

Utilizing Grade-Level Instructional Planning Meetings in Elementary Teacher Preparation

Temple Walkowiak (@templewalkowiak)

Amanda Gosek (@TheBusyTeachers)

Diane Hunter (@mathhuntress)

NCTM Annual Meeting

#NCTMannual

Washington, DC

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Session Goals

- Describe and explain the project and the significance of the PLT meetings
(**PLT** – **P**rofessional **L**earning **T**eam)
- Consider how a PLT meeting might be utilized in your own context

Project
Overview

Project Phases

1: Plan
Week 1
Week 2
Week 3

2: Implement
Week 4

3: Analyze
Week 5
Week 6

Discussion

Next Steps

Everyday the local bakery makes 3 times as many donuts as they do pastries. Jill used the information below to decide that she needed to make 558 pastries on Saturday. Her boss said she made too many. Draw a model and write the words that you think might help Jill understand her mistake.

	Donuts	Pastries
Saturday	186	
Sunday		155



How many donuts should Jill make on Sunday?

If there are 23 items in the display case at the end of the day, how many items were sold on Sunday?

The Context

- Undergraduate Teacher Preparation Program
- Grades 3-5 Mathematics Methods Course
 - Second Semester of Professional Coursework (Spring of Junior Year)
- 45 to 50 Preservice Teachers (PSTs) divided between 2 sections of the course
- Field Placement in Grades 3-5 Classroom
 - Pair of PSTs in each classroom
 - 3 hours per week
 - Two full weeks (February and April)

**Project
Overview**

Project Phases

1: Plan
Week 1
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Discussion

Next Steps

Project Goals

#1:
Gain practical experiences implementing mathematics instruction, specifically through problem-based lesson

#2:
Participate as active member of PLT

#3:
Engage in complete mathematics teaching cycle (plan, implement, and analyze)

Project Overview

Project Phases

1: Plan
Week 1
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Discussion

Next Steps

Project Overview

- Mathematics Instructional Cycle Project (MIC-P)
 - Work through a full-cycle of instruction
- Two PLT meetings: Plan and Analyze phases
- Project duration: 6 weeks (begins third week of semester)

Project Overview

Project Phases

1: Plan
Week 1
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Discussion

Next Steps

Project History....and Problems

2013 & 2014:

Lesson Modification Project

Lesson Study Project

2015 & 2016:

Merged Project: Lesson Modification & Lesson Study

2017:

Merged Project with PLT Meeting

2018:

Mathematics Instructional Cycle Project (MIC-P)

**Project
Overview**

Project Phases

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Next Steps

Project Details

2018: Mathematics Instructional Cycle Project (MIC-P)

- Nine tasks
- PSTs organized into PLTs of 4
 - Two field placement pairs from two grade levels
- Class session activities supported each phase
 - LOTS of scaffolding
- Lesson study approach to implementation

Project
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Project Phases

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Discussion

Next Steps

Project Phases

- Plan
- Implement
- Analyze

Project
Overview

● Project Phases

1: Plan
Week 1
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Discussion

Next Steps

Phase 1: Plan

**Solve
the Task**

**Draft
Lesson Plan**

**Meet
with PLT**

**Finalize
Lesson Plan**

Everyday the local bakery makes 3 times as many donuts as they do pastries. Jill used the information below to decide that she needed to make 558 pastries on Saturday. Her boss said she made too many. Draw a model and write the words that you think might help Jill understand her mistake.

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Project Phases

1: Plan
● **Week 1**
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Week 6

Discussion

Next Steps

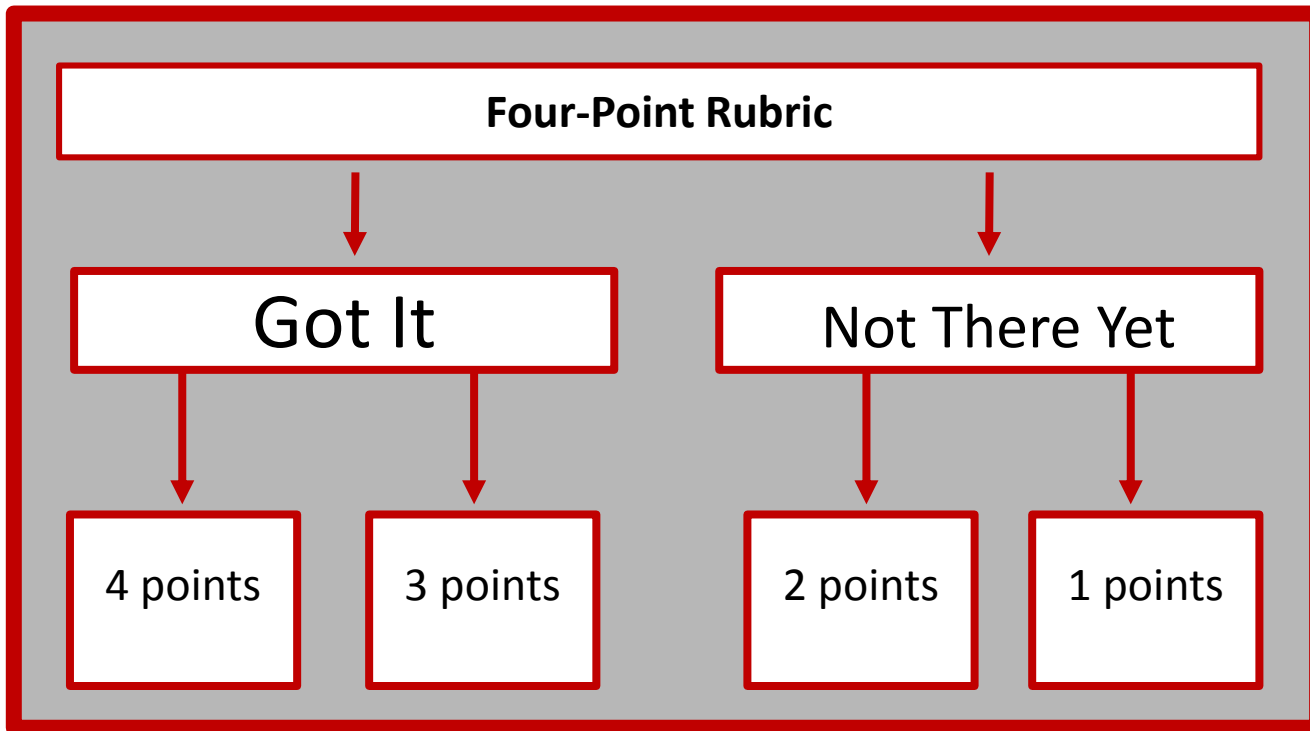
Phase 1: Plan

Solve the Task

Draft Lesson Plan

Meet with PLT

Finalize Lesson Plan



(Van de Walle, Karp, Lovin, & Bay-Williams, 2017)

Project Overview

Project Phases

1: Plan
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Next Steps

Phase 1: Plan

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the Task

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Meet
with PLT

Finalize
Lesson Plan

Three-Part Lesson Plan
<p>Objectives Standards</p> <p>Before</p> <ul style="list-style-type: none"> • activate prior knowledge • clear expectations <p>During</p> <ul style="list-style-type: none"> • notice student thinking • provide support • provide extensions <p>After</p> <ul style="list-style-type: none"> • students share • summarize main idea

Project
Overview

Project Phases

1: Plan
Week 1
● Week 2
Week 3

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Week 6

Discussion

Next Steps

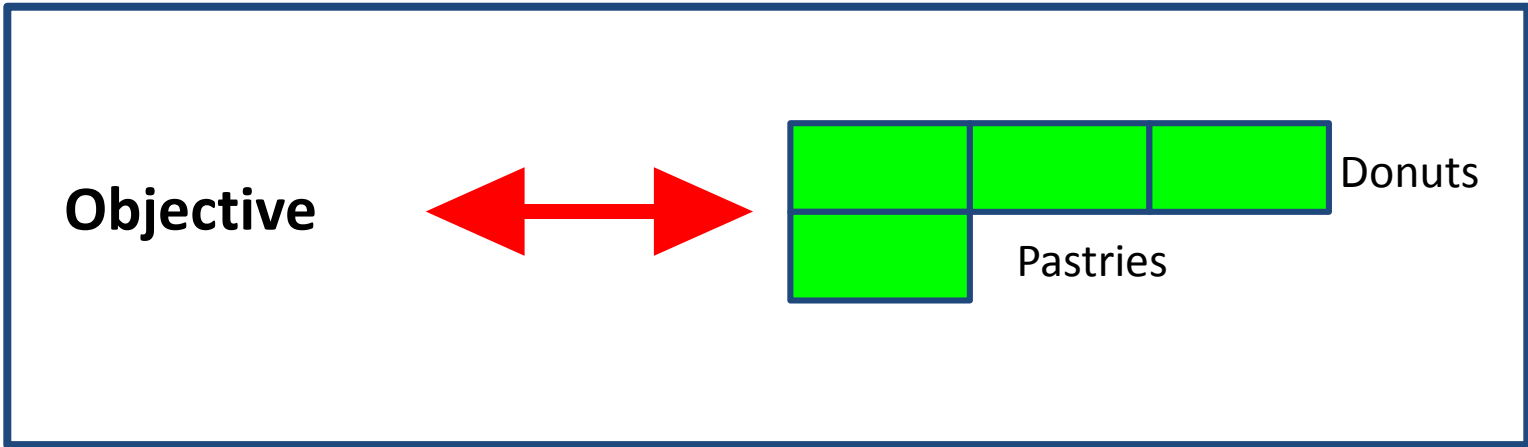
Phase 1: Plan

Solve
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Draft
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Project
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Phase 1: Plan

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the Task

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Lesson Plan

Meet
with PLT

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Lesson Plan

Objective:

Students will be able to use their answers from previous questions to find answers to other questions in the word problem. Students will pull out the variables they know from the word problem and the variables they want to find and symbolically represent this information using letters. Students will be able to interpret what is meant by the remainder.



Students will solve multi-digit comparison problems by drawing a model to represent the situation and writing an equation with a variable.

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Next Steps


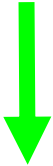

Phase 1: Plan

Solve the Task

Draft Lesson Plan

Meet with PLT

Finalize Lesson Plan

Stuck	Working	Got It
<p>Ask a friend.</p>  <p>What are you trying to figure out?</p> <p>What information do you know?</p>	<p>Show me a different way.</p>  <p>Tell me about your work?</p>	<p>Try this problem.</p>  <p>Why do you think that some people make this mistake when solving a problem like this?</p> <p>What is another question that could be answered from this information?</p>

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Next Steps

Phase 1: Plan

Solve the Task

Draft Lesson Plan

Meet with PLT

Finalize Lesson Plan

Three-Part Lesson Plan

Objectives
Standards

Before

- activate prior knowledge
- clear expectations

During

- notice student thinking
- **provide support**
- provide extensions

After

- students share
- summarize main idea

Changes

Project Overview

Project Phases

1: Plan
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Discussion

Next Steps


Phase 2: Implement

- Individuals taught the lesson
- Partner observed
 - Took notes
 - Video recorded

Project
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Discussion

Next Steps

Phase 2: Implement

- Written work collected from all students
 - Quick analysis
 - CAREFUL selection of 3 target students
- Follow up with 3 target students on their written work (and video record)
- Flipgrid Reflection of the process

Project
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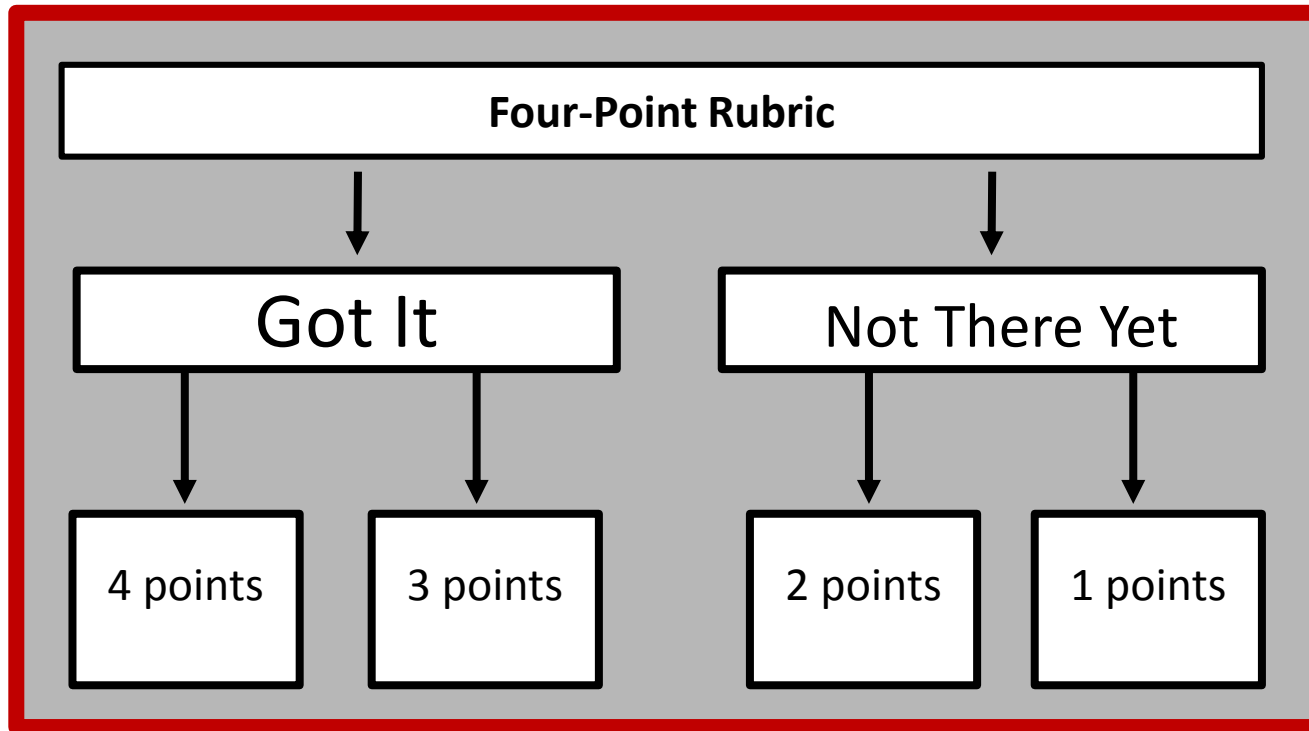
3: Analyze
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Discussion

Next Steps

Phase 3: Analyze

- Performance in relation to the learning goal(s)



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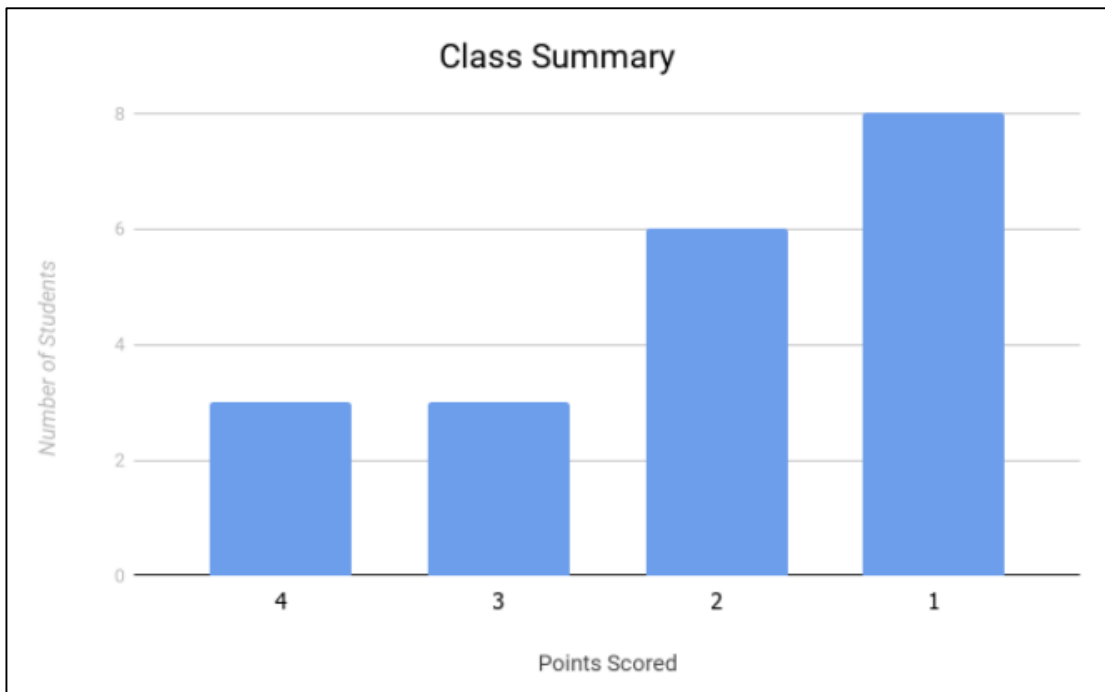
● 3: Analyze
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Discussion

Next Steps

Phase 3: Analyze

- Class (or Group) Analysis of Student Performance
 - Summary
 - Overall Assessment
 - Compare written work to what was observed/heard



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Discussion

Next Steps

Phase 3: Analyze

- Three target students
 - Submit student work and video for ONE of three target students

Project
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Discussion

Next Steps

Phase 3: Analyze

- Meet with one member of their PLT (in class)
 - How did you assess the student using the rubric on page 50 of VDW? What does the student understand or not understand?
 - How would you provide feedback on their written work to the target student? What would you say to them about their progress in meeting the learning goal and/or the understandings demonstrated?

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Discussion

Next Steps

Phase 3: Analyze

- Analysis of each student's performance in relation to the learning goal
- Feedback for each student

- What happened during the lesson for the target student (Observations during the lesson and watching video of lesson)
- The target student's written student work
- The oral explanation (video) from the target student
- Conversation with PLT partner about one of your target student's work and video
- Textbook (VDW) or other readings

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Next Steps

Phase 3: Analyze

- **Analysis of each student's performance in relation to the learning goal**
- **Feedback** for each student

- What happened during the lesson for the target student (Observations during the lesson and watching video of lesson)
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Next Steps

What do you notice? What do you wonder?

- Ms. Carpenter
- Ms. Johnson

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Next Steps

Discussion

- How might PLT meetings during teacher preparation be utilized in your own context?

**Project
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Project Phases

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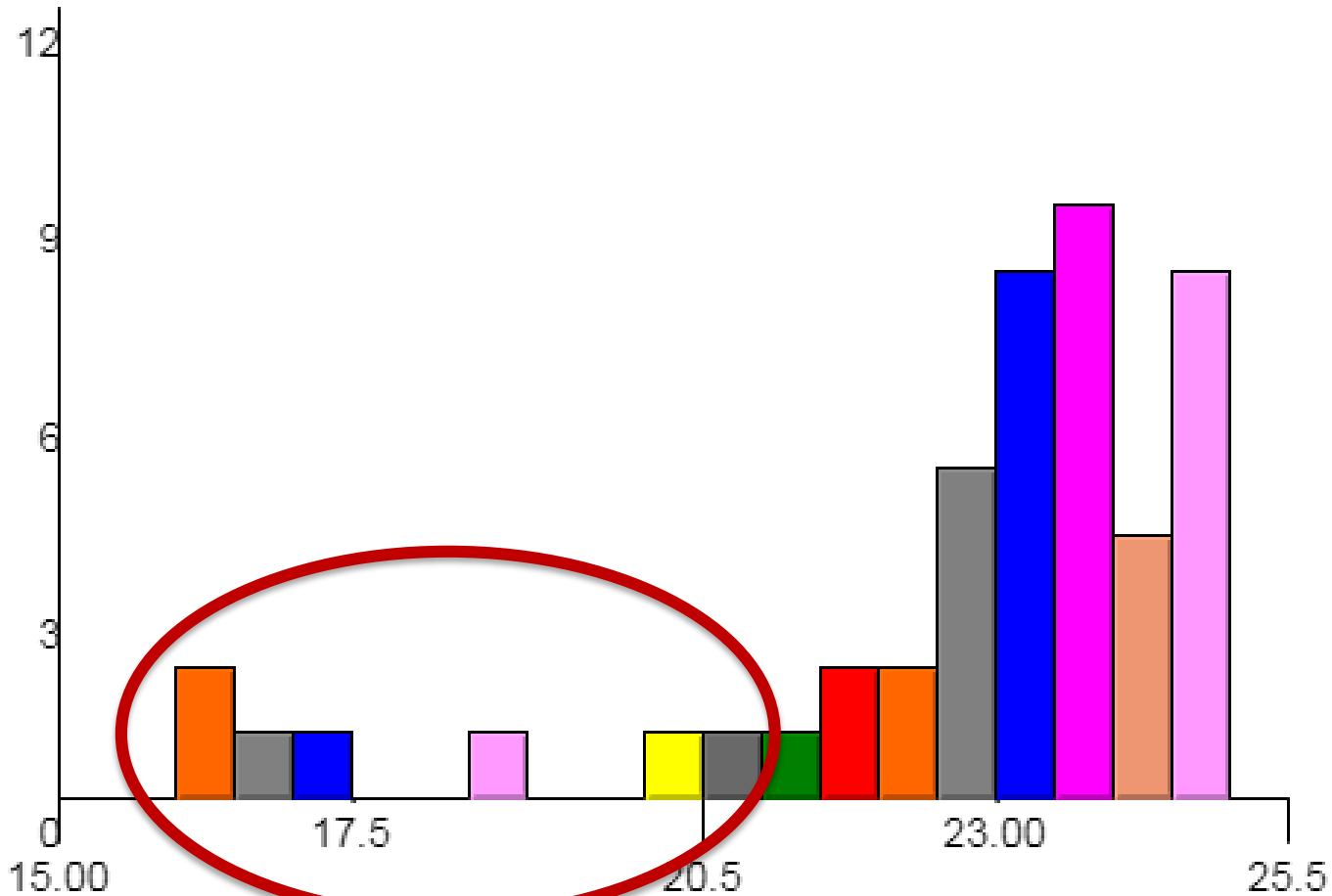
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 **Discussion**

Next Steps

Outcomes



Frequencies of Scores on MIC-P

Project
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Discussion

● Next Steps

Next Steps

- Examine PSTs' work for patterns
 - Task? Grade level? Learning goal/standard?
- Attend to closure/discussion part of lesson more thoroughly
 - Increase length of PLT meeting?
- Developing learning goals
 - Use second project to assess
 - Programmatic consideration?
- More explicit about “it’s not a grade” for their elementary students

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• Next Steps

Link to Project Materials:

<https://tinyurl.com/NCStateNCTM2018>

Contact Information:

Temple Walkowiak, tawalkow@ncsu.edu

Twitter: @templewalkowiak

Amanda Gosek, ajgosek@ncsu.edu

Twitter: @TheBusyTeachers

Diane Hunter, dchunter@ncsu.edu

Twitter: @mathhuntress