Teacher Work Sample

Madeline Diniz

Spring 2018

Table of Contents

<u>**Resume with Mission Statement**</u>

Madeline Diniz

Mission Statement	My mission as a teacher is to support and encourage all students as they pursue their education.	
Contact Information	901 E. Washington Monticello, IL 61856	(217) 671-6036 mldiniz@anderson.edu
Education	Anderson University, Anderson, IN Secondary Mathematics Education Major May 2018 GPA: 3.5/4.0	

Honors

Center for Public Service Fellowship October '16
> This fellowship is for those going into service-oriented careers to help provide connections and experiences that will be valuable in future careers.

Kappa Delta Pi Education Honor Society April '16
Anderson University Deans List Fall '15, '16, '17
Spring '16

Certifications

QPR Suicide Prevention November '17
CPR October '17

Teaching Experiences

Anderson University Student Tutor Fall '14 - Current
> Tutored students in Finite Mathematics, Discrete Mathematics, and Statistics.

Student Teaching: Anderson Preparatory Academy Spring '18
> Taught Geometry and Trigonometry classes while practicing all aspects of teaching.

Practicum: Anderson High School Fall '17
> Assisted in Pre-Calculus, Calculus 1 and 2 classes practicing management techniques.

Practicum: Lapel Middle School Spring '17
> Assisted in 7th grade low ability math block, working with students in small groups.

Practicum: Fishers Junior High Spring '17
> Assisted in 7th grade math class with a wide variety of learners.

Volunteer Work

Anderson University Raven-VEX Robotics Competition January '16 & '17

Additional Experiences

Anderson University Golf Team Fall '14 - Spring '17
Camp Invention Counselor Summer '16
> Led a group of elementary students through several stations during a weeklong STEM day camp, assisting both teachers and students as needed.

Undergraduate Research Assistant August '15 - May '16
> Worked under two professors and with two fellow students in the mathematics department continuing previously conducted research related to p-polynomials and presenting our findings at National Conference for Undergraduate Research 2016 in Asheville, NC.

<u>Teaching Philosophy</u>

My beliefs in regards to teaching and learning have grown from my time in the classroom as both a student as a teacher. From the time I knew I wanted to be a teacher in high school I saw what my teachers did and looked back on past teachers who impacted me, gathering information and inspiration from them. Then, when I started college and learned more about education my beliefs about teaching and learning developed further. Finally, being in the high school classroom again as a teacher my philosophy has established itself more and more.

I believe that every student can learn and that it is my job as a teacher to encourage them, to help them be successful, and to lead them to a point where they take control of their learning. Math is a subject where many students struggle and feel that they can never succeed. I want my students to feel that they can be good at math, no matter how much they may struggle. I believe that with encouragement and support that they will learn from their mistakes and achieve their goals. I also believe that it is my job to help my students be successful. That is, give them the materials, information, and tools that they need to succeed. Finally, I believe that there is a point where it is time for students to become more independent and take control of their learning. I will support and encourage them and give my students the tools they need to succeed but they need to use them. Especially with high schoolers, they are at a time where they are growing and becoming more independent.

My beliefs manifest in my teaching and my classroom in several ways. To start I always try to be positive and encouraging to my students when they struggle. Also, I want my students to encourage and help each other to create a positive and supportive classroom culture. I will also try to encourage a growth mindset in my classroom. The idea that you may not get it *yet* but will always try to learn and grow from mistakes. It is alright to make mistakes as long as we learn from them. Also, in regards to assessment, I will always want my students to put in the effort and attempt the problems. Then they can learn from any mistakes they make so they won't be made again. I will give students the tools they need to succeed. This includes notes that outline what they need to know in several ways, examples of how to solve problems they will encounter, and ample practice in various activities. I also am willing to go through anything again and answer questions as long as they ask. That leads to them taking control of their learning and reaching out to me when they need the extra help. I truly believe that all of my students can be successful in the math classroom and I want to encourage and support them along the way.

Comprehensive Unit

School: Anderson Preparatory Academy

Topic: Properties of Circles

Dates: February 20th - March 7th

Anderson Preparatory Academy is located at 101 West 29th St. in Anderson, IN. It is a military style charter school with a focus on preparing students for college. According to the IDOE: Compass there is a total of 246 students that is approximately 62% white, 21% Hispanic, 11% African American, 5% multiracial, and 1% Asian. Also, regarding the socioeconomic profile of the school 45% of the students have free or reduced lunches. Also, for the 2016-2017 school year, 35.6% of 10th grade students passed ISTEP, only slightly above the state average. A large part of the culture of the school is the connections to the Air Force, particularly the JROTC program that all students participate in and the high behavioral expectations. Another thing to note is the school's physical location. It is near some sort of fire station so it is not unusual to hear sirens go by regularly. The classroom overlooks 29th street which can be distracting to some students as the road can be busy at times. The neighborhood I drive through on my way to school looks like it has seen better days and may be a bit rough like other parts of Anderson.

Moving into the classroom, there are several things to consider. As far as a regular routine, when students first come into the classroom they stand by their desk, then when the bell rings, they are called to attention then attendance is taken. After they are instructed to sit, they begin the period by following the instructions posted on a whiteboard that can include tasks like turning in an assignment, bell work, or starting an online quiz. Then the teacher delivers the instruction for the day then the students are given time to work on the days assignment. The teacher uses a document camera to project note sheets during lectures and any needed material during activities. The classroom has four rows of desks that stay in rows during instruction time

and then the students move into groups of their choosing during student work time. The classroom rules include being prepared and productive with your time.

The class period that I am focusing on for my teacher work sample is 6th period geometry. This class has 13 students, the majority of which are juniors with 3 seniors, and 1 freshman. Also, this class has only 1 girl which leads to an interesting dynamic in the classroom. There are several students who can cause problem because they are talkative and don't focus on their work during in class work time. While several students in that group perform well and generally understand, there are those that their friends distract from their learning when they really don't understand the material. One particular student gets very down on himself when it comes to his intelligence. He continually depends on his friends for answers on assignments but when I work with him one on one, with some encouragement and guidance, he understands more but still struggles. There are also a couple of students who know that they are easily distracted by their classmates and try their best to keep focused on their work, with varied success. When they put their mind to it, they can perform quite well but it depends on the day.

All of these factors can lead to some implications for instruction. To start, the fact that the class is a very talkative one. That means that I will have to have strong classroom management in order to maintain control of the class. To keep them on task when they are being talkative and lacking focus will take work and I will have to keep that in mind when I plan for that class. Another thing that I have to keep in mind when it comes to planning is the classroom culture. The students have an established routine for the beginning of class and how instruction is delivered and I will keep parts of it when I teach my lessons. I will use the fill in the blank notes and the whiteboard at the front of the room for instructions for the beginning of class.

Classroom Management

There will be several classroom rules in place procedures for various classroom tasks. Along with the school rules there will be several others specifically for the classroom. Students will be required to be prepared for class, having their binder, pencil, computer, and calculator. Also, students will not be allowed to leave the classroom without a pass. In regards to procedures, every day when students come into class they look at the small whiteboard for what the days plan will be and follow any posted direction on the board. Also, during any time where students work on an assignment in groups, they will have to stay on task, keep the volume at an acceptable level, and give the teacher their attention when required. Consequences will include loss of conduct point (students start with 50 points per grading period these points are worth 10% of their grading period grade) or a write up which can have varying consequences attached to it. These classroom rules and procedures were outlined by Mrs. Cecil at the beginning of the year and will continue to be in effect. These were stated in the student syllabus from the beginning on the year and the students are reminded of the rules as needed.

This class tends to be talkative so it is important to help them stay on task. During lessons there will be a general verbal warnings to stay on task. During work time there will be more specific warnings relating back to the volume levels or if students are not even trying to get work done. I will let them work with their friends and have side conversations as long as they are actually working. I will monitor this by walking around and checking on progress on the assignment. I remind them to stay on task and separate groups if needed. Also, if students do not stay on task after multiple warnings, they lose conduct points. The students were not involved in the rulemaking process but they are regularly reminded of them. In regards to students with

special needs, there is one student who has accommodations for tests which he has to go to the SPED teachers room to use.

Below is a seating chart for the class. Student sit in their assigned seats during instructional time or during any independent work time. When allowed, students work in groups of two to three students, dragging desks together.

windows	Teacher desk	Front				Door
		Student 3	Student 2		Student 1	
		Student 8	Student 6	Student 5	Student 10	
		Student 13	Student 12	Student 9		
		Student 4	Student 7		Student 11	
		Student Teacher Desk				

8

<u>Learning Goals</u>

LG1→ Students will be able to define and identify a circle, radius, chord, diameter, secant,

tangent, major arc, minor arc, central angle, semicircle, congruent circles, congruent arcs.

Standard→ G.CI.1: Define, identify and use relationships among the following: radius,

diameter, arc, measure of an arc, chord, secant, tangent, and congruent concentric circles.

Bloom's Level→ Comprehension

LG2→ Students will be able to apply theorems and relationships of chords, secants, tangents,

and the segments they form.

Standard→ G.CI.3: Identify and describe relationships among inscribed angles, radii, and

chords, including the following: the relationship that exists between central, inscribed,

and circumscribed angles; inscribed angles on a diameter are right angles; and the radius

of a circle is perpendicular to a tangent where the radius intersects the circle.

Blooms Level→ Comprehension, Application

LG3→ Students will be able to use the relationship between angles, in or outside a circle, and

arc length.

Standard→ G.CI.4: Solve real-world and other mathematical problems that involve finding

measures of circumference, areas of circles and sectors, and arc lengths and related

angles (central, inscribed, and intersections of secants and tangents).

Bloom's Level→ Comprehension, Application

LG4→ Students will be able to state and apply theorems about circumscribed triangles and

quadrilaterals to solve mathematical problems.

Standard→ G.CI.7: Construct the inscribed and circumscribed circles of a triangle with or

without technology and prove properties of angles for a quadrilateral inscribed in a circle.

Bloom's Level→ Comprehension, Application

Assessment Plan

Learning Goals	Assessments	Format of Assessment	Adaptations
Learning Goal 1: Students will be able to define and identify a circle, radius, chord, diameter, secant, tangent, major arc, minor arc, central angle, semicircle, congruent circles, congruent arcs.	Pre-Assessment	Matching section where students match term to element of diagram.	With game lay out clear expectations and if those can not be followed modify activity to change teams, remove flyswatter aspect of the game and have them just write down answers to my questions.
	Formative Assessment	Flyswatter game with elements of a circle	
	Post-Assessment	Matching section where students match term to element of diagram.	
Learning Goal 2: Students will be able to apply theorems and relationships of chords, secants, tangents, and the segments they form.	Pre-Assessment	Solve for x when given a circle labeled with measures	Break down problems that give students trouble, Choose questions that students need more practice with.
	Formative Assessment	Practice sheet(s) for various sections Questions in whiteboard practice	
	Post-Assessment	Solve for x when given a circle labeled with measures	

Learning Goal 3: Students will be able to use the relationship between angles in or outside a circle and arc length.	Pre-Assessment	Solve for x when given a circle labeled with measures	For whiteboards, break down problems that give students trouble. Choose questions that students need more practice with.
	Formative Assessment	Questions in whiteboard practice and online quiz	
	Post-Assessment	Solve for x when given a circle labeled with measures	
Learning Goal 4: Students will be able to state and apply theorems about inscribed and circumscribed triangles and quadrilaterals to solve mathematical problems.	Pre-Assessment	Solve for x when given a circle labeled with measures	For whiteboards break down problems that give students trouble. Choose questions that students need more practice with. For practice sheet, have students work alone or in pairs for completing the sheet in class.
	Formative Assessment	Questions in practice sheet(s) Questions in whiteboard practice	
	Post-Assessment	Solve for x when given a circle labeled with measures	

Design For Instruction

Pre-assessment Results

Student	LG1 (8pts)	LG2 (8pts)	LG3 (8pts)	LG4 (6pts)	Total (30pts)	Percentage
1	A	A	A	A	A	A
2	4	6	0	0	10	33.3%
3	6	2	0	0	8	26.7%
4	A	A	A	A	A	A
5	3	4	0	0	7	23.3%
6	1	0	0	0	1	03.3%
7	2	0	0	0	2	06.7%
8	1	0	0	0	1	03.3%
9	0	0	0	0	0	00.0%
10	4	3	2	0	9	30.0%
11	8	0	0	0	8	26.7%
12	5	2	0	0	7	23.3%
13	3	4	0	0	7	23.3%

Looking at the data above, there are several things to notice. To start we can see that none of the students have any previous understanding with learning goal number 4 as they all received 0 points in that section. The same thing with learning goal number 3, only one student earned a 25% on that section. Slightly better was learning goal number 2. Six students earned some type of credit in this section. Finally, the matching section on vocabulary for learning goal number 1 was the best overall with all but one student getting at least one word correct. These patterns will guide my instruction in the fact that I need to really focus on learning goals 2 through 4 while

still touching on learning goal 1. It appears that many of the students have some sort of

familiarity or at least and intuition with some of the vocabulary in learning goal 1.

Unit Overview

Monday	Tuesday	Wednesday	Thursday	Friday
19 No School	**20** Section 10.1 ● LG1, LG2 ● Notes on 10.1 (parts of a circle and tangent theorems) ● Assignment sheet with drawing parts of circle and questions with tangents	**21** Section 10.2 ● LG1, LG3 ● Notes on 10.2 (Vocab and arc length) ● Assignment sheet on finding arc measure and showing congruent circles	**22** Vocab Day ● LG1 ● Flyswatter on vocab from 10.1 and 10.2	**23** Section 10.3 ● LG2 ● Notes on 10.3 (Relationship between chords and arc measure) ● Assignment sheet on chord and arc measure
26 Section 10.4 ● LG3, LG4 ● Notes on inscribed angles and polygons ● While going through notes have students use www.geogebra.org to explore facts about inscribed angles polygons ● Assignment on finding both angle and arc measures using theorems about inscribed	**27** Section 10.5 ● LG3 ● Notes on angles formed by intersecting secants, tangents, and chords in and outside a circle and arc measure ● Assignment sheet on using theorems to find angle measure, arc	**28** Section 10.4-5 Review ● LG3, LG4 ● Whiteboard activity with questions from sections 10.4 and 10.5 including finding angle measures both in and outside a circle and related arc measures	**1** Compass Quiz (angles in circles) ● LG3, LG4	**2** Section 10.6 ● LG2 ● Notes on relationships between segment lengths in and outside a circle ● Assignment on using relationships to solve for x and find measures on segments

14

angles and polygons	measure, solve for x			
5 Section 10.6 cont. ● LG2 ● More practice on segment lengths in circles	**6** Review ● LG1, LG2, LG3. LG4 ● whiteboard activity	**7** Test ● LG1, LG2, LG3. LG4	**8**	**9**

Activities

Flyswatter

- I project several circles with lines, segments, angles, and labeled points as well as several vocabulary words. I divide students into two teams and have one student come to the front of the class where the image mentioned previously is projected. Each student has flyswatter and I ask them to either find the vocabulary word I am defining and slap it with the flyswatter or to identify the part of the picture that goes with the vocabulary word I say. The first student to slap the correct answer gets a point for their team and the team with the most points wins. All of this is to practice the vocabulary from leaning goal 1.

- This activity connects to the pre-assessment data as it has all students practicing their vocabulary. While some performed well on this section, others did not and since it was a matching section that can lead to some guessing, this is a fun way to practice. Also, in regards to the contextual factors, this is a class that is talkative and may want to get up and move more with all of their energy.

- The materials needed include the projector, sheet being projected, question sheet and two flyswatters.

- In the course of this game there will students demonstrating what they know by answering my questions. I will be using informal assessment through observation of how they are answering. I will also be correcting mistakes and encouraging them to the right answer.

Explorations with Geogebra

- All students have their computers and go to www.geogebra.org. There we will explore the controls so the students have an idea of what they will be doing. First we draw a circle and a central angle to find an arc measure. Next we draw and measure an inscribed angle that intercepts the arc we found the measure of. Ask students what they notice about the measures and explore what happens when we change the size of the circle or the size of the arc. For the quadrilaterals they draw a circle, inscribe a quadrilateral and make observations about the angle measures. For the triangle they draw a circle, inscribe a triangle with one side as the diameter, make observations about the triangle. This connects to learning goals 3 and 4.

- In relation to the pre-assessment data, this is is a learning goal that no one understood before the unit so we would need to dig into it. In relation to the contextual factors, this is an energetic class so having them try something new could be great for them and get them focussed.

- The materials needed are my computer, the projector, and student computes.

- The idea for this activity is for students to explore the content and reach some conclusions about the related theorems, for them to figure out the rule. We will discuss it as a class so I will be able to assess what they know from that discussion as well as observation during the activity.

Whiteboards

- All students will have a small whiteboard and marker. I project a question, the students answer it on their whiteboards and hold up their answer. I then tell them whether their answer was right or wrong. I give them a limited time to answer and go over the question as a class and answer any questions. This activity is used several times throughout the unit and as a review over all of the learning goals, with more focus on learning goals 2-4.

- This activity connects to the pre-assessment data by giving students a chance to practice solving problems they all did not get on the pre-assessment. Also in regards to the contextual factors, since it is an energetic class, something faster paced and with a time limit should keep things moving and keep them focused.

- The materials needed are the document camera, a timer, the question and answer sheets, and student whiteboards and markers.

- I will assess students by checking their answers that they hold up throughout the activity. I will use the information gathered from how many students answer a question correctly to choose whether we move on to a different type of question or do another similar one.

Technology

I use technology in my instruction when I use the projector, document camera, my computer, and student computers. Almost daily will use the document camera and projector for

notes or activities. For notes it will display my copy of the notes so students can follow along with their copy. One or both will also used in each of my activities mentioned above. I will also incorporate the fact that the school is 1:1 in the Geogebra activity and online compass quizzes.

Contextual factors

I addressed my contextual factors in my planning in several ways. On is the continuation of the beginning of class routine. We will still follow the established routine while I am teaching. Another contextual factor I consider while planning is that it is a talkative and energetic class. I try to address this by planning activities that let them move around or are at a faster pace to keep them focussed.

Instructional Decision Making

One instance during the course of the unit where I had to change up my plans in response to students was in the beginning of the unit with the flyswatter game on vocabulary. I projected several circles with lines, segments, angles, and labeled points as well as several vocabulary words. I divided students into two teams and have one student come to the front of the class where the image mentioned previously was projected. I asked them question where they either had to find the vocabulary word I was defining and slap it with the flyswatter or identify the part of the picture that goes with the vocabulary word I said. The first student to slap the correct answer gets a point for their team and the team with the most points wins. I had noticed the days before that the students were understanding and responding well to the vocabulary we were covering by the level of engagement in the lesson and how well they did on the assignment for the day. Also, on the day of the activity, I noticed that they were answering my questions very quickly and that I was starting to lose their focus with the simple questions.

Before the activity began, based on the student success on the formative assessment from the previous days, I added more words and picture elements to my activity in hopes of challenging them and making sure the activity took the whole period. I knew that they would need more of a challenge to help keep the students engaged because if they feel it is just mindless busy work, they will not put in any effort. The questions I added to my original activity went well and as I was reaching the end of my question list I noticed we still had more time left so I would have to find a way to extend the activity. I also noticed that students were losing interest in the activity so I thought that by asking different types of questions, I could get them interested and thinking again. I decided to ask some more questions in different ways and related to the

vocabulary I had already covered and come up with some new questions. While it was a little difficult to come up with new questions, I had the notes from the past few days and asked about theorems that I previously had not. They responded well to my adjustments and we continued until the end of class with the students mostly engaged. This helped them reaching the learning goal of being able to define and identify the several vocabulary words related to circles.

Another time during the course of the unit I had to change my plans was during my exploration activity with Geogebra, an online resource that lets students draw and interact with points, lines, and shapes. I had the students turn on their computers and go the the site and we started by drawing a circle, measuring an arc and measuring the inscribed angle that intercepts the measured arc. Then after I had them explore what happened when the size of the circle or angle is changed. The goal was for the students to arrive at the fact that the measure of an inscribed angle is half the measure of its intercepted arc. The students got to the idea but the general feeling from the class was a lack of interest and the tone of voice from several students in their response to my questions made me feel that they wanted nothing to do with the activity. The class would then have gone on to go through a similar process to learn about theorems related to inscribed polygons but with the general lack of engagement in the activity I felt like I had to change something.

After a brief thought I decided to abandon the activity and just go through the notes that went with the activity in a more traditional lecture style. I felt that they were not gaining anything extra from the activity with their engagement levels so I felt that the time would be better used after notes on their homework. Then they could ask questions and practice applying the theorems rather than discovering them. During the lesson I did my best to explain what they

would have explored to slightly makeup for the change but I feel that I made the right decision.

They understood the lesson and their homework went well when we went over it the next day.

Analysis of Student Learning

The first learning goal was: students will be able to define and identify a circle, radius, chord, diameter, secant, tangent, major arc, minor arc, central angle, semicircle, congruent circles, congruent arcs. The second learning goal was: students will be able to apply theorems and relationships of chords, secants, tangents, and the segments they form. The third learning goal was: students will be able to use the relationship between angles, in or outside a circle, and arc length. The fourth and final learning goal was: Students will be able to state and apply theorems about circumscribed triangles and quadrilaterals to solve mathematical problems.

Whole Class:

Student		1	2	3	4	5	6	7	8	9	10	11	12	13
LG1 8pts	Pre Assessment	A	4	6	A	3	1	2	1	0	4	8	5	3
	Post Assessment	8	8	8	6	8	8	8	8	6	8	8	8	8
LG2 8pts	Pre Assessment	A	6	2	A	4	0	0	0	0	3	0	2	4
	Post Assessment	6	8	5	5	6	6	4	7	7	7	6	8	7
LG3 8pts	Pre Assessment	A	0	0	A	0	0	0	0	0	2	0	0	0
	Post Assessment	4	5	2	4	5	6	4	4	8	6	6	6	8
LG4 6pts	Pre Assessment	A	0	0	A	0	0	0	0	0	0	0	0	0
	Post Assessment	6	6	2	2	2	5	2	6	0	5	4	6	4
Total 30pts	Pre Assessment	A	10	8	A	7	1	2	1	0	9	8	7	7
	Post Assessment	24	27	17	17	21	25	18	25	21	26	24	28	27

Whole Class Achievement
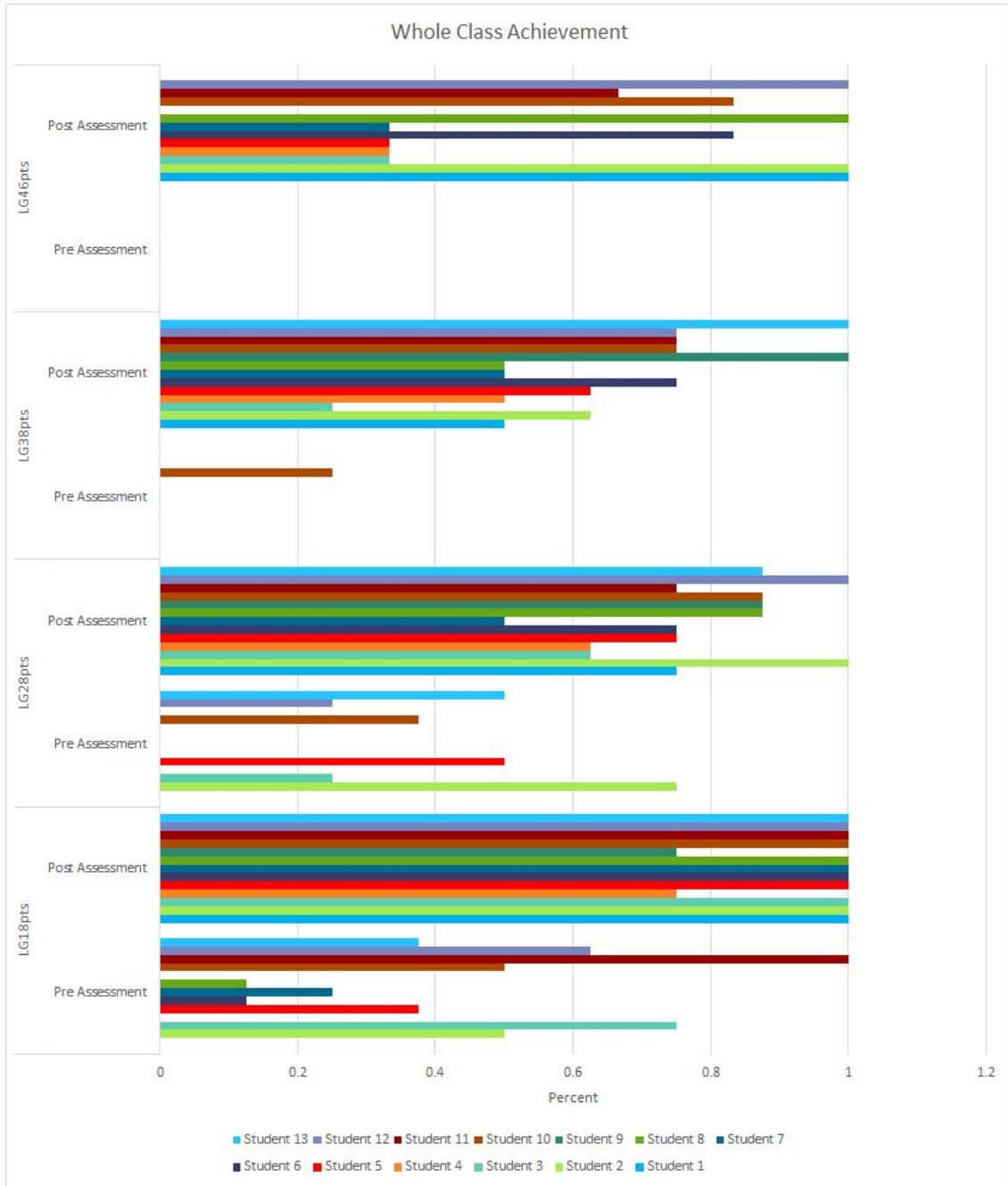
In the first learning goal, the students achieved this goal with the majority of the students

achieving 100% and the only two who didn't achieve 100% mastery, reaching 75% mastery. In

the pre assessment only one person achieved 100% with the average percentage being

approximately 42%. This could have come from some level of guessing since the assessment

was a matching section but random guessing would not lead to the level of success shown in the post assessment.

In regards to the second learning goal, all students achieved this goal with at least 50% and the majority achieved mastery of at least 75%. In comparison to the pre assessment where there was only one student who achieved above 50% on this learning goal, this is a large improvement.

When it came to the third learning goal, some students struggled to achieve it. One student achieved 25%, four achieved 50%, one achieved 62.5%, four achieved 75%, and two achieved 100%. This goal had one of the widest spreads of achievement with just over half achieving over 50%. Despite some student struggle, this is a vast improvement from the pre assessment where only one student achieved 25% while the most left the section blank on the pre assessment.

Finally, with the fourth learning goal, students were spread on their level of achievement; five students achieved a 33% or below, four achieved a 100% and the remaining four students were between 66% and 83%. The majority of the students were somewhat successful in achieving the goal but there were still those who really struggled. Compared to the pre assessment date, this was still a vast improvement since many students left that section blank as with the last learning goal.

Subgroups:

I broke the class into two sub groups based on the results of the pre assessment. One group of 4 students scored above 25% on the pre assessment and the remaining 7 who took the pre assessment scored below 25%. There were two students who were absent the day of the pre

assessment so they will not be included in this analysis. I chose to examine these two subgroups to see if the distribution would stay the same or if those who scored lower on the pre assessment would make larger improvements and pass those who initially scored higher. Group 1, the students who scored above 25%, included students 2, 3, 10, and 11. Group 2, the students who scored below 25%, included students 5, 6, 7, 8, 9, 12, and 13.
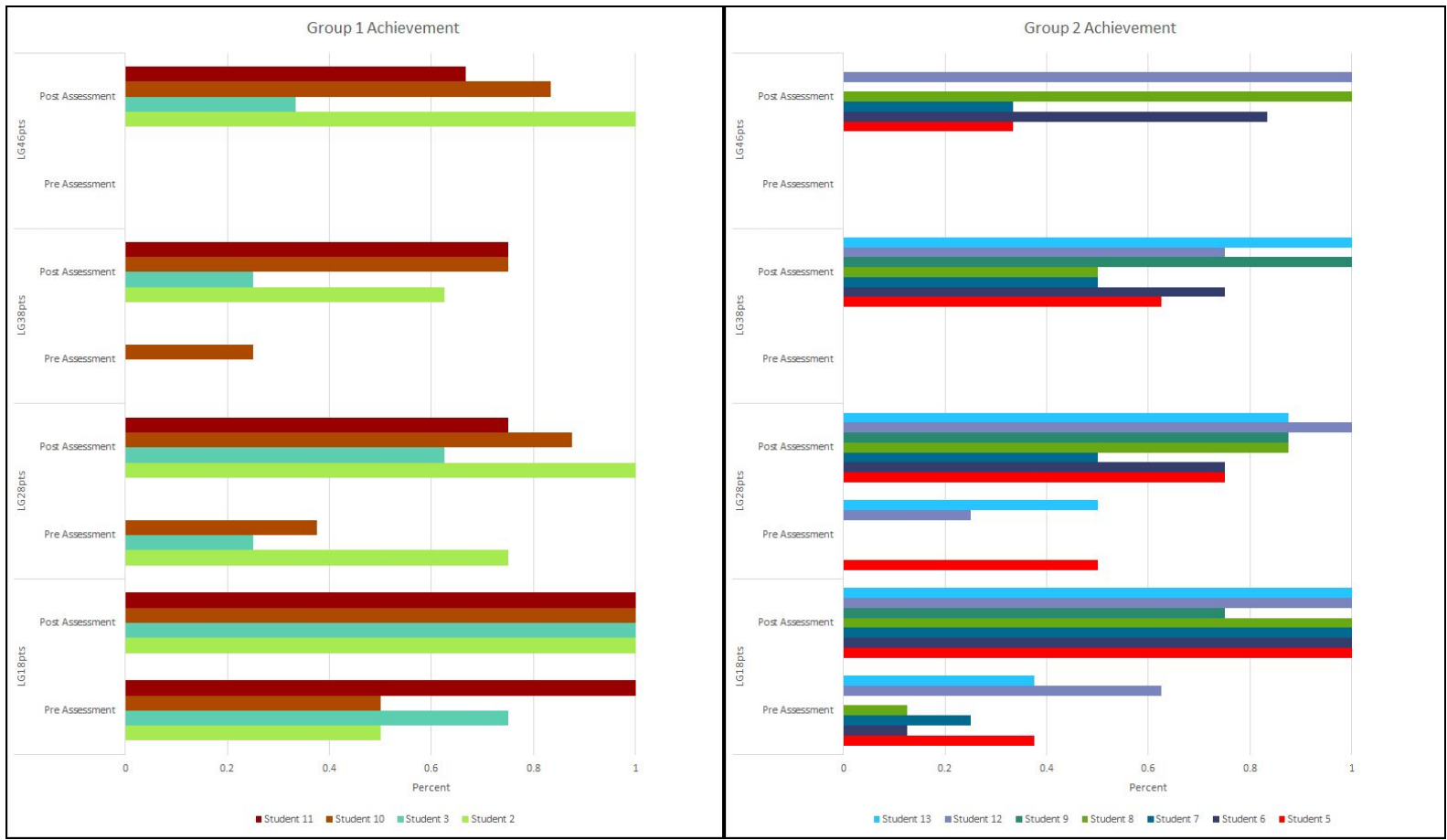
When looking at the two groups side by side we notice some trends, especially in learning goals 1 and 2. In learning goal 1 the student in both groups worked and got to the same level of achievement on the post assessment. In learning goal two there is a similar trend where many of the students in group 2 achieved the goal as well as those in group 1. In learning goals 3

and 4, both groups had low scores in the pre assessment but in the post assessment, group 2 had both the higher and lower end of the class achievement.

Individuals:

Looking at two individual students we can see how factors can contribute to student learning. The first student is student to look at is student 7. He is a junior who gets extremely down on himself in regards to his mathematical abilities. He also has several friends in the class that distract each other which can contribute to his struggles as well. Another student 12, the only freshman in the class. This class is mostly juniors so being the younger one in the class could lend itself to being uncomfortable. Also, since he is a freshman in a higher class tends to mean that the student is more advanced academically. He generally does well in the class which carried into this unit. Below is the pre and post assessment data for both students. Both struggled along with most of the class they are still student 12 scored higher than student 12.

Student	LG1 (8pts)		LG2 (8pts)		LG3 (8pts)		LG4 (6pts)		Total (30pts)	
	Pre Assessment	Post Assessment	Pre Assessment	Post Assessment	Pre Assessment	Post Assessment	Pre Assessment	Post Assessment	Pre Assessment	Post Assessment
7	2	8	0	4	0	4	0	2	2	18
12	5	8	2	8	0	6	0	6	7	28

Throughout the unit there were many opportunities for practice on topics covered. They were graded for completion and then discussed in class. Student 7 would often turn in assignments incomplete and student 12 would nearly always finish them. Another thing to note is that when working on assignments, student 7 would guess, lean on classmates for answers, and ask more general questions while student 12 would also work with classmates but in a more balanced collaboration and asked more specific questions. These differences between them in both the data and my observation lead to the difference in their achievement.

<u>Reflection and Self-Evaluation</u>

The learning goal that I felt was the most successful was learning goal 1: Students will be able to define and identify a circle, radius, chord, diameter, secant, tangent, major arc, minor arc, central angle, semicircle, congruent circles, congruent arcs. One reason for this is that since this learning goal was covered in the beginning of the unit, the students had the most time with this learning goal. Also, the students had to define and be able to identify all the learning goal throughout the unit so they regularly practiced. Another reason that this may be is due to the nature of the nature of the assessment. It was a matching section which can lend to some guessing from students. This can make up for if a student knows most of the definitions and may be stuck on one or two, they can guess and get lucky.

The least successful learning goal was learning goal 3: students will be able to use the relationship between angles, in or outside a circle, and arc length. One reason that this could be is the amount of similar information, it can be hard to keep it straight. Another reason students could have struggled with this learning goal is because of the algebra involved in solving these problems. Students needed to set up an equation to solve for the missing piece of information and for those who struggled with algebra this could be a challenge. One thing that I could have done differently is offer students more chances to practice and examples with clear steps and thought process to help them remember the method. Another related thing that I would have done is offer some sort of flow chart on how to solve these types of problems. I feel that this would have helped students who struggled with keeping all of the theorems and processes straight.

27

In regards to the adaptations mentioned in my assessment plan, they were somewhat successful. For learning goal 1, I layed out my expectations and the students followed instructions so I never had to stop the activity and drastically change it. Other adaptations regarding breaking down problems in learning goals 2, 3, and 4, aided in some students learning. For students who paid attention and asked questions this was very beneficial but if students did not pay attention after prompting from me then they did not gain much.

In regards to my own professional development goals, there are several things I want to work on. One goal that I want to work towards is improving student motivation. During the course of the unit, there were several instances where I had trouble getting students motivated to do their work. I would like to learn more strategies for motivating high school students in regards to math. I want to research and attend professional development on the subject. Another goal of mine is to develop my management skills. During the course of the unit there were a couple of times I struggled to maintain control of the class. I know the theory but I can have trouble with the practical applications. To work one this I feel I need more practice along with more research into management strategies specifically for the high school classroom.