

# Intervisitation organizer

<b>Date of Visit:</b> November 19, 2019	<b>Time:</b> Period 7
<b>Teacher Visiting:</b> Karen Bendel	<b>Location:</b> Mineola High School
<b>Instructional Focus of Visit:</b> To witness various teachings of a similar subject matter, and to learn specifically about the methods of grouping students both heterogeneous and homogeneous to form	
<p><b>Teacher Actions</b></p> <p><u>Questioning Techniques</u>  Karen asked questions and made comments that forced the students to answer in complete sentences, to show mathematical concepts using their arms (visual cues), and made the class repeat things out loud together:</p> <ul style="list-style-type: none"> <li>- What popped into your head? <ul style="list-style-type: none"> <li>- The students responded "Y"</li> <li>- Because I asked a question!</li> <li>- The students responded "The letter y"</li> </ul> </li> <li>- Show me with your arms exponential... squared... cubic...</li> <li>- This is our new thing for today: one to one functions, can everyone say that?</li> <li>- In reference to the Mathspace homework: When a student got one of the very difficult questions correct, Karen told the class that [student name] must know a secret we don't know yet, because that is a new topic they're learning today.</li> </ul> <p><u>Groupwork Techniques</u>  Karen hands out an index card to each student at the beginning of the year that has 4 different group options that students will be in for the remainder of the year. She adds more shapes (groups) to their cards as the year goes on because she is better able to assess how to group them by their success level. Her method was extremely efficient and as soon as she posted the groups, the students immediately started moving to their designated area. Students on this day were grouped based on a "peer tutoring" method. The students were groups into mixed-ability groups and were told to complete 2 problems with the group that they were seated with. Karen walked around and gave each group help and guidance. If students were done (this was great for the higher level groups), they moved onto the next page which was from Jmap and was mixed practice. She gave them a solid ten minutes to work on their problems. She gave the students time and then asked if all of the tables got through the first 6 problems. When the class responded "no," she told them she would give them more time. She was listening for discussion the entire time, and when the students got quiet at one point, Karen told them that she didn't hear much discussion. After ten minutes, she told them to take a time out and look up: she has the answers posted on the board that she drags down to reveal. At the end of class (this was a double period, but I only stayed for one period), she had a slide on the board that had 3 different shapes. Under each shape was a review game. The group that worked the best picked the shape they wanted her to uncover to discover the review game that they would play the following period. She instructed them that they would be using ONE iPad per group.</p>	<p><b>Student Actions</b></p> <p>As I was observing, I noticed that the students were well prepared, attentive, and they knew what to expect. It was evident that the students knew the rules of the classroom.</p> <ul style="list-style-type: none"> <li>- Students were allowed to speak freely, but had respect when other people spoke</li> <li>- No one was specifically called on, the class was encouraged/allowed to answer freely as a group.</li> </ul> <p>Students were seated in pairs at whiteboard tables, and they worked with their partner for half of the class. When they got into groups, it was an easy transition and students knew exactly what groups to get into. All of the students were engaged and working, and there was a great amount of discussion happening at each group.</p> <p>In the beginning of the lesson, students were working in partners and for some questions, they were told to have a discussion with their partner. This method of "discussion" (and even at times, debating) continued throughout the entire period.</p> <p>Students were never silently working on their own, they were always collaborating and working through the problem with a partner or in their group of 3-4.</p>

**Summary and Reflection:** Summarize what you just saw and your initial reactions to think about how this may work in your own classroom.

In summary, Karen had an extremely structured class where her students knew exactly what to expect. She had the same level of students and the same subject. This method was instilled at the beginning of the year, but is definitely something that I can begin and the students can pick up quickly. Although she did not have a "flipped classroom" setting on the day I observed her, she does use it on a regular basis.

Article/Research to Support Visit	Article/Research to Support Visit
<p><b>Citation:</b> Bhagat, Kaushal &amp; Chang, Cheng-Nan &amp; Chang, Chun-Yen. (2016). The Impact of the Flipped Classroom on Mathematics Concept Learning in High school. Educational Technology &amp; Society, 19. 134-142.</p> <p><b>Abstract:</b> The present study aimed to examine the effectiveness of the flipped classroom learning environment on learners learning achievement and motivation, as well as to investigate the effects of flipped classrooms on learners with different achievement levels in learning mathematics concepts. The learning achievement and motivation were measured by the Mathematics Achievement Test (MAT) and Course Interest Survey (CIS) respectively. A pretest-posttest quasi-experimental design was employed for this study. A total of 82 high-school students participated in this study and divided into experimental and control groups. Findings indicated a significant difference in the learning achievement and motivation between the two groups with students performed better using the flipped classroom. Further analysis showed a significant difference in the performance of low achievers in the experimental and control groups.</p> <p><b>How it relates to visit:</b> Karen uses flipped classroom strategies in her everyday teaching. Although I did not get to see that, and it is not the main focus of my research for the year, I do want to implement it, and it does have an effect on her timing during class. Since students have previously seen the material (through an EdPuzzle video, or other similar application/website) they have some prior knowledge on the topic and it allows them time for more independent practice.</p> <p><b>Summary:</b> Overall, this article goes into depth about how the flipped classroom is very motivating for students. Students tend to feel less overwhelmed and less stressed if the material that they are learning is something they have seen before - even if it's only briefly. Especially for students that struggle, going into class and having seen the material before is extremely beneficial for them.</p>	<p><b>Citation:</b> R. Hofmann &amp; N. Mercer (2016) Teacher interventions in small group work in secondary mathematics and science lessons, Language and Education, 30:5, 400-416, DOI: 10.1080/09500782.2015.1125363</p> <p><b>Abstract:</b> Collaborative problem solving, when students work in pairs or small groups on a curriculum-related task, has become an increasingly common feature of classroom education. This paper reports a study of a topic which has received relatively little attention: how teachers can most usefully intervene when students are working in a group, but have encountered some sort of problem. The data used comes from a large-scale interventional study of mathematics and science teaching in secondary schools in south-east England, in which interactions between teachers and students were recorded in their usual classrooms. We identify the typical problem situations which lead to teachers' interventions and describe the different ways teachers were observed to intervene. We examine the different types of intervention and consider how effective they are in helping group work proceed in a productive manner. Finally, we offer some conclusions about the practical implications of these findings.</p> <p><b>How it relates to visit:</b> Karen uses a mixture of grouping techniques on a daily basis. She focused heavily on groupwork and creating a meaningful class discussion and implementing differentiated groupwork. She allows her students to experience different groups that allow them to work with students who are similar in ability, different in ability, and mixed groups: both heterogeneous and homogeneous.</p> <p><b>Summary:</b> Overall, this article stresses the importance of having groups that WORK. Putting students into groups without any rationale is detrimental to their learning process. Groups need to be created in a way that will foster learning and encourage meaningful discussion - whether that discussion is agreeing on an answer or having a debate over the correct method/answer.</p>