# **Philosophy of Education**

# Reading

There are a couple steps to teaching students how to read and they include phonemic awareness, phonics, and reading fluency. I will individually talk about them to explain how I will be implementing them in my classroom, and how my students will be learning how to read inside and outside of the classroom.

I am going to start off by answering the question, "What is phonological awareness?" It is the first prerequisite for phonics instruction. It occurs naturally as children develop oral language. They become aware of words that can rhyme, words that have one or more syllables, words that are in sentences, words that can begin and end with the same sound, and words that are made up of small sounds (phonemes). I am teaching this because it influences outcomes in word recognition and comprehension, aids in spelling, helps children who have the skill to become better (faster) readers, and it aids students with learning disabilities (possibly ESL students or even all children in general).

Phonemic awareness is the student being able to assign the sound to the letter manipulation of sounds and substitution, which is basic knowledge of sounds represented by the alphabet. There are forty-four distinct sounds made by the twenty six letters. Phonemic awareness includes the alphabetic principle, which is being able to identify letters and sounds of the letters. It is the study of sounds. There is one very important question you need to ask is, "Do they have it, or do they not." We have broken up a variety of different things that apply to becoming a fluent reader. They include graphemes, phonemes, morphemes, vowel diagraphs, consonant diagraphs, blends, dipthongs, and schwa. Graphemes are letter symbols for sounds. A phoneme is the smallest unit of sound. Morphemes are small units of language. Vowel diagraphs are two vowels together and only one vowel is heard, which is also known as a vowel team (ee, ea). Consonant diagraphs are two letters that represent one speech sound (ch, sh, th). Blends are two or more letters that retain their individual sounds (bl, str, sk). Dipthong is a vowel blend, each of which is heard (ou, oi, ow). A schwa is a diminished stress or softening of any vow sound represented by "e" (the- /th/ /e/). Segmenting is when a student sounds out a word and then says the word quickly. The most important phonemic awareness skills are segmenting and blending, which contributes the most to helping students becoming good readers and spellers. The students need to know the information that Phonemic Awareness represents because it is important to make the good, fluent readers.

One way that I have seen used in the classroom, which I will use, is when the students all have a laminated notecard with options for the answer of how the word is spelled. It is missing the vowel digraph in the middle, so they have to put the magnetic clip on which vowel team fits the word (example: queen, team). There are also exceptions to the rules, and the students need to be able to understand that by recognizing the word and being able to sound it out. This helps them with recognizing blends, consonant digraphs, vowel digraphs, and dipthongs. By having them do this it helps with phonemic awareness and phonics.

Phonics needs a balanced approach, where you cannot only teach the students how to sound out every single word or just have the students read and let them figure out the words without being taught how to sound out the words. If the student already has this ability then you do not need to pound this into their heads, because phonics is a tool not a program. Phonics describes the relationship between letters/sounds/exact letter patterns/sequences that represent speech sounds. There are six types of phonics instruction and they include synthetic, analytic, embedded, spelling based, analogy based, and linguistic phonics.

One of the big things I will be focusing on is decoding with my students. This is the process of reading letters or letter patterns in a word to determine the meaning of the word. One of the reasons why I decided that this is a very important part of learning phonics is because once the student has mastered this skill then they can read with automaticity and focus on the meaning of what they are reading. I will include discussions on meaning and to help push comprehension. It is very hard for students to understand what they are learning at first. Some students just read without understanding what they are reading. They need vocabulary words that are in their books so they understand what is going on. Decoding is separating words into syllables, but that is very hard with the words are irregular. Decoding ties into phonemic awareness because of the skills that help you decode the words include blends, vowels, consonants, vowel digraphs, consonant digraphs, dipthongs, and schwas. You need to be able to recognize if it is a consonant vowel consonant (cvc) or a consonant vowel (cv). If it is a "cv" then the vowel is long, but if it is a "cvc" the vowel is short. There is also the e marker rule. This rule means that the "e" is silent at the end of the word. There are also blends, for example: bl, dr, st. The digraphs include "th", "sh", and "ph".

The students will need stories to help them decode words. I will also have practice books with words in them that practice certain vowel digraphs, consonant digraphs, blends, and dipthongs. I will also at some points have them write down in their journal some words that include those four categories to help them spell them out in the future. I do not believe that they need a lot of writing activities with learning phonics, it is more sounding out and decoding than anything else. The last thing that I will touch on that I will do when I am teaching phonics is having a morning message and words sheet in the front of the room after the morning message for the students to decode. I will ask for volunteers and they will come up, grab a marker (or

whatever is up there), and decode the word for us on the sheet. I will equally let people come up to the board going weekly with getting through everybody and repeating.

Reading fluency is reading quickly, accurately, and with expression. It combines rate and accuracy, requires automaticity, and includes reading with prosody. Automaticity is quick, accurate recognition of letters and words. To achieve automaticity you need to have correct practice. Those points are very important when it comes to reading fluency, because the students need to be able to focus their attention on understanding text. Fluent reading flows and sounds smooth. I will teach the students how to decode words, how to automatically recognize words, and how to increase speed of reading while maintaining accuracy.

How will I teach reading fluency? I will provide the students with guided oral repeated readings that include support and feedback from me or from their parents. Their parents will have a book sent home with their child so they can practice at home, as well as at school with me. I will also match reading texts and instruction to individual students to help them understand the text. If the student does not understand the text they will shut down, especially if we do not help them understand it. I also will have a systematic classroom-based instructional assessment to monitor student progress in both rate and in accuracy. They need to be assessed on those two things because it tells me their progress in becoming fluent readers, and to see what level they are on (independent, instructional, or frustration).

In my steps to providing fluency instruction I will measure each student's individual fluency. I will set fluency goals for each individual student based on their first fluency oral assessment. After I assess the student to see where they start I will get together with their parents and set a goal for their child when it comes to reading fluency. Then I will select appropriate text for fluency-building instruction, which includes leveled books for each individual person. When the students are doing their "Daily 5" I will have them assigned with partners that will consist of the best of the top half with the best of the bottom half while they are doing their "read to a partner". That will help with scaffolding. I would also like to have students in specific reading groups that have the students grouped up with their level of reading fluency. I will get together with certain groups each day and scaffold them. I will help them build their reading fluency. When they are in their groups I can model fluent reading to them. It would just be easier and more effective if they were in smaller groups while I was doing this so they can hear me better, read along easier, and follow my lead. They will be provided with repeated reading opportunities with correct feedback in their groups also. After I read, they read together, and while they are reading individually I will call certain people back to read for me during that time. That is also how I will monitor their progress other than the three oral assessments during the year. One will be at the beginning of the year for me and the parents to see their starting point, one in the middle of the year to see their progress so far at reading their reading fluency goal, and the last one will be at the end of the year to see if they reached their fluency goal.

Other ways that I will use to help teach the students fluency is choral reading and chunking. Choral reading actively involves students as they read in unison. Chunking involves reading phrases, clauses, and sentences by parsing, or dividing text into chunks for the students to read. These two practices will help the students read smoothly.

I will start off with activities by explaining an activity called "One Minute Please". This includes the students evaluating each other with their speed and accuracy. The student has a passage to read, and the other student gives him/her one minute to read. They mark down what words they say incorrectly and stop them when the minute is over. For this activity they will be

broken up into groups of three, so one person can time and one person can mark down the words that they say incorrect. Then they will write down how many words they said correctly on the fluency chart.

"High Speed Words" is another activity that I will have the students do. They will work in pairs with high frequency word cards. They will start faced down. When the partner flips the card up they will start the timer, and that student will get one minute to read as many cards as they can. The ones said correctly are put in a pile after they say them, and the ones they said incorrectly are put in a different pile. They will then count how many cards the student said correctly and record it on the fluency chart.

"Up Against the Wall" is an activity that has the students reading quickly. The students have to read the words from the word wall in the classroom. They get twenty seconds, and at the end of those twenty seconds I put a post-it-note next to the last word they read. They will then have another twenty seconds to try to read more than they did before. I will do this daily until they are set on those words on the word wall, then I will add/replace words on the word wall and have them repeat.

'Knock, Knock, Who's There?" is the activity where I will have the students list five to ten words on a small piece of chart paper and hang on the inside of the outside door. The students will line up at the door and I will read the list with the children. Then the students read the list as a group without assistance each time they leave or arrive at the door. For some individual work I can also have the students read the list individually.

"Echo Reading" will be in their fluency bags, and they will be repeated daily. I will have the students' pair up for this activity. The student reads a phrase or a sentence, then the next student reads the same material a second behind. After that the students switch roles. I will also have the students take these home and work with their parents on this activity to help build their reading fluency.

"Readers' Theater" is another activity that I will use that includes students choosing a favorite passage or poem and practices reading it aloud until they are confident that they can read it in front of their group. This can also be used with the whole class or in partners. I will do it in small groups, because it helps the students with building their confidence in reading in front of other people and it will not take as much time to do this (and the students will not lose focus).

"Tape, Check, Chart" is when the students' audio tape their own reading. This activity is an individual activity that I will collect the results of to see who needs more help than others. The student records them reading a passage, then listen to themselves reading and mark down their mistakes with a colored pencil. They then repeat the process and use a different color the second time they listen.

All of those activities will be used throughout the year to help the students with reading fluency. The small group, large group, and individual activities will help the students to work with others as well as them being able to work by themselves. The assessments and evaluations will help me monitor their progress during the year to see how they are at reaching their fluency goal. Their fluency bag with all of the activities in it will help them tremendously with reaching their fluency goals.

#### Vocabulary, Writing, Spelling, Grammar, and Comprehension

You may ask, "As a teacher, how can you make a difference in a student's life?" My answer to you would be a variety of different responses; which include helping the students reach their goals, keep the students engaged in the classroom with the lessons I teach, and to make the lessons a good balance of interactive and informational lessons to keep the students on task and wanting to learn. There are five different components that I will be touching on in this paper, which are listed above (vocabulary, writing, spelling, grammar, and comprehension). The way I will explain how to **teach not tell** these five components will be through a variety of different strategies that can be used in the classroom, and that touch on all of the multiple intelligences.

I will start discussing on how I will teach vocabulary. Vocabulary needs to be specifically used on the **important words** that the students will **need to know** to read the text you are reading, not just the words that occur most often. There also needs to only be a few vocabulary words in a lesson because this is the way you reach their long-term memory. The students will understand the words and actually use them if they are confident in using them. The only way to make the students confident in using these words is if we help them completely understand the word. To find out if the students know the vocabulary words that you have picked from the text you are reading at that time, you can have the students do a knowns and unknowns list to see what they already know. After they check off the knowns, familiar, and unknown words on that list you can see what they already know so you can go over what they do not know and what they are familiar with. That is a strategy to help you see where your students are at before reading, and after reading. You can also do a knowns and unknowns vocabulary list after the reading to see what they know after reading it in comparison to what they put before they read the story. That is to check the students for understanding so you can move on. You can use a Frayer Model for them to dissect the word into characteristics, examples, non-examples, definition, and add a visual section for them to make a visual (picture, sentence, or symbol) to help them be able to picture that word when they hear it. With the vocabulary when the students can give a visual, compare two of the words, or give me a definition. That would be a very god

review before a vocabulary test. The vocabulary visualization would be as it seems, a visual of the vocabulary given. There will be a list of the vocabulary words and you can draw a visual with either a picture, sentence, or a symbol. The vocabulary organizer can have multiple different sections including a definition, self-definition, examples, characteristics, and visual sections. It can be put into a list with different sections next to the words, or it can be put in a more creative way with a word in the middle of the sheet with little bubbles on the side for them to put the information of the different sections on the word. The word wall can start out lower leveled, and eventually go up to higher leveled words. Those words would be words that we have learned in out lessons that were in the texts that we have already read. That way they can look back at those words while writing. You could also make these words "descriptive words" to help the students build on their writing skills and build on their vocabulary to have the synonyms on the words that they already know.

Another way to teach vocabulary is to let the students pick the vocabulary words. You can let the students make an ABC vocabulary list. This is a strategy used for the students to skim the text and select their own words to learn from the chapter. After the students pick their own words they can create a chart with "know it", "sort of know it", or "don't know it at all". That will feed into the next step where they write on the same paper, "my guess on meaning" for the words they know and kind of know. Those steps do not include using a dictionary. The students need to know that it is not about being right, but that they are, "providing you with information to guide next steps in class vocabulary instruction," (Alber). This will show you what they know and do not know. By using any of those strategies I have listed and explained I can reach the long-term memory of the students' that I am teaching because I am teaching within all of the multiple intelligences.

There are three tiers that rank the vocabulary words from basic to high frequency to limited to specific fields of study. The students will need to focus the most on their two words, which are words that appear with high frequency and are crucial when using academic language. If you are in a specific field of study, for example science, you do need to make sure they know what they are dealing with (tubes, burners, acids, and bases). If they do not know those words then they will not know what is going on, but we mostly need to focus on tier 2. Another way to teach vocabulary would be in a form of six different steps (Marzano's six steps). Step one, the teacher will explain a new word beyond just reciting the definition. Step two, students restate or explain the new word in their own words (verbally or writing). Step three, ask the students to create a representation of the word (picture or a symbolic representation). Step four, the students engage in activities to deepen their knowledge of the new words (compare words or write their own analogies/metaphors). Step five, students discuss the new word (pair-share, partners). Step six, the students play review games.

I will talk about the different ways I will teach writing. When I will work on writing there will be a routine for the writing schedule. That routine schedule starts off with a mini lesson, which is about five to ten minutes. There are four kinds of mini lessons which include procedures, strategies writers use, qualities of good writing, skills, and on occasion reading and celebrating good literature could be a good mini lesson (at the right time). The procedures are the way we do things which includes rules, writing folders, using a stapler, and giving out/collecting folders. Strategies writers used include writing on one side of the paper, cross out, revise, new draft, brainstorm for titles, etc. Qualities of good writing on how to show not tell in a story, and how to begin/end stories. Skills include conventions of good written English (phonics for children learning to read, punctuation, and capitalization). The second part of the

routine includes the status of the day. This is when the students look in their folders and decide what to work on that day, and tell the teacher what they are going to work on when their names are called. The third part of the day is writing, this could go on for thirty to thirty-five minutes. During this time, I will go around, listen to their stories, repeat some parts of their story, asks the student questions about their paper, and then ask them what they are doing next with their paper. The last part of the day they will be sharing, which should last ten to fifteen minutes. The students can share and ask for suggestions or ideas from their classmates.

While the student is writing they need to make an editing checklist. This has the author's name, title of the writing, date started, and date finished on the top. Under the top part with that information it there is a section on the side that has the skills that they worked on, the selfevaluation, peer evaluation, and the teacher's comments. This is when I would write two to three things the student did well and then two to three things that they need to work on. You have to only work on specific skills, because the students cannot learn all of the skills in one day. I will work on two to three at a time so they can completely understand that skill. The students will have multiple rules laminated in the left side of their folders. The rules for writing will have seven steps on it. Rule one, save everything; rule two, date and draft (D1); rule three, cross out do not erase (use pen); rule four, wrote on one side of the paper; rule five, write on every other line (double space); rule six, spell words the best you can; and rule seven, use soft voices and work hard. I will also give them a "Reasons to Revise" laminated copy in the left side of their folders that includes ten reasons that they can go through and I can base the D1 on. The ten include to get your story in order, add details, take information out, to clarify, lengthen/shorten, show feelings/thinking, divide into chapters, write in a different way, make better sentences, or change it into another form. The students will have in the left side of their folders the steps to

make a story/writing. Step one, ideas on the back cover; step two, brainstorm for titles; step three, titles on the front cover; step four, dates/draft number on all stories that are finished and unfinished; step five, revise in some way with the symbols ^ \* or a second rough draft; step six, after a conference do you change your piece of writing in any way; show details in your story that show what you're thinking and feeling.

To evaluate each student's writing, I will never compare one student's writing to another student's. I will look for the student's abilities to find a subject, collect specific information about the subject, order of the information, presents the information clearly, and follows the customs (spelling, mechanics, and usage). Also grade them on effort, time spent, initiative, risk taking, and progress towards **individual goals**. The content, mechanics, and clarity will all be worth twenty points each. Lastly, I will begin each student with a grade of a C. If the writer has been writing and producing a reasonable volume, chooses their best piece, reworks it, and submits it to the teacher as a representative for that period then the grade goes up or down from a C.

I will use multiple different strategies for the students to write. Those include picture books, postcard activity, letters to peers/teacher/friend, and story pyramid. My favorite one is the picture book activity, because this involves the student creatively writing a story about the pictures they are seeing on each page of a picture book. This takes effort, creativity, and time. This helps the students really look into the picture to find details for them to write about. The next one that I will use is the postcard activity. This activity has the students put themselves in a character's shoes to write a letter by that specific character to somebody else in the story. They also have to use creativity to draw on the opposite side of the postcard. The third strategy I will use is the letters to peers/teacher/friend, which is when a student finishes a book they were reading and writes a letter. They can write whatever they want in the journal but they have to reference the book. There is no limit, but they can write as much as they want to. At first, they will write to me (the teacher) and I will reply. Then they can write to a classmate or a friend and their friend or classmate will reply to them. The last strategy is the story pyramid. This strategy has different steps, and is in the shape of a pyramid. Each line adds another blank. Usually the top starts with a character and then you can ask them different questions about that character in the upcoming lines. All of those writing activities will increase their writing skills and help them become excellent writers.

Spelling is one of the components that ties in with most of the other components. When you are writing you are spelling, therefore I will teach the students basic rules of spelling. The basic rules of spelling include what letter is always followed by another letter, or one letter is never followed by another letter, some letters are not used at the end of English words, to spell short vowel sounds (only one letter is needed), and when to drop the letter E, etc. The students will need to know the rules of spelling, which will be put on the left side of their writing folders with the other rules because the students will need a reminder while they are writing if they are revising. In the primary grades I will focus on word families-rimes, phonics rules, and key words. During the intermediate grades I will focus on words most often used in writing, prefixes and suffixes, and common rules. The upper grades will focus on irregular rules, content words, and reinforce words most often used. Those will be taught during the appropriate grades.

To practice spelling words there are a couple of strategies I will use in the classroom. I will use the LSCCC strategy. This strategy has five steps that includes look at the word, sound out the word, cover the word and see you can spell it out loud, spell the word on paper, and compare your spelling and the correct spelling. The other way to practice spelling includes the

connection with writing. The focuses in the specific grades with spelling will be practiced in the student's writing.

The next component is grammar. Grammar is a component that also ties into writing. This component you can assess their grammar skills during their writing. The way I will teach it is that I will focus on two grammar topics at one time. I will only focus on a couple at a time because the students will not be able to grasp all of the grammar concepts at one time. Since I am only having them work on a couple of grammar concepts at one time they will understand the concept and gain more confidence in their writing. The strategies I would tie into writing, therefore the strategy that I would like to use the most would be the picture book. The students will be able to use their grammar and writing skills to create a story based on a book full of pictures. You can focus on the steps to teach writing (mini lesson, status of the day, writing, and sharing) and add a grammar goal for their writing. After a couple times of only doing one grammar goal I will start to do two grammar goals, but make sure the students know that they still need to apply what they already have learned in the past lessons to their papers. By adding this into the writing lesson I will use the picture book a lot to assess them on their grammar, writing, and spelling. These lessons will include them using their creativity to make up their stories. This is a good way to individually work on specific grammar concepts also. The students might not all be on the same level, therefore I will individualize the grammar lessons. I would like for everybody to be on the same page when it comes to writing and grammar, but it is sometimes unrealistic. That means that I cannot add them into the whole group mini lesson, unless there is something that needs retaught. Since I cannot give them all the same grammar goal at times that means that I need to make sure each student knows what grammar concept they are working on in their writing. That would include me individually assessing them by starting

at the same point for each student. After each book I would conference with the student and add on another concept, have them keep working on the concept and clarify, or review past concepts. At that point I can progress monitor the students to see how they are individually progressing at a steady pace. Every student will work at a different pace, so this is the best way to monitor the progress. That would be the way I would progress monitor the students. If they all had a similar goal that they were not getting the concepts of then I will do a mini lesson focusing on the grammar, like I listed above.

The last component is comprehension. This component is very important for a student, because a lot of students really struggle with comprehension. Personally, I struggled so much with comprehension when I was in the early grades. This is something that I was never really taught. This is why I would really like to make the students dissect the books we read, so they understand the big ideas. By having the students dissect a picture or a sentence into their own questions that involve literal, inferential, and critical questions. Literal questions are questions that you can show factually in the picture or sentence. These questions stem out from the questions "How many?", "What color?", "What kind", "When did", and "Who did?" Inferential questions are questions that you can assume from looking at the picture or reading the sentence. You can use clues to answer inferential questions. The inferential questions stem out from the questions "How do the people feel?", "How are the people related?", "What special holiday may it be?", "What season is it?", and "What would happen if?" Critical questions are questions that connect to you, the reader or visualizer. Critical questions appeal to the feeling of the observer. These questions stem from "Give the picture a title", "How would you feel if you...?", "Tell about a time...", and "Agree or disagree, and why." To dissect these three types of questions for the students to comprehend what is going on in the picture or sentence I will do a whole group,

small group, and individual sequence. The whole group will be the "model" and will have a picture for the whole class to do together. The next step is the small group, which is when small groups will get different pictures to make questions for by discussion. Lastly, they will all individually get a picture to write questions about. The first day will be for literal questions in whole group, small group, and individual. Day two will be for inferential questions in whole group, small group, and individual.

Other strategies I will use include making predictions. Before the students read the book they will look at the title, scan the pages to read the major headings, and look at the illustrations. After they make their predictions they keep them in their folders so after they read the book they can go back and look to see if they were close. The students could also continue to make predictions after each chapter of the book, like a game. They will make predictions after every chapter using context clues to predict what will happen and when it will happen. The next strategy is list main ideas. The students will stop after reading a section and construct one or two sentences that sum up the most important ideas, then continue reading the book and add to your summary. I can have them add to their summary after every chapter. These main ideas will be given to me so I see if they are getting the right idea, or if I have to help them understand what had happened in comparison to what they wrote down. Another strategy is question generation. That is when the students look at what they have summarized, and for each main idea write down at least one question that stems from "Who?", "What?", "When?", "Where?", or "Why?"

Another strategy includes clarification. A clarifying sequence for clarification would include using the context, skip it and see if you can make sense, substitute a word you think will work, and ask somebody if you have an unknown word. If there is a sentence that is unclear to you then you can reread it carefully and see if it makes sense, if that fails, ask for help from a

friend or a teacher. The last strategy I will use is think alouds. This is when you think about your own thinking (metacognition) and share with your peers. If you think one thing is a main idea and your partner thinks another thing is the main idea, then you both need to explain why you think it is a main idea so other student understands why. Not every student is going to have the same main idea, because every student takes things different ways when they connect text to self. I will lead discussions about a book by a series of questions/statements. Those include "Cool! I like this part...", "Huh? What are they talking about???", "Hey! This part reminds me of...", "Picture in your mind what happened on this page, draw a picture", "So, what do I think is next?", "Wow! I just noticed...", "But I wanted to know more about...", and "Put it together! Summarize what happened by writing phrases telling about the beginning, middle, and end of the selected section (B\_\_\_\_\_ M\_\_\_\_ E\_\_\_\_. Then put phrases into one or two sentences". By asking these questions the students are not getting the same old questions, for example "Who are the characters in the book, and what are their characteristics?" These questions make the students think, and are interesting questions. These questions will spark discussion between small groups in older grades, but in younger grades the students might gain more knowledge by doing it in a pair share. This involves every student to put forth an effort to give out answers and ideas with their partner or small groups.

I want to be a teacher because I can make a difference in my student's lives. By using a boat load of strategies I will come aboard ready to teach the students to be word mavens. I will keep the students engaged in my lessons because I believe that kids learn more when they get to do hands on activities. By gaining confidence in the students with their writing I will build their knowledge on spelling, grammar, and vocabulary. By teaching the students the keys to comprehending information through strategies I will overall increase their abilities to

comprehend more information that they have before. With the strategies and the resources that I have learned and that I have founded I will make a difference in the students' lives educationally. I want the students to reach their goals in the classroom and give them a safe environment that makes them feel comfortable to express themselves through those five components. I firmly believe that by knowing the perfect balance of hands on and paper pencil these students will succeed, and it will be shown through progress monitoring them throughout the year (1<sup>st</sup> nine weeks, 2<sup>nd</sup> nine weeks, 1<sup>st</sup> semester accumulative, 3<sup>rd</sup> nine weeks, 4<sup>th</sup> nine weeks, 2<sup>nd</sup> semester accumulative). By monitoring the students' progress frequently I can accommodate individually, small group, or whole group depending on the progress of each individual.

#### Math

When it comes to math guided math is the way I am going towards. Guided math is teaching the students in ways that don't let them get bored and let them soak in the learning by doing multiple different things to find answers to the problems.

## **Guided Math Stations**

How guided math works is that it is a balanced approach of both procedural and conceptual math in an effective student-centered format that allows students to move form conceptual understanding to abstract thinking ("How to Launch Guided Math"). Guided math gives your classroom structure and routine. This approach includes a balance of whole group and small group, and focuses on leveled learning. This approach has structured centered activities that are age appropriate, and kid-friendly.

There are four main concepts of Guided Math. Those include a consistent signal with clear expectations that follow, a consistently scheduled math block, unwavering expectations for

voice level, and explicit expectations for rotation start/stop/work product ("How to Launch Guided Math"). There needs to be consistency, sustainability, and autonomy to manage guided math ("How to Launch Guided Math").

The two workshop management systems are rotation system and self-selected system. The rotation system is when a designated amount of time is given to each workstation before students rotate to the next workstation ("How to Launch Guided Math"). The teacher has to designate an amount of time for the rotation. This is a routine, therefore this amount of time should never change. The elf-selected system is when students move themselves through centers in a systematic way using planning or recording sheets to write down the activities are completed ("How to Launch Guided Math"). This is a way to give the lower learners more time to work on the activities that they are working on. The minus about this system is that some students might rush themselves and not perform well at the activities because they want to finish everything as quick as possible or stay with their friends. By giving them a set time at specific stations then the students will take their time and manage themselves.

How do you group your class? Well there are different ways to group your students. There is flexible grouping, which is when you start off by letting the students practice at their tables ("How to Launch Guided Math"). This serves as a way to train your students with the least amount of movement and change at first ("How to Launch Guided Math"). When you introduce new rotations then you can begin making more thought out grouping decisions ("How to Launch Guided Math"). Once all of the rotations are fully implemented and you are ready to meet the students for small group instruction you can have leveled groups ot make instruction easier and more effective ("How to Launch Guided Math").

Now to the Guided Math checklist ("How to Launch Guided Math"):

- 1. Math manipulatives stored/organized
- 2. Tubs, buckets, baskets, or containers for math center activities
- 3. Designated areas of the room for activities
- 4. Fill first round of tubs with manipulatives
- 5. Signal for start, stop, transitions
- 6. Visuals of expectations
- 7. Visuals of volume levels
- 8. System for tracking progress
- 9. Number of rotations identified
- 10. Length of rotations identified/scheduled
- 11. Prep the first month of center activities

Math manipulative storage needs to be organized in a way that makes it easy for the students to find what they need when they need it, which keeps the interruptions to a minimum because they know where they all are ("How to Launch Guided Math"). This would include the bins being labeled in pictures or words so it is clear to all of the students. The tubs, buckets, and containers will be used for the math workstations. This will ease the process of taking out and putting back into an open tub ("How to Launch Guided Math"). For example you can use five tubs for each day of the week or even have closed buckets to have all the station materials in it like cards or any game pieces. There needs to be designated areas of the classrooms for the lessons. There needs to be a spot to have a mini-lesson, which can be a carpet for younger grades and is close to a smartboard or a whiteboard ("How to Launch Guided Math"). The carpet area would also be good for partner games. There also needs to be a designated spot that has a tub of prepped activities, group props, and large demos (props, cards, and student materials for whole group)

("How to Launch Guided Math"). Another designated spot is an area for the computers/iPads/laptops for the students to do online games to practice and apply their knowledge ("How to Launch Guided Math"). Fill each tub you have designated for the student to work in stations, if you have five tables fill five tubs of manipulatives ("How to Launch Guided Math"). Each group gets one tub for the first week, and swap bins next week. The students could also practice one bin each day of the week. For example you can use cubes or blocks. Signaling to start, stop, and transitions is an important part of a smooth rotation. This is the way you quickly grab attention and give direction ("How to Launch Guided Math"). This signal establishes expectations that you expect from the students when they hear this signal. The students need to know what you expect from them when that signal goes off. This signal could be a bell, chime, or even a designated song. The values of expectations would be the rules created and posted in the classroom where the students are training in the stations. The students also have visuals of expectations for voice levels. The students need to know the volume level expected. This establishes clear expectations and allows you to give a non-verbal reminder while teacher ("How to Launch Guided Math"). The next step is a system for tracking process. This could possibly be a big chart on the wall of the room that helps students focus and have a common goal ("How to Launch Guided Math"). The chart monitors the progress of each day you do guided math stations, which shows the days where the students are not focused. There could also be an individual tracking process of each student that is not shown on the board, but you and their parents can see on some sort of sign in app or website. There are different ways to have stations. Tunstall has a five different station strategy (STACK). S for small group (teacher table), T for technology (computer, iPads, tables, chromebooks, interactive games), A for apply (skill practice pages, apps, activities, independent practice), C for create (math journals, critical

thinking problems, critical writing, production with mathematical thinking), and kinesthetic (hands on, games, center activities, manipulatives). Mary Mueller transitioned from three to two stations. The stations are teacher, independent, and games (Mueller). Then she added another station called zearned (Mueller). The second to last step is knowing the length of rotations. This is when the teacher determines the length of rotations. The teacher needs to visually display the rotations and length of stations at the placement of the station ("How to Launch Guided Math"). I had thought about the teacher possibly putting a timer at the location of each station. The first year of guided math rotations involves a lot of prep because you need to prep the materials for the centers, worksheets, games, and mini lesson activities. For weekly prepping you need to prep the math centers in the tubs and the worksheets are going to use ("How to Launch Guided Math").

Here is another way to use guided math stations by Reagan Tunstall in "Tunstall's Teaching Tidbits: All About Guided Math." Students love the math rotation between the centers. "Students and teacher love hands-on, and engaging ways to practice the math concepts! This rotation is all about daily practice and application of spiral reviewed math concepts!" ("All About Guided Math"). Math journals/ worksheet station could be a station. "These journals provide daily reinforcement and spiral review of the math standards. If you have students that are working well below or well above your grade level, you can give them a different grade level in order to teach the same objective with a more challenging or more supported format," ("All About Guided Math"). The next stations is an interactive math game station. Like I mentioned earlier this station is played on a handheld device. The students can use technology including computers or interactive whiteboards. "Whatever technology you have available can be put to use in a technology rotations during your guided math block!" ("All About Guided Math").

Another way to teach guided math has whole group, small group, independent practice, stations, fact fluency, and math journals. Anna in "Simply Skilled in Second: Get Your Groove On With Guided Math". Anna starts with talking about small group instruction, which is when the students are in small groups and they go through the lesson you have created. That station would be called "Teacher Feature" and the focus of this small group instruction is meant to be a "rigorous" lesson. These small group lessons need to be leveled. These instructional lessons should only be around 15-20 minutes (Anna). "The only time I use whole group instruction during math is when I am first introducing a new unit of study by reading a mentor text and creating an anchor chart, doing whole group Number Talks/Number Study, doing whole group scoot games and 'I have, Who Has' games, and making crafts that align with the unit of study," (Anna). Other than that whole group instruction does not really work for math because not everybody is on the same level. "Independent Practice is the activity that your students will complete INDEPENDENTLY after their lesson during our small group instruction time," (Anna). "Once your unit on multiplication is complete and you are on your next unit of study, that is the time where you will add multiplication math stations into the mix or station work that you will have your students complete," (Anna). "Math Stations are review stations!" (Anna). Different fact fluency activity/games when it comes to math could be "Fact Fluency Hot Dots, Beat the Clock from Lakeshore Learning, or they can use my fact fluency sheets in my sheet protectors or C- line clear packets," (Anna). Then when they use the fact sheets they have timers that they can use to time themselves when they practice their facts (Anna). The last activity that I am going to talk about is math journals. "These math journals incorporate math word problems with one, two, or three-step problems that the students must complete. However, the word problems that are in this station are REVIEW skills," (Anna).

Overall there are multiple different ways to incorporate math stations in the classroom. You could have as many stations as you want in your classroom. The stations that each of the authors incorporated in their classrooms are very similar. All of them incorporated an electronic game or an interactive game of some sort, a math journal/worksheets, and a teacher instruction station. These teachers all believe in small group leveled lessons, because not every student is on the same level but can be broken up into small groups. These math stations are something that students like because their attention span is not long enough to doing whole group instructions all the time. The students need a balance of interactive and paper pencil activities/assignments, and guided math provides us teachers with that good balance for the students.

## Technology in Mathematics

The National Council of Teachers of Mathematics shared the importance of technology in the curriculum which included being balanced with technology in the classroom, and knowing when to use it. It engages the students and helps them with problem solving, sense making, reasoning, and communication. By the students using technology they will be able to make connections and understand the information a lot more because they are engaged in what they are doing. This will also help the students gain more knowledge and perform better.

The main points in this article are about how essential it is that teachers and students can access technology regularly. "Technologies that support and advance mathematical sense making, reasoning, problem solving, and communication. Effective teachers optimize the potential of technology to develop students' understanding, simulate their interest, and increase their proficiency in mathematics. When teachers use technology strategically, they can provide greater access to mathematics for all students," (National Council of Teachers of Mathematics). "Technology tools include those that are both content specific and content neural," (National

Council of Teachers of Mathematics). This is the second most important part about this article. "These technologies support students in exploring and identifying mathematical concepts and relationships," (National Council of Teachers of Mathematics). The last main point in this article is that the teachers need to know when to use technology and when not to. "The teacher and the curriculum play critical roles in mediating the use of technological tools. Teachers and curriculum developers must be knowledgeable decision makers, skilled in determining when and how technology can enhance students' learning appropriately and effectively," (National Council of Teachers of Mathematics).

What I learned from this article is that we need to make sure we are using technology effectively. If we know when to use technology then our students will perform better. In this article it tells us that technology is very important to enhance student learning, and I firmly believe that statement is correct. They can make connections to help them understand on the technology. They can use technology for many different things to further their learning. By the students being able to use technology for math they can review for tests, find connections between what they are learning and real-life situations, and they will be engaged. This is something that we need to take advantage of, but we need to know when we can use technology.

#### Math Games

There are five different styles of math games including the lotto, shot path games, circular path games, long path games, and tug-of-war path games. You could also use a book to develop a game for children. The author states in this article that this is somewhat easy to make a game based on children's books because sometimes they have built in math content. There is basically an overview of these games and how to make games based on children's literature. There are also steps to making math games. The steps include; 1. Select a book based on math concepts children are ready to learn or for the book's story line or content. 2. Determine the target players' ages or developmental levels. 3. Select the style or type of game (lotto and short path games are best for young children). 4. Create your game. Make it flexible. Some games can grow with the children or be used with various age groups by adding simple things like different spinners or cards. If possible, include features that help children learn more than once concept while playing. 5. Be sure to laminate or make your pieces sturdy for repeated use.

Key points that I would like to talk about are the five different styles of math games. Lotto games let children use their matching skills, practice one-to-one correspondence, and build early counting skills. Short path games follow a pathway, like a board game. This game has an end point. Circular path games are board games that do not have an ending point until you reach your goal in the game, like trivial pursuit. Long path games add the element of many counters moving on the same path and the possibility of adding more complex elements, such as landing on a special space and then moving forward to a designated space. Tug-of-war path games is a pathway game that you can move forward and backward. There are different styles that would all work to help students learn the basis of math and help them move up to the next level. By using books you are connecting more things for the students to help them to improve their math skills.

#### Math Study groups

These math study groups can be divided up in two groups and then eventually getting up to several groups as the year goes on and how the class progresses. Figuring out these groups mean that we have to observe our students and know how they learn and what they already know, so we can group them correctly. This is a great way to get the students engaged, since they learn a lot better once they are involving themselves more in the subject and learning with more people. Students learn better when they get to work in groups, so bringing group work into math will help the children learn more and be more engaged.

The key points in this article are what the groups do, how they are constructed, and the purpose of having these groups in order for the students to learn. This helps students learn very efficiently. Students learn a lot when they get to talk to their peers about this information. The students learn a lot with interaction. That leads us to our next point, which is what the groups do and how they are constructed. Different groups are put together to help the students understand what they do not already know. The teacher works individually with each group while they are divided in their groups. This will help the students that do not know all of the information learn it. To be able to set these students in a group we have to observe them and take notes. Teachers need to document learning. One of the documents of observation the child does themselves and fills out what they have learned and gives examples of what they learned in their groups, etc. Integrating Music and Art into the Curriculum

I firmly believe that music and art will help students with the curriculum and what they are learning. Some students learn better through those two topics, because it is a safe place for them when they are drawing or when they are singing or even acting out plays. These students get to do what they love and show their understanding of certain subjects.

In math, the students can draw how to find the answer to 10+10 in different ways. Or even halves, quarters, or wholes in a picture. Pictures and visuals help students learn so much better because it helps them make the connections to things that you cannot make for them. The students will be able to see that four quarters equals a dollar if they know how to show it and if they can give you a visual of what they see when they think of a dollar. In reading the students can draw the characters, their features, and even give a sentence on their appearance. The students will understand what that character looks like because they have made connections between the color of the hair, the shape of the body, and their accessories. They will be able to draw the setting even, and put all of the detail that they can find in the story about the setting. This shows that they know the connection between what they see in real life and what they have read about in the story. If the student has read about a farm, and they draw a farm with the details of the story involved in it then they understand the setting.

In science if the students draw the before and after visions of the project then they will understand what has happened, because they will know how to explain why their water has turned a different color.

In Social Studies if they can draw the details of the historical figure in somewhat of detail, in certain periods of their lives, or even of a period of time where they had lived then the understanding of that historical figure is deeper. This will show that the students understand the details of the president or of the Pharoahs.

#### Science

I believe that science is a fun and experimental time where the students can contemplate, hypothesize, document, and draw conclusions. For some students' this is their safe place. This is where they have fun and they can find answers to those questions through experiments, which a lot of students love to do. Young students want to know what will happen if you drop salt in a cup of water or mix dye together. They want to find those answers. They could do these experiments hands on or on the computer, but most students would rather hands on.

Virtual fieldtrips are also a good way for students to understand specific things, like animals and their habitats. This gives them free range to look at all the different animals through a zoo or a live camera in the amazon. This shows the students how animals live and what they do to survive. Those kind of things, and also this will make the students curious to what they want to know about animals or a species. These field trips could be an introduction to a research project for the students. These virtual field trips give the students experience to go somewhere that they would never be able to actual go to in the real world. For example, the amazon is not where many people around this area will ever go. Therefore, we can conclude that going to the amazon in a virtual field trip would be very educational and a lot of fun for the kids. This virtual field trip would give them so much information, and give them a visual of what the animals look like.

Nature walks and a garden would really be a good way to bring science into the classroom. If you are not able to have a garden outside then you can have one inside. The students can plant seeds in the garden and watch them grow into big flowers. They could also plant food, like carrots or potatoes. A nature walk would also be ideal, so the students can see what is basically in their backyards. They can see butterflies, and learn what kind they are. They can see insects and learn what they like to eat, or even where they live. You could also see animals like squirrels around when you are walking.

Students could also learn a lot about science through Science in Literacy. They can look at books through their scientific lens. This way kids get excited about reading the book. They can read books that point towards a specific subject that will introduce a unit or a lesson. After the reading, the students can experiment or research what they were learning in the book to make sense of it. They can do projects, assignments, or experiments that show their understanding of what they are reading about and learning about in the book.

#### **Social Studies**

History should be integrated with reading. We had learned that reading and social studies play hand and hand when it comes to learning information on them. If we have the students read books that have to do with specific historical figures, then they will learn more in depth the information on them. These students will get to use the books to do project, draw visuals, and write journal entries.

Using the texts chosen by you, you could have the students work in groups to do a project on that specific historical figure. The students in the group could read books about the historical figures. After they have read the book they can make a poster, collage, or fill out a "wanted" poster for that historical figure. The poster would have information and pictures on it. The collage would be filled with pictures from the historical figures life time, and the "wanted" poster would have 3 characteristics, 2 important facts, and 1 fun fact about the historical figure.

Videos of the historical figures. These videos will have to be kid friendly and pop with color. Young students do not like when the videos are long, boring, and colorless. If the videos are kid friendly then they will be able to understand them, gain information, and be able to recite some of the information in an assignment, group project, or discussion of some kind.

In social studies, you could also use virtual field trips. This is, as I explained before, an adventure students get to do virtually to a place where they are very unlikely to go in their lifetime. This lets the students adventure, fill out informed packets, draw pictures, make predictions, etc. This opens a whole new door to different times in history for the students to explore.

## Resources

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