Open Door Policy- Are Two Heads Better Than One?
How Co-teaching Influences Student Engagement and Time
Spent on Transitions.

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2010-2011
Professional Development School Interns
Fifth Grade
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Description of Teaching Context/ Background

Historically, teaching is very rarely a collaborative experience. Typically, an individual roaming school halls would find two straight lines of closed doors, each teacher doing his/her own “thing” behind each one. At least that is what we thought teaching would be prior to walking into school at the end of August. Our years of experience as students in the classroom could have never prepared us for the environment that we were approaching. Walking towards our classrooms on that fateful first day of in-service, we saw, open doors? After stepping across the threshold, we almost jumped back in amazement at the sight of another door that connected our two classrooms. Yes, that one was open as well. Then we heard it; the sound of a mentor shouting to the another mentor across rooms asking about poster strips that would not fall off in the dry environment. We both knew that this experience would be unlike any other before and we could only hope that we were prepared for the challenge.

Whether we liked it or not, we had two mentors that were best friends who believed in and put into practice the art of co-teaching. Collaborative planning sessions, joint lessons and a constant partner to look to for advice, ideas, justification and reflection became our daily experience (Badiali, Burns, Peters, & Titus, 2010). Whether we were prepared or not, co-teaching has now become our practice.

Our classes are “typical” fifth grade classes. Our students have a variety of interests and learning styles. The students are social and eager to work. Our curriculum is student-centered and lends itself nicely to work in small groups and co-teaching. The science curriculum is based on inquiry and small group exploration. Social studies and language arts are integrated in a way that enhances instructional time. Students typically meet together for instruction in both science and social studies, then they move into small groups for exploration and the two classes come back together for a summary or wrap-up discussion. We try to provide a variety of ability levels for each group and use a variety of formats to conduct group work. Working with both classes is a constant in all subjects and large meeting rugs provide the comfortable space for such instruction.

Logistically, our fifth-grade classrooms consist of twenty-two male students and twenty-three females. Most of the students are reading and comprehending at a fifth
grade level with eleven students above grade level and eleven below grade level. Five students could be categorized as being gifted or talented, though only one of them has been formally tested. One of these students skipped the fourth grade, but has not been formally tested and categorized as being gifted or talented. There are no students who receive strong emotional support outside of the general classroom, but we have three students who require additional attention and emotional support within our classroom. One student is back after spending a year in the HEARTS program for psychological support and one student is currently participating in the HEARTS program for behavioral support. Four students have been identified as having ADD/ADHD and four others are unofficially diagnosed. Three students are learning disabled in some way; one has Downs Syndrome and one is a student with autism. There are two students with learning disabilities who are undiagnosed. Five students go to learning support for math, two for reading and five for writing. Five students receive Title I support and one student receives ESL support services. Six students are high achievers and social leaders who can influence others; there is one other strong leader in the class who is not a high achiever. Most of the students are easy going and easily get along with one another. There are seven students in particular who have trouble getting work done without frequently being redirected. Eleven students are noticeably quieter than others, however, do not have anxiety to conform and fit in with their peers. Two students present challenges in social situations as indicated by resistance to participation in group work.

**Rationale**

There is a famous saying that two heads are better than one, but halfway through our intern year we have discovered that four heads are better than two. Our inquiry question was developed as a result of our unique intern experience. We are two interns who teach in adjacent classrooms that share a door that never closes. Our mentors are not only friends outside of school, but have developed a relationship that extends into the classroom. This co-teaching experience has led us to observe unique situations and discover how four heads are better than one.

After discussing our observations with our Professional Development Associate, he informed us of the research that has been presented concerning the benefits of co-
teaching. He shared this information with us and suggested that we might test the impact of co-teaching on certain aspects of routine classroom management activities, like student engagement and transitions.

We have had personal interaction with the practice of co-teaching since the beginning of our intern experience. This inspired us to do further exploration into key aspects of the process and what impact it has on the students who are involved. We have participated in the planning and facilitating of a variety of co-taught lessons and decided to collect data on its impact. We wondered if there were any negative consequences for students that resulted from co-teaching, or were they all positive? These questions motivated us to discover the impacts of what is becoming our style of teaching.

As we began to research, we came across a myriad of resources that described the benefits of co-teaching in the special education classroom. A typical co-teaching experience is defined as pairing one general education classroom teacher with a special education teacher in an inclusive environment. This will allow students receiving special education services to be completely included in the general education classroom. Most of our research detailed the relationship between a special education teacher and a general education teacher (Welch, 2000). This information made us wonder if two heads are better than one for special needs students, why not in the general education classroom regardless of the presence of special needs students? Howard Gardner’s data supporting multiple intelligences shows that each student has a unique learning style. Co-teaching can and should be moved from supporting just students with special needs to supporting each individual learner in the classroom (Badiali & Titus, 2010).

**Wonderings**

As new members to this collaborative teaching style, we had several wonderings about the impact of co-teaching. We specifically wondered how co-teaching impacts the students. During our observations of co-teaching in action, we noticed that students seemed to be more attentive, engaged and happy as opposed to withdrawn, off-task and “bored”. These negative behaviors are what we have previously observed in classrooms that do not practice any of the co-teaching models. We could not be sure if this positive
influence on student engagement was due to the particular lessons that we observed, or if these were the benefits of collaborating with a colleague during instruction. We also noticed the logistical effects of co-teaching: students needed to be brought together. Seemingly, this would affect transitional time during the school day. However, during our observations, we never felt that there was too much “down time” as a result of students switching classes. Regardless, we could not make a claim based on a feeling. Thus, we set out to find the answers and developed the following open-ended question:

   How does co-teaching impact student engagement, transitions and does it differ across content areas?

To focus our data collection and analysis, we developed the following sub-questions:

• How does co-teaching impact the level of student engagement during lessons?
• How does co-teaching impact the length of transitions between activities?
• Do different models of co-teaching have different impacts on student engagement and transitions and, if so, what are those impacts?
• Does co-teaching have differential impacts depending on the subjects and, if so, what are those differential impacts?

Data Collection/ Analysis

We collected data on student engagement using time sweeps in a variety of formats to determine the percentage of on-task versus off-task behaviors. Our working definition for on-task behavior is the following: a student that is actively participating verbally or non-verbally in the lesson. Participating could look like writing down notes, making eye contact with the teacher and/or participating in a small or large group discussion about the topic. Our definition for off task behavior is a student that is not actively participating verbally or non-verbally in the lesson. We analyzed the systematic data to determine the percent of on-task behavior experienced for each lesson (see Appendix A and B). In addition, we collected base-line data for our inquiry through systematic observation of lessons that were not co-taught, in addition to the co-taught lessons. These data also stretched across each subject to ensure that we could analyze the impact of co-teaching on student engagement in the different content areas.
To address all aspects of our main question, we also needed to collect data on time spent on transitions. The type of transition, how long it took and if it was performed with the co-teaching model or with a single teacher were all recorded. We then analyzed these data to determine how long transitions take in a co-taught classroom and compared the lengths of time with a non co-taught transition (See Appendix C).

Finally, we utilized student input by providing two surveys and conducting individual and group student interviews (Appendix D, E and F). We asked students how they feel about being in a co-teaching environment and how it affects them as a learner. The results and opinions were used to support our claims about co-teaching and determined whom we picked to interview. We selected a variety of learners to interview and chose individuals that had provided answers on both ends of the spectrum about how the individual feels about co-teaching. In addition, we provided a second survey that asked students to think about what they have learned from all of the teachers that have been involved in the co-teaching environment (Badiali, 2011). We analyzed all of the interviews and survey answers and summarized the data to provide evidence that co-teaching addresses social needs, supports a variety of learners and increases student engagement.

**Explanation of Findings/ Wonderings**

- **Co-teaching does not affect students engagement in a negative way and may, in fact, have a slight positive impact**

  Once our data were organized into charts, we found that co-teaching definitely did not have a negative impact on student engagement. In addition, there may be a slight, positive impact on student engagement levels. The range of on-task engagement for a co-taught lessons was 52% to 95%. Student engagement in a single taught lessons ranged from 67% to 79% (Appendix A). Comparing these two ranges, the data clearly show that co-taught lessons do not negatively impact student engagement.

  Although co-teaching had a much wider range of engagement levels, the average level of students on task was 79.5%, compared to the 74% average engagement level for a lesson taught by a single teacher. The 5.5% increase is not significant enough to conclude that students experience a higher level of on-task behavior when being co-
taught, especially given the wide range of engagement levels, but it is enough to say that it does not decrease the amount of on-task behavior. One particular lesson needed further examination. The lowest engagement rate was experienced during a co-taught lesson. However, based on the systematic data taken by the observer (Appendix H), we noticed that half of the students that were labeled “off-task”, were also labeled as “out of seat”. The anecdotal notes that supplemented the lesson described how the students were getting up to get computers and get additional resources because this was a research project. However, being out of the seat was one way we marked off-task behavior. Due to the nature of this lesson, these students were not really off-task, but our coding system was designed to code them off-task. We concluded that the coding system was not well suited to this particular lesson. Thus, we feel that this piece of evidence is an outlier and skews our data. It is consistent with our claim that co-teaching definitely does not impact engagement negatively and may, in fact increase engagement slightly.

Another aspect of co-teaching that we explored is the number of students in the lesson. For most of our co-taught lessons, we had two classes combined. Naturally, co-teaching in one room would decrease the students to teacher ratio. But, when you combine classes and co-teach, you keep the same student to teacher ratio as a classroom with a single instructor. Our data shows that the number of students did not significantly affect student engagement. However, the lesson with the highest amount of student engagement at 95%, was co-taught and experienced a 1:13.5 teacher to student ratio. A lesson taught by a single instructor with the same teacher to student ratio only experienced 67% of students on-task and engaged (Appendix A). This 28% difference provides some evidence that co-teaching may have a positive impact on student engagement and provided the concrete evidence to claim that co-teaching does not affect students in a negative way.

- **Co-teaching is an effective way to meet the social needs of fifth grade students**

  Although the data do not show a significant, positive or negative impact on students engagement levels in a co-teaching environment, student interview responses describe the significant positive impacts on the students’ social needs (Appendix F). Several students explained how co-teaching is impacting their learning and interactions in school in a positive way. Several students made reference in their interviews that they
enjoyed the opportunity that co-teaching afforded them to work with students from the other classes on group projects. “I really liked that we got to work with people from the other class because I did not know many of the other students in the other class because I was new last year and did not get to meet them all. This helped me make new friends” (Student A- Interview). The students explained how this does not happen in a non-co-teaching environment. These students did admit that having the opportunity to work with students in other classes, especially friends whom they don’t see very often may distract them from their work (Appendix D and F). However, they then recalled all of the other times that they are distracted by students in their own classroom. As the students stated, “It’s natural for us to talk”. However, this comment was quickly followed up with a disgruntled look as several students said, “But we can’t get away with it when we have all of you in the classroom”. This group interview response illustrates the benefits of having more than one teacher in the classroom and highlights the students’ gratitude for having the opportunity to work with more people.

- **Co-teaching does not have a significantly different impact between various content areas**

We began our inquiry already immersed in co-teaching during science and social studies with two classrooms and in language arts and math with one class. We were interested to see if certain subjects were better suited than others for co-teaching and which subjects lead to high levels of student engagement and interest. The data for all content areas in engagement did not differ by much. In addition, the average level of student engagement for a single instructor was lower than in a co-taught environment (Appendix B). We did find that the highest levels of student engagement were in Science, averaging around 86% compared to 79% with a single instructor. This was followed by Math with an 85.5% co-teaching average for engagement and 71.5% for a single instructor, language arts with an 84% co-teaching average and 79% for a single instructor. Finally, social studies had 60.5% of students on task with co-teaching and we do not have baseline data for this content area because it is never taught with a single instructor.

These data shows that co-teaching increases student engagement by subject. However, we feel as though math, science and language arts all show a strong level of
success in terms of student engagement levels in a co-taught environment, but the data is too close to say that one content area benefits from co-teaching more than the other. There is admittedly a huge difference among those three subjects and social studies; however, the nature of our social studies lessons involve students getting out of their seats to get computers or research material. As we explained above, the coding system did not match the lesson which may have skewed the data. Thus, we believe that co-teaching can be done successfully in all content areas with proper planning, time commitment, motivation and dedication.

- **Co-teaching does not have a negative impact on transition time**

  Our data show that there is no significant difference with transition times when the lesson is being co-taught and when it is not. The average time spent on transitions for a single teacher was 4.25 minutes and the average for a co-taught lesson was 2.8 minutes (Appendix C). These data illustrates that on average, co-teaching is more effective in decreasing the amount of time spent on transitions. However, we also discovered that the type of transition had an effect on the time spent transitioning between activities. For example, transitions take longer when students are switching out of three classrooms and moving into new classrooms for math. In addition, when students transition from morning work to math or from math to a class meeting, it naturally takes longer because students are switching from a structured setting to a more relaxed setting. Thus, the next activity will take longer to begin. The majority of our data for a single teacher is in these settings, slightly skewing our data. Regardless, the transition times during co-teaching were still low, which supports that co-teaching does not negatively impact transitions.

- **Students perceive that co-teaching benefits them as learners by presenting various learning opportunities**

  The connections between students and teachers are important to ensuring learning and engagement of students. When students are offered the opportunity to work with more than one teacher, they are able to build this unique relationship that allows them to become happy, active and engaged learners. When interviewed, several students explained how they valued the opportunity to work with more than one teacher. They explained that the more teachers in the classroom, the more support they received in a variety of ways. Some students expressed an appreciation for the opportunity to have two
different teachers to present a lesson with different styles that allowed them to get a richer experience from the lesson than they would have otherwise. Students also reported learning more about issues and topics of study because their teachers were able to show them different perspectives and ideas around the same topic, an opportunity that they did not get to have in previous years. Students were particularly excited to offer their enthusiasm about the fact that they have multiple teachers to ask for help or guidance whether that was a personal problem or an academic question. “Having more than one teacher is nice because if I have a question about something or I don’t understand the directions my teacher gave, there is someone else to ask to help me” (Student B-Interview) This answer was common among interviewees and open-ended survey questions.

The relationship that is built between teachers and students is not something that can be studied easily and it does not provide measureable data, but it has a lasting impact on how a student feels about his/her learning. Sometimes teachers are providing students with lessons about life, not simply academic content. When asked to provide responses about what they have learned from all four teachers this year, some responses included the following: “It is okay to be different”; “You should treat people the way that you want to be treated”; “You’re not done until you do your best”; “How to work with others”; “How to be a good person”; “How to actively participate in a discussion”; “How to be respectful”; “How to be nice to everyone”; and “How to be respectful, caring, honest, responsible, citizens that always put in a great deal of effort”. This is only a snapshot of the responses provided by the fifth grade students in our class. Regardless, you can see they value the relationship and lessons they are learning not just by their main teacher. These lessons could still be learned with a single teacher, but the students have a more frequent interaction with these experiences because of the variety of perspectives and individuals the students interact with daily. These are also lessons that all teachers value and hope to teach to their students, co-teaching provides the opportunity to ensure that they are all taught and valued in a classroom.
Reflection and Implications for Future Practice

Once we were immersed in a co-teaching environment, we learned a great deal about the impacts it has on educators because it became our practice. Often, as educators, we focus on the impact that our practice has on ourselves because it becomes our life. We initially wanted to create an inquiry around the impact of co-teaching on educators. However, we quickly realized that we knew those answers. We knew that it meant longer planning sessions, time spent reflecting and time spent building and maintaining a relationship. Essentially, it meant a lot of effort and time. Then came the question, is this actually helping our students? What are the impacts? We knew that we needed to refocus our inquiry on the students because they are the foundation of education.

Throughout the inquiry process we learned a great deal about co-teaching’s affect on our students. We were surprised by our data because it did not show a significant increase or decrease in student engagement when the lesson was co-taught. Therefore, we concluded that co-teaching did not have a negative impact on student engagement. However, after we interviewed several students, we realized that co-teaching greatly supported the students’ social needs, which is an essential component to student development. Thus, we feel that we will implement co-teaching into our future practice because it addresses students’ social needs without negatively impacting engagement or time spent on transitions. In addition, co-teaching provides the opportunity to present multiple perspectives to material, multiple teaching styles to reach a variety of learners in the classroom and provides student with additional support. Therefore, our data may not have shown a measurable, positive impact on student engagement or time spent on transitions, but it did illustrate positive experiences for the students that do not hinder their overall education.

If we were to perform this inquiry in the future, we both would collect more data for different subjects. Although part of our main question asks if co-teaching has a different effect for different subjects, we did not find any conclusive evidence that could support that it does or does not. Regardless, we both see co-teaching as our practice in our future. Now that we have found evidence to support its positive impacts on students’ social needs and have found no evidence that it decreased student engagement or
increased transitional time, we would be doing our students a disservice to not co-teach. Therefore, in a successful co-teaching environment, two heads can be better than one.
WORKS CITED


### Appendix A - Engagement Data

#### Engagement Data sorted by Date

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<th>Model</th>
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<td>Subject</td>
<td>Model</td>
<td># of Students</td>
<td>Percent on Task</td>
<td>Percent Off Task</td>
</tr>
<tr>
<td>--------</td>
<td>--------------</td>
<td>-------------------</td>
<td>---------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>1/27</td>
<td>Math</td>
<td>Single</td>
<td>14</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>2/17</td>
<td>Social Studies</td>
<td>Station Teaching</td>
<td>14</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
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<td>Math</td>
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<td>16</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>3/18</td>
<td>Math</td>
<td>One Teach/One Assist</td>
<td>17</td>
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<td>16%</td>
</tr>
<tr>
<td>3/31</td>
<td>Math</td>
<td>One Teach/One Assist</td>
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<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>3/15</td>
<td>Science</td>
<td>Station Teaching</td>
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<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>3/17</td>
<td>Language Arts</td>
<td>Single</td>
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<td>21%</td>
</tr>
<tr>
<td>4/7</td>
<td>Language Arts</td>
<td>Parallel Teaching</td>
<td>20</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>3/2</td>
<td>Morning Work</td>
<td>Single</td>
<td>20</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>2/18</td>
<td>Math</td>
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<td>27</td>
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<td>5%</td>
</tr>
<tr>
<td>4/4</td>
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<td>34</td>
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<td>21%</td>
</tr>
<tr>
<td>4/7</td>
<td>Science</td>
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<td>44</td>
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<td>13%</td>
</tr>
<tr>
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### Engagement Data sorted by Percent on Task

<table>
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<tr>
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<th>Subject</th>
<th>Model</th>
<th># of Students</th>
<th>Percent on Task</th>
<th>Percent Off Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/17</td>
<td>Social Studies</td>
<td>Station Teaching</td>
<td>14</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>1/27</td>
<td>Math</td>
<td>Single</td>
<td>14</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>3/2</td>
<td>Morning Work</td>
<td>Single</td>
<td>20</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
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<td>Synchronous Teaching</td>
<td>44</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>2/28</td>
<td>Math</td>
<td>Single</td>
<td>16</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
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<td>Language Arts</td>
<td>Single</td>
<td>19</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>4/4</td>
<td>Science</td>
<td>Single</td>
<td>34</td>
<td>79%</td>
<td>21%</td>
</tr>
<tr>
<td>3/31</td>
<td>Math</td>
<td>One Teach/One Assist</td>
<td>17</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>3/18</td>
<td>Math</td>
<td>One Teach/One Assist</td>
<td>17</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>3/15</td>
<td>Science</td>
<td>Station Teaching</td>
<td>18</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>4/7</td>
<td>Language Arts</td>
<td>Parallel Teaching</td>
<td>20</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>4/7</td>
<td>Science</td>
<td>Synchronous Teaching</td>
<td>44</td>
<td>87%</td>
<td>13%</td>
</tr>
<tr>
<td>2/18</td>
<td>Math</td>
<td>One Teach/One Assist</td>
<td>27</td>
<td>95%</td>
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</table>
Appendix B- Average of Student Engagement

Average of Student Engagement Sorted by Subject

<table>
<thead>
<tr>
<th>Subject</th>
<th>Co-taught On-Task Engagement Average</th>
<th>Single Taught On-Task Engagement Average</th>
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</thead>
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<tr>
<td>Math</td>
<td>86%</td>
<td>71.5%</td>
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<tr>
<td>Science</td>
<td>85.5%</td>
<td>79%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>60.5%</td>
<td>N/A</td>
</tr>
<tr>
<td>Language Arts</td>
<td>84%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Average of Student Engagement Sorted by Teaching Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Average for the Level of Student Engagement</th>
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</thead>
<tbody>
<tr>
<td>One Teach/One Assist</td>
<td>86.3%</td>
</tr>
<tr>
<td>Parallel Teaching</td>
<td>84%</td>
</tr>
<tr>
<td>Synchronous</td>
<td>76%</td>
</tr>
<tr>
<td>Single</td>
<td>73.6%</td>
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<tr>
<td>Station Teaching</td>
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### Appendix C - Transition Data

#### Transition Data Sorted by Date

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<tr>
<th>Date</th>
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<th>Time</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/2</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Math-Class Meeting</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Recess-Social Studies</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/22</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions-Logging into Computers</td>
<td>4 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions on Computer-Entering Data</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/4</td>
<td>Science-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Social Studies-Special</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>4/7</td>
<td>Science-Lunch</td>
<td>2 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Lunch-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
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### Transition Data Sorted by Type of Transition

<table>
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<th>Time</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/7</td>
<td>Lunch-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/2</td>
<td>Math-Class Meeting</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/22</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Recess-Social Studies</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions on Computer-Entering Data</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions-Logging into Computers</td>
<td>4 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Science-Lunch</td>
<td>2 minutes</td>
<td>Co-taught</td>
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<tr>
<td>4/4</td>
<td>Science-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Social Studies-Special</td>
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## Transition Data Sorted by Time

<table>
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<th>Time</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/2</td>
<td>Recess-Social Studies</td>
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<td>Single</td>
</tr>
<tr>
<td>4/7</td>
<td>Science-Lunch</td>
<td>2 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Social Studies-Special</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>4/7</td>
<td>Lunch-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions on Computer-Entering Data</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/4</td>
<td>Science-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions-Logging into Computers</td>
<td>4 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/2</td>
<td>Math-Class Meeting</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/22</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
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</table>
### Transition Data Sorted by Model

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<th>Time</th>
<th>Model</th>
</tr>
</thead>
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<tr>
<td>4/7</td>
<td>Lunch-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions on Computer-Entering Data</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/29</td>
<td>Science Directions-Logging into Computers</td>
<td>4 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/7</td>
<td>Science-Lunch</td>
<td>2 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>4/4</td>
<td>Science-Science</td>
<td>3 minutes</td>
<td>Co-taught</td>
</tr>
<tr>
<td>3/2</td>
<td>Math-Class Meeting</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/22</td>
<td>Morning Meeting-Math</td>
<td>5 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>3/2</td>
<td>Recess-Social Studies</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
<tr>
<td>4/7</td>
<td>Social Studies-Special</td>
<td>2 minutes</td>
<td>Single</td>
</tr>
</tbody>
</table>
Appendix D - Initial Student Survey

Co-Teaching Inquiry Survey
By Kelly Flanagan and Katherine Frentz

Directions: Please select one answer for each question.

1. I like it when it when I only have one teacher teaching a lesson. *
   • ☐ Not at all
   • ☐ A little
   • ☐ Some
   • ☐ A lot
   • ☐ A Whole Lot

2. I like it when I have more than one teacher teaching a lesson. *
   • ☐ Not at all
   • ☐ A little
   • ☐ Some
   • ☐ A lot
   • ☐ A whole lot

3. I feel like I pay attention more when more than one teacher teaches a lesson. *
   • ☐ Not at all
   • ☐ A little
   • ☐ Some
   • ☐ A lot
   • ☐ A whole lot

4. My mind wanders when there is more than one teacher teaching a lesson. *
   • ☐ Not at all
   • ☐ A little
   • ☐ Some
   • ☐ A lot
   • ☐ A whole lot

5. I like to be taught when both classes are combined. *
   • ☐ Not at all
• A little
• Some
• A lot
• A whole lot

6. I feel distracted when both classes are combined. *
• Not at all
• A little
• Some
• A lot
• A whole lot

7. I feel that my quality of work is best when I have more than one teacher teaching a lesson. *Quality of work = accuracy and completeness
• Not at all
• A little
• Some
• A lot
• A whole lot

8. I wish that I never had to leave my classroom for a lesson. *
• Not at all
• A little
• Some
• A lot
• A whole lot

9. I enjoy working with students in the other class for projects or group work. *
• Not at all
• A little
• Some
• A lot
• A whole lot

10. It takes me a long time to get started with a task when I work with more than one teacher for a lesson. *
• Not at all
• A little
• Some
11. If you have any additional comments about having more than one teacher during a lesson, your ability to focus on your work or the task at hand and/or the time it takes you to get started with your work or move on to the next task, please say so here! You may also tell us if your opinion changes for different subjects. *
Appendix E- Final Student Survey

Co-Teaching Final Survey
By Kelly Flanagan and Katherine Frentz

Directions: Please fill in the blanks.

1. Something Mrs. Cody always says is ____________.
2. Something Mrs. Cullin always says is ____________.
3. Something Miss Flanagan always says is ____________.
4. Something Miss Frentz always says is ____________.
5. The most important thing that I have learned from Mrs. Cody this year is -
   ____________.
6. The most important thing that I have learned from Mrs. Cullin this year is -
   ____________.
7. The most important thing that I have learned from Miss Flanagan this year is -
   ____________.
8. The most important thing that I have learned from Miss Frentz this year is-
   ____________.
Appendix F- Student Interview Questions

Interview Questions
By Kelly Flanagan and Katherine Frentz

1. What do you like the most about being in fifth grade? How is fifth grade different from other classes you have had?

2. What do you like about your class this year? What do not like about your class this year?

3. What do you like about having Mrs. Cullin/ Mrs. Cody or Miss. Frentz/ Miss Flanagan teach you a lesson together?

4. What do you not like about having Mrs. Cullin/Mrs. Cody or Miss. Frentz/ Miss Flanagan teach you a lesson together?

5. Do you ever find it hard to concentrate when you are combined with the other class?

6. How do you think having two teachers helps you learn? How does it hurt you as a learner?

7. Do you mind having to change classrooms for lessons? Would you like it better if we always stayed in our classroom?

8. Do you like being able to work students from the other class on projects and assignments?

9. Do you ever find it confusing to working with more than one teacher?

10. Do you wish that we worked with the other class more and less then we do now?
### Appendix G - Example of Transition Data Recording Sheet

#### 3/29

**Science**

<table>
<thead>
<tr>
<th>TRANSITIONS</th>
<th>From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure of last activity:</td>
<td>Directions:</td>
<td>moving into log in to begin</td>
</tr>
<tr>
<td>Start Time:</td>
<td>12:11</td>
<td></td>
</tr>
<tr>
<td>Attention getter strategy:</td>
<td>Explaining how to log into the database</td>
<td></td>
</tr>
<tr>
<td>Explanation of next activity:</td>
<td>Walking around the room to make sure everyone is logging in correctly</td>
<td></td>
</tr>
<tr>
<td>Students Off Task (initials):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method(s) used to engage off task students:</td>
<td>Verbal/Non-verbal</td>
<td></td>
</tr>
<tr>
<td>End Time:</td>
<td>12:10</td>
<td></td>
</tr>
<tr>
<td>Notes:</td>
<td>Moving from directions into activity in science</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>TRANSITIONS</th>
<th>From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closure of last activity:</td>
<td>move to work independently</td>
<td></td>
</tr>
<tr>
<td>Start Time:</td>
<td>12:18</td>
<td></td>
</tr>
<tr>
<td>Attention getter strategy:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation of next activity:</td>
<td>going back to the room from science to get started</td>
<td></td>
</tr>
<tr>
<td>Students Off Task (initials):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method(s) used to engage off task students:</td>
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<td></td>
</tr>
<tr>
<td>Verbal/Non-verbal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>End Time:</td>
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<td>Notes:</td>
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</table>
Appendix H- Example of Systematic Data Recording Sheet for Student Engagement
NAME: Kelly

DATE/DAY: 8/17/11

TIME: 12:00

NO. OF STUDENTS: 14 in 2 small groups

SCHOOL:

O+X  O+O  +X  O+O
Short County AM  Jean  O+O

survey 3- Kelly

unstructured activity

survey 3

Student: Faith

12:04 - 12:09

6 - talking
5 - on task
1 - away from seat
X - off task

Survey 1:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tbody>
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</tr>
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<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
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<td>5</td>
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</tbody>
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Survey 2:

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Survey 3:

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<td>12</td>
<td>12</td>
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</table>

TOTAL:

<p>| | |</p>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
One Teach, One Assist

NAME: Katie & Liam
SUBJECT/GRADE: Co-Talking Math
NO. OF STUDENTS: 27
SCHOOL:

WWW - Packets
WWW - Data
WWW - Sam
WWW - Nick

√ = ON TASK
0 = OFF

TOTALS:
27
15
13.5
- 7
12.8

12.8 ON TASK
7 OFF - 93%

DATE/DAY: 2/18
TIME: 8:50 - 9:25
OBSERVER: JM

DISTRICT:

[Handwritten notes and diagrams related to classroom observations and student engagement.]
Appendix I - Examples of Student Survey Responses

2. Mrs. Cody always says, “Sign up for lunch. Wash your hands!”

2. Mrs. Cullin always says, “Clap once if you can hear my voice! Clap twice!”

3. Ms. Frentz always says, “Silent so!”

4. The most important thing I learned from Mrs. Cody this year is treat people the way you want to be treated. No headings on essays, 5 paragraphs, five sentences. Choices, honesty, caring, respect, effort, responsibility.

5. Ms. Flanagan always says, “Turn in your turning!”

6. The most important thing I learned from Ms. Cullin is in science. I learned about the layers of the earth.

7. The most important thing I learned from Ms. Flanagan this year is reading good books is good! Don’t judge a book by its cover.

8. The most important thing I learned from Ms. Frentz is the time when she read a good book to us, I learned that the Oregon trail isn’t all true and genuine.”
1. "There's no point in beating a dead horse," "it's not good enough if you have to ask."
2. "Awesome"
3. "Check your work."
4. "Think about it, now explain."
5. how to use comma correctly.
6. how to be a good person,
7. how to participate actively in a discussion
8. how to work well with others

1. Move it or lose it.
2. Connie Consequence is back
3. Sit quietly please
4. Work quietly
5. What times are
6. Pendas
7. Your not done until you do your best
8. How to work together
Something ___ always says
is:
Mrs. Cody- Use your manners!
Mrs. Cullin- Pay attention!
Miss Flanagan- Stop talking, please!
Miss Frentz- We have homework!

The most important thing I’ve learned
from ___ is:

Mrs. Cody- Is to be nice to everyone.
Mrs. Cullin- Is to pay attention.
Miss Flanagan- Is to be respectful.
Miss Frentz- If you don’t pay attention,
you’ll learn nothing.