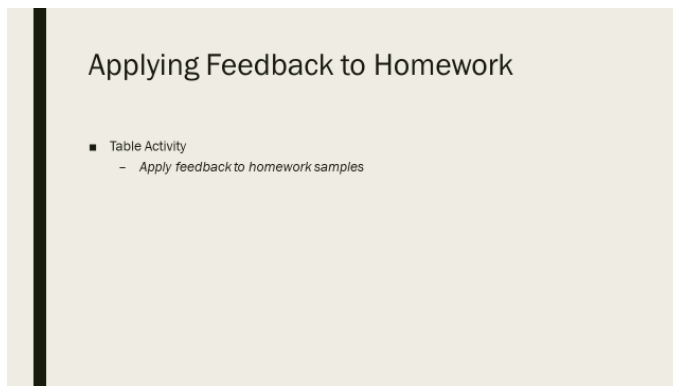| Slide 18	Positive feedback given in a supportive manner has been shown to increase student learning (Bennett, 2011; Black & Wiliam, 1998; Schoenfeld, 2014).
Do They Hear You? ■ Read the article: Do They Hear You? ■ Reflect ■ Choose three statements that stood out to you and write them on the chart paper ■ Share out as a group ■ Hattie, J., Fisher, D., & Frey, N. (2016). Do they hear you? *Educational Leadership,* 73(7), 16-21.	For feedback to be positive, it must address where the learner is going and what is needed to achieve the next goal. It should focus on the task and not the learner. The goal of feedback is to reduce the difference between the current level of knowledge and the next objective (Strandberg, 2013). Feedback should be specific, clear, and simple.
Slide 19	When students receive concise feedback that is also generalizable they develop a better idea of what to do differently the next time (Bennett, 2017).
Single Point Rubric ■ Great tool for assessing specific skills. ■ Students can create this rubric too. – *Gallagher and Thordarson (2019)*	

Slide 20

Applying Feedback to Homework

- Table Activity
  – *Apply feedback to homework samples*

If homework is the feedback artifact in a classroom, purposeful design and implementation can help it best guide the learner positively.

Whichever feedback strategies teachers choose, monitoring homework is important as it acknowledges students' efforts (Vatterott, 2017).
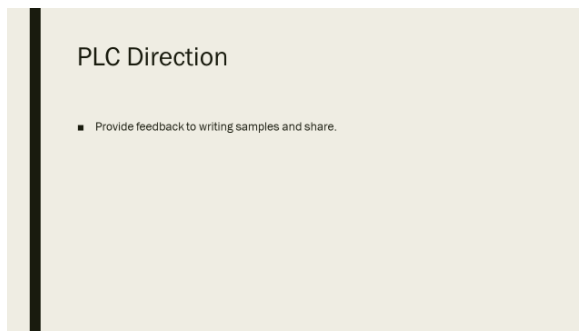
Homework will allow students' feedback to improve learning and time to use that feedback. Hawe and Dixon (2017) found providing feedback after learners have attempted a solution leads to more self-regulation. Zimmerman and Kitsantis (2014) characterized self-regulation through a repetitive process.

The feedback received from a formative assessment is external to the learner, but becomes part of the information students use for learning. The feedback provides students insight about their work, in this study homework, to help them grow.

Involving students can be accomplished through formative assessment and providing appropriate feedback (Metcalfe, 2017).

Slide 21	Professional learning communities are based on the framework of DuFour and Eaker (1998). A PLC encourages teachers to work together to achieve a collective purpose.
PLC Direction ■ Provide feedback to writing samples and share.	Work accomplished within a professional learning community clarify: (a) what is it we want the students to know, (b) how will we know if students are learning, and (c) how do we respond when students are not learning (DuFour & Eaker, 1998).
	Characteristics of an effective PLC include: shared value, vision, and goals, collective learning and application, and shared individual practices.
	A PLC is action-oriented and the goals are established *by* the teams and not *for* the teams. A PLC promotes intensive reflection on teachers' instructional practices.

| Slide 22 | Reflection as part of professional development allows teachers deeper meaning to the new expected practice. Professional development activities need to support teachers in reflecting about their professional knowledge.

Allowing teachers to write in journals facilitates communication. Journal writing combines writing, reading and discourse (Brady, 2016). Reflective practices in professional development should be deliberate, purposeful and structured. |
| --- | --- |
| Slides 23 | References consist of primary sources, scholarly articles, and books, with most being published within the last 5 years. |

Slide 22

Reflection and Exit Ticket

- Answering any questions from parking lot.
- Please take a sentence strip and complete the sentence.

Slides 23

References

- Bookhart, S.M. (2016). *How to Make Decisions with Different Kinds of Student Assessment Data.* Alexandria, VA: ASCD
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Module 3: Handouts

Handout 1: Agenda

Time	Topic	Activity
8:00-8:15	Review and Agenda	Greet participants; review the activities for the day and the agenda
Session 1		
8:15-8:30	Norms and Parking Lot	Ask if they want to change any norms from last meeting and remind about using the Parking Lot for questions during the day
8:30-8:45	PLC Review	Group discussion on prior PLC topic
8:45-10:00	Formative questions and feedback	Discussion, article, video and reflection
10:00-10:15	Effective feedback	Facilitator presentation
Session 2		
10:15-10:25	Break	On Your Own
10:25-11:25	Importance of feedback	Activity
Session 3		
11:30-12:30	Lunch	On Your Own
12:30-1:00	Feedback Continuum	Table activity, video and reflection
1:00-1:30	Positive feedback	Discussion; video and reflection
1:30-1:40	Break	On Your Own
1:40-2:00	Do They Hear You	Article and discussion

Session 4		
2:00-2:15	Single Point Rubric	Creating a rubric
2:15-2:30	Applying feedback to homework	Table activity with homework samples
Session 5		
2:30-2:45	PLC Direction	Facilitator presentation
2:45-3:00	Closing Activity	Reflection on learning and exit tickets; Questions from parking lot

Handout 2: Beyond Grades Article

Tomlinson, C.A. (2016). Beyond grades and "gotchas." *Educational Leadership, 73*(7), 89-90.

Handout 3: Video Reflection Sheet

New information I learned...

I agreed with...

Video Title:

Questions I now have...

I disagree with...

Handout 4: The Secret of Effective Feedback Article

Wiliam, D. (2016). The secret of effective feedback. *Educational Leadership, 73*(7), 10-15.

Handout 5: Feedback Practice

Feedback Example	Specific	Timely	Corrective
Your use of capital letters has improved. Check your work again to see if you can make any additional corrections.			
You'll get your paper back next week			
C-			
Check your work on Problem 3. Ask for help if you need it.			
How could you improve your performance on this essay?			
You need to study more.			
What's wrong with you?			
Look at the rubric to see how you are doing.			
Stop daydreaming and pay attention.			
If you make eye contact with me, you will be able to listen and remember better.			
What can you do to improve your score from a 3 to a 4 using this rubric?			
Better luck next time!			
Plan to study your vocabulary words using your flashcards for 10 minutes every night and we'll see if that improves your test score.			
I'll check your answers and let you know how you're doing.			
Good job!			

Fote, L. & Joseph, M. (2015). *On the Road to Student Success: Designing Lessons with the Common Core.* Dubuque, IA: Kendall Hunt.

Handout 6: Do They Hear You? Article

Hattie, J., Fisher, D., & Frey, N. (2016). Do they hear you? *Educational Leadership, 73*(7), 16-21.

Handout 7: Single Point Rubric

Feedback on What We Still Need to Work On	Traits Describing the Learning Target	Feedback on Where You Exceeded Expectations

Handout 8: Homework Samples

Please visit this URL in order to view homework samples relevant to this project.

https://docs.google.com/document/d/1FXQzrOkotolVlVvW6vcecBR8uQ8K0lzFeHQ6Bace8Vg/edit

Handout 9: Exit Sentence Strips

One thing I wish….	Now I will…	I have a question about…	I am glad that…	I am confused about…

Fote, L. & Joseph, M. (2015). *On the Road to Student Success: Designing Lessons with the Common Core.* Dubuque, IA: Kendall Hunt.

Module 4: Self-Assessment

The Module 4 instructional goals are to (a) understand what is self-assessment, (b) learn about the benefits of self-assessment, (c) learn how to teach self-assessment strategies, (d) develop different ways to promote self-assessment. This module is scheduled to last 5.5 working hours with a 1-hour lunch break. During Module 4, participants will complete five sessions to meet the goals.

Each session includes multiple steps or time segments that are aligned with the module and session instructional goals. The professional development plan includes a matrix with the steps for each session. The matrix includes the specific steps; stakeholders involved in the step; the actual interactive activity or learning format; the resources needed to complete the step and activity; the allocated time for the step; and the quality indicators, artifacts that may evidence the participants' accomplishment or improvement in the learning objective. This matrix is designed as a guiding tool for the facilitator and may be adapted into an agenda for participants.

Module 4: Teaching Self-Assessment

Purpose	To provide hands-on experiences for teachers related to the formative assessment process including feedback, learning targets, and self-assessment that will improve the homework assignment practices of the participants.
Goal for Session	The goal of this session is to develop an understanding of what is self-assessment and how it benefits students during the formative assessment process.
Stakeholders	General education teachers in Grades 3-5
Instructional Goals for Session	• Understand what is self-assessment • Learn about the benefits of self-assessment • Learn how to teach self-assessment strategies • Develop different ways to promote self-assessment.

Session	Activity	Resources	Mins	Quality Indicators
1. Provide an overview of the session, review norms, and reflect on previous PLC meeting	PowerPoint, norms	Computer, Smartboard, sticky notes, pens, markers, marbled notebook, chart paper, tables and chairs Printed agenda (Handout 1), printed **PowerPoint presentation**, index card	45	• Whole group discussion
2. What is self-assessment	PowerPoint and discussion, presenter facilitation, Fist to Five activity		45	• Whole group discussion • Fist to Five Activity
3. The benefits of self-assessment	PowerPoint, video and reflection, exit ticket before lunch	Speakers, *Video Reflection sheet* (Handout 2), pen/pencils, sticky notes, chart paper	60	• Whole group discussion • Video reflection • Exit ticket
4. How to teach self-assessment	PowerPoint and discussion; video and reflection, read article and discuss	*More Than a Checklist* (Handout 3), pen/pencil, highlighter, markers, chart paper	90	• Whole group discussion • Video reflection • Article and discussion

Module 4: Teaching Self-Assessment (con't)

5. Ways to self-assess in the classroom	PowerPoint and discussions, activity sheet, creating visual supports, self-assessment worksheet, high-low response page, exit ticket	*Reflection Sheet for Minute Math* (Handout 4), pen/pencil, Chart paper, markers, paper, *Sample Student Self-Assessment* (Handout 5), Index cards, *Professional Development Survey* (Handout 6)	45	• Whole group discussion • Activity sheet • Visual support • Self-assessment sheet • High-Low responses • PD Evaluation • Exit ticket

Session 1: Overview and PLC Reflection

The learning objectives for Session 1 are to establish the goals for the day and to share outcomes of the previous PLC session. The facilitator uses PowerPoint slides 1-5 to begin the module sessions. Facilitator welcomes participants and provides them with a copy of the agenda and PowerPoint. The facilitator gives a brief overview of the day including a break in the morning and in afternoon; and that lunch will be on their own and last one hour. The facilitator asks participants to fold the index card the long way and write their name on the card to display on the table. The facilitator asks the participants to quickly review the norms set last meeting. If there are any changes to the norms, the facilitator will note them. The facilitator also reviews use of the Parking Lot.

Session 2: What is Self-Assessment

The facilitator reviews the three questions asked during the formative assessment process and discusses how during this session the final question-How can I close the gap? is addressed by looking at self-assessment. The facilitator uses PowerPoint slides 6-7.

The facilitator leads a discussion on the definition provided by Brookhart (2010) and what the definition means to the whole group. A discussion takes place about whether or not teachers have heard about self-assessment before and their experiences with it. The conversation continues about what is self-assessment based on the four talking points noted in the slide. The facilitator encourages whole group interactions.

Session 3: Benefits of Self-Assessment

The facilitator presents about the benefits of self-assessment and ask participants why they felt the two bullet points are important for all students. The group discusses this topic. The facilitator uses PowerPoint slides 8-14. The facilitator shares the Fist to Five strategy and encourages the participants to use this strategy after talking points or activities. The facilitator continues the presentation on why teachers should use self-assessment with their students. Teachers participate in the discussion and share their experiences or ideas. The facilitator leads a discussion on the benefits for teachers to use self-assessment. At the end of the discussion the facilitator uses the Fist to Five to assess everyone's understanding so far.

The facilitator shows the embedded video clip on self-assessment. The teachers watch the video and then complete a Video Reflection sheet (Handout 1). After completing the sheet, the facilitator asks the participants to share with the table group and then the whole group their reflections or thoughts on the video. The facilitator leads a discussion with all the participants about the benefits of self-assessment. The facilitator recaps the morning session by having the participants write their responses on sticky notes and place the notes on two different chart papers, one is labeled Benefits for

Students and the other labeled Benefits for Teachers. Once teachers place all the sticky

notes on the chart paper, the group reviews and discusses.

Session 4: Teaching Self-Assessment

The facilitator welcomes everyone back from lunch and reviews the progression

of why and where self-assessment could be incorporated in their teaching practices. The

facilitator uses PowerPoint Slides 15-21. The teachers participate in the discussion about

how they can evaluate student progress. The facilitator provides each teacher with a copy

of the article More Than a Checklist (Handout 2) to read. After reading the article, the

teachers write three statements that stood out or were meaningful to them on the chart

paper. Once everyone has a turn to write their statements, the facilitator leads the group

in a discussion about what they highlighted in the article.

The facilitator leads a discussion on how to teach self-assessment and what that

would look like in an elementary classroom. The facilitator encourages the whole group

to be part of the discussion and share any ideas they have to teach this skill. The

facilitator reviews the research noted on the slide and asks the entire group for their

reactions to the results of the studies. The facilitator models the I Do-We Do-You Do

approach to teaching self-assessment. The model includes the teacher first demonstrating

the skills and modeling the actions. Then the group moves into the second phase where

they practice together or with a partner and then finally the last step when the student

completes the tasks independently. The facilitator provides the example of teaching

someone to ride a bike. First, you hold and steady the bike as you run along next to the

person; then you start to let go a little, but grab the bike again; until finally you let go entirely and the person is riding.

Session 5: Ways to Self-Assess

The facilitator uses PowerPoint Slides 22-32. The facilitator provides each participant with a copy of Reflection Sheet for Minute Math (Handout 3). The teachers complete the sheet as if they are a student, and then, at their table group, discuss the two points noted on the slide. The participants share out their thoughts with the whole group. The facilitator leads a discussion on ways to support self-assessment to be part of the regular classroom practices.

The facilitator asks the teachers to look back in their notebooks to choose a learning target they created. The teachers then create a support for self-assessing to be used in the classroom. At the end of the set period (15 minutes), the teachers share the learning target and the support they created for the students to use with the group. The facilitator leads a discussion on other methods for students to self-assess. The facilitator encourages to add any other ideas they may have now that they know more about self-assessing. The facilitator urges teachers to discuss if any of these ideas could be used in their classrooms and how they plan on implementing them.

The facilitator provides each participant with a Sample Student Self-Assessment sheet (Handout 4) and asks the participants to complete the self-assessment. After the sheet is completed, the facilitator encourages the teachers at their table groups to respond to the three talking points on the slide. The facilitator then asks the participants to share out their responses to the whole group. The facilitator shares more examples of ways to

self-assess. The participants share their ideas of these additional strategies and if they have other self-assessment practices they use beyond exit slips and thumbs up/thumbs down.

The facilitator leads a discussion on how the strategies presented today could be applied to assigned homework. The facilitator encourages teachers to discuss what could easily be implemented and what they are willing to try right away. The facilitator urges the teachers to discuss the benefits of using self-assessment with assigned homework. The facilitator reviews the use of High to Low Response Cards. A discussion ensues on how this strategy could be used for homework; quickly allowing students to self-assess. The facilitator gives the teachers an index card and asks them to create their own High to Low Response to implement in their current class.

The facilitator reminds participants of the upcoming PLC date on the district calendar. The facilitator encourages the teachers to complete the activity and share their thoughts/responses with the team at the PLC meeting. The facilitator asks teachers to turn to a partner at their table and share one or two ideas that resonated with them during today's session. The facilitator reviews any parking lot questions. The facilitator provides the teachers with the Professional Development Survey (Handout 5) to complete and hand in. The facilitator thanks everyone for their participation and waits at the door to personally thank each participant as they leave.
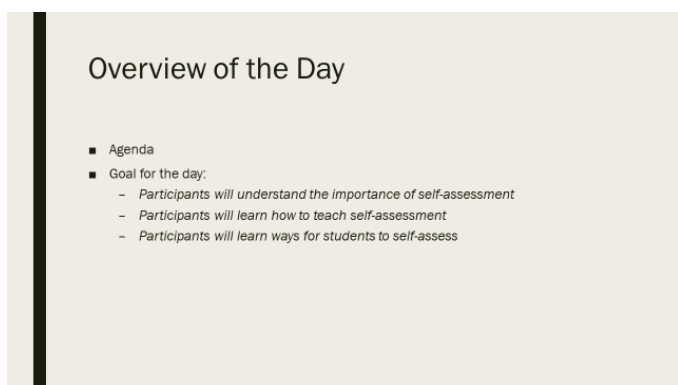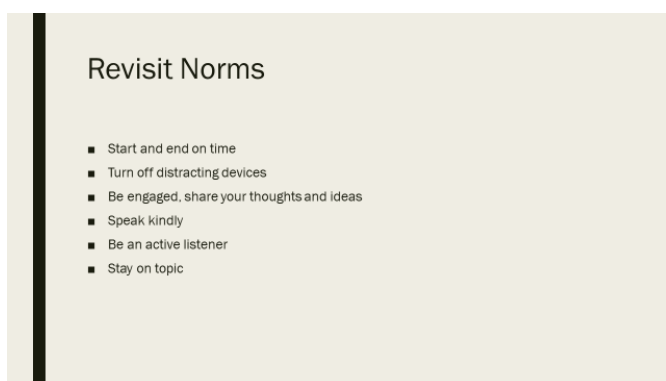
Module 4: Presenter Notes and PowerPoint Slides
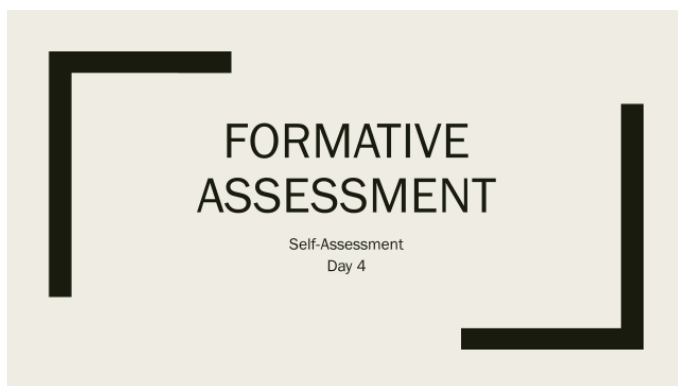
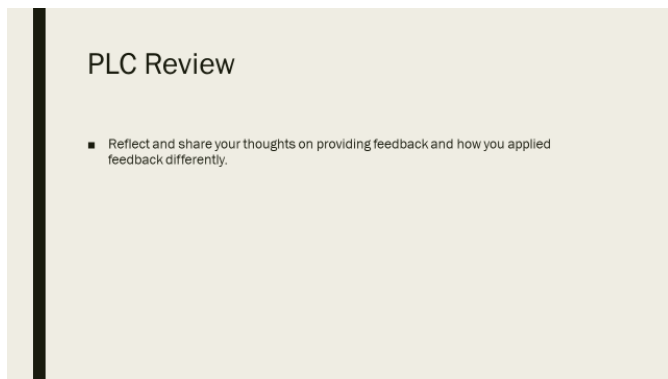|	
Slide 1 FORMATIVE ASSESSMENT Self-Assessment Day 4	Facilitator welcomes participants and provides an overview of the professional development.
Slide 2 **Overview of the Day** ■ Agenda ■ Goal for the day: – *Participants will understand the importance of self-assessment* – *Participants will learn how to teach self-assessment* – *Participants will learn ways for students to self-assess*	The facilitator will provide the agenda to each participant and review the goals for the day.
Slide 3 **Revisit Norms** ■ Start and end on time ■ Turn off distracting devices ■ Be engaged, share your thoughts and ideas ■ Speak kindly ■ Be an active listener ■ Stay on topic	The facilitator will ask the participants to review the norms created in the first module. The norms will be posted at the front of the room. The participants will have an opportunity to change or add any norms.

Slide 4	The facilitator will review the chart paper with the words Parking Lot at the top. The facilitator will explain at any point in the day if a participant has a question, they can note it on a sticky note and place the note on the Parking Lot chart paper. The questions will be answered at the end of the session each day.

Parking Lot

- If you have any questions during the day, please write them on a sticky note and place on the parking lot chart paper.
- We will address each question during reflection time at the end of the day.

Slide 5	The facilitator will encourage participants to share their experiences from the previous PLC meeting.

PLC Review

- Reflect and share your thoughts on providing feedback and how you applied feedback differently.
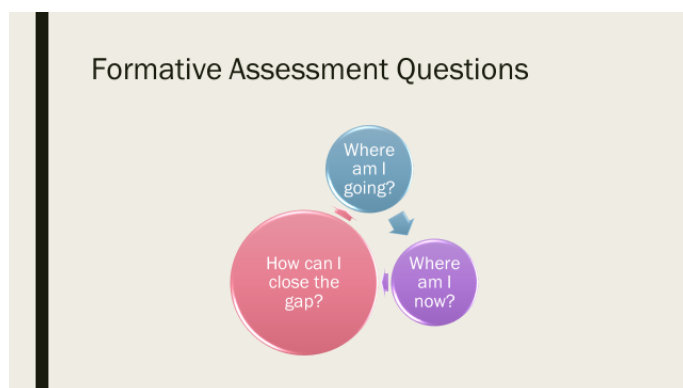
Slide 6	For formative assessments to be effective, they need to be part of a full system of components working together to facilitate learning (Bennett, 2011). However, the collection of data with a formative assessment is not enough. This information on what to do next guides the students in answering the question *How can I close the gap?* For example, a student receives feedback about using vivid language. The student would then self-assess to determine if at least five examples of vivid language is included in upcoming assignments.

Formative Assessment Questions

- Where am I going?
- Where am I now?
- How can I close the gap?

Slide 7	The clear targets and the feedback move students towards self-assessment and achieving the desired outcomes. According to Antoniou and James (2014), formative assessments provide information related to student progress allowing for instruction to be modified. Routinely using the data to decide what to do next with students is critical in the formative assessment process (Li & DeLuca, 2014). Formative assessment is intended to by cyclical or continuous.

Working Definition

- Students critically examining their own work and judging their performance against predetermined indicators

- Brookhart, S.M. (2010). *How to Assess Higher-Order Thinking Skills in Your Classroom*. Alexandria, VA: ASCD

Slide 8	Self-assessment encourages learners to take control of their learning by allowing them to target their learning and help gather information along the way to see how they are doing. Self-assessment activates students as the owners of their learning (Forster & Souvignier, 2014; Lipnevich, McCallen, Miles, & Smith, 2014).

What is Self-Assessment

- Can take place at any time in the teaching and learning cycle.
- Might take place while students are undertaking a task.
- May happen many times.
- When students have a clear understanding they can assess their work.

Slide 9	Students should have a role in the formative assessment process. According to Hawe and Dixon (2017) peer and self-assessments are important for students to think at a higher level about learning. By self-assessing, they can evaluate the effectiveness of their learning and adjust how they are addressing a learning goal.

Benefits of Self-Assessment

- Self-assessment promotes higher-order thinking
- Students need to analyze, evaluate, and create

- Brookhart, S.M. (2010). *How to Assess Higher-Order Thinking Skills in Your Classroom.* Alexandria, VA: ASCD

Slide 10	DeLaet et al. (2015) supported the necessity of engaging students in identifying learning targets and self-assessment strategies to monitor progress.

Fist to Five

- How well did you understand what I said?
  - Fist---unfamiliar
  - 1-2 Fingers—need lots more practice
  - 3 Fingers—Good understanding
  - 4 Fingers—Really Well
  - 5 Fingers—Teach it to my friends

Slide 11	Students should have a proactive rather than reactive role in the classroom (Nicol & Macfarlane-Dick, 2016). Self-assessment allows for timely support and interventions could be applied early.

Why Use Self-Assessment

- Help students recognize the development of their own skills
- Support continuous improvement
- Extend their learning in all areas
- Feel ownership over the assessment process; more engaged
- Plan future goals
- Build capacity to be life-long learners
- Pride in achievement

Slide 12	When students self-assess they can see their own errors and this helps inform their learning targets. A study performed by Sanchez, Atkinson, Koenka, Moshontz, and Cooper (2017) peers who engaged in self-assessment performed better (n=.34) on future assessments than peers who did not self-assess.

Video

Wisconsin DPI. (2017, January 31). Identifying formative assessment practices [Video file]. Retri3eved from https://www.youtube.com/watch?v=ZJlSbv10KKk&5s

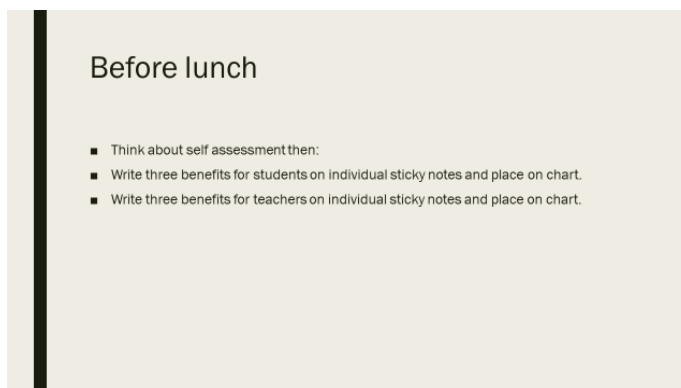| Slide 13	Formative assessments help teachers anticipate in advance any gaps and change the learning process (Tridane, Belaaouad, Benmokhtar, Gourja, & Radid, 2015). Feedback, learning targets, and self-assessment are all key components to the formative assessment cycle.

Teacher Benefits of Self-Assessment

- Students are more responsible for their learning behavior
- Students are more on task and less disruptive behaviors
- Sense of partnership between teachers and students
- Further opportunities for extension of learning
- Promoting self-directed learners

Slide 14	Self-assessment allows for timely support and interventions could be applied early. When students self-assess they can see their own errors and this helps inform their learning targets. Teachers require a better understanding of self-assessment so students can experience success and receive interventions when needed (Chappuis, 2014).

Long Term Benefits of Self-Assessment

- Developing life-long learners
- Understand and use feedback
- Understand purpose of learning
- Students become critical thinkers
- Self-determined and creative thinkers

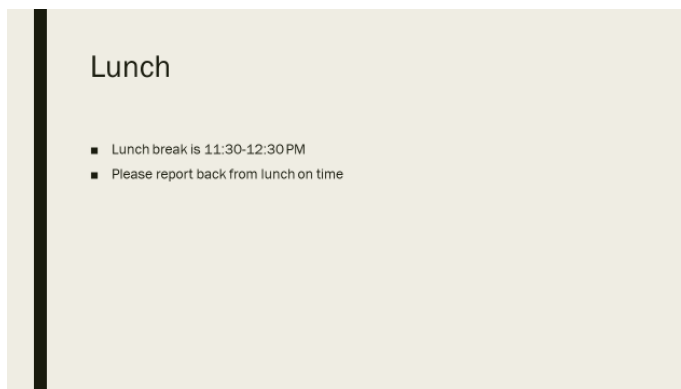| Slide 15	Teachers should be aware of the importance of self-assessment and how to support students with this skill. Black and Wiliam (1998) asserted that the ability to self-assess was a key aspect of formative assessments. Students must be able to determine where they are supposed to be headed, where they are currently, and how to close the gap.

Before lunch

- Think about self assessment then:
- Write three benefits for students on individual sticky notes and place on chart.
- Write three benefits for teachers on individual sticky notes and place on chart.

Slide 16	Lunch break for 60 minutes

Lunch

- Lunch break is 11:30-12:30 PM
- Please report back from lunch on time
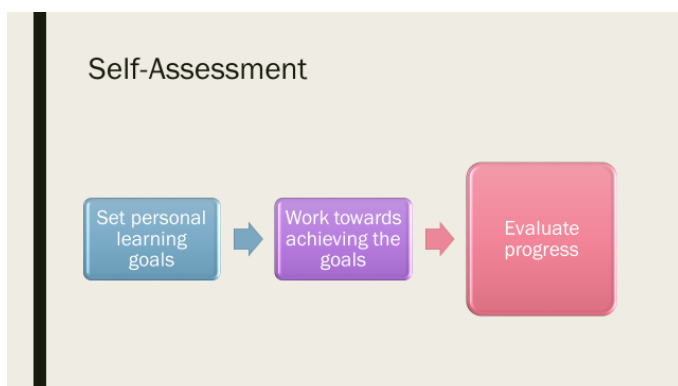
Slide 17	Black and William (1998), Heritage (2010), and Schoenfeld (2014) asserted students must be taught how to self-assess and the main purpose of their learning, and what to focus on to improve. By self-assessing, students can evaluate the effectiveness of their learning and adjust how they are addressing a learning goal.
Self-Assessment	
	Hattie, Fischer, and Frey (2016) determined that students are only able to self or peer assess if they clearly understood the learning targets and what mastery of the targets looked like.
Slide 18	Self-assessment does not come naturally to students. They must be taught to use criteria to assess they work and interpret what comes next in their work.
More Than A Checklist	
	The students need to compare their work against the conception of what they were trying to accomplish.

Slide 19

How to Teach Self-Assessment

- Need direct and ongoing instruction
- Provide students with sentence starters and prompts to help them think about learning and identify areas of growth
- Students develop own rubrics
- Teachers provide feedback on the quality of their self-assesments
- Students create practice test questions and use them to study

Self-assessment allows students to review their work and become aware of their strengths, their progress, and their gaps in learning that need to be addressed still.

It is a process that students do as part of their learning activities.

Slide 20

Benefits of Teaching Self-Assessing

- Fifth and sixth graders who received 12 weeks of self-assessment training in mathematics increased problem solving skills.
  - Ross, Hogaboam-Gray, and Rolheiser (2002)
- Third and fourth graders who self-assessed their writing increased the quality of their writing.
  - Andrade, Du, and Wang (2008)

Teachers should work with a learning target students already know something about. They can first develop their own criteria which could be a list of important qualities.

Teachers should give timely, descriptive feedback on their self-assessments.
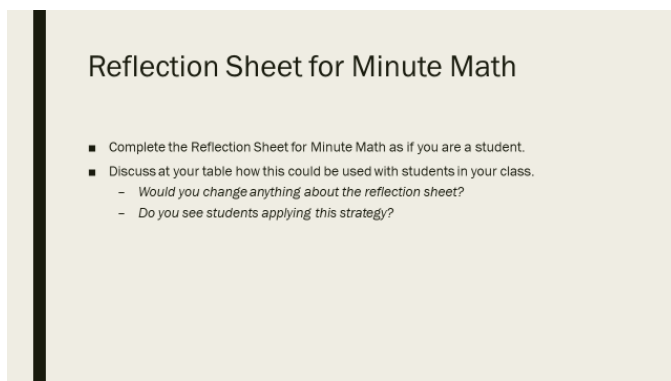
Slide 21

How to Teach Self-Assessment

- Students practice first with finding successes in given examples.
- Then students practice finding weaknesses.

I Do   We Do   You Do

Teachers should give criteria for any self-assessment reflections. Teachers should ask questions to clarify what the student was thinking.
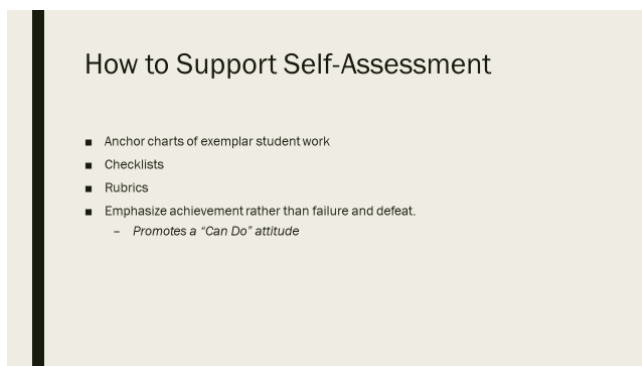
Slide 22	Teachers should provide plenty of practice at self-assessment. Opportunities should become routine in the classroom.

Reflection Sheet for Minute Math

- Complete the Reflection Sheet for Minute Math as if you are a student.
- Discuss at your table how this could be used with students in your class.
  - *Would you change anything about the reflection sheet?*
  - *Do you see students applying this strategy?*

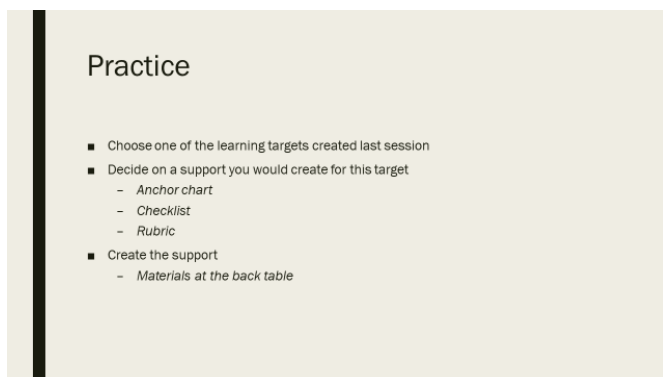| Slide 23	Effective self-assessment is met when students can tell someone about their strengths and weaknesses. Students see the value of reflection and perform it routinely.

How to Support Self-Assessment

- Anchor charts of exemplar student work
- Checklists
- Rubrics
- Emphasize achievement rather than failure and defeat.
  - *Promotes a "Can Do" attitude*

Slide 24	Self-assessment needs to be a safe activity. Teachers need to respond with supportive feedback. The climate in the classroom cannot be authoritarian or only seen assessment as the "teacher's job."

Practice

- Choose one of the learning targets created last session
- Decide on a support you would create for this target
  - *Anchor chart*
  - *Checklist*
  - *Rubric*
- Create the support
  - *Materials at the back table*

| Slide 25 | Indicator systems can help students give teachers information about what they understand and what they don't. |

Ways to Self-Assess

- Students highlight the best sections of their work and explain why.
- Students highlight a sentence/section they are most pleased with and explain why.
- Students write a question they want answered by teacher feedback.

| Slide 26 | When completed together, student goal setting and self-assessment are effective means to empower students (Moss & Brookhart, 2009). Student goal setting and self-assessment are self-regulation activities that put students in control of their own learning (Zimmerman & Kitsantis, 2014). |

Ways to Self-Assess

- Complete the Sample Student Self-Assessment worksheet.
- In your table group discuss the following:
  - How could you adapt this practice to your classroom?
  - What would you need to do to support students in using this?
  - What are the benefits or drawbacks?
- Share out your thoughts with the group.

| Slide 27 | Indicator systems can help students indicate whether they are understanding a lesson as it progresses. They can be used to check understanding for all the students, not just a few. |

Ways to Self-Assess

- Beyond exit slips and thumbs up/down
- Weather report

  Sunny—I'm clear!

  Cloudy—I'm unclear

- 60-Seconds
  - Plan for 60 second thinking time at key points in your lesson. Everyone stops and thinks how their learning is going.

Slide 28	Self-assessment is not for grading (Chappuis, 2014). It is part of a continuous process in learning.

How Do We Apply All This to Homework

- Students check their own work and discuss struggles
- Reflection if they are happy with their progress
- How hard did they work on the assignment

Slide 29	A high/low card is a means for students to identify the most and least clear points of a lesson. The teacher can collect the card and use the information to adjust instruction. The information collected must be used by the teacher in order to be effective (Nicol & Macfarlane-Dick, 2016).

High to Low Responses

- Provide students with High to Low Response Cards

3	2	1
Happy Face	Straight Face	Sad Face
Yes	Maybe	No
Pluses	Still Questioning	Minuses
Explained Fully	Explained Some	No Explanation

- Create your own High to Low or Low to High Response Card for your class.

Slide 30

PLC Direction

- When meeting in your PLC please bring examples of these self-assessment strategies you may have created to share:
  - Modeling
  - Reflective journals
  - Rubrics
  - Graphic organizers
  - Student-led conference
- Reflect and discuss your experiences and what you noticed when implementing them
- What self-assessment strategy are you going to try in the next few weeks?

Professional learning communities are based on the framework of DuFour and Eaker (1998). A PLC encourages teachers to work together to achieve a collective purpose.

Work accomplished within a professional learning community clarify: (a) what is it we want the students to know, (b) how will we know if students are learning, and (c) how do we respond when students are not learning (DuFour & Eaker, 1998).

Characteristics of an effective PLC include: shared value, vision, and goals, collective learning and application, and shared individual practices.

A PLC is action-oriented and the goals are established *by* the teams and not *for* the teams. A PLC promotes intensive reflection on teachers' instructional practices.

| Slide 31 | The professional development activities should be aligned with real classroom experiences. This purposeful alignment results in an accumulation of knowledge by teachers (King, 2016). According to Attara (2017) teachers learn through their daily experiences. They need to develop necessary tools to take charge of their own continuous professional development. |

Reflection and PD Assessment

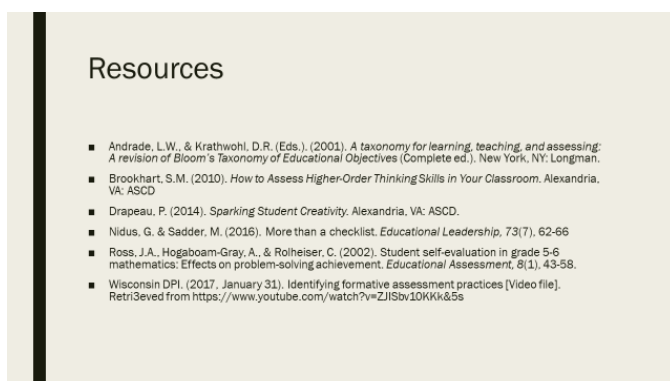- Please turn to a partner at your table and discuss what stayed with you today.
- Complete the professional development survey

- Thank you for your participation!

| Slide 32 | References consist of primary sources, scholarly articles, and books, with most being published within the last 5 years. |

Resources

- Andrade, L.W., & Krathwohl, D.R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (Complete ed.). New York, NY: Longman.
- Brookhart, S.M. (2010). *How to Assess Higher-Order Thinking Skills in Your Classroom.* Alexandria, VA: ASCD.
- Drapeau, P. (2014). *Sparking Student Creativity.* Alexandria, VA: ASCD.
- Nidus, G. & Sadder, M. (2016). More than a checklist. *Educational Leadership, 73*(7), 62-66
- Ross, J.A., Hogaboam-Gray, A., & Rolheiser, C. (2002). Student self-evaluation in grade 5-6 mathematics: Effects on problem-solving achievement. *Educational Assessment, 8*(1), 43-58.
- Wisconsin DPI. (2017, January 31). Identifying formative assessment practices [Video file]. Retri3eved from https://www.youtube.com/watch?v=ZJISbv10KKk&5s

Module 4: Handouts

Handout 1: Agenda

Time	Topic	Activity
8:00-8:15	Review and Agenda	Greet participants; review the activities for the day and the agenda
Session 1		
8:15-8:30	Revisit Norms and Parking Lot	Ask if they want to change any norms from last meeting and remind about using the Parking Lot for questions during the day
8:30-8:50	PLC Review	Group discussion on prior PLC topic
8:50-10:15	What is Self-Assessment	Facilitator presentation, Fist to Five
Session 2		
10:15-10:25	Break	On Your Own
10:25-11:30	Benefits of Self-Assessment	Video and reflection, group discussion
Session 3		
11:30-12:30	Lunch	On Your Own
12:30-1:00	Evaluating progress	Facilitator presentation, video and reflection
1:00-1:20	More Than a Checklist	Article and reflection; discussion
Session 4		
1:20-1:50	Teaching Self-Assessment	Facilitator presentation; I Do-We Do-You Do

Session 5		
1:50-2:20	Ways to Self-Assess	Minute Math, Student Self-Assessment Worksheet
2:20-2:30	PLC Direction	Facilitator Presentation
2:30-3:00	Closing Activity	Reflection on learning and exit tickets; Questions from parking lot; PD Assessment

Handout 2: Video Reflection Sheet

New information I learned...

I agreed with...

Video Title:

Questions I now have...

I disagree with...

Handout 3: More Than A Checklist Article

Nidus, G. & Sadder, M. (2016). More than a checklist. *Educational Leadership, 73*(7), 62-66.

Handout 4: Reflection Minute Math

Name_____ Date_____

Goal: What do you want to learn?

_____

_____

_____

Right now I can do _____ facts in five minutes.

Plan: My goal is to get _____ out of 100 facts correct on my next test. I need to improve in

_____

_____

_____

Action: When will you begin? Starting _____ I will use the study strategies to improve (study flash cards, play multiplication games, study with parents, etc.):

_____

_____

_____

Results: Did you follow through with your plan? What happened? Did you see improvements?

_____

_____

_____

Moss, C.M. & Brookhart, S.M. (2009). *Advancing Formative Assessment in Every Classroom.* Alexandria, VA: ASCD

Handout 5: Student Self-Assessment

Name _____

This week in math I did:

Math Topic	Date	One Thing I learned

My goal for next week will be to _____

_____

Name _____

Reading Log

Date	Title	Pages Read

My goal for today as a reader is

Date

_____

My goal today as a reader is

Handout 6: Professional Development Final Survey

Presenter: _____ Date: _____

Evaluation Instruction: Please use the following scale for each item below:

Excellent	Very Good	Average	Below Average	Poor
5	4	3	2	1

Content (Circle your response for each item)

1. The objectives for each session were made clear to me.
    5   4   3   2   1
2. The workshop provided me with key strategies to support my practices.
    5   4   3   2   1
3. The material in the workshops contributed to my learning and were a valuable resource.
    5   4   3   2   1
4. The sessions provided sufficient time to practice the strategies and skills.
    5   4   3   2   1
5. The sessions were well organized.
    5   4   3   2   1

Presenter/Facilitator (Circle your response for each item)

1. The presenter used a variety of strategies and activities to meet the objectives.
    5   4   3   2   1
2. Opportunities were provided for collaborating with colleagues.
    5   4   3   2   1

Result (Circle your response for each item)

1. The workshops engaged me critically and creatively as well as in self-reflection.
    5   4   3   2   1
2. There was adequate time to ask questions and for clarifications.
    5   4   3   2   1
3. Overall the training met my needs, content was appropriate, and relative to my assignment.
    5   4   3   2   1

What was the most useful to you during the 4-day professional development workshop?

_____

_____

_____

What was the least useful to you during the 4-day professional development workshop?

_____

_____

_____

What new ideas have your gained and how do you plan to implement these new ideas?

_____

_____

_____

Has your opinion of using formative assessments changed? If so, in what ways?

_____

_____

_____

What are some recommendations for improving the training?

_____

_____

_____

Additional Comments/Feedback

_____

_____

_____

Thank you for your participation!

Appendix B: Local School District Homework Policy

2330- HOMEWORK

The Board of Education acknowledges the educational validity of work assigned to pupils for completion outside the classroom as an adjunct to and an extension of the instructional program of the schools which supports the district's Mission Statement.

I.   Assignment of Homework:

Homework is defined as **learning activities students complete outside of the school day.** Homework consists of all types of learning activities including but not limited to: independent reading, writing and research, skills practice, studying and reviewing class notes. Homework should NOT be assigned as a matter of routine, but rather **as needed** when it is **essential** to extend the depth of learning. Unwritten homework (studying, reading, researching and the like) should be counted in homework time. Unassigned, self-guided and family-guided experiences, as well as travel, field trips and virtual learning experiences are valued and encouraged as independent learning activities. The research identified at the end of this policy highlights the importance of the regular practice of mathematics and daily independent reading.

Weekend and holiday assignments should be avoided in grades K-8, with special consideration for minimizing homework during these times in grades 9-12. By pledging to work for homework free weekends and holiday breaks, teachers and administrators support one first step toward revolutionizing our schools and our culture. In doing this, we join a growing chorus of communities who acknowledge that we need to demonstrate support for more time for:

A.   Students to enjoy a balanced schedule that includes family, friendship, creative, imaginative and spiritual pursuits, community service, involvement in community-based activities, and civic engagement.

B.   Students to have time to be passionate, curious, inventive and creative with their personal interests.

C. Students to include daily time for physical and mental health - including sleep, healthy meals, physical activity and down time.

D. Students to embrace learning and achievement for its inherent rewards.

E. Students to read for pleasure.

F. Students to have time to develop the skills that will truly prepare them for the 21st century: integrity, determination, empathy, resourcefulness, resilience, kindness, respect and lifetime of learning.

II. The Superintendent shall develop regulations for the assignment of homework according to these guidelines:

A. Homework should be a properly planned extension and reinforcement of the curriculum;

B. Homework assignments should be appropriately differentiated to meet the needs of the students. The frequency, number and degree of difficulty of homework assignments should be based on the ability and needs of pupils.

C. Homework should never be assigned hurriedly or in a confused manner.

D. Homework should be assigned with clarity so that pupils know precisely what is expected of them. It might be helpful for teachers to post homework assignments at the beginning of the class and encourage students to ask questions for clarification on any aspect of the assignment they may not understand. Teachers are encouraged to utilize the district's available technology to create personal web pages where homework assignments are posted regularly.

E. Homework should be meaningful for the students. Students should be able to articulate what they are learning from the assignment.

F. Homework should be able to be completed by the students with little or no assistance from parents, siblings or tutors. Independence breeds self-confidence.

G. Homework should help develop the student's responsibility and provide an opportunity for the exercise of independent work and judgment.

H. Homework should help children learn by providing practice in the mastery of skills, experience in gathering data and integrating knowledge, and

offering opportunities to exercise independent learning. Most importantly, homework should serve as the catalyst to help students make connections between what happens within the classroom and life outside the classroom.

I.   Homework should never serve a punitive or disciplinary function; the purpose should be to promote learning.

J.   Although we recognize that students may collaborate on their own initiative, group homework should not be assigned. Group projects are valuable learning experiences which deserve class time under the supervision of the teachers.

K.   Unless the writing of numbers or script is the skill being taught, homework should not require excessive copy work. Writing words, phrases or doing problems excessively is considered counter to the spirit and definition of quality homework.

L.   Homework should take into account other activities that make a legitimate claim on the pupil's time. The Board of Education values all aspects of the students' experiences including academic, co-curricular and extra-curricular programs, as well as the role of family time, and religious and civic endeavors. Additionally, the opportunities for students to enjoy free time, recreation, pleasure reading, and necessary physical activity should be considered when assigning work.

M.   Homework should not require the use of research/resource tools, and/or supplies that are not readily available in the pupils' homes or in sufficient quantity in the public or school library, or available for borrowing from the classroom. Homework may require paper, pencils, and basic art supplies found in the home.

N.   Homework should be carefully evaluated in a timely fashion. That evaluation should be reported to the pupil. Homework is often used for practice, prior to mastery. **Evaluation does not necessarily mean the assignment is graded.**

O.   When homework is graded, multiple entries should be considered before homework is weighed in the grade average. Homework should not count for more than 10% of a student's overall grade.

P.   Long-term assignments completed at home and counted as quizzes, tests, and other larger projects must be identified as such.

Q.   Teachers should weigh work completed in class as primary evidence of learning.

R.   The schools should recognize the role of parent(s) or legal guardian(s) by suggesting ways in which parent(s) or legal guardian(s) may assist the school with helping a child carry out assigned responsibilities.

The following references were used to create this Policy.

Bardach, E. (2009). *A Practical Guide to Policy Analysis: The Eightfold Path to More Effective Problem Solving.* CQ Press: Washington, DC.

Cooper, H. M. (2001). *Battle over homework: Common ground for administrators, teachers, and parents* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Fairbanks, E., Clark, M. & Barry, J. (2005) Developing a comprehensive homework policy. *Principal.* Alexandria, VA: NAESP.

Kohn, A. (20017, January/February).Rethinking homework. *Principal.*Alexandria,VA: NAESP.

Keith, K. M. (2008) *The case for servant leadership.* Westfield, IN: The Greenleaf Center for Servant Leadership.

Marzano, R. J., & Pickering, D. J. (2007). Errors and allegations about research on homework. *Phi Delta Kappan, 88*(7), 507-513.

Protheroe, N. (2009, September/October). Good homework policy. *Principal.* Alexandria, VA: NAESP.

Senge, P. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents and everyone who cares about education.* New York NY: Crown Business.

Time for change homework pledge mission statement. (2011). Retrieved from www.endtherace.org

Vatterott, C. (2009). *Rethinking homework.* Alexandria, VA: ASCD.

Adopted: xx xxxx 1995
Revised: x xxxx 2012

Appendix C: Instrument Alignment Matrix

Instrument Item Alignment Matrix—Stage 2

OVERARCHING QUESTION	How can elementary teachers in Grades 3–5 better use homework as a formative assessment to prepare students for summative assessments?

Research-based Instrumentation Development for Factors or Characteristics of Desirable Formative Assessment Practices

		ALIGNED RESEARCH QUESTIONS		
INSTRUMENT & ITEM	ALIGNED INTERVIEW ITEM	RQ1: How do teachers prepare, select, or create formative assessments in their classrooms? • Teacher processes • Creation techniques • Thinking processes • Rubrics or data used to make decisions • Goal orientation etc.	RQ 2: How do teachers use data from formative assessments to prepare instruction? • Processes post-assignment • Feedback or follow up? • Analysis of data from formative assessment • Instructional adjustments • Collaboration with others?	RQ 3: How does homework align with summative assessments? • Teacher efforts to check alignment • Teacher feelings
		TO ANSWER THIS RQ, THE RESEARCHER NEEDS TO KNOW THE FOLLOWING INFO: Teacher processes for making, choosing, planning, aligning formative assessments	TO ANSWER THIS RQ, THE RESEARCHER NEEDS TO KNOW THE FOLLOWING INFO: Teacher use of formative assessment data to prepare instruction	TO ANSWER THIS RQ, THE RESEARCHER NEEDS TO KNOW THE FOLLOWING INFO: Alignment of current formative assessment/homework with existing summative assessments
	ALIGNED INTERVIEW ITEM	RQ	1	2	3
ITEM		RQ	1	2	3
I3	How do you prepare formative assessments in your classroom?	1	✓		
ITEM	ALIGNED INTERVIEW ITEM				
I9	After an assessment, what do you do with the information gathered?	2		✓	
I4	Describe how you engage students in their daily learning.	1	✓		
I7	Describe what students do when you return an assessment to them.	2		✓	
I14	How do your formative assessments prepare students for a summative assessment like the PARCC?	3			✓
I1	What classroom assessments do you currently use?	1	✓		
I10	How do you use data from formative assessments to inform your instruction?	2		✓	

Item	Aligned Interview Item	RQ	1	2	3
I5&6	Tell me about some learning goals you have helped students set. How is the goal achievement measured/documented?	1	✓		
FG2	Share some examples of what feedback looks like on homework assignments.	2		✓	
DA	Describe how feedback you have given on a homework assignment has prepared a student for a summative test.	3			✓
I7	How do students react when you give them feedback on their homework?	1	✓		
I11	When you give students positive feedback what do you notice?	2		✓	
FG3	How do you feel feedback helps a student?	1	✓		
I18	Give me examples of feedback you have given to help a student improve. What was the student(s)' response to it?	3			✓
FG4	How do you help students set learning goals?	2		✓	
I12	Tell me what you do when a student does not seem to be learning.	2		✓	
ITEM	**ALIGNED INTERVIEW ITEM**	**RQ**	**1**	**2**	**3**
FG5	How do you know that students understand what they are learning?	1	✓		
I16	How do students know what they are expected to learn when completing homework?	3			✓

Code	Question				
FG6	What types of questions do you ask on homework assignments?	3			✓
DA	Tell me how your homework assignments are individualized for each student.	3			✓
I17	Do your current homework practices reinforce the State Standards? How do you know?	3			✓
I8	When do you determine it is time to assess learning?	1	✓		
I2	What is your understanding of formative assessments or assessments for learning?	1	✓		
FG1	What is the purpose of homework in your classroom?	3			✓
DA	Tell me about how you determine how often to assess students.	1	✓		
FG7	After you give a formative assessment, what happens next with that information?	2		✓	
I15	Tell me how you involve a student before, during, and after an assessment.	2		✓	
DA	Do your homework assignments reflect the objective noted in the lesson plan?	2		✓	
DA	Do your homework assignments reinforce higher order questions/thinking?	2		✓	
DA	Do your homework assignments provide feedback to help students improve?	2		✓	

Appendix D: Letter of Cooperation

School District
Administrative Offices

July 23, 2018

Dear Ms. Perro,

I understand you are currently enrolled in a doctoral program at Walden University and are writing your dissertation on the topic of homework. The purpose of your qualitative case study will be to better understand the processes for developing homework that properly aligns with both formative and summative assessments. I am aware your plan is to interview teachers in Grades 3-5, collect homework samples, samples of deidentified student homework assignments, and lesson plans, and conduct a focus group with participants also using Nearpod on their personal devices to answer belief statements. I am informed there are no risks involved with any of the participants of the study. Participants will not be compensated for their participation and their participation is voluntary. I grant permission for you to conduct the study at XYZ. I request you share the findings with the faculty and staff of XYZ
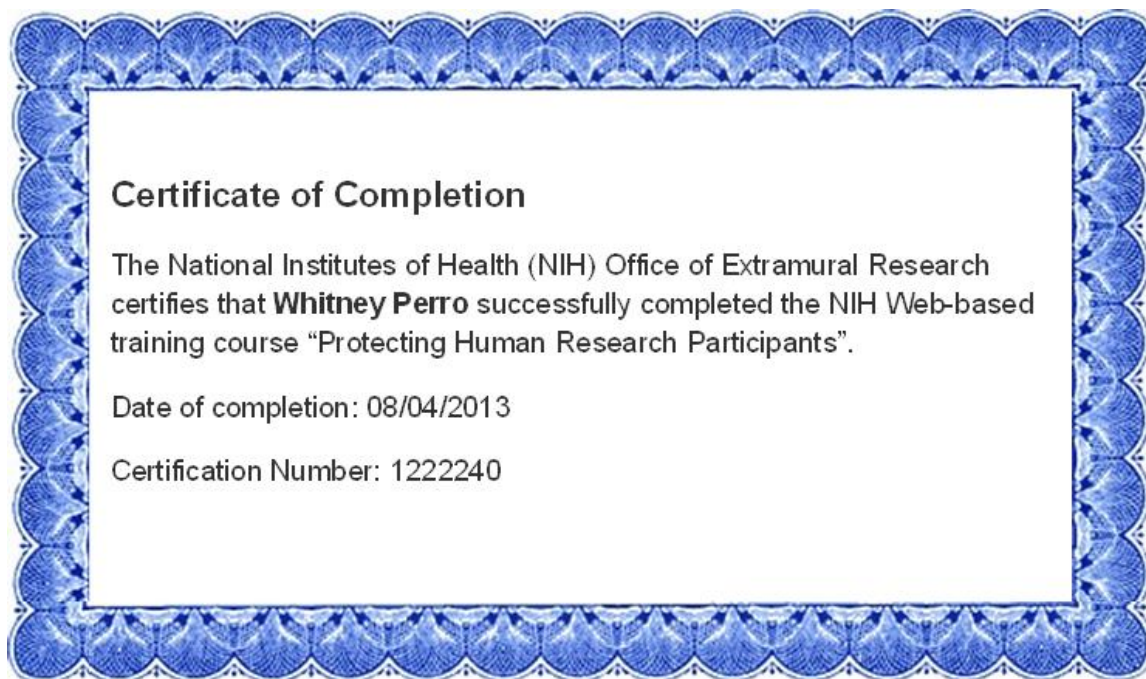
Very truly yours,

Superintendent of XYZ School

Appendix E: Prescreening Questions

The following questions are provided to determine eligibility to participate in this study. All questions are about the local school site. Participants will be called by me to qualify them for the study. They must meet the following criteria:

1. Are you a general education teacher?

2. Do you teach in the local school district?

3. Do you teach in Grade 3, 4, or 5?

4. Do you assign homework which is defined as learning activities students complete outside of the school day to the students in your class?

Appendix F: NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Whitney Perro** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 08/04/2013

Certification Number: 1222240

Appendix G: Interview Protocol

Date_____ Grade Teaching_____ Study Code _____

Location_____ Initials _____

Start Time _____ End Time_____ Total Minutes _____

Interview Procedures:

- Each participant will be interviewed individually.
- The interview will be audio recorded.
- Privacy and confidentiality will be protected by assignment of a pseudonym for each participant.

I will read one question at a time. If you do not understand a question, I will be more than willing to repeat or clarify it for you. As a reminder, your answers will be audio recorded.

1. What classroom assessments do you use currently?

2. What are formative assessments or assessments for learning?

3. How do you prepare formative assessments in your classroom?

4. Describe how you engage students in their daily learning.

5. Tell me about some learning goals you have helped students set.

6. How do you measure these learning goals to know if they are achieved?

7. How do students react when you give them feedback on their homework?

8. Tell me about how you determine how often to assess students.

9. After an assessment, what do you do with the information gathered?

10. How do you use data from formative assessments to inform your instruction?

11. When you give students positive feedback, what do you notice?

12. Tell me what you do when a student does not seem to be learning.

13. Tell me how you involve a student before, during, and after an assessment.

14. How do your formative assessments prepare students for a summative assessment like PARCC?

15. Tell me how your homework assignments are individualized for each student.

16. How do students know what they are expected to learn when completing homework?

17. Do your current homework practices reinforce the State Standards? How do you know?

18. Give me examples of feedback you have given to help a student improve. What was the student's response to it?

The interviewer will thank each participant for his/her time and participation.

Appendix H: Document Collection Instruction Sheet

Each participant will receive a postage paid, self-addressed document mailer at the interview. The envelope will be coded to match the documents with the participant. Each participant will receive the following directions for collecting requested documents:

Dear Participant,

Thank you for participating in the interview. Please follow the directions and use this self-addressed mailer to collect the following items over the next 2-week period:

- Make a copy of each language arts and math homework assigned over the next 2-weeks.

- Make a copy of three student completed homework assignments for both language arts and math with the students' names redacted during the same 2-week period. Please code each language arts and math assignment as Student 1, Student 2, and Student 3. I request sending a sample of exceptionally completed assignments, average assignments, and assignments where student struggled as your three documents. Please collect and copy the same three students' homework assignments during this 2-week period.

- Print a copy of your language arts and math lesson plans written during the same two-week period.

- Place all the documents in the provided mailer at the end of the 2-week period.

- Seal the mailer and drop it in a local mailbox within 72 hours of the end of the collection period.

Thank you again for your assistance. Please e-mail at whitney.perro@waldenu.edu or call

me at xxx-xxx-xxxx if you have any questions.

Appendix I: Document Analysis

Document Analysis Procedures:

- Each participant will place (a) a blank copy and (b) provide three different student completed copies of each mathematics and language arts homework assigned during a set 2-week period into a self-addressed envelope. The student copies will each be coded as noted below.
- Participants will include in the provided envelope a copy of their language arts and mathematics lesson plans for the same 2-week period.
- The provided envelope will be coded to match the participant with the interview to the documents.
- Privacy and confidentiality will be protected. Student information will be coded by the teacher as Student 1, Student 2 and Student 3. The documents will be from the same three students during the 2-week period. Teachers will be assigned a pseudonym.

Document Analysis Guide

Grade Level and Date of Homework

Description Notes	Reflective Notes
Subject Area:	
Objective noted in lesson plan:	

Type of questions/activity:
- Recall
- Understand
- Apply
- Analyze
- Evaluate
- Create

Appendix J: Belief Statements

Participants will be asked to bring a phone, iPad/tablet, or laptop to the focus

group. Upon entering the focus group, each participant will be handed an index card. On

the card specific to them will be the web address for Nearpod, the group code number

and their coded user name. Prior to the start of the focus group a test statement will be

sent to all participants to ensure Nearpod is working. Study participants will be asked to

respond to the following statements based on their level of agreement or disagreement.

The will respond 1-4 based on the scale noted below. The response will be used within

the qualitative data gathering process to determine if teachers are using best practices

related to formative assessments. Each statement below will be sent separately to the

group via Nearpod.

Rating Scale: 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Disagree

1. I am comfortable making decisions on what to assign as homework.

2. I value homework assignments.

3. I typically set learning goals for my students to achieve.

4. I provide feedback on homework assignments.

5. I connect homework assignments to instructional objectives.

6. I provide verbal praise when returning homework.

7. I return homework assignments in a timely manner.

8. I have used homework as a punishment.

9. I have used homework as a reward.

10. I encourage students to self-reflect on their homework assignments.

11. I individualize homework assignments.

12. I create homework assignments with higher order questions.

13. I use formative assessments in my classroom.

Appendix K: Focus Group Prompts

I will begin the focus group by giving a brief introduction of the problem in this study. I will display one piece of poster paper with a single prompt listed below. There will be a time limit of 10 minutes per statement/question. Participants will be encouraged to share their thoughts. Responses will be audio recorded. Participants will be presented with the following prompts:

1. What is the purpose of homework in your classroom?

2. Share some examples of what feedback looks like on homework assignments.

3. How do you feel feedback helps a student?

4. How do you help students set learning goals?

5. How do you know that students understand what they are learning?

6. What types of questions do you ask on homework assignments?

7. After you give a formative assessment, what happens next with that information?

I will ask the participants if they have any questions. I will thank the participants for their time and participation, then end the recording once they all leave the room. Often the exit conversations reveal some very rich data.