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Teacher Work Sample: Telling Time

Courtney R. Hallam
crhallam@coastal.edu

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By

Courtney Hallam

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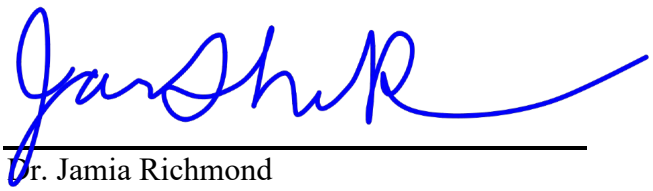


Louis E. Keiner
Director of Honors
HTC Honors College

Dr. Jamia Richmond
Coordinator of Special Education
Special Education
Spadoni College of Education and Social Sciences

Contextual Factors

Introduction

I completed my student teaching internship at Carolina Forest Elementary School (CFE). I was in a fifth-grade core replacement classroom. However, I also taught a small group of fourth-grade students in the morning. They performed at the lowest level and required the most assistance, so my cooperating teacher (CT) taught them to assist their teacher. I taught math, math RIT, ELA, and ELA RIT. It was important to understand contextual factors to plan and effectively differentiate instruction. Some students in the classes were in general education math and ELA, so their RIT activities were geared towards topics they were learning. This allowed instruction to meet the needs of every learner at their level, so work did not seem too easy or too difficult.

General School Information

CFE was in the Horry County 01 school district. The school's students lived in the Carolina Forest area of Myrtle Beach, South Carolina. Prior to COVID-19 changing the lunch cost, 44% of students received free or reduced lunch. According to the attendance log from Coastal Carolina University, 35% received free lunch and 9% received reduced lunch. However, students all received free lunch every day during my internship. There were 1,148 students at CFE. 3% of the students were Asian or Pacific Islander, 13% were Hispanic, 11% were African American, 66% were White, and 7% were of two or more races. No students identified as being American Indian or Alaska Native.

The school was in the suburban area of a large city. Residential roads and buildings surrounded the school. CFE was just off the main highway and saw a large amount of traffic pass by at all times of the day. Despite its location, the school was very quiet and served a wide

variety of students. CFE resources included personnel, community, athletics, tutoring, academics, and materials. Students did not receive homework, but tutoring was available to them all after school on certain days of the week. The school had many professionals that circulated the building and aided both students and teachers. Also, CFE had an afterschool program, Cub Camp, that many students attended for an extra fee. CFE had a lot of support from the community with parents and families that attended events and made donations to the school. Also, CFE teachers participated in events outside of school together, which increased support for the school.

Community support allowed teachers to plan events in which members of the community could come into the classroom to speak to students. This could be done through events exploring careers, learning about the town's history, or even units focused on specific subjects that an expert could explain. During my internship, CFE had gotten field trips approved again (after COVID) and had the gifted and talented classes go into the community for an event. Each grade took a field trip at some point before the end of the year to explore the community and learn more about the place they call home.

The resources available to students and community support for education heavily influenced my planning for the unit. The resources available, especially the no-homework policy, allowed for me to plan lessons that could fit in a one-hour timeframe. Also, I knew that the community supported the students in the classroom, which encouraged me to create lessons that were meaningful and engaging. With so many people supporting them, it is important that students learned and tried their best on assignments.

Classroom Information

There was a kidney table in the back corner of the room for small group rotations and there was a teacher table in the front of the room for the teacher to use while providing instruction. There was a teacher's desk across from the classroom door and a desk at the other back corner for the paraprofessional to use during class. Cubbies lined the back wall, and a SMART Board was on the front wall, with a whiteboard on each side. There were 17 student desks that were all only filled during math RIT. There were posters to help students with their work and two bulletin boards that displayed student work in the back of the classroom. There was a table to the side of the room with supplies for students to use and a shelving unit with their supplies. In front of the door was a shelving unit that holds student workbooks and teacher manuals. The classroom had two filing cabinets that hold the teacher's supplies, and one displayed the student's point totals for Class Dojo. Also, spelling words were on the wall so that students could look them over during class before their spelling tests. Every student had their own iPad for school, so they were supposed to bring headphones with them for class. If they forget headphones, pencils, or erasers, they had to trade their iPad or something of importance to them. There were two laptops available for students who forgot their iPads in their homeroom class. Students also had access to mini whiteboards and markers to help them solve problems during math.

The student's parents were very involved in their education, for the most part. My cooperating teacher received emails, texts, and phone calls from parents regarding their students. There was a frequent collaboration with parents before, during, and after IEP meetings to ensure their student was successful. During regular math and ELA instruction, there were no groups used in class. However, to be placed in the class, students were split into groups based on test scores. During math and ELA RIT, students were grouped by level. High-flying students in

general education were grouped, low-flying students in general education and high-flying students in core replacement were grouped, and the low-flying students in core replacement were grouped.

Very few students exhibited challenging behaviors that impacted instruction, occasionally. One had a chart to keep him on task and focused and two students had behavior charts. They generally did very well and either completed all tasks or earned all 2s (the highest possible score). One student in the class had a paraprofessional that attended all his classes with him. She also prepared warm-up activities for the entire class, printed, and scored progress monitoring probes, and graded students' independent classwork. She was very helpful and worked to keep the students motivated.

Available technology allowed me to use interactive elements for lessons. I could provide students with activities that differ from working on their books or reviewing scripted material. I could turn the scripted lessons into more creative and fun activities. Classroom supports allowed RIT lessons to be broken into rotations. Three groups worked with an adult and one group used technology. Technology and classroom support allowed the teaching and learning process to be simplified. Also, it made it fun and engaging. Parents were heavily involved, which impacted student learning and instructional planning. Students needed to be exposed to new material that is appropriate for their level, without seeming too easy or difficult.

Parents asked about curriculum often and their student's progress, which required lessons to be more effective. The main benefit of parental involvement would be accountability for teachers and students to create and participate in engaging lessons. A challenge would be that some parents were too involved, so they constantly bombarded teachers with questions and critiques. Some teachers ignored the parents and others were unable to ignore them.

The planning for integrating available technology and resources was made simple by the scripted curriculum used in the classroom. The books came with an online portion that contains SMART Board displays for use. The book even told the teacher when to display each element. Also, at the end of each lesson, students used one of the math software programs they have on their iPads. This allowed them to fill their free time with educational games and activities.

Existing grouping patterns were accommodated to meet the needs of all students and allowed for student collaboration. The fourth-grade class was based on individuals' levels to create two small groups. This allowed students to work independently or together aloud. In fifth grade, students were in the classes based on their test scores and level. Students used an increasingly difficult curriculum until they mastered the skills and could then successfully complete grade-level assignments. Students worked on assignments on their own for grades and occasionally in groups for RIT activities. They worked independently so that all students were accountable for their own work and did not have just one student doing all the work.

Student Characteristics and Implications for Instructional Planning and Assessment

Students were all between the ages of 10 and 12. Five students were in fourth grade and 23 students were in fifth grade. The classes had no students that had been retained. All work was appropriate for their level, which happened to be behind their fifth and fourth-grade levels. Lessons were scripted, but in hopes to make it more interesting, students were timed on various parts to increase the amount of work completed by slower-paced students. The tasks completed by students were developmentally appropriate as when it began to be too easy, students were placed into their own groups, received higher level probes to alter the IEP, or were dismissed from special education altogether.

There were nine females and 19 males in the classes. Regardless of gender, they all seemed to have similar interests. The fourth graders all loved Minecraft and played it during their free time. Students knew that when they focused and got their work done, not just rushed, they earned free time to play Minecraft. Some of the girls in the class liked puppies and one of the boys loved puppies, so they completed activities focused on puppies. Student interests were further considered when Edpuzzles were chosen to increase student engagement. Students enjoyed watching humorous videos, so they are often implemented in lessons. This allowed them to easily answer the following comprehension questions.

Of the 28 students, 16 were white, 5 were Hispanic, 6 were African American, and 1 was 2 or more races (Hispanic and African American). Therefore, it was important to have culturally relevant instruction since the population was so diverse. This was often incorporated into RIT time, which allowed more flexibility with lesson planning. Core replacement math and ELA was more rigid and scripted, which made adding in certain elements a bit difficult. RIT activities were based on a combination of general education and core replacement curriculum. Therefore, activities could tie in different cultures and honor the backgrounds of more students in the class. RIT ELA could use reading passages based on different countries to explore new cultures. From this they learned about a new culture and a new ELA concept, such as compound sentences, at the same time. RIT math could even use culturally diverse activities. Students could complete math problems to solve riddles or color pictures that pertain to specific cultural art, holidays, or even clothing.

Of all the students, five were considered English Language Learners. Their families spoke either Spanish or Portuguese at home. These students' levels of language proficiency impacted the teaching-learning process. They had a difficult time hearing information with no

visuals. When I taught these students, it was important to write problems down or point to the numbers in their books during math. Planning for the various levels of English proficiency that may be present in the classroom was made easy by providing visual aids and allowing the use of translation software, when necessary.

All the students in the classes had an IEP. The services provided and for which classes differed. The identified needs of the Special Needs students were addressed during instruction. Lesson plans reflected their needs as the curriculum was at their level, which prevented it from being too difficult or too easy. The students with Other Health Impairments had their needs met as they could do their independent work anywhere in the classroom and with a partner. Students with Specific Learning Disabilities could do work on their iPads, class laptops, on paper with a pencil, or on a whiteboard. This allowed them to see the work in a variety of formats and use whichever format worked best for them. The one student with Autism was allowed to work at his own pace. Also, he used a timer to stay on track since he worked slower than his peers.

The students in the classroom were all between third and fifth-grade levels for probes. However, their scripted curriculum was at the second grade and Kindergarten levels. Planning for ELA and Math was simpler since it was scripted, and the format was consistent between lessons. For RIT Math and ELA, students were at a variety of levels, and some needed more challenging work. For the RIT rotations, students were grouped based on individual needs. This allowed students to get the assistance they needed and build upon skills from general education, as well as preview the general education curriculum.

Students' varied interests made lesson planning a bit more difficult. Just because one student liked something did not mean that all of them liked it too, so warm-up activities were generally created to engage all students individually. Students' interests would be incorporated

into the teaching-learning process to easily make real-world connections. In ELA, while learning about compound sentences students created their own sentences based on their interests and combined them with a conjunction. In math, students counted coins and used them to make purchases for items that they enjoy. Also, students earned points on Class Dojo for positive behaviors and traded them in for prizes that they enjoyed. These strategies kept students engaged and behaved.

Lesson plans accommodated students' learning preferences as they required students to perform a variety of actions. Some activities required students to use paper and pencils, whiteboards, or iPads. This allowed every student to complete an activity in a format that they enjoyed. Based on learning style inventories that I administered, most students were visual learners and only a few were kinesthetic learners. Therefore, lessons always had a visual and auditory component. Occasionally, lessons used a hands-on activity.

Learning Goals and Pre/Post Assessment

Learning Goal 1

This unit was driven by three main learning goals (LGs). The first learning goal read: "Given ten blank clock faces, students will choose where the hour and minute hands need to be to display the times shown in 8 of 10 opportunities by the end of the unit." This goal is at Bloom's create level for cognitive objectives. Students are being asked to construct clocks showing times to the nearest hour and half hour. This LG corresponds to South Carolina College- and Career-Ready: "Standard 1.MDA.3. Use analog and digital clocks to tell and record time to the hour and half hour" (SCCCR, 2015). The goal was appropriate for students as it focused on content that they will be exposed to before the end of this school year. They all knew what clocks were and have seen them every day in their classrooms. However, they could not read

analog clocks, only the digital clocks on their iPads. This goal focused on a simpler aspect of telling any time, it only required them to tell hours and half-hours. Each student in the group could tell time using a clock, so this lesson provided them with the basic skills to tell a few times. Students would master this goal by earning 16 of 20 points. This just meant that if they drew both arrows correctly on 8 of 10 clocks, they will have mastered the goal. Each test element related to LG1 is shown in Figure 1. The assessment items are described, accommodations are listed, and each item's value, Bloom's level, type, and mastery level are shown.

Figure 1. LG1 Assessment Item Details and Accommodations

Learning Goal	**Description of Assessment Items** There is ten performance tasks for students. They need to draw the hands on the clock to show the time provided to them above each clock.					**Accommodations/Adaptations**
Pre/Post Assessment	Item #	Type	Bloom's	Points	Mastery Level	Students will have the times read aloud to them, one by one. They will also work in a small group setting with their teacher.
	1	Performance Task	Create	2	2 of 2 points	
	2	Performance Task	Create	2	2 of 2 points	
	3	Performance Task	Create	2	2 of 2 points	
	4	Performance Task	Create	2	2 of 2 points	
	5	Performance Task	Create	2	2 of 2 points	
	6	Performance Task	Create	2	2 of 2 points	
	7	Performance Task	Create	2	1 of 2 points	
	8	Performance Task	Create	2	1 of 2 points	
	9	Performance Task	Create	2	1 of 2 points	
	10	Performance Task	Create	2	1 of 2 points	

Learning Goal 2

The second learning goal read: "Given six vocabulary words and six definitions, students will match the words with their definitions in 5 of 6 opportunities by the end of the unit." This goal was at Bloom's evaluation level for cognitive objectives. Students were asked to select the

appropriate definition for each listed term. LG2 corresponded to an English Language Arts Standard. South Carolina College- and Career-Ready: "Standard K.RL.10. Apply a range of strategies to determine and deepen the meaning of known, unknown, and multiple-meaning words, phrases, and jargon; acquire and use general academic and domain-specific vocabulary" (SCCCR Reading, 2015). This goal was appropriate as it could be mastered by all students because it was for the grade level in which they performed in ELA. They had almost completed Book A for mathematics, or the kindergarten book. They were then going to move to Book B before the end of the school year, which taught them time more thoroughly. This goal would help students master part of a necessary skill prior to middle school. Students would master this goal by accurately matching 5 of 6 terms with the appropriate definition. This just meant that if they could write the letter of the definition on the line next to the corresponding word for at least 5 words, then they would have successfully mastered LG2. Like LG1, each test element related to LG2 is shown in Figure 2. The assessment items are described, accommodations are listed, and each item's value, Bloom's level, type, and mastery level are shown.

Figure 2. LG2 Assessment Item Details and Accommodations

Learning Goal	**Description of Assessment Items** Students will complete six selected-response problems. They need to match each term with the appropriate definition.					**Accommodations/Adaptations**
Pre/Post Assessment	Item #	Type	Bloom's/ DOK	Points	Mastery Level	Students will have the test read aloud to them and will have definitions explained more thoroughly. They will be sitting at a kidney table and working in a small group setting. This will allow them to have assistance from their teacher with oral administration.
	1	Selected Response	Evaluate	1	1 of 1 point	
	2	Selected Response	Evaluate	1	1 of 1 point	
	3	Selected Response	Evaluate	1	1 of 1 point	
	4	Selected Response	Evaluate	1	1 of 1 point	
	5	Selected Response	Evaluate	1	1 of 1 point	
	6	Selected Response	Evaluate	1	0 of 1 point	

Learning Goal 3

The third learning goal read: "Given five clocks showing time to the hour or half-hour, students will identify the time in 4 of 5 opportunities by the end of the unit." This goal was at Bloom's analysis level for cognitive objectives. Students needed to view a clock and determine what time was shown. LG3 corresponded to Common Core State: "Standard 1.MD.B.3. Tell and write time in hours and half-hours using analog and digital clocks" (CCSS Math, 2010). The goal was appropriate for students as it was attainable at their level. They used iPads for everything in school and always had a digital clock available. However, when they were required to put their iPads away, they had to rely on the analog clocks in their teacher's classrooms. This lesson was going to help them be able to tell the time at each new hour and half-hour to let them know when they needed to transition to the next subject. Students mastered this goal by identifying the time for 4 of 5 clocks accurately by the end of the unit. If they could accurately identify one part of the time (either the hour or minutes), then they would have successfully mastered this topic. They just need to earn 8 of 10 points. Following LG1 and LG2's lead, each test element related to LG3 is shown in Figure 3. The assessment items are described, accommodations are listed, and each item's value, Bloom's level, type, and mastery level are shown.

Figure 3. LG3 Assessment Item Details and Accommodations

Learning Goal	**Description of Assessment Items** There is five performance tasks for students to complete. They need to look at where each hand points on the clock and determine which time is shown.					**Accommodations/Adaptations**
Pre/Post Assessment	Item #	Type	Bloom's	Points	Mastery Level	Students will be told each hand is a different color and it will be briefly reviewed that the big hand points to minutes and the little hand points to hours. Students will work in a small group setting to limit distractions from their peers.
	1	Performance Task	Analyze	2	2 of 2 points	
	2	Performance Task	Analyze	2	2 of 2 points	
	3	Performance Task	Analyze	2	2 of 2 points	
	4	Performance Task	Analyze	2	1 of 2 points	
	5	Performance Task	Analyze	2	1 of 2 points	

Figure 4 shows the pre-assessment and Figure 5 shows the post-assessment. Each assessment shown was the answer key. Students had each section's directions read aloud. When appropriate, students could ask questions and receive answers for clarification. Section 2 was read aloud for students to provide each a fair chance at successfully matching the words.

Figure 4. Telling Time Unit Pre-Assessment

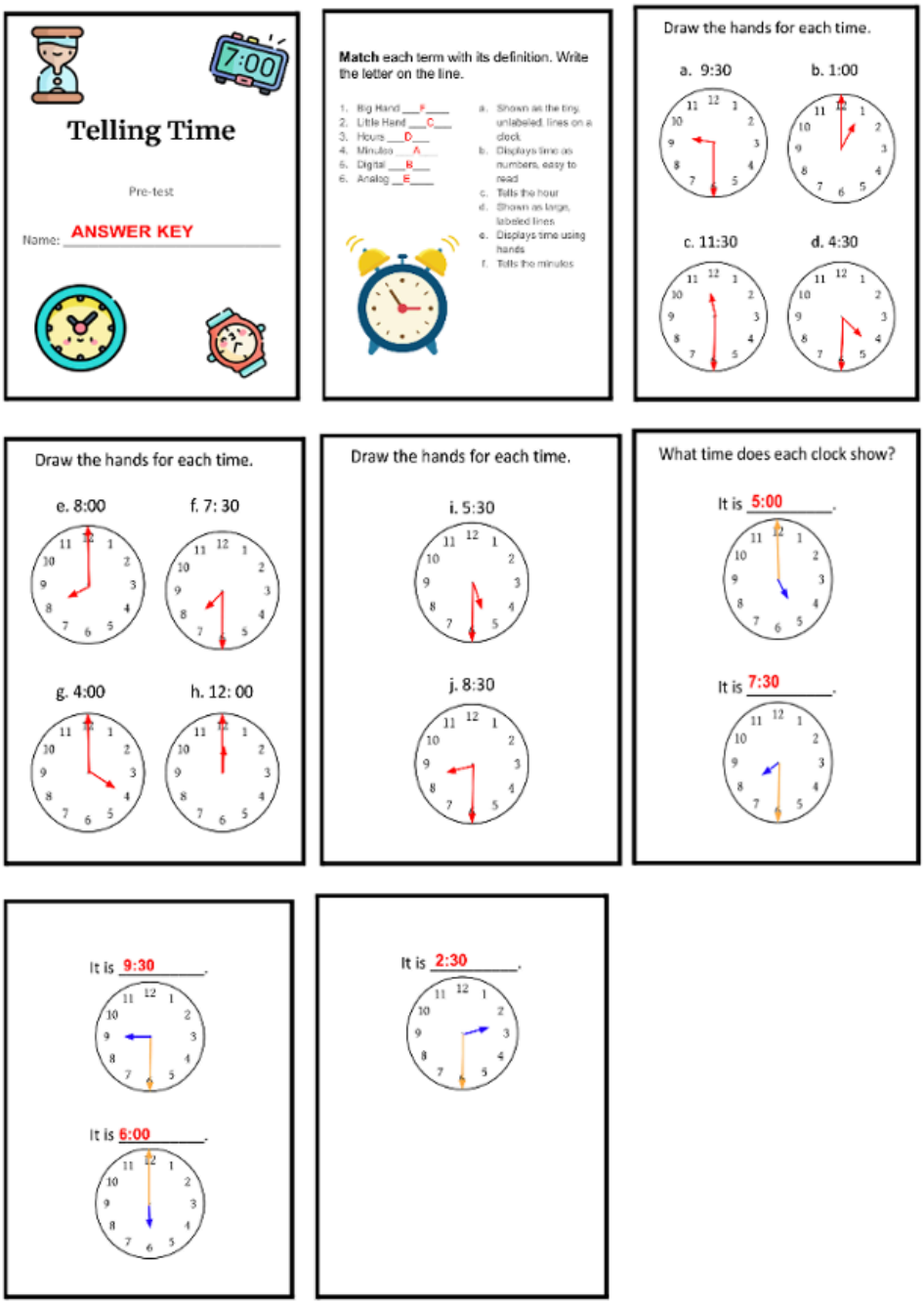
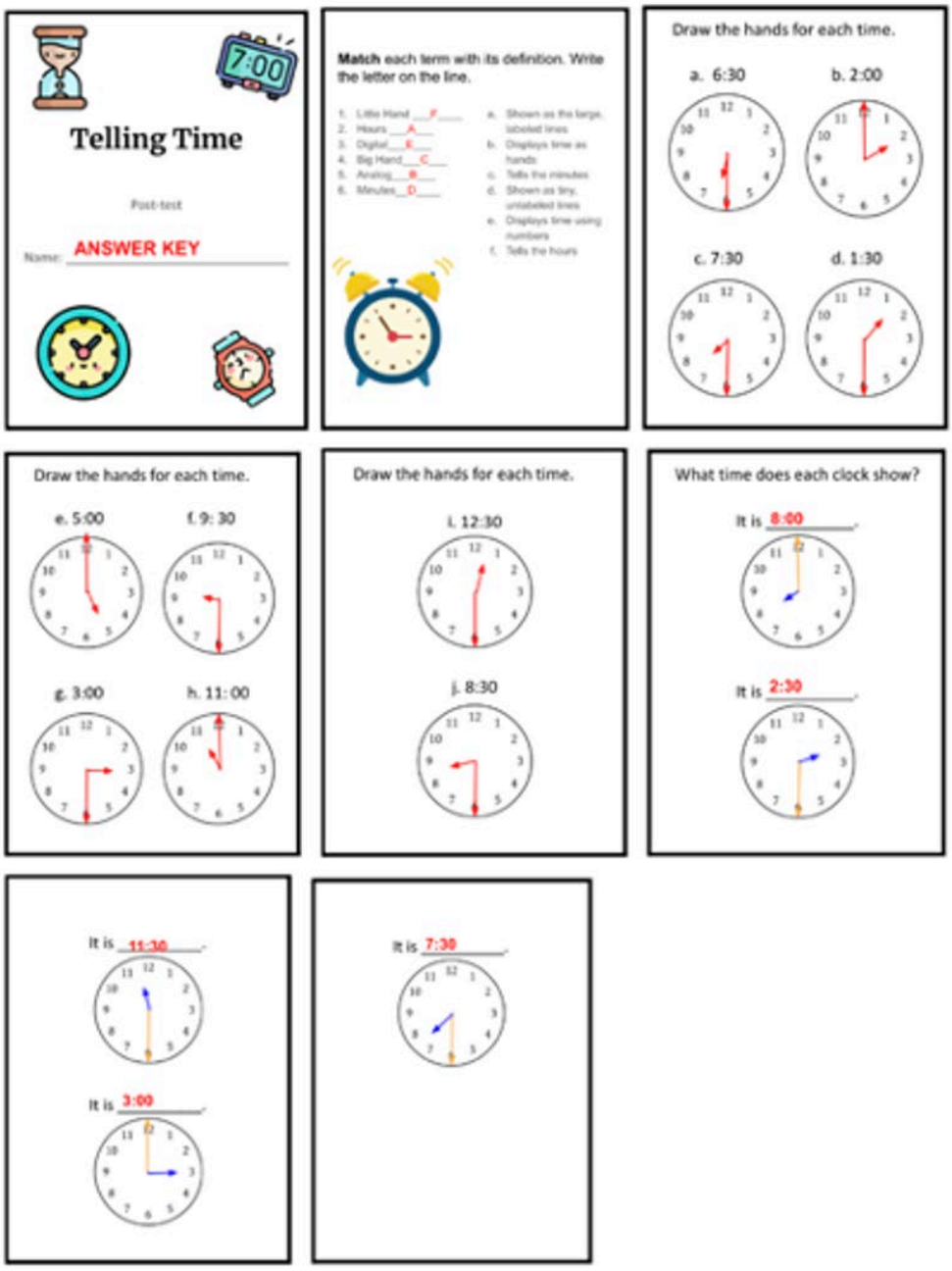


Figure 5. Telling Time Unit Post-Assessment



Design for Instruction

LG1 Pre-Assessment Results and Implications

None of the students mastered learning goal 1 on the pre-assessment. However, this was largely due to them having no prior experience with the material. Students lacked prior

knowledge on the topic of telling time. This impacted the lesson as all information being taught was brand new. They told time using digital clocks since they used their iPads in school for everything. However, telling time with the analog clocks on the wall had been proven difficult for them when their iPads were not being used in class. The lessons in the unit needed to break down telling time into simpler parts. For example, students needed to learn to read clocks by isolating minutes and hours into separate pieces. Then, they combined them to read the time. Despite this challenge, I believed that learning goal 1 would be met by the end of the unit. Students would learn which hand points to which number and how each time looks. They also learned that a "__:00" time has the big hand pointing to twelve and that a "__:30" time has the big hand pointing to six. They automatically drew their big hands for each time, and they learned that the little hand points at the first number that they are given for each time.

LG2 Pre-Assessment Results and Implications

Students had not mastered learning goal 2 on the pre-assessment. Many had never heard the word *analog* before. This changed by the end of the unit. Students had not studied time before, nor had they heard time-specific vocabulary. Lessons needed to have a focus on vocabulary to correct this challenge. Students needed to hear the words and use the words together. I determined that the best way for them to learn and master the vocabulary would be to use it as often as possible. Therefore, I decided to teach lessons where vocabulary was implemented. I knew I wanted to teach with the assumption that LG2 would be mastered by the end of the unit due to a focus on vocabulary in the lessons. Students heard the vocabulary words repeated throughout the lesson. This allowed them to make connections between the word, definition, and examples. The goal was for these connections to assist students with understanding and recalling the words.

LG3 Pre-Assessment Results and Implications

Based on the pre-assessment results, no students mastered learning goal 3. They were not sure which clock hand pointed to hours and which hand pointed to the minutes. Students' inability to tell the difference between the big hand and the little hand impacted their scores on the pre-assessment. I knew this needed to be corrected with instruction and future assessments. Students practiced with LG3 by focusing on one clock hand at a time. Therefore, I believed that LG3 would be met by the end of the unit as the lessons provided them with knowledge of how times looked on an analog clock. They practiced recalling which hand told the hours and which hand told the minutes. This was broken down into two individual steps so that students could master telling what each hand shows. This allowed them to easily draw the hands on a clock when given a time to the nearest hour and minute.

Questions Missed the Most

The question type missed the most included performance tasks. These have been shown in Figure 4 as the first and third section of the pre-assessment. Students performed poorly due to a lack of exposure to the concepts. This was corrected as instruction focused on telling time and broke down complex skills into simple skills. Also, students did not use many performance tasks or matching activities in their math curriculum. These were practiced during instruction to get them used to these activities. Students may be asked to complete performance tasks in the future, so they practiced them during the unit to benefit themselves. Instruction was focused on drawing the arrows on the clock and identifying the time on a given clock. These two areas were learning goals 1 and 2, which were worth 20 and 10 points each. The belief was that more practice will lead to better scores on their post-assessments.

Content Missed the Most

On the pre-assessment, students had difficulty when drawing clock hands and identifying the time of a clock with two hands. Students struggled to draw the hands of a clock and identify the time when shown a clock with hands. Drawing the hands was corrected with activities geared towards this deficit. The instruction of this unit focused on identifying times on a clock. Students also gained exposure by drawing hands on a clock in the activities. Students practiced this skill with a drill that required them to move quickly. Another activity required students to identify the times and color code them. Students received plenty of practice with time identification and drawing hands on clocks.

Unit Template

Each lesson, or day, focused on one or two specific learning goals. To facilitate instruction and student learning, I developed learning objectives for each lesson. The objectives guided the lessons and allowed me to know when a student was on track for mastery. The lessons used instructional strategies so that they were made more engaging. Both strategies were evidenced-based practices to ensure students' success. Assessments were included for each plan related to learning goals and objectives. The mastery levels for the formative assessments were 80% like the pre- and post-assessment goals. Since each of the three students in the group receives special education services, the lessons were each differentiated to meet their needs. Figure 6 shows each day's learning goal and objective that led instruction.

Figure 6. Unit Learning Goals and Objectives

Day	Learning Goal	Learning Objective
1	LG3: Given five clocks showing time to the hour or half-hour, students will identify the time in 4 of 5 opportunities by the end of the unit.	Given a page with 11 clocks showing a time to the hour, students will be able to color each clock with the corresponding color found in the key in 9 of 11 opportunities by the end of the lesson.
2	LG3: Given five clocks showing time to the hour or half-hour, students will identify the time in 4 of 5 opportunities by the end of the unit.	Given a page with 11 clocks showing a time to the half-hour, students will be able to color each clock with the corresponding color found in the key in 9 of 11 opportunities by the end of the lesson.
3	LG2: Given six vocabulary words and six definitions, students will match the words with their definitions in 5 of 6 opportunities by the end of the unit.	Given the pieces to assemble a clock, students will be able to create their own clocks with 100% accuracy by the end of the lesson. Given 5 vocabulary word labels, students will be able to appropriately place each label in 4 of 5 opportunities by the end of the activity.
4	LG1: Given ten blank clock faces, students will choose where the hour and minute hands need to be to display the times shown in 8 of 10 opportunities by the end of the unit.	Given 15 times to either the nearest hour or half-hour, students will be able to draw the arrows on an erasable clock in 12 of 15 opportunities by the end of the lesson.
5	LG2: Given six vocabulary words and six definitions, students will match the words with their definitions in 5 of 6 opportunities by the end of the unit.	Given a set of 6 key vocabulary terms, students will complete a Frayer Model for each word in 5 of 6 opportunities by the end of the lesson.

Day One

The first activity used modeling to teach the students. The teacher used a think-aloud to focus the students on their pages and the directions of the arrows. Students were also told to look for the size of each arrow. Students then compared them and ensured that the big hand was always pointing at the 12, or *:00*. I colored in a clock and explained why the color was used on that clock. Students analyzed each clock on the page and used their creative side when coloring each clock. Also, students were told how many clocks were in each color.

The formative assessment for day one was simple. Students' pages were checked for accuracy. They needed to color at least 9 of 11 clocks correctly to have mastered the activity. None of the students mastered any element of the pre-assessment, so they had plenty of room to grow during the unit. Day one's activity was one that would be fun, but still taught them how to read clocks for times at whole hours. The times were read aloud that students needed to look for

to make the lesson more accommodating. They were told how many clocks needed to be each color.

Day Two

The second activity of the unit used modeling to teach the students. The teacher completed one clock independently. Students were told that a time with *:30* always has the big hand pointed at the 6. For this worksheet, students needed to focus on following the little hand to see what the hour was for each time. Students analyzed each clock on the page and used their creativity when coloring each clock. Also, students were told how many clocks each color were to assist them with achieving mastery. This activity was assessed like the activity done on day one. Students' coloring pages were checked for accuracy. They needed to correctly color 9 of 11 clocks to be considered a master of the skill.

The students enjoyed coloring, so this activity appealed easily. Also, at that point, they had seen what times to the hour looked like and had an easier time identifying times to the half-hour. This activity was fun for the students while teaching them an essential skill. Students had times read aloud to them and they were told how many clocks needed to be in each color. Differentiation for day two was identical to day one, as each day used similar worksheets for students.

Day Three

The activity completed on day three used the same instructional strategy as the activities from days one and two. Modeling was used for each step of the clock's instruction to ensure accurate clocks were created. As the teacher, I performed one step and students copied. They built their own clocks with construction paper. They wrote the minutes on the base clock and then taped a top clock over the base. On the top clock, they wrote the hours. They then cut

through the top layer to create flaps. Students fastened two arrows to their clocks to be used for telling the time. It was then known that the little hand pointed at the hour. When the flaps lifted, they found where the big hand faced. Also, students cut, and pasted labels related to their vocabulary words onto their clocks (all words except digital). This allowed them to see how each word directly related to a clock.

As far as assessment, students' clocks were not collected as they needed them for future activities. However, they were checked during review games to ensure that the vocabulary words were in the correct place. Based on pre-assessment results, no students mastered their vocabulary. Therefore, they could fully learn from day three's activity. They learned each word with their teacher, and they were provided time to think when they place the vocabulary label onto the clock. Students had each word read aloud along with a definition to help them understand the meaning. Many had deficits in reading, which is why I never forced them to read independently. It was an easy way to meet them where they were and ensure that they had a fair chance at mastering the goal.

Day Four

The activity completed on day four was the only one to use a different instructional strategy. Students used their whiteboards as response cards during the activity. I said a time aloud and wrote it on the board to assist those that needed to see the time. Students then drew the arrows on the dry erase clock in front of them. They turned the boards to face their teacher when finished drawing the arrows. The teacher told students if they were correct or if they needed to try again. This allowed each student to show what they knew and gave me an idea of what needed reviewed more thoroughly.

The assessment on day four was rather informal. I observed students' whiteboards to determine whether they knew how to draw the hands of the clock. Students received 15 times and needed to be able to draw at least 12 correctly. At the time of implementation of the activity, they had practiced identifying times to the nearest hour and half-hour on days one and two. Thus, they had an idea as to where each big hand needed to point to display the given time. If 12 times were drawn correctly, then students were considered to have mastered the activity.

Students enjoyed being able to draw and use the whiteboards, so the activity seemed fun to them. Also, they got to use dry erase markers, which was one of their favorite activities in school. The activity was set at a faster pace and held their attention. Students had two attempts to draw each time on their boards. This allowed them to have a chance at mastering and correct simple mistakes. Sometimes they drew the arrows quickly and they ended up being equal in size. A second chance to correct their mistakes enabled them to achieve mastery fairly.

Day Five

Like days one, two, and three, I used modeling to show students how to use a Frayer Model. I began by using an example word; for instance, I modeled how to use the Frayer Model using the word "clock." Students watched as I filled out the model and asked questions. Then, they independently completed six Frayer Models of their own using a definition bank provided to them. The definition bank used the same terminology as the post-assessment and allowed students to recall the vocabulary easily.

The formative assessment for day five involved correcting student work. Students' Frayer Models were checked for accuracy, especially the definition portion. If their models were correct for at least 5, students mastered the goal for this lesson. No students mastered this topic on their pre-assessment, so they learned all new words related to clocks. I knew that reading was a deficit

for students, so to best accommodate students' needs read each word aloud. I also provided definition banks, characteristic lists, and photos of examples and non-examples. This allowed students to choose the definitions, words, and photos that made the most sense for each word.

Instruction Strategy #1–Response Cards

Response cards were only used with LG1 and connected to just one level of Bloom's taxonomy. This was at the creation levels of Bloom's Taxonomy. The students' pre-assessment was an individually administered paper and pencil test, so the activities completed in the unit required more collaboration and student feedback. The pre-assessment revealed that students had difficulty with reading new terminology and drawing lines on a clock with so many numbers and lines. Therefore, they were given a large clock in a dry erase pocket that was used to draw the hands. They then showed the teacher. Students enjoyed sharing their ideas, drawing, and using mini whiteboards. Therefore, the activities were built around these interests. When the students were interested in the format of the activity, but maybe not the content, it was easier to convince them to participate in the lesson. Students enjoyed being able to do activities in which they were interested. Each activity involved plenty of oral administration since that seemed to help them greatly, as many read below grade level.

The use of response cards in the lesson prepared students for future classes in which this strategy may often be used. Response cards laid a foundation for students to collaborate and share their ideas, respectively (Godfrey et al., 2003). This strategy allowed all students to participate without feeling like their answers were incorrect. This then boosted their confidence and increased their class participation. This activity was easy to use as it only required a few materials. The only materials needed to implement this strategy were laptops, iPads, mini whiteboards, and dry erase markers.

The assessments were all appropriate as the activities themselves focused on standards below their grade level, but at their academic level. Students were challenged as it was slightly ahead of where they were with their academics, but they moved to the first-grade book shortly after the completion of this unit. The assessments were designed to gather data on the students and determine their progress with the material. If they did not pass the formative assessments, then the teacher knew where to adjust the material for future lessons. If they did pass the formative assessments, then the teacher analyzed their scores and the products they created to see where they may need some more practice.

Instructional Strategy #2–Modeling

Modeling was used with two goals, LG2 and LG3. This strategy was used for the evaluation and analyzing levels of Bloom's Taxonomy. Since the students' pre-assessment was a paper and pencil test, I made sure that the completed activities required more creativity and examples. The pre-assessment revealed that students had no experience with telling time. The students all agreed that they had seen analog clocks before, but they had never used them to tell the time. This meant that instruction needed many examples modeled and talked through for them to understand how to tell time. Students enjoyed completing activities after watching their teacher walk through an example. It allowed them to see how to complete the activity and what needed to be done to be successful. Each activity used oral administration due to the student's difficulty with reading. I read all directions aloud and read each time listed several times.

Modeling was an easy way to differentiate instruction to meet all learners' needs (Nelson & Marchand-Martella, 1996). In the real world, modeling is often used for working with new employees to train them properly. I knew that students would see modeling throughout their lives in the real world, which is why it was an appropriate instructional strategy to implement.

The materials needed for this strategy's implementation included teacher notes, detailed directions, and a place to write instructions to remind students that could read fluently. This activity was appropriate for students as it met them at their level. They transitioned from kindergarten standards to 1st grade standards, so these activities met their needs. Students needed to know how to evaluate items, especially clocks. When they went into the community, they did not always see digital clocks. So, being able to read an analog clock was a necessity, which is why I wanted to create lessons geared toward this skill. The assessments required students to color times to the nearest hour and half-hour. They enjoyed drawing and coloring, so this activity was viewed as fun. The activities were designed to meet the students where they were and to collect data on students. If they were struggling with one element, then I created more supplemental activities to help them learn.

Lesson Plans

Student Description

The lessons implemented in the unit were designed for three exceptional students. Two students were in fourth grade and one student was in fifth grade. At the time, students were using math workbooks based on Kindergarten Common Core State Standards (CCSS). The group of students was comprised of two males and one female. One male student had been identified as having an Other Health Impairment and the female student and other male student were identified as having mild Intellectual Disabilities. One student in the group spoke Spanish at home and received services from English to Speakers of Other Languages (ESOL) each day at school. Despite only being a group of 3, each student learned differently, but did best in a small group setting. The group of students participated often and completed work quickly. The students were very kind to one another and got along well. The most learning gains took place

when they could simultaneously hear and see examples. They also excelled when walked through guided practice problems. When lessons were repetitive and presentation modes were not altered, they got easily distracted and bored. The key to holding their attention was to change up lesson formats while the same material was reviewed.

Standards Addressed and Rationale

The unit used three standards to guide instruction. A CCSS was used along with two South Carolina College- and Career-Ready (SCCCR) Standard. To make the unit more successful, I combined two mathematics standards with one English Language Arts (ELA) standard. The focus of this lesson corresponds to CCSS first grade measurement and data: "Standard 1.MD.B.3. Tell and write time in hours and half-hours using analog and digital clocks" (CCSS Math, 2010). This was combined with SCCCR first grade measurement and data analysis: "Standard 1.MDA.3. Use analog and digital clocks to tell and record time to the hour and half-hour" (SCCCR Math, 2015). The ELA standard was used to match the vocabulary section of the assessments and lessons in the unit. This section used SCCCR Kindergarten reading literacy text: "Standard K.RL.10. Apply a range of strategies to determine and deepen the meaning of known, unknown, and multiple-meaning words, phrases, and jargon; acquire and use general academic and domain-specific vocabulary" (SCCCR Reading, 2015).

I chose the lessons in this unit because they aligned with both the Common Core State Standards and South Carolina College and Career-Ready Standards for first grade mathematics and ELA. The lessons allowed students to gain exposure to material that they had not learned about yet. The hope for these lessons was to provide them with a solid foundation to successfully learn to tell time when they reach that section of their first-grade level workbooks. I chose the short-term objectives to help students practice telling time to the nearest hour and half-hour.

Despite being in fourth and fifth grade, the students performed math functions on a Kindergarten level. I wanted this unit to follow the repetition found in their workbooks, which is why the activities used the same standards each time. The lessons were designed to repeat material found in their pre-assessments and post-assessments. The repetition would help students retain the information in their long-term memory and recall it easily using their short-term memory (Amin & Malik, 2014). The retention and recall were necessary to help them master first-grade standards, a year above their current math ability. Then, once they reach the section on time in their workbooks, they will have experience with using and reading a clock.

Objectives

The unit contained five lessons, and each lesson had an objective. Lessons 1, 2, 4, and 5 each had one objective to help the teacher know when they attained mastery. Lesson 3 had two objectives, one pertained to mathematics and one pertained to ELA. To have successfully completed each objective, students had to receive an 80% or above on their formative assessments. As shown in Table 1, the lessons had objectives that were directly tied to the activities that they completed.

Table 1. Corresponding Lessons, Standards, and Objectives

Lesson Number	Standard	Objective
1	CCSS.1.MD.B.3	Given a page with 11 clocks showing a time to the hour, students will be able to color each clock with the corresponding color found in the key in 9 of 11 opportunities by the end of the lesson.
2	CCSS.1.MD.B.3	Given a page with 11 clocks showing a time to the half-hour, students will be able to color each clock with the corresponding color found in the key in 9 of 11 opportunities by the end of the lesson.
3	1.MDA.3	Given the pieces to assemble a clock, students will be able to create their own clocks with 100% accuracy by the end of the lesson.
	K.RL.10	Given 5 vocabulary word labels, students will be able to appropriately place each label in 4 of 5 opportunities by the end of the activity.
4	1.MDA.3	Given 15 times to either the nearest hour or half-hour, students will be able to draw the arrows on an erasable clock in 12 of 15 opportunities by the end of the lesson.
5	K.RL.10	Given a set of 6 key vocabulary terms, students will complete a Frayer Model for each word in 5 of 6 opportunities by the end of the lesson.

Prior Knowledge

At the start of the unit, students did not have prior knowledge of telling time using an analog clock, or their classroom clocks. However, they did know how to tell time and read time using a digital clock. They used iPads in all their classes, which is why they had so much experience with that format for telling time. This helped them recognize the number order (*hour:minutes*) when telling time. The teacher had prior knowledge in telling time to the nearest hour and half-hour using both digital and analog clocks with ease. Also, the teacher had to have experience with modeling and using response cards.

Instructional Design

The lessons addressed the unique needs of each student by incorporating appropriate academic-level standards and short-term objectives on a specific skill necessary to progress in mathematics. The lessons used a combination of teacher examples, guided practice, and independent practice keep students engaged and focused. The lessons each used evidence-based practices (EBP) to ensure their effectiveness at teaching students a new skill. Each of the five lessons used explicit instruction with either extra modeling or response cards. The students all learned best using individual methods. One student preferred to physically touch materials used, one student liked to use a whiteboard to draw out the times, and the other student would only answer questions with the group as to not be the center of attention. Students worked in the small group for all instruction with assistance from the teacher. During independent work time, they each worked alone to complete the assigned tasks.

The content in the unit was applied to real world knowledge as the skills taught would assist students in using math in the real world. Being able to tell time on a digital clock is helpful and useful when near a computer, tablet, or phone. However, many schools and office buildings

use analog clocks. The unit was taught under the assumption that students would need to be able to tell time when in school and when at work. Thus, the unit is of great significance to assist students in the future. To engage all learners in higher order thinking and metacognitive processes, I would have students apply prior knowledge to more complex problems involving time (e.g., which number is the hour, and which is the minutes for a time). Also, students would need to create diagrams to assist them in remembering vocabulary words.

Evidence-Based Practices

The unit used three evidence-based practices (EBPs) to reach all students and ensure a successful learning process. I used explicit instruction to teach each lesson (Archer & Hughes, 2021). Explicit instruction required me, as the teacher, to show students how to complete a problem using a think-aloud. I explained what I was thinking as I completed the steps of practice problems for each lesson. The next step was to complete guided practice problems. I would complete the problems using direction from the students. They told me what needed to be done next and explained their reasoning. Then, students completed independent practice. They would complete the activities on their own without teacher guidance. If they needed assistance, they received support and were able to finish the activity.

Modeling was used to show students how to perform a task during instruction (Nelson, Johnson, & Marchand-Martella, 1996). Students would watch the teacher and then copy their actions. For example, while constructing the paper clocks, students observed how I completed the clock, and then they could construct their own independently. Modeling also helped the students build their confidence. When they could see how something was supposed to be done, they were able to think through the activities in the way they were shown. Another EBP used was response cards (Godfrey et al., 2003). Response cards were used during lesson 4. Students

were able to write their answers and show them to the teacher individually. They were all given the same time to draw on the clock and show their teacher. They were able to complete the work at their own pace and still get teacher feedback.

Materials

Each lesson used materials necessary for completing the task that students had to finish. Some materials were used in multiple lessons, and some lessons used materials specific to the task being completed. Table 2 has the materials listed and the lesson to which they correspond.

Table 2. Lessons and Material Lists

Lesson Number	Needed Materials
1	Hour Clock Sheet, Crayons, Pencils
2	Half-hour Clock Sheet, Crayons, Pencils
3	Clock Template, Pencils, Scissors, Paper Fasteners, Construction Paper, Vocabulary Word Labels, Glue, Markers
4	Clock Sheet, Dry Erase Markers, 15 Time Slips, Dry Erase Pockets
5	6 Frayer Model Sheets, Vocabulary Word List, Definition Bank, Characteristic List, Example and Non-example Pictures

Needed Supports and Adaptations

All three of the students needed similar supports and adaptations. Thus, each lesson was tailored to their needs to ensure that they each had a fair chance for success. For lessons 1 and 2, the times that students needed to find were read aloud. On each worksheet, they were told how many clocks use each color. The adaptations for lesson 3 included having a sheet of vocabulary words. The words were read aloud, and they were provided definitions that helped them place the words correctly. For lesson 4, students had two opportunities to draw arrows on the large clock. If they had an incorrect response, they were able to try again. Also, the times that were read aloud got repeated to ensure all students heard the times. Adaptations for lesson 5 included definition banks, characteristic lists, and photos of examples and non-examples.

Lesson Introductions

The introductions for all lessons were similar. Students were given brief explanations on the importance of telling time. Students were also told that they were only going to be learning about telling time to the nearest hour and half-hour. After lesson 1, students were asked which numbers we were focused on for the minutes, with the answer being 12 for :00 and 6 for :30. Students were also reminded of behavioral expectations. They were to stay off their iPads during the lesson, complete all activities, and participate in the lesson. If they successfully completed activities and followed behavioral expectations, students earned five minutes of free time on their iPads.

Lesson 1's introduction involved reminding students of what they have seen on the pre-assessment. It included questioning students to see what they remember and what they know about time. I then explained that the activity would involve identifying times to the nearest hour and coloring in each clock according to a provided key. The introduction for lesson 2 was brief as it was a worksheet that was very similar to the one used for lesson 1. I informed students that rather than identifying times to the nearest hour, they would be identifying times to the nearest half-hour. Students then needed to color each clock following a key on the page.

Lesson 3's introduction was an explanation of the task that students would be completing. I told students that they were going to be making their own clocks with vocabulary labels to help them practice with the terminology. The activities of lesson 3 were to help them learn the key vocabulary and learn number placement on a clock. Students were also told that the clocks they created could be used as a study tool.

I introduced lesson 4 by explaining that we were going to be playing a game. The students were then reminded to stay at their seats and only show their answers to the teacher, not each other. They also were told to use their dry erase markers for drawing the clock's hands, not

drawing pictures on the clock. Lesson 5 had a very brief introduction as it was the final lesson in the unit. It was explained that the activity was going to focus on vocabulary related to clocks. This was going to be an important activity as it contained concepts from a section of the post-assessment.

Teacher Procedures

The lessons of the unit all began with the use of teacher examples. I showed students how to complete each activity using example problems. For Lesson 1, I chose a time from the key and found the corresponding crayon color. I then explained what I was doing and why I was following a certain procedure. I made sure to stress the importance of following directions on this worksheet so that it would be correct in the end. Lesson 2's teacher procedures were identical to those used for lesson 1. The only difference would be that I had to explain how I knew each time was to the half-hour. Lesson 3 used plenty of modeling to ensure student clocks would turn out correctly. I showed students how to trace the clock onto two sheets of construction paper. I then modeled how to line up the circles of paper and attach them with a paper fastener. For each step I explained the reasoning for my actions. I also showed students where to draw their numbers, 1-12 for the hours.

Lesson 4's modeling was quick as the activity is something students have done before, just modified to meet the needs of the lesson. I said a time aloud and showed students how to find the hour first. I explained that drawing the hour hand is easiest to do first, since it points directly at the number. With this explanation, I reminded students that the hour hand needed to be the small hand. Once I drew my hour hand, I showed students how to find the minutes. I discussed how a time ending in *:30* would have the big hand pointed at the 6 and a time ending in *:00* would have the big hand pointed at the 12. For lesson 5, I showed students how to

complete a Frayer Model using a word that was unrelated to telling time. I also provided myself with the same supports that they had available during the lesson. I showed students how to properly use the supports and where to put them on the Frayer Model. As I placed each word, definition, and photo, I explained why I was placing it in the boxes. This allowed students to understand the purpose of a Frayer Model and how to complete their own models.

Guided Practice

All the lessons allowed students to practice the activity with guidance from their teacher. During the implementation of lesson 1, students colored their first clock while they told their teacher how to complete the worksheet. I was told which clock to start with and which crayon I needed to use for coloring. This was practiced with three total clocks on a page like the one that students were assigned. Lesson 2 had very similar guided practice methods to lesson 1. Students were a bit more comfortable with lesson 2 as they had just completed the hour worksheet the day before. Therefore, I completed only 2 clocks with the students.

The guided practice for lesson 3 occurred when students helped their teacher count to write the minutes on the clock in the appropriate spaces. Students also listened to me read one vocabulary word and its matching definition. Then, they decided where the vocabulary words belonged, and I was told where to place the labels. Lesson 4's guided practice was like the used teacher procedures. I was told by students how to draw the hands of the clock for a given time. Students had to tell me where the hands needed to point, which I needed to use, and explain their reasoning. I used guided practice to complete the characteristics list, examples box, and non-examples box. Students told me where to place the words and pictures from the bank I provided for their use. They worked together to tell me which words made the most sense in each box and then explained their reasoning.

Independent Practice and Assessment

Each lesson plan had independent practice portions in which students completed work at their seats and on their own. This work was then collected or observed as formative assessments. This information is reflected in Table 3. Students' assessment data was considered to alter introduction and procedures for lessons that followed. Students did not receive a grade in the gradebook for any of the lessons implemented in this unit.

Table 3. Independent Tasks and Corresponding Formative Assessments

Lesson Number	Independent Task	Formative Assessments
1	Students completed the hour worksheet according to the given key. They had to identify the time on each clock and color the clock with the appropriate crayon. Students had to color 11 clocks total.	Students had to turn in their worksheets to be corrected. They had to score a 9 of 11, or 82%, to have reached mastery.
2	Students completed the half-hour worksheet based on the provided key. They were tasked with identifying the time on each clock and choosing the correct colored crayon. Students had to color 11 clocks total.	Worksheets were collected at the end of the lesson for correction. Like lesson 1, students had to achieve a score of 9 of 11, or 82%, to have reached mastery.
3	Students finished gluing the labels onto their clocks. They had each word and definition read-aloud, but they chose where they thought each word fit best on the clock.	Students' clocks were not corrected. However, the label placements were checked to ensure accuracy and successful placement. Students were to correctly place all five labels, 100%, and each student got a chance to correct inaccurately placed labels.
4	Students were told and shown 15 times to the hour and half-hour. They had to draw the hands of the clock to accurately display each time. Each student used a dry erase pocket with a large blank clock to complete this activity. Students had to hold their clocks up for the teacher to see so that their understanding could be gauged each round of the game.	The teacher made notes for which students drew the hands correctly for which clocks. The symbols are reflected below. Students had to correctly draw the hands for 12 of 15 times or draw 24 of 30 hands correctly. This would provide them with a score of 80%, indicating mastery. C = Correct, both hands B = Big hand correct L = Little hand correct I = Incorrect
5	Students completed six Frayer Models, one for each vocabulary word. They were provided with a list of words, definitions, characteristics, and examples and non-examples. Students to write the word and definition for each model in the appropriate boxes. They then had to write the matching characteristics in the correct box and sort the example and non-example pictures to glue them in place. The definitions used matched those on the post-assessment to allow for easy recall.	Each of the six Frayer Models were collected from students for correction. Students had to have the correct definition, characteristics, and pictures in each box to have completed the model correctly. Students got to take the models back one time to fix simple mistakes. To have reached mastery students needed to accurately complete 5 of 6 or 83%, of the Frayer Models.

Closure

All the lessons had a closing activity, even if it was a simple check-in with students. Even though students completed formative assessments to allow me to see their progress, I wanted to ensure that they were confident with each assignment. For lesson 1, I had each student tell me how they could tell what time each clock displayed. They explained to me that the big hand pointed at the hour or that the little hand was always on the 12 to show that it was a time ending in :00. Lesson 2's closing activity was a red, yellow, and green light activity. Students had to answer a question and write the answer on a sticky note. If they found the question to be easy to answer, they place their sticky note in the green. Sticky notes went in the yellow if students were a bit confused and red if they had no idea what they did on the activity. All sticky notes ended up in the green.

I closed lesson 3 by having students complete an exit ticket on understanding. Students had to color a smiley face, frown, or a neutral face to show how they felt about the activity. Two students colored the neutral face, and one student colored the frown. These results were expected as students had never been exposed to the vocabulary prior to this unit. I also knew that lesson 5 focused only on vocabulary so they would have more experience with the words before their post-assessment. Lesson 4 was closed using an exit ticket. Students had to draw the hands on a clock when shown a time on the board. The exit ticket followed the format of the activity completed by students during independent practice for lesson 4.

The closing activity for lesson 5 involved saying or writing a sentence using a vocabulary word. One student has difficulty with writing and spelling, so he prefers speaking instead. Therefore, I allowed students to complete this closing activity either verbally or written. At the end of lesson 5 I reminded students that the unit was ending, and they would be completing a

post-assessment. I explained that the post-assessment is identical to the pre-assessment in the format and number of questions. Also, I made sure to include in my explanation that the post-assessment's questions are not the exact same as the pre-assessment's questions. Different times were used, and vocabulary terms and definitions were mixed around. The lessons' closures allowed students to show their teacher what they understood from the lesson and how they felt about the material.

Unit Analysis

Analysis Introduction

The analysis of student data was essential to inform instructional decisions. Without knowing what students understood, teachers cannot not create and implement truly effective lessons. To best determine what students, understand and what is an area of struggle, assessments are needed. In my placement classroom, assessment was necessary for monitoring student growth in the classroom. For this unit, assessment allowed the students to show what they know with a tough concept. The assessment cycle included three students who received instruction on a Kindergarten level, despite being in fourth and fifth grades. However, this assessment cycle used first-grade standards as students were almost finished with their Kindergarten workbooks. No data is missing as all three students were present for assessments and completed them in their entirety.

LG1 had a target for mastery at 16 of 20 points, or 80% correct. This meant that students needed to draw both hands of the clock in the correct place for a minimum of 8 clocks to master this portion. LG2 has a target for mastery at 5 of 6 points, or about 83% correct. This meant that students needed to accurately match five of six vocabulary words with their matching definitions to master this concept. LG3 had a target for mastery at 8 of 10 points, or 80% correct. This meant

that students needed to accurately write the hour and minutes for the time displayed on 4 of 5 clocks to master this concept. The assessment cycle, from pretest to post-test administration, was approximately 3 weeks. The three students were not expected to pass any portion of the pretest as they had never seen the material in any introductory classes. Also, Student 3 will shut down if work is too difficult or complex and Student 1 plays with toys that are brought from home. This takes all their focus away from the task at hand and prevents them from completing work.

Visual Representation of Student Performance

Whole Group

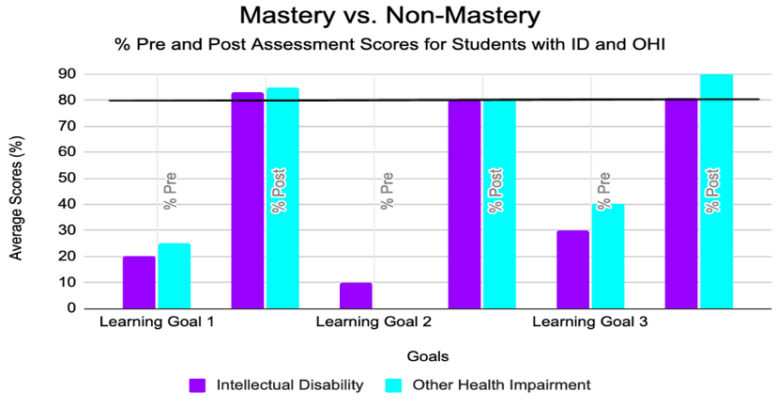
Table 4. The data presented in this table shows the average scores that students earned for each learning goal's particular section on their pre-assessments and post-assessments.

Student #	Learning Goal 1		Learning Goal 2		Learning Goal 3	
	% Pre	% Post	% Pre	% Post	% Pre	% Post
1	15	75	0	67	30	80
2	25	90	20	100	30	90
3	25	85	0	83	40	90
Class Average	22	83	7	83	33	87

Key: Red averages indicate non-mastery and Green averages indicate mastery.

Subgroup Data

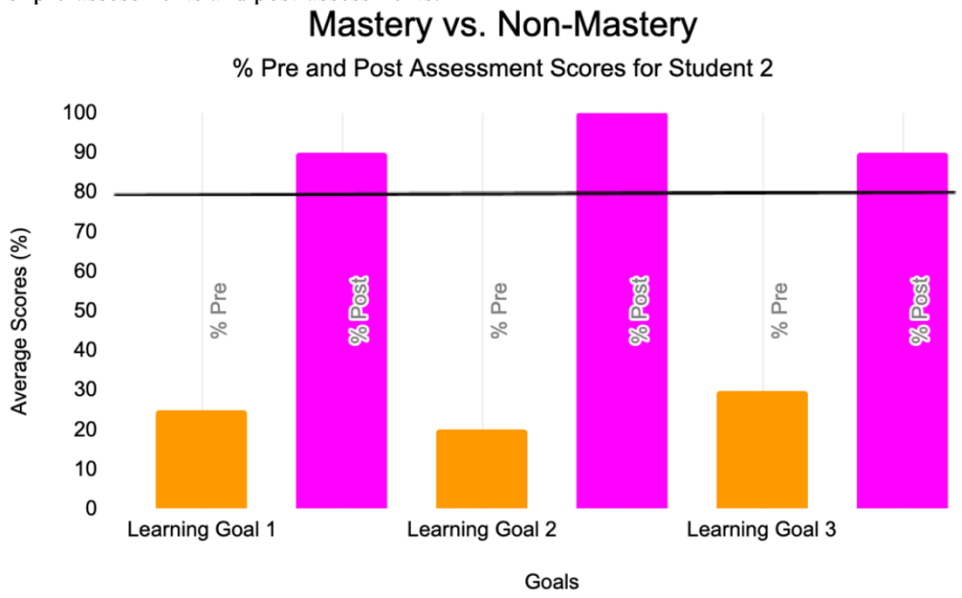
Graph 1. This chart shows the average scores earned by students in two different disability categories for each of the three learning goals.



Key: The black line represents the average score that would indicate mastery for each learning goal, 80%.

Individual Student

Graph 2. This chart shows the average scores earned by Student 2 for each of the three learning goals' pre-assessments and post-assessments.



Key: The black line represents the average score that would indicate mastery for each learning goal, 80%.

Analysis of Student Performance

On LG1, I assessed the student's ability to tell time to the nearest hour and half-hour when shown clock faces. With LG2, students' math vocabulary was being assessed and LG3 assessed students' ability to draw clock hands to display times to the nearest hour and half-hour. Table 1 shows the average scores earned by each student for each learning goal's pre-assessment and post-assessment. Green scores reflect mastery, and red scores reflect non-mastery. Graph 1 shows the average scores earned by students based on the disability category in which their diagnosis fell. There were two students with Intellectual Disabilities in the group and one student with an Other Health Impairment. The black horizontal line shows the mastery requirement, 80%. Any column of the graph that touches or passes the black line, indicates that the students mastered the learning goal. Graph 2 shows the average scores earned by one student on each learning goal's pre-assessment and post-assessment. The black horizontal line shows the mastery

requirement, 80%. Like Graph 1, any column of the graph that touches or passes the black line, indicates that the student has mastered each learning goal.

As shown in Table 1, the class average for LG1 was 22% on the pre-assessment, compared to 83% on the post-assessment. This shows me that the students collectively mastered the goal; however, when viewing individual students' scores, Student 1 did not master LG1. According to Table 1, the class average for LG2 was 7% on the pre-assessment, compared to 83% on the post-assessment. This shows me that maybe students need more practice with math vocabulary as they met mastery at the lowest possible level. Graph 2 shows that students with ID passed LG2 with 84% and the student with OHI passed LG2 with 80%. Therefore, the different graph types show data for the same goals in ways that can be viewed differently. For LG3, Table 1 shows that all three students mastered the goal. The class average was at 87% with two students (2 and 3) mastering the goal with 90%, so 10% over the minimum requirement to master the goal. Graph 3 reveals that Student 2 scored significantly higher on his post-assessments than his pre-assessments, meaning instruction for him was effective.

Graph 1 shows the students' scores when grouped by disability, ID and OHI. Students with ID scored lower than the student with OHI, but that is because there were two students with ID and only one with OHI. One of the students with ID did not always try their best and only focused on the lessons partially. The student with an OHI had higher average scores for the post-assessments than the students with ID for LG1 and LG3. On LG2, the ID group scored 84%, which was only 4% higher than the student with OHI. Other than that, Graph 2 reveals that the student with OHI made more progress than the students with ID.

Overall, students 2 and 3 mastered every learning goal. Student 1 only mastered LG3. The goals themselves were attainable and appropriate, but contextual factors impacted Student

1's ability to master LG1 and LG2. Student 1 brought toys (e.g., stuffed animals, dolls, and noise-making animals) to class every day and played YouTube videos (e.g., haunting caught on camera and cute animal compilations). This hindered Student 1's ability to truly focus and participate in the lessons, which influenced LG1 and LG2 scores. Student 2 enjoyed school and practiced extra math problems after school. This helped Student 2 to understand the material and participate in class. Also, Student 2 expressed an interest in telling time on analog clocks as they can be found in every classroom in the school. Student 3 was easily distracted by the traffic outside the window, deliveries being made to the cafeteria, and even the slightest noise from the hallway. Despite Student 3's ability to lose focus, the average scores earned all show mastery. The student overcame the distractions and succeeded with the lessons.

Table 1 shows average scores earned by each student on the pre-assessments and post-assessments for each learning goal. Looking at the raw data reveals that for LG1 students just needed to score a 16 of 20, which Students 2 and 3 were able to do on their post-assessments. According to the raw data, Student 2 scored 18 of 20 points and Student 3 scored a 17 of 20 points. Table 1 reveals that Student 1 scored a 75 %, which was below mastery. Raw data shows that Student 1 earned 15 of 20, just one point below mastery. Raw data reveals that students either just missed mastery or just made mastery. This was helpful when trying to determine which student or students I needed to spend more time working with on the lessons. LG2 raw data reveals that Student 1 scored a 4 of 6, Student 2 scored a 6 of 6, and Student 3 scored a 5 of 6. This reveals that Student 1 switched two words on the matching portion, and Student 3 repeated a word for matching. LG3 raw data reveals that Student 1 earned an 8 of 10, Student 2 earned a 9 of 10, and Student 3 earned a 9 of 10. This shows me that the students found it easier

to tell the time when shown a clock with hands. The raw data, combined with averaged data, allows for me to alter future instruction.

According to Table 1, students did the best with LG3 and the poorest with LG2. This was based on the class average scores. Graph 1 shows that the student with an OHI earned higher scores on the learning goals than the students with ID, despite the shared score for each group on LG2. This told me that maybe this activity was difficult for them and not something that we reviewed well enough. Graph 2 shows that Student 2's scores increased on each learning goal from pre-assessment to post-assessment. Therefore, the graph reveals that he succeeded in his lessons.

Students did not fully understand the vocabulary portion of the pre-assessment and post-assessment, which impacted the student's ability to complete this section successfully. The lower scores reflected in Table 1 for LG2 show that this portion was the most difficult and yielded the lowest class average. Also, based on observations, students completed the vocabulary matching by guessing. They would find the words and definitions that were very similar and narrow down their choices in this way. Then they had a 50/50 chance of matching each pair of words and definitions successfully.

Instructional Implications from Data

Based on the results and occurrences that I observed, I would alter the format of assessments. I would allow students to use more manipulatives and use the vocabulary in real-life scenarios rather than just using a paper-and-pencil test. Also, I would take more time to implement lessons related to telling time, rather than squeezing activities into brief periods after finishing a lesson from their direct instruction program. In the future, I would split the students based on their disability categories, ID and OHI, as they worked well in these groups. Student 3

with OHI works best alone and Students 2 and 3 did not distract each other or argue. They worked very well together. Graph 1 has evidence showing that Students with ID achieved scores together that are like the Student with OHI's scores alone. This would allow me to better work with the students and choose activities that appealed to each group and were aimed at their levels.

After administering the assessments and collecting the data, Table 1 shows me that I needed to spend more time with Student 1. This time needed to include plenty of explicit instruction and redirection. I needed to gain Student 1's attention often and ask that all toys are kept in the homeroom class. I would also ask that Student 1 leaves their iPad in the homeroom class, since they never properly use their technology time. Students made the most learning gains on LG2. Table 1 shows that the class average went from 7% to 80%, or the minimum score required to reach mastery. Students made the least learning gains on LG3. The class average went from 33% to 87%. This shows that students did the best on the section during the pre-assessment and continued expanding their skill set to increase their scores on the post-assessment.

Of all the learning goals, LG3 determined the best conceptual understanding of content. This goal allowed students to combine the knowledge gained from the other two goals to read a clock. LG3 asked students to read a clock and apply their knowledge to the real world. Students had to use higher-order thinking skills, rather than just remembering the times. They had to follow each clock hand to figure out the hours, minutes, and how to write the time properly.

LG2 provided the most learning gains due to the assessment mode. Students' pre-assessment had terms and definitions grouped on the page to give them a better chance of answering correctly. The post-assessment had the same terms and definitions but mixed up on

the page. Students had to have each term read aloud and each definition read aloud. LG1 asked students to draw hands on a clock and LG3 asked students to write times. Each learning goal had different activities to be completed, but students did best with matching. They liked being able to see the terms and the list of definitions. They also liked being able to cover answer choices that did not make sense for each term. Therefore, they were able to correctly respond to more answer choices, making this format for testing the most effective.

If I taught this unit again, the first change that I would make is creating more rules for instructional times, including no playing on iPads or with toys. This would have prevented many distractions and allowed students to focus more on the material being presented. A second alteration that I would make is extending the length of the instructional period. I would like to see pre-assessment and post-assessment scores after extended periods of time to see if students remember what they were taught and if they can still apply the skills.

Reinforcement and extension activities that could be used at the end of this unit include telling time to the nearest fifteen and forty-five minutes. Since students would know how to tell times like 11:00 and 6:30, I would try to expand their knowledge to tell times like 7:15 and 8:45. This would allow them to practice reading clocks and learn a new skill. used at the end of this unit include telling time to the nearest 15 and 45 minutes. Since students would know how to tell times like 11:00 and 6:30, I would try to expand their knowledge to tell times like 7:15 and 8:45. This would allow them to practice reading clocks and learn a new skill. Reinforcement for the activities of this unit would be through generalization. Students could be asked to tell the time before class changes and at the end of their classes. This would allow them to practice telling time in different environments throughout the school day. At home, students could use a time

chart online. They could take a picture of a clock at home or out in public and write what time the clock shows. This would allow them to practice telling time on clocks that all look different.

Analysis of an Individual Student

Graph 3 shows Student 2's average scores from each learning goal's pre-assessment and post-assessments. Student 2's formative assessment scores were, individually, the highest when compared to his peers. Lessons 1 and 2 had very similar formative assessment results. Student 2 was not a big fan of coloring, so he asked if he could write the times on each clock. I allowed him to write the times, but still required coloring so that I knew he truly understood how to complete the worksheets. He did eventually color the worksheets and was successful with each sheet. He mastered the goal for lessons 1 and 2. The formative assessment for lesson 3 was a correction of labels on each student's clock. Student 2 did well with this assessment and placed all his labels in the correct places. He preferred completing tasks that required logic, rather than creativity.

Therefore, it made more sense to him to label parts of a clock, rather than draw and coloron clocks. The formative assessment for lesson 4 required students to accurately draw clock hands in 12 of 15 opportunities. Student 2 did make mastery and enjoyed the game. He was able to use some think time as the activity was not timed. He does not enjoy fast-paced games or activities, so being able to take his time helped him earn a higher score. Student 2 also succeeded with the formative assessment for lesson 5. He followed along with the example Frayer Model and asked for help when necessary. He really liked school and math, so his attention was always on the material being taught. He participated often and always tried his best in his work, which is why he was successful with each assessment. Also, Student 2 did extra math at home with his father and received support from his family with his academics. This allowed him to go to

school, focus on lessons, and try his best with each assignment. Graph 2 shows that Student 2 mastered LG1 with a 90%, LG2 with a 100%, and LG3 with a 90%. This means that he scored above the minimum to achieve mastery.

Student 2 successfully attained learning goals in this unit. According to Graph 2, Student 2 mastered each of the three learning goals. Table 1 shows the specific average scores earned by the student. On LG2, Student 2 earned a 100%. This means that the student was able to match all 6 terms with their correct definition. Also, this student only missed LG1 and LG3 by 10%. Using raw data, this amounts to 1 point lost on LG3 and 2 points lost on LG1. Overall, this student was very successful.

Based on Student 2's pre-assessment results, it was evident that time was not explained before. This led to the student believing that if the big hand pointed at a number, it must mean that number is shown in the time, not the minutes. For example, a clock with a small hand pointing at 4 and a big hand pointing at 6, meant the time was *6:4*, instead of *4:30*. Another issue I found with telling time for Student 2, in both pre-assessments and formative assessments, was that they did not know how to express times with accurate minutes. Post-assessment data in Graph 2 revealed that Student 2 ended up learning the purpose of the minute hand and how to write times properly, as seen with LG1. The formative assessment results showed that Student 2 understood each lesson's content. The only section that confused him was labelling the clock he made. This misconception could have been the result of his tiredness that day. He was very distracted and had a difficult time focusing on directions. I could have corrected this by having picture directions, rather than just verbally stating what the steps where to make a clock. Student 2 could not read, so written directions would not have been at all helpful to him.

The formative assessments helped me adjust instruction for Student 2 as I was able to see what the student understood and what they needed more help with learning. On the pre-assessment, I often saw that the student would forget to write the minutes for *:30* and *:00*, and he would instead write :*6* or *:12*. We spent more time learning this aspect during each lesson, which helped Student 2 with their formative assessments. However, when Student 2 struggled with a formative assessment, I knew to spend more time focused on that area with him during the next lesson. When he performed well and mastered the formative assessment, I knew that we could briefly review the concept and did not need to practice that skill again. Following the formative assessments, Student 2 took the post-assessment. Graph 2 shows the post-assessment results for LG1. The pre-assessment and post-assessment scores went from 25% to 90%, indicating a higher passing score.

If I had the opportunity to alter the plan, I would spend more time creating and implementing activities that help students understand that the large 6 stands for the *:30* in times, and the large 12 stands for *:00* in times. This really helped Student 2, but I wish I would have spent more time doing this with all my students. Also, I would have liked to implement more exit tickets, which would allow for me to quickly see progress. These could have been done in lieu of the formative assessments that offered no real written products. Exit tickets would have enabled me to see exactly where students were getting confused and what I needed to explain more specifically.

Reflection of Teaching Practices

South Carolina Teaching Standards

Throughout my internship, my teaching practices have been guided by the ADEPT Rubric or the South Carolina Teaching Standards 4.0 (SCTS 4.0) Rubric. There are a total of

four main sections on the form, including instruction, planning, environment, and professionalism. Instruction has a total of 12 sub-categories that allowed me to assess my instructional practices, including standards and objectives, feedback, grouping, and problem-solving. Planning has three sub-categories that allowed me to assess my skills in planning effective lessons, including instructional planning, student work, and assessment. Environment has four sub-categories that allowed me to assess my ability in creating a welcoming and academic place, including expectations, environment, and respectful culture. Professionalism has four sub-categories that allowed me to assess my ability to act as a professional teacher, including growing and developing professionalism, reflecting on teaching, and school responsibility. I had the opportunity to complete the self-assessment during a formative conference, prior to the implementation of my unit. Then, I was able to complete a second self-assessment during a summative conference, after the implementation of my unit. Some scores stayed the same and others increased.

Teaching Strengths

The score that I saw clear improvement with was 7.1 Oral and Written Feedback, in the Instruction category. This has now become one of my teaching strengths. On my first SCTS 4.0 self-assessment I placed myself in the "needs improvement" range for oral and written feedback. There was a lack of written feedback being provided to students at the time. I was verbally praising students, but I was struggling with knowing when to provide written feedback. However, when completing my second SCTS 4.0 self-assessment, I placed myself in the "proficient" range. Students now complete activities on their own and give me a thumbs up to let me know that they have finished the activity. When I see their thumbs go up, I look over their assignments and quickly correct them. I circle incorrect responses and offer suggestions on

where to find the answer. When the page is correct, I write a large checkmark at the top of their pages and praise them. Some students prefer a combination of checkmarks, smiley faces, stars, and an A+. The activity is not graded, but they enjoy being able to see proof that they did well on an activity. During the unit I taught on telling time, I was able to provide plenty of oral feedback and written feedback. I was able to check students' pages/boards and check them when correct. If they were incorrect, I would circle and ask them to explain their thinking. Typically, during their explanation, they would realize why their response was incorrect. Overall, oral and written feedback is now a teaching strength of mine and something I will be implementing in my classroom.

Another score that I saw clear improvement with on the SCTS 4.0 self-assessment was on 2.3 Reinforcement, in the Instruction category. On my first self-assessment, I placed myself into the “needs improvement” category. I was only reinforcing students occasionally. It was not consistent, and I found it to decrease student motivation. On my second self-assessment, I saw a major improvement in student motivation. Students receive Class Dojo points when they are attentive and participating. When they hear points being added, their attention becomes focused on the lesson. Students also know that poor choices, behaviorally, can lead to negative points. Negative points lead to a loss of recess time, so they usually change their behavior when they lose points. I got to the point where I could use Class Dojo and effectively teach, simultaneously. During my unit implementation, students would lose points for talking to each other or playing on their iPads during instruction. Points were earned when they participated and focused on the lesson.

Areas for Improvement

Based on my SCTS 4.0 self-assessment, I still have a few areas in which I need improvement. On both my first (pre-unit) and second (post-unit) self-assessments, I scored in the "needs improvement" range for assignments, in the Planning category. This was mostly seen with the direct instruction curriculum or the scripted lessons. Lessons required students to interpret information rather than reproduce it. However, the lessons did not require students to analyze the information being taught. I feel that this is mostly due to the scripting and pacing of lessons. I feel that I attempted to have students analyze their work, but I do not feel as though I truly emphasized the importance of analysis. Students only had to interpret the information being presented. In the future, this is something I want and hope to improve upon.

A second area in which I received scores of "needs improvement" is student opportunities, in the Instruction category. I provide my students with opportunities to generate a variety of ideas and alternatives. I also provide them with opportunities to analyze problems from multiple perspectives and viewpoints. However, I feel that I only provide these opportunities sometimes, as opposed to regularly. This made me choose the score of "needs improvement." During the implementation of my telling time unit, I attempted to regularly provide student opportunities, but I do not believe that it was often enough.

Growth as an Educator

Professional Development (PD) would help with these areas of need. The best PD to assist me in growing as an effective educator would be focused on improving student learning. I also would like to learn about how to best use student examples to teach new concepts through online conferences and workshops offered by Kappa Delta Pi (KDP) International Honor Society in Education. Also, I could attend conferences for the Council for Exceptional Children (CEC) to learn strategies to best help my students receiving special education services for various

disability categories. Overall, I feel like I have been an effective educator with the information that I currently know. With experience and new PD, I will become an effective educator to best support all my students.

References

Amin, Hafeez Ullah & Malik, Aamir. (2014). Memory Retention and Recall Process. 10.1202/b17605-11.

Archer, A. L., & Hughes, C. A. (2021). Explicit instruction. Explicit Instructions. https://explicitinstruction.org/.

CCSS Math. (2010). Grade 1 Measurement & Data | Common Core State Standards Initiative. Retrieved from http://www.corestandards.org/Math/Content/1/MD/#CCSS.Math.Content.1.MD.B.3

Godfrey, S. A., Grisham-Brown, J., Schuster, J. W., & Hemmeter, M. L. (2003). The effects of three techniques on student participation with preschool children with attending problems. *Education and Treatment of Children*, *26*(3), 255-272.

Nelson, J. R., Johnson, A., & Marchand-Martella, N. (1996). Effects of direct instruction, cooperative learning, and independent learning practices on the classroom behavior of students with behavioral disorders: A comparative analysis. *Journal of Emotional and Behavioral Disorders, 4*(1), 53-62.

SCCCR Math. (2015). SCCCR Standards for Mathematics. Retrieved from https://ed.sc.gov/instruction/standards-learning/mathematics/standards/scccr-standards-for-mathematics-final-print-on-one-side/

SCCCR Reading. (2015). SCCCR Standards for English Language Arts. Retrieved from https://ed.sc.gov/sites/scdoe/assets/File/instruction/standards/ELA/SCCCRStandards%20OnePagerKindergarten%20ELA.pdf