CEP 842, Spring 2013

Assignment Two: Co-Planning and Co-Teaching*

Part 1: Background Information

Students: Describe the students in your class. State the number of students who will participate in this lesson. Provide a description of students' ages, grades, academic and behavioral characteristics. If there are students with identified disabilities, explain their disabilities.

- Fourth grade math classroom with **18** students ages 9-10. There are three fourth grade math classes at my school and the students are grouped by ability level. The class I will be working with is considered the "low" math class.
- 1 student with a diagnosed specific learning disability in math
    - 2 students who are currently being tracked for special education services and participating in a remedial math group
- 2 students with diagnosed with reading disabilities
- 4 students diagnosed with ADHD. Two of them are on medication to address attention concerns. The other two children require frequent prompting and reminders to stay on task; however, they are not a behavior concern.
- 1 student diagnosed with depression /anxiety
- 1 student with fine motor/occupational therapy services
- Behavioral characteristics: The students are very well behaved and respectful towards their peers and teachers. There are no students in the class who are a behavior concern at this time. Several students have a low confidence and require verbal positive reinforcement throughout the class.

Content: State the topic of this lesson. Then, break the lesson up into specific objectives. If the lesson is related to standards, list the standards.

- Topic:
    - Students will learn how to multiply two fractions together and reducing the answer to the lowest term.

- Objectives:
    1. With a visual representation, students will understand how the fraction becomes smaller when you multiply two fractions together.
    2. Students will be able to use the standard algorithm to multiply fractions by fractions and whole numbers.
    3. Students will be able to reduce the fraction to the lowest term by cross canceling before multiplying and finding the prime factorization of the numerator/denominator.

- 4^{th} Grade Math Common Core Standards:

- Apply and extend previous understandings of multiplication to multiply a fraction by a whole number
- Understand a fraction a/b as a multiple of 1/b.
- Understand a multiple of a/b as a multiple of 1/b and use this understanding to multiply a fraction by a whole number

Teachers: Provide the name of each teacher (you can use a pseudonym for the co-teacher, if you wish). Describe the role of each teacher in the school (e.g., special educator, consultant, general education teacher). How long has each teacher been teaching? What prior experience does each teacher have with co-planning and co-teaching?

- Mrs. R- 4th grade general education math teacher.

- This is her 5th year teaching and her fifth year at E. Charter School. She has taught 4th grade math for the past 5 years. E. Charter School follows an inclusion based model and this is my second year c-teaching/planning with this teacher. This is also my second year pushing into reading/writing/math classes in grades 4-6.

- At the school I am currently at (E. Charter School) each grade is departmentalized. Therefore, Mrs. R is the math teacher for fourth grade and teaches 3 1 ½ hour blocks of math every day. The math classes are grouped by ability level (there is a low/medium/high grouping). Mrs. R has 5 years of experience co-teaching/co-planning with the special education teacher for her "low" math grouping class.

Context: Explain where this lesson will take place.

- In the fourth grade math classroom on March 4th (Monday) from 9:00-10:40 am.

Part II: Co-Planning Form

Meet with your co-teacher to answer these questions. Provide complete answers to each. If a question is not relevant, explain why it's not relevant to your situation.

Question	Comments about the question, based on co-planning discussion
Lesson Content	
Is the material new or review?	Yes the content is brand new but the students have been working with fractional concepts all quarter along with 1-10 basic multiplication/division.

What prior knowledge do students have of this topic?	-Students recently learned how to add fractions with unlike denominators -Students recently learned how to order fractions (greater than/less than) and have an understanding of equivalent fractions -Students have been taught how to reduce fractions before but teaching them how to 'cross cancel' will be a new concept -Basic 1-10 multiplication/division facts
How interesting is the topic?	Several of the students will enjoy this new topic- multiple students in the classroom enjoy fractional concepts and multiplication
How many new concepts are being introduced?	There are two new concepts the students will learn. *One new topic: how to multiply fractions *We will also be introducing new concept: how to "cancel" like terms (ex: 11/15 x 5/9 -> 11/3 x 1/9)
How clearly are the concepts presented in the textbook or in other curricular materials?	Very clearly laid out explaining the algorithm process. However, we do not plan to use the text book because we plan to introduce the lesson in a different way (we want to teach the students how to multiply before we teach them how to cross cancel). We also plan to create our own worksheet and activities.
How important is the topic to the overall curriculum?	This topic is very relevant/ important to the curriculum and it meets several of the common core objectives. While we are introducing a somewhat basic topic, it is important for students to understand how to multiply fractions along with cross canceling like terms.
Other issues to consider?	This lesson will be a challenge for students who struggle with multiplication/division facts and fractions. We are going to have to give the student a math fact "cheat sheet" so he can practice reducing fractions at the same pace as the class.
Teachers	
What prior knowledge do we have of this topic?	Mrs. R has taught this topic for the past 5 years, I pushed into her classroom last year and this will be my second year co-teaching this topic.

What special knowledge, experiences, or interests does each of us have about this topic that we could use in teaching?	Mrs. R is very knowledgeable on mathematic topics since she has taught this unit for the past 5 years. I have knowledge/ideas from pushing into fifth/sixth grade math classes. I suggested some ideas which I got from observing fifth/sixth grade math lessons.
What resources do we have available to us for this unit?	-Elmo projector (project activity/worksheet on board) -fraction manipulative magnets -smart board
Other issues to consider?	-students who struggle with their 1-10 multiplication/division facts -students who struggle with reducing fractions/finding the prime factorization of a number -importance of showing a visual model before teaching the students the algorithm of how to multiply fractions
Students	
What experiences have students had that will relate to this topic?	-basic understanding of fractional concepts and vocabulary (numerator, denominator) -able to add and subtract fractions with unlike denominators -students have reduced fractions and found the prime factorization of a number -basic 1-10 multiplication/division facts
Can we relate this topic to students' cultural and linguistic background?	Not applicable- all the students are Caucasian. We plan to show them a visual representation of slices of pizza in the beginning of the class so they have a better grasp on how to multiply fractions & can visually relate to the topic.
Will students with reading difficulties be able to learn independently?	Yes our students with reading disabilities will be able to learn independently. There will be no reading involved in this lesson other than the directions on a worksheet (which will be read aloud to the entire class).

Will there be students with high interest or knowledge of this topic?	Most of the students in the class enjoy math (fractional concepts/multiplication facts). We realized while answering this question, several students in the class are not going to have a very high interest level so we must make the lesson engaging and exciting.
Will students with behavioral or attention problems be able to concentrate on this topic?	There are several students in the classroom with attention concerns. We will have multiple ways to engage all the students in the classroom and keep them interested. Ideas: -allow students to stand during lesson, fidget kits, seat cushions -several transitions to keep them active, we will have a portion of our lesson being 'parallel teaching" so the students will have to move to a new spot in the room.
Will students have the vocabulary they need to understand the concepts?	Yes from previous lessons (students will need to know denominator, numerator) we will take notes along with referencing back to our old notes/math vocabulary log throughout the lesson.
Will a language difference make comprehension difficult for any students?	No there are no English second language learners in the classroom.
Other issues to consider?	Importance of engaging the students to keep their interest due to attention concerns.
Context	
What holidays or special events may distract students or limit instructional time?	Not Applicable
Will class size affect teaching of this topic?	No because there are only 18 students in the class.
How well do students work in groups or pairs?	The students work well together but will need reminders before the lesson on how to work appropriately and respectfully with one another
Other issues to consider?	If a student is absent we will need to come up with a plan to catch them up.
Instructional materials and practices	

What methods will we use to motivate students and set a purpose?	-Visual representations -allow students to write on white boards during a part of the lesson -Use technology throughout lesson
What grouping patterns are most appropriate?	-whole group -small group in the end of remediation services
What instructional approaches or practices will we use?	-clear and consistent rules for behavior (conduct cards-behavior system) classroom rules are posted around the classroom -provide instruction in a variety of arrangements throughout the lesson (whole group, small group, split into two) -smooth transition between transitioning groups by setting clear expectations
What learning strategies or prerequisite knowledge to students need to learn this content?	-referencing back to notes (to know key terms-numerator and denominator) *note check -asking questions when they have misconceptions -multiplication facts, fractional concepts
What in-class and homework assignments will be appropriate?	-taking notes during lesson (student w/ fine motor concerns will receive copy of notes) -in class activity using a worksheet -4 problems for homework (w/ cross canceling and multiplying a fraction by a whole number)
Do some assignments need to be adapted for individual students?	Yes. We have one student who struggles with math fluency and takes a while to complete assignments. He only has to complete half of each assignment (unless he finishes before other students are done, then we would have him continue working.
Do we have access to technology that we can use in this unit?	-Yes there is an Elmo projector we can use to project the worksheet when reviewing at the end of class and/or smart board -we have access to computers but will not be using them during our lesson. We can use them on future lessons to assess their knowledge (studyisland.com)

How could we use technology to facilitate teaching this content?	We can use the smart board to visually demonstrate how to multiply fractions
How will we informally assess student learning throughout the unit?	1. Monitor students throughout the lesson by taking anecdotal notes (what students had difficulty, participated, asked questions etc.) 2. Exit ticket at the end of the lesson(s)
How will we assess student learning at the conclusion of the unit?	3. Assess their classroom work samples/homework (paper worksheets along with electronic assessments- study island) 4. Test at the end of the unit
Other issues to consider?	Encourage students to ask for help throughout the lesson and to come for additional help (mornings/afternoons) if students are stuck on homework.

Part III: Co-Teaching Plan

Choose three objectives that you plan to address in this lesson. They should be chosen from the objectives you listed in Part 1.

Objective 1: With a visual representation, students will understand how the fraction becomes smaller when you multiply two fractions together.

Objective 2: Students will be able to use the standard algorithm to multiply fractions by fractions and whole numbers.

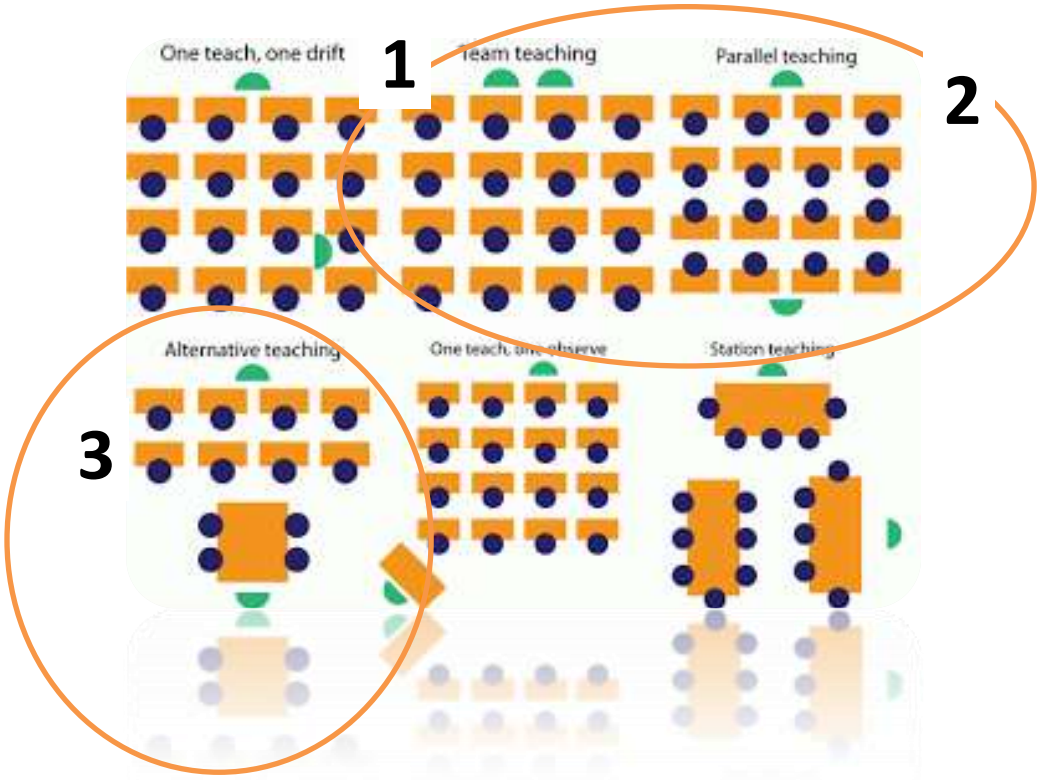
Objective 3: Students will be able to reduce the fraction to the lowest term by cross canceling before multiplying and finding the prime factorization of the numerator/denominator.

Plan how you and your co-teacher will teach each of these objectives. Complete this Co-Teaching Plan with your co-teacher. Your plan should take into account your answers to the co-planning questions. It should also specify a co-teaching model for each objective (see Co-Planning and Co-Teaching lesson from the course website).

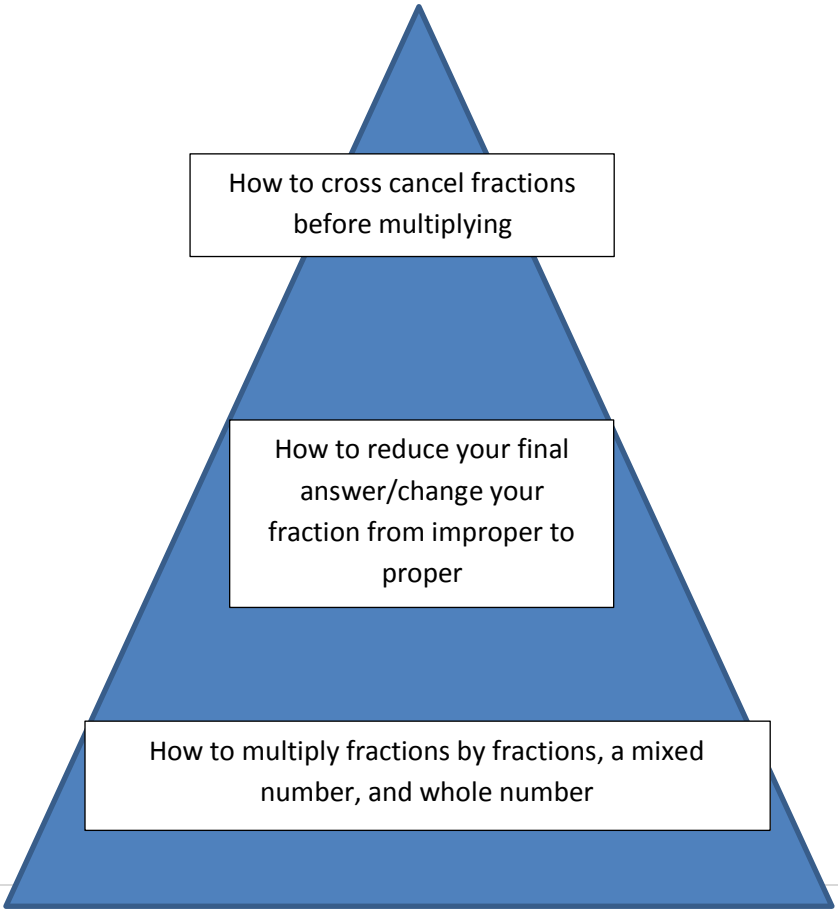
If possible, co-teach the lesson.

Write the lesson objectives below:	Which co-teaching model will you use for this objective?	What are the specific tasks for each teacher as you teach this objective?	How will you evaluate learning?	How will you assist students who do not master the objective or need extra time?
Objective 1: With a visual representation, students will understand how the fraction becomes smaller when you multiply two fractions together.	Teaming	Mrs. R will introduce the lesson and explain to the class what they will be learning today we will then alternate back and forth while showing the students how to multiply two fractions together. We will use picture of a pizza and split it up into fractional parts- Mrs. R will do the drawings as I will begin to lead the discussion and we will alternate back and forth while explaining the model	Informal assessment during whole group instruction we will monitor who is participating and asking questions by taking anecdotal notes throughout the lesson and discuss students' progress after the lesson	If there is 1 student who is struggling one of us will step back from the team teaching roll and assist the student. If there are several students we will take note of the students and I will pull a group when the students are working independentl y later in the lesson.
Objective 2: Students will be able to use the standard algorithm to multiply fractions by fractions and whole numbers.	Parallel Teaching	Split the class into two groups (9 students/ group) to teach the algorithm -Mrs. R will use the back ½ of the room w/ the mini 4 foot white board (students will sit at back	Students will take notes and complete a worksheet multiplying fractions. **They will only fill out the first half of the worksheet; the second half has you reduce the answer to the lowest terms.	Work 1:1 with the struggling students while the other peers complete the worksheet- if we are unable to do this we will take note of

		desks/tables) -I will use the front classroom white board (students will sit on floor)		the students struggling and be sure to pair them in the remedial group during the last part of the lesson
Objective 3: Students will be able to reduce the fraction to the lowest term by cross canceling before multiplying and finding the prime factorization of the numerator/denominator.	Alternative Teaching	Mrs. R will review with the large group how to reduce the fraction to lowest terms- I will have a few students who are struggling to review the algorithm along with how to reduce to lowest terms/cross cancel	-Students' questions -participation during instruction -independent practice/worksheet -exit ticket	We will use alternative teaching for the last part of the lesson, I will pull a group and work with them in the back of the room using the mini whiteboard/ kidney table to teach them cross multiplying and review reducing fractions



Planning Pyramid



Part IV. Reflection

Write your reflections of the co-planning and co-teaching process. You should plan to write about two or more double-spaced pages. Be sure to answer each question and provide enough detail so we can evaluate your thinking about this process.

- What went well during the co-planning and co-teaching processes? What are the strengths of these processes?

This is my second year co-planning/co-teaching with Mrs. R which allowed the co-teaching process to run smoothly. During the co-planning process we started off using the planning pyramid. This allowed us to see what information was important for all the students to learn. We were then able to discuss what areas would be challenging for our students to master and where we needed additional support. We decided that 'canceling' out like terms in a fraction multiplication problem which led us to decide on using the 'alternative' teaching method during this part of the lesson. This will allow the students who are struggling to work in a small group with additional support and repetition. After filling out the pyramid it was easy to go backwards and fill in the co-teaching template. Since we co-teach together on a weekly basis we are aware of each other's teaching styles. We also have similar personalities which allow us to feel comfortable teaching with one another. The lesson went smoothly and we were able to stick to our designated co-teaching roles throughout the lesson. We were able to transition efficiently between each co-teaching model and meet the students' needs when issues arise. I really enjoyed following the 'team' co-teaching model with my co-worker sense we know each other so well. This part of the lesson went very smoothly and it was enjoyable to bounce ideas off of one another as we taught. We were also able to elaborate on each other's ideas to future enhance our students' knowledge on

the topic. Typically, when we co-teach together we follow the ‘station’ and ‘alternative’ models consistently so it was a challenge for us as teachers to follow a new co-teaching model.

- What problems did you encounter? What problems did you encounter when co-teaching the lesson? If you didn’t teach, what problems might you anticipate?

The biggest struggle we run into when ‘team teaching’ is making sure we both share equal roles within the classroom. At times, we tended to switch to the ‘alternative’ teaching model because I would frequently and unintentionally assist my students when they were struggling. ‘Team teaching’ is also difficult when balancing out classroom management. Since this is my second year working with Mrs. R I am aware of her classroom expectations and didn’t run into any difficulties following her classroom management style. I also found ‘team’ teaching to be very rewarding but challenging. It was important to be “on your toes” at all points during the lesson. Since I knew my co-teacher very well and we have ‘team’ taught before, it was easy to predict and bounce off of one another. If Mrs. R and I were not close, ‘team’ teaching would be a very, very difficult strategy to implement! We did run into a problem when we were trying to coordinate schedules to have enough time to co-plan as well as fill out the template. We decided to meet one day before school to plan out our lesson and fill out the charts together. Since we co-teach together on a weekly basis, we decided to try a new model when introducing our second objective. We split the class into two groups and attempted the ‘parallel’ teaching method. We found it to be difficult to have two separate lessons going on at the same time because we have very small classrooms at our

school. Several of the students had a difficult time paying attention and would often be watching the other teacher's lesson.

I also encountered another problem in the middle of our lesson when one of the students did not understand the algorithm for multiplying by a whole number. The student kept multiplying the numerator and denominator by the whole number. Typically when this happens during whole group instruction one of us would assist the struggling student. However, since we were split into two groups at this point (following the parallel teaching model) I had 8 other students I was teaching at the same time. When we ended the lesson following the 'alternate' teaching model, I was able to assist the student at this time.

- What are the weaknesses or limitations? (Warning: don't say "none.")

There are a few weaknesses I found when co-planning/co-teaching. As I mentioned, it was difficult for us to coordinate our schedules to be able to co-plan together. Mrs. R and I have similar personalities and are both very flexible which makes the co-teaching process run smoothly. This is also our second year teaching together so I know the fourth grade curriculum. However, if we did not have similar teaching styles, co-planning/teaching could be a huge challenge. It would also be a challenge if one of the teachers did not know the curriculum. Co-teaching is also a challenge, as mentioned above, if the two teachers have different discipline policies or teaching philosophies.

- Did you co-teach the lesson as planned? Why or why not?

Yes we were able to co-teach the lesson as planned. I consistently push into Mrs. R's classroom two days/week to co-teach. Mrs. R had to unexpectedly go to a funeral the day we were supposed to teach the lesson so we had to push the lesson back a couple days (Wednesday instead of Monday). On the specific day we planned this lesson I ended up co-teaching a review lesson with the substitute teacher!

- What were the advantages of co-teaching this lesson (consider advantages for the teachers and the students)? If you didn't teach, what advantages would you anticipate?

There were many advantages to co-teaching this lesson. As teachers, it allowed us to have more fun teaching with one another. I enjoyed following the 'team' approach and bouncing our ideas off of one another as we taught. I always find this model to be very challenging because you had to pay close attention to the other teacher and be prepared to jump in. I also found co-teaching allows you to provide additional assistance to struggling students. We were able to meet the struggling students since there were two of us in the classroom. If a student was struggling one of us would step back from the lead teaching role and assist the struggling student. This is great way to provide remediation (RTI services) to students within the general education setting since "Tier II indicates that students need something other than what has been provided on a daily basis to the whole class. Classes with many students in Tier II may benefit from being

co-taught." (Murawski, Hughes). Another advantage was having two pairs of eyes observing/assessing the students. I enjoyed collaborating after the lesson to compare observations and brainstorm strategies.

- If you taught, how well did the students learn? What would you do differently next time? Consider both the co-planning and co-teaching processes.

Based off of student assessments, it was evident the students mastered the algorithm for multiplying fractions. We had the opportunity to collaborate after the lesson to discuss what we would do differently next time. We reflected on our lesson and came to the conclusion: the students had an easy time understanding how to multiply fractions because we introduced adding fractions the previous week. The students really struggled with adding fractions since they had to change the numbers to get common denominators. Next time we plan to introduce fraction multiplication before we introduce addition fractions with unlike denominators because the lesson will flow smoother. It was really helpful for us to collaborate and put our brains together to reflect on our lesson. Next time during the co-planning process I learned we should have talked about each model of teaching more in depth (role play scenarios/have a backup plan if problems occur). Since we have done the 'alternative' model and 'team' model before, we were not that concerned about the 'parallel' model running smoothly. However, this was a huge mistake! Since it was loud during the parallel portion of our co-teaching lesson it was difficult for our students to focus. We quickly learned we both had to talk softer and keep the students more engaged so they would not be watching the other lesson. Our room was also very small which we did not take into consideration/think it

would be a concern. Next time we know will need to place our groups of students in opposite corners of the room and not opposite walls because the groupings were too close together. We also need to discuss the volume of our voices, and our expectation of our students' voices during the 'parallel' teaching lesson. Overall, I found the co-teaching and co-planning processes to be extremely rewarding and effective when meeting the needs of all the students within the classroom.

Sources

"Instructional Practices for an Effective Classroom." Pennsylvania Department of Education. http://www.eastonsd.org/sped/generaledteachers_files/InstrPrac.pdf. Mar. 2013

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Murawski, Wendy W., and Claire E. Hughes. "Response to Intervention, Collaboration, and Co-Teaching: A Logical Combination for Successful Systemic Change." *Https://d2l.msu.edu/content/SS13/CEP/842/SS13-CEP-842-730-97BJU8-EL-14-204/co-teaching_RTI.pdf?_&d2lSessionVal=WMvKEt4zklcvclnc1tbHW44Qb*. N.p., Summer 2009. 2 Mar. 2013

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*co-teaching image taken from: http://www.google.com/imgres?imgurl=http://2.bp.blogspot.com/-VRO2FgpZDs0/TnFPtuPTvKI/AAAAAAAAAYA/HoXiyu-7WI0/s320/coteaching.gif&imgrefurl=http://techedclasswork.blogspot.com/2011/09/co-teaching.html&h=230&w=320&sz=95&tbnid=cm9fer5QpjQ0cM:&tbnh=91&tbnw=127&zoom=1&usg=__UGFOT2gCdL7qAS3iqeziEf9GCRU=&docid=ivMXGLiRcbJVyM&sa=X&ei=hoE-UeKxBoeG8QSi7ICwDA&ved=0CEYQ9QEwBg&dur=231

* The forms used in this assignment are based on: Vaughn, S., Schumm, J. S., & Arguelles, M. E. (1997). The ACBDEs of co-teaching. *Teaching Exceptional Children*, *30*(2), 4-10.