

# **CO-TEACHING MODELS AND STUDENT ACADEMIC SUCCESS**

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# **THE CURRENT LITERATURE**

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# LITERATURE REVIEW

## STUDENTS WITH DISABILITIES

- 6.7 million students, 13% of the US public school student population
- services for one of the following: specific learning disability (SLD), speech or language impairment, other health impairment, Autism, developmental delay, intellectual disability, emotional disturbance, hearing impairment, orthopedic impairment, or multiple disabilities
- 82% of SPED students spent 40% or more of the school day in gen ed (primarily co-taught) classes during the 2015-16 school year

(National Center for Education Statistics, 2018)

## LEGISLATION

- 1975 Education for All Handicapped Children Act- least restrictive environment (LRE)
- Individuals with Disabilities Act (IDEA) of 1990 and 1997 IDEA Amendments elaborated on the location of LRE by encouraging inclusion

(Murawski & Swanson, 2001)

- 2004 Reauthorization of IDEA- standardized assessment requirement; Congress pushed for inclusion

(Magiera, et al., 2006)

# LITERATURE REVIEW

## CO-TEACHING

- Referred to as co-teaching, collaborative teaching, and cooperative teaching
- A general educator and a special educator, share the teaching role and responsibilities in a blended classroom

(Rice & Zigmond, 2000)

- Intended to benefit all learners; creates lower teacher to student ratios

(Wexler, et al., 2018)

- Teachers should share equal status, roles, and responsibilities allowing for them to combine their areas of greatest expertise

(Friend & Cook, 2003 as cited by Simmons & Magiera, 2007)

## CO-TAUGHT MODELS

- Team teaching, alternative teaching, parallel teaching, station teaching, one teach/one observe, and one teach/one assist
- Model is often dependent upon the team's experience working together, individual competency with content, teacher parity, or a combination of these factors

(Embury & Kroeger, 2012; Keeley, 2015)

- Other factors may include incompatible partnerships as a result of assigned co-teaching, inconsistency in the special educator's classroom role, and lack of administrative support or involvement

(Isherwood & Barger-Anderson, 2008)

# LITERATURE REVIEW

## SUCCESSFUL CO-TEACHING

- Establish trust, develop and improve communication, share chores, celebrate, work together creatively to overcome inevitable challenges and problems, and anticipate conflict and handle it in a constructive way  
(Villa, Thousand, & Nevin, 2004 as cited by Isherwood & Barger-Anderson, 2008)

- Consistent co-planning and lesson development; teachers must feel that each member is an active participant  
(Case-Smith, Holland, & White, 2014; Magiera, et al., 2006; Magiera & Zigmond, 2005; Walther-Thomas, 1997)

- Willing participation allows for development of more trusting partnerships  
(Magiera, et al., 2006)

- Teachers assigned to co-taught classrooms often find success when teacher personalities and teaching styles are compatible

(Pugach & Winn, 2011)

- School-wide buy-in

(Magiera, et al., 2006; Rice & Zigmond, 2000)

- Administrative support in the form of: creating co-taught teams based on teacher interest, providing training and co-planning to teams, keeping effective pairs together year after year, encouraging co-taught teams to observe other teams, and urging special educators to be part of their content's departmental team

(Simmons & Magiera, 2007)

- Specific training, team training, and ongoing professional development

(Higgins & Litzenberg, 2015; Pugach & Winn, 2011; Walther-Thomas, 1997)

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# LITERATURE REVIEW

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## STUDENT ACADEMIC BENEFITS

- Case-Smith, Holland, and White (2014): co-taught first grade students showed greater improvement in handwriting skills than solo taught peers (1 year's growth vs 4 months growth)
- Witcher and Feng (2010): co-taught fifth graders demonstrated higher criterion-referenced unit test averages, CRCT (norm-referenced assessment) scores, and end of the year averages in the area of math in comparison to peers
- Student surveys at the junior-high level illustrated that students perceived their learning experiences and confidence to be greater (Keeley, 2015)
- Higgins and Litzenburg (2015): 88% of students in a co-taught capstone course believed they learned more in comparison to other traditional courses; also noted that they had a deeper understanding, greater interest, and an improved outlook on teamwork

## STUDENT SOCIAL BENEFITS

- Parents reported positive feelings about their students' social skill gains (general and special education students)
- Increased peer interaction, improvements in behavior, and greater acceptance of special education students

(Strogilos, Tragoulia, & Kaila 2015)

- Increase in self-esteem and self-concept and better peer relationships for students with disabilities

(Tichenor, Heins, & Piechura-Couture, 2000; Walther-Thomas, 1997)

- Special education students learn appropriate classroom behavior and interactions from peer role models and increased self-awareness

(Walther-Thomas, 1997)

# LITERATURE REVIEW

## ISSUES AT THE SECONDARY LEVEL FOR STUDENTS

- Generally significantly below grade level in their skills in comparison to their peers as well as the education standards and expectations
- Intense curriculum does not allow enough time for the necessary small group instruction that these students desperately need

(Weiss & Lloyd, 2002)

- 2015 national assessment report revealed that 92% of eighth-grade students with disabilities lacked basic reading ability

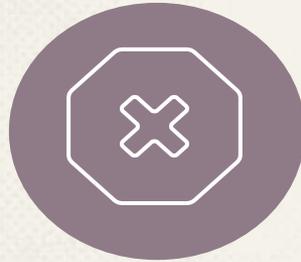
(Wexler, et al., 2018)

## ISSUES AT THE SECONDARY LEVEL FOR CO-TEACHERS

- Lack of professional development and differing views on the instructional model  
(Simmons & Magiera, 2007)
- Research argues that co-teaching should be a part of teacher preparation programs. Undergrads who participated in such a program reported positive experiences  
(Yopp, Ellis, Bonsangue, Duarte, & Meza, 2014)
- SPED teachers often have large caseloads, multiple co-teaching partnerships, and limited knowledge about content  
(Fontana, 2005)
- SPED teachers take on more of an assistive, rather than a teaching, role  
(Simmons & Magiera, 2007)
- Unequal status between teachers  
(Rice & Zigmond, 2000)



# **RESEARCH PROBLEM**



*While plenty of literature exists on the topic of co-teaching, limited research has been done in regards to the most effective co-teaching models or their impact on levels of student academic success and morale in the classroom (Magiera & Zigmond, 2005).*

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## RESEARCH QUESTIONS

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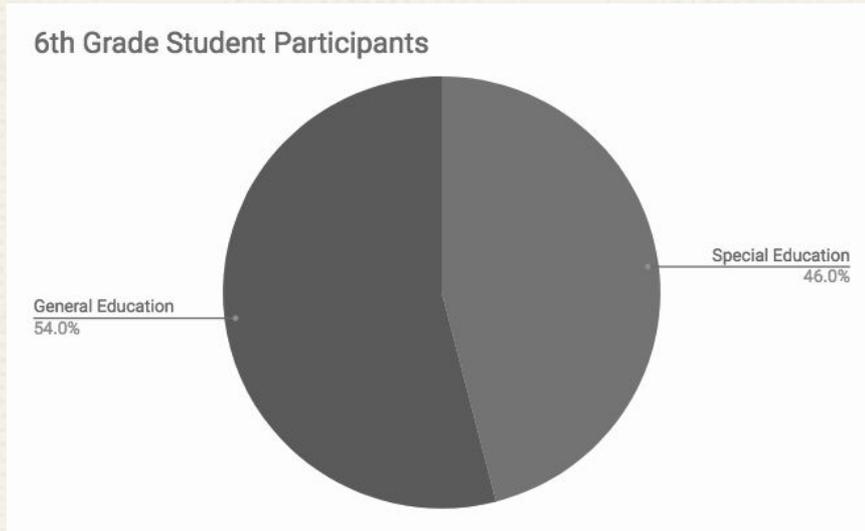
- How do different co-teaching models affect levels of student morale?
- Which models show a correlation between student morale and measured student success?
- Are certain co-teaching models more beneficial to student academic success than others?



# **METHODS**

# STUDENT PARTICIPANTS

The research will involve 4 co-taught 6th grade ELA classes.

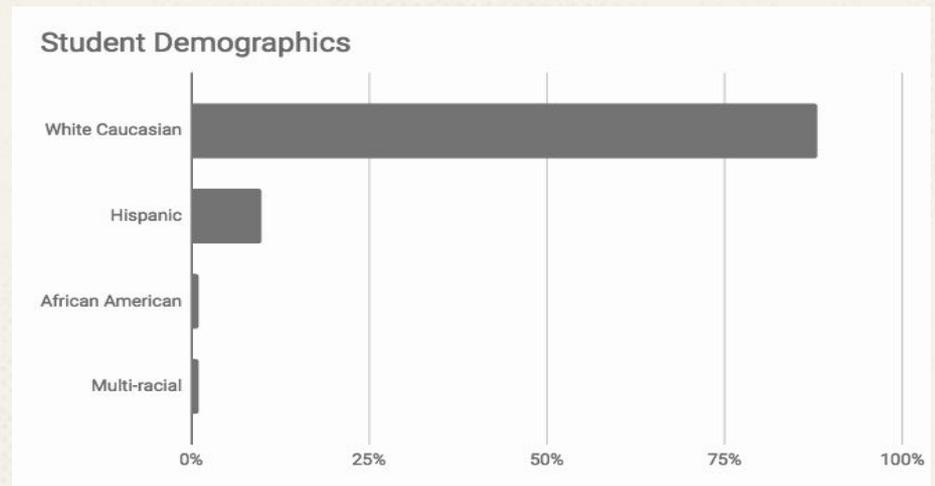


**N = 82**

- 11-13 years old
- 69 inclusion students ( $n = 69$ )
  - 19-27 students per class
  - 26%-45% SPED served
- 13 resource students ( $n = 13$ )

## Identified Disabilities:

- Autism
- EBD
- OHI and ADHD
- SLD
- Visual Impairment
- Speech
- *\*some students are dual served for ESOL*



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## TEACHER PARTICIPANTS

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The research will involve 2 co-taught 6th grade ELA teams.

### **Inclusion Classes:**

Inclusion classes will be taught by a novice general education teacher and a special education teacher with seven years of co-teaching experience.

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### **Resource Class:**

The same special education teacher will also co-teach the resource ELA class with a special education paraprofessional currently seeking a teaching degree. For the purpose of this study, this partnership will also be viewed as a co-taught team.

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# MEASURES

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Student  
Achievement

Student  
Morale

Teacher  
Perceptions

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## MATERIALS & MEASURES

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The co-taught instruction will center around 6th grade standards ELAGSE6RL2 and ELAGSE6RI2 which require students to identify the theme and/or central idea of a text.

### **Achievement**

Pre-assessment to determine baseline for learning (Appendix A)

- Collaboratively developed by 6th grade teachers
- 20-30 multiple choice questions

Post-assessment to determine level of student growth

### **Student Affective Traits**

Student classroom morale pre and post survey (Appendix B)

- 20 questions
- Likert scale
- constructs: course connectedness and learning (Rovai, 2002)
- Cronbach's coefficient = 0.93
- Flesch-Kinkade grade level score<sub>15</sub> = 6.6

### **Teacher Affective Traits**

Teacher Likert scales to provide data on different instructional models (Appendix C)

- teacher perceptions of classroom management, teaching model, teacher confidence and authority, implementation, student learning, confidence and behavior (Keeley, 2015)

# APPENDIX A: ACHIEVEMENT ASSESSMENT

## Question 2 (5 points)

What is the main idea of "The Finish Line"?

- a Maura learns how to use a metal detector.
- b Maura learns not to give up so easily.
- c Maura and her grandfather can't find a missing ring.
- d Maura quits the baseball team without telling her parents.

CCSS.ELA-Literacy.RL.6.2

## Question 3 (5 points)

Which statement BEST expresses a theme from the passage, "The Finish Line"?

- a Being kind to others is its own reward.
- b Growing up is a challenge for everyone.
- c Spending time with others can ease feelings of loneliness.
- d Working hard when faced with difficulties can lead to success.

CCSS.ELA-Literacy.RL.6.2

## Question 4 (5 points)

Which sentence from the story BEST supports the theme of the story? You can look at the answer you chose from the previous question.

- a We took the metal detector to the edge of the pasture, and Grandpa held the contraption out in front of him.
- b They all looked better than that hair clip had, so maybe there was potential for them after all.
- c I wanted to explain why I'd quit the team without telling her, and I wanted her to know what it felt like to ride the bench because you weren't as good as your teammates.
- d I followed Grandpa into the double garage that was his workshop.

CCSS.ELA-Literacy.RL.6.2

## Try It!

Read this passage. As you read, underline phrases and sentences that express the most important idea in the passage.

- ① Desert plants have adapted to deal with the lack of water in the southwestern desert. Some plants store water. Some have a waxy covering on their leaves and stems. This prevents stored water from evaporating. Small leaves, spines, and camouflage are also ways plants deal with the water issue.
- ② Desert animals, too, have adapted to the lack of water. Some recycle water from within their bodies. Some tap plants for water. Others get water from dry seeds they eat.
- ③ Desert plants have also adapted to deal with the high heat in their habitat. Many live for only one season. They release their seeds and die. The seeds remain dormant until cooler weather comes. Then they sprout and new plants appear.
- ④ Animals deal with desert heat in different ways. Some leave the desert during the hottest times. Others burrow beneath the ground. Some only move around at night, when temperatures are cooler.

# APPENDIX B: CLASSROOM MORALE SURVEY (ROVAI, 2002)

Directions: Below you will see a series of statements about our ELA class. Read each statement carefully and choose the answer that best describes how you feel about our ELA class. If you neither agree nor disagree with a statement or feel uncertain, please choose neutral. There are no right or wrong answers.

*May be given to students on paper or electronically in the form of a Google Form.*

	Strongly agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly disagree (SD)
1. I feel that students in this course care about each other	(SA)	(A)	(N)	(D)	(SD)
2. I feel that I am encouraged to ask questions	(SA)	(A)	(N)	(D)	(SD)
3. I feel connected to others in this course	(SA)	(A)	(N)	(D)	(SD)
4. I feel that it is hard to get help when I have a question	(SA)	(A)	(N)	(D)	(SD)
5. I do not feel a spirit of community	(SA)	(A)	(N)	(D)	(SD)
6. I feel that I receive timely feedback	(SA)	(A)	(N)	(D)	(SD)
7. I feel that this course is like a family	(SA)	(A)	(N)	(D)	(SD)
8. I feel uneasy exposing gaps in my understanding	(SA)	(A)	(N)	(D)	(SD)
9. I feel isolated in this course	(SA)	(A)	(N)	(D)	(SD)
10. I feel reluctant to speak openly	(SA)	(A)	(N)	(D)	(SD)
11. I trust others in this course	(SA)	(A)	(N)	(D)	(SD)
12. I feel that this course results in only modest learning	(SA)	(A)	(N)	(D)	(SD)
13. I feel that I can rely on others in this course	(SA)	(A)	(N)	(D)	(SD)
14. I feel that other students do not help me learn	(SA)	(A)	(N)	(D)	(SD)
15. I feel that members of this course depend on me	(SA)	(A)	(N)	(D)	(SD)
16. I feel that I am given ample opportunities to learn	(SA)	(A)	(N)	(D)	(SD)
17. I feel uncertain about others in this course	(SA)	(A)	(N)	(D)	(SD)
18. I feel that my educational needs are not being met	(SA)	(A)	(N)	(D)	(SD)
19. I feel confident that others will support me	(SA)	(A)	(N)	(D)	(SD)
20. I feel that this course does not promote a desire to learn	(SA)	(A)	(N)	(D)	(SD)

# APPENDIX C: TEACHER LIKERT SCALE (KEELEY, 2015)

Please place an X in the appropriate description for the specified co-taught model based on your teaching experience.

## Co-taught Model:

<b>Classroom Management</b>		<b>"X" One</b>
5	We presented ourselves as equal partners with regard to discipline and answering student questions.	
4	We mostly presented ourselves as equal partners with regard to discipline and answering student questions.	
3	Some of the time one of us would answer student questions and manage discipline while the other would teach the class material.	
2	Most of the time one of us was in charge of answering student questions and managing discipline while the other taught the class.	
1	One teacher answered student questions and disciplined students while the other teacher taught the class.	
<b>Teaching Model</b>		<b>"X" One</b>
5	Both teachers presented new material to the class	
4	For the most part, both teachers presented new material to the class.	
3	Some new information was provided by one of us, but most new information came from my partner.	
2	Almost all new information came from my partner while I added a few things here and there.	
1	New material was presented to the class by one teacher.	
<b>Teacher Confidence</b>		<b>"X" One</b>
5	I am totally confident I could answer any question my students may have about the new material that we covered.	
4	I am fairly confident I could answer any question my students may have about the new material that we covered.	

3	I am not totally confident I could answer any question my students may have about the new material that we covered.	
2	I am fairly certain I cannot answer questions my students may have about the new material that we covered.	
1	I know that I would have to defer to my partner to answer a question my students may have about the new material that we covered.	
<b>Learning</b>		<b>"X" One</b>
5	It seemed as though this style of teaching helped my students to understand 90-100% of the material covered.	
4	It seemed as though this style of teaching helped my students to understand 80-89% of the material covered.	
3	It seemed as though this style of teaching helped my students to understand 70-79% of the material covered.	
2	It seemed as though this style of teaching helped my students to understand 60-69% of the material covered.	
1	It seemed as though this style of teaching helped my students to understand less than half of the material covered.	
<b>Implementation</b>		<b>"X" One</b>
5	This model was very difficult to implement and took much longer than normal to plan.	
4	This model was somewhat more difficult to implement and took longer than normal to plan.	
3	This model was not much more difficult to implement and didn't seem to take much longer than normal to plan.	
2	This model was easily implemented and took almost the same amount of time as normal to implement.	
1	This model took no extra effort on our part to implement.	
<b>Behavior</b>		<b>"X" One</b>
5	As a result of the model used, student behavior improved significantly.	
4	As a result of the model used, student behavior improved.	
3	As a result of the model used, student behavior seemed to improve.	
2	As a result of the model used, student behavior didn't really seem to improve.	
1	As a result of the model used, student behavior did not improve at all and may have gotten worse.	
<b>Student Confidence</b>		<b>"X" One</b>
5	I feel very confident that any student could answer questions about the material we have covered in the last two lessons.	
4	I feel confident that any student could answer questions about the material we have covered in the last two lessons.	
3	I feel somewhat confident that any student could answer questions about the material we have covered in the last two lessons.	
2	I do not feel confident that any student could answer questions about the material we have covered in the last two lessons.	

1	I don't feel like the students could confidently answer questions about the content that we have covered in the last two lessons.	
<b>Teacher Authority</b>		<b>"X" One</b>
5	Over the last two lessons neither teacher appeared to have any more authority than the other teacher.	
4	Over the last two lessons both teachers mostly appeared to have the same amount of authority.	
3	Over the last two lessons my co-teacher may have appeared to have more authority than me.	
2	Over the last two lessons it appeared that I had less authority than my co-teacher.	
1	Over the last two lessons it appeared that I had no authority in the classroom.	

Comments/Clarifications:

## RESEARCH DESIGN

- Each will receive one of the following co-taught models (treatments): team teaching, parallel teaching, station teaching, and alternative teaching
- Treatments will be assigned based on class size; the largest class will receive parallel teaching, the second largest will receive team teaching, the third will receive station teaching, and the smallest class will receive alternative teaching.
  - Inclusion classes: parallel, team, and station
  - Resource: alternative
- Each of the experimental groups will receive the same instructional material over the lesson topic of theme and central idea; delivery will differ based on the designated co-teaching model used for each class.
- Each of the classes, four segments of 6<sup>th</sup> grade English language arts, will be taught by the same special education teacher.
- The co-teacher for inclusion classes will be a certified general education ELA teacher while a paraprofessional will co-teach the resource class.

# IMPLEMENTATION

## Co-Teaching Treatments

<b>Parallel (inclusion)</b>	<b>Team (inclusion)</b>	<b>Station (inclusion)</b>	<b>Alternative (resource)</b>
27 students  Class will be split based on flexible grouping and instruction will be delivered separately	22 students  Both teachers will teach lesson together whole group	20 students  Both teachers will provide small group instruction with a mixture of guided and independent work	13 students  One teacher will lead whole group instruction while second teacher works with a small group on separate instruction

# IMPLEMENTATION

Duration: approximately 3 weeks

- Prior to beginning: all participants will be informed of participation
  - Co-teachers: overview of study and guidelines for implementation
  - Students: brief classroom discussion about co-teaching and their class's model, guardian and student consent
    - failure to return consent will result in removal of the student's data during analysis

Day 1	Days 2-12	Days 13-14	Day 15
Achievement pre-assessment	Day 2: Classroom Morale Survey  Instruction on theme and central idea standards	Review for post-assessment  Day 14: Classroom Morale Survey	Achievement post-assessment  Teacher Likert scaled rubric

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# RESULTS

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## DATA ANALYSIS

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### **Achievement**

ANCOVA: compare student growth from pre and post assessments to determine differences between co-teaching models. Coded grouping will be used for the treatments, post-test scores for the dependent variable, and pretest scores for the co-variate. Mean scores from each group will be compared to determine if any one co-taught treatment is more effective than others.

### **Student Affective Traits**

ANCOVA: compare mean ratings to determine differences in student morale based on co-taught treatment. Coded grouping will be used for treatments, post-test responses for the dependent variable, and pretest responses for the covariate.

**\*Each group's post-test mean score and student morale score will be analyzed together. A Pearson Correlation will be used to determine any correlation between achievement data and student morale.**

### **Teacher Affective Traits**

Teacher Likert scale responses will be analyzed and described in narrative form.

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**THANKS!**

*Any questions?*