Improving Co-Teachers Relationships

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INTRODUCTION

Special education has long relied on teamwork. Teams comprised of special education teachers, school psychologists, social workers, related service providers, and school administrators make decisions about the most appropriate program settings, accommodations, and modifications for students with disabilities (SWDs). In the classroom, paraprofessionals partner with special educators in supporting instruction, language, behavior, and health needs of students. For decades, other professionals, such as speech-language therapists, school psychologists, counselors, and occupational and physical therapists have worked in tandem with the special education teacher to deliver support services inside the special education classroom (Lerner, 1971; Lombardo, 1980; Robinson & Robinson, 1965). Historically, these partnerships were confined to special education settings. Beginning with the change in legislation in the 1970s and the subsequent growth and acceptance of inclusive education (Garvar & Papania, 1982; Will, 1986), special education and related services began to be offered in general education settings through collaborative efforts of the special and general education professionals, and thus the concept of co-teaching emerged (Bauwens, Hourcade, & Friend, 1989).

Co-teaching is now a mandated instructional strategy that ensures SWDs have access to the general education curriculum while still receiving the specialized instruction and supports to which they are entitled. For instance, the New York State Education Department (NYSED) defines co-teaching as the provision of both specially designed and academic instruction provided to a group of students with disabilities and nondisabled students (New York State Education Department, 2019). Co-teaching can be described as including four components: (1) one general education

teacher and one special education teacher; (2) instruction delivered by both teachers; (3) a single classroom where students with disabilities are taught with general education students; and (4) heterogeneous grouping of students within that class (Friend & Cook, 2007). Co-teaching classrooms have proven to provide many benefits to both SWDs and their non-disabled peers. Some benefits include increased academic performance, behavior, and social skills (Efthymiou & Kington, 2017; Rea, McLaughlin, & Walther-Thomas, 2002). In attempts to achieve the aforementioned benefits of a co-teaching classroom, researchers have stressed the importance of the co-teachers' relationship (Roth & Tobin, 2000).

More students each year are placed in co-teaching classrooms. The National Center for Education Statistics (2019) found that as of the 2017-2018 school year there were seven million public school students receiving special education services, incorporating 14% of total public school enrollment nationwide. The number of SWDs who spent more than 80% of the school day in general education classrooms increased from 47% to 63% between the years 2000 and 2017. In contrast, during that same time, SWDs who spent 40-79% of their school day in general education decreased from 30% to 18%. Additionally, SWDs who spent less than 40% of their time in general education classrooms decreased from 20% to 13% as well. Enrollment data suggest there has been a clear migration of SWDs into general education classrooms for larger portions of their day. Co-teacher's relationships affect more students than ever before, however information on how to improve and support the co-teaching relationship remains limited with many studies suggesting a need for future research on improving the co-teaching relationship (Brendle et al., 2017; Kilanowski-Press et al., 2010; Hamdan et al., 2016).

The purpose of this study is to explore the extent to which teaching experience affects teachers' perceptions of teamwork within their co-teaching relationship. Many studies agree that developing relationships are critical for co-teaching (Beninghof, 2012; Friend, 2015; Mastropieri & Scruggs, 2013; Tomlinson & Imbeau 2010; Valle & Connor, 2011), and that quality co-teaching is reached through purposeful co-planning and relationship building (Pettit, 2017). For instance, Scruggs, Mastropieri, & McDuffie (2007) found that co-teachers believe personal compatibility between the two teachers is the most important factor for co-teaching success. With so much research emphasizing the importance of the co-teaching relationship and its impact on student achievement, it is unfortunate that there is little research on improving teamwork within the co-teaching relationship. Existing research has found no consistent method, process, or criteria for pairing co-teachers (Keefe & Moore, 2004; Kamens et al., 2013), and calls for future research that examines perceptions of teamwork between co-teachers (Scruggs et al., 2007).

RESEARCH QUESTIONS

To better understand the nature of co-teaching , I examined the following questions: 1) To what extent are relationship duration, primary role, collaborative environment, and enjoyment related to the stage of forming within a co-teaching setting?; 2) To what extent are relationship duration, primary role, collaborative environment, and enjoyment related to the stage of storming within a co-teaching setting? 3) To what extent are relationship duration, primary role, collaborative environment, and enjoyment related to the stage of norming within a co-teaching setting?; and 4) To what extent are relationship duration, primary role, collaborative environment, and enjoyment related to the stage of performing within a co-teaching setting?

THEORETICAL FRAMEWORK

Tuckman (1965) researched sequences in small group behavior and created a common language for the description and analysis of small group development. His theory consisted of four stages: forming, storming, norming, and performing. The purpose of the Tuckman Model is to identify and understand in what stage of teamwork a team is operating. It can be used at any point in the teaming process to build awareness of how the team is maturing and develop strategies to move forward (Barkema & Moran, 2013). Tuckman's stages are all necessary and inevitable in order for the team to grow, face up to challenges, tackle problems, find solutions, plan work, and deliver results (Barkema & Moran, 2013).

Tuckman's model is widely accepted and regularly referenced in literature (Bonebright, 2010; Gladding, 1995; Hansen, Warner, Smith, 1980; Posthuma, 2002) because it is comprehensive and easy to understand and apply (Fall & Wejnert, 2005). In the field of group work, the Tuckman model is considered the best known and most famous theory on small group development (Burn, 2004; Johnson & Johnson, 2003).

In the forming stage, group members struggle to find their place in the group, and the primary feeling is one of uncertainty and anxiety. Pairs are uncertain about the expectations of the group and of one another. Group members wonder how their strengths and weaknesses will fit within the group or pairing, leading to identity formation and negotiation. When group members develop a sense of identity within the group they are ready to transition to the next stage (Fall & Wejnert, 2005).

In the storming stage, members begin to create emotional responses to the demands of the group. Intra-group conflict and increased hostility arise as members shed their polite pretense in favor of more honest views. Members begin to speak more bluntly in the form of feedback of others and sharing of personal beliefs. Power struggles may also arise as members try to do things their way. In other words, this is the stage where group members drop their guard, censor their behavior less, and disagree about roles, responsibilities, and how to meet their goals (Burn, 2004). Healthy

dialogue is imperative in order to move forward through this conflict if the team is to advance towards the next stage (Aydin & Gumus, 2016; Fall & Wejnert, 2005).

Norming is categorized by an increase in group cohesion. The goals of the team become more important than individual goals as members accept being part of a group. There is an increased acceptance of individual approaches and styles, and members feel more strongly about their support for the group process and structure. Acceptance of different views of the process to achieve team goals leads towards positive and respectful communication. Communication without the restriction of internal censoring begins the advancement towards the next stage of group development (Aydin and Gumus, 2016; Fall & Wejnert, 2005).

In performing, team members begin to use interpersonal communication skills they developed in the norming stage. Because issues have been processed in previous stages, high levels of work can now be accomplished. Members have learned to relate to each other, which allows them to play complementary roles, sometimes changing from task to task depending on each other's individual strengths and preferences. In this stage members forecast potential future conflicts and resolve them without disrupting the established team process (Aydin and Gumus, 2016; Fall & Wejnert, 2005). Figure 1 shows the conceptual framework of Tuckman's (1965) stages of team development and the depiction of team performance over time as the team progresses through the stages.

Figure 1

Conceptual framework of Tuckman's Stages of Team Maturity (1965)
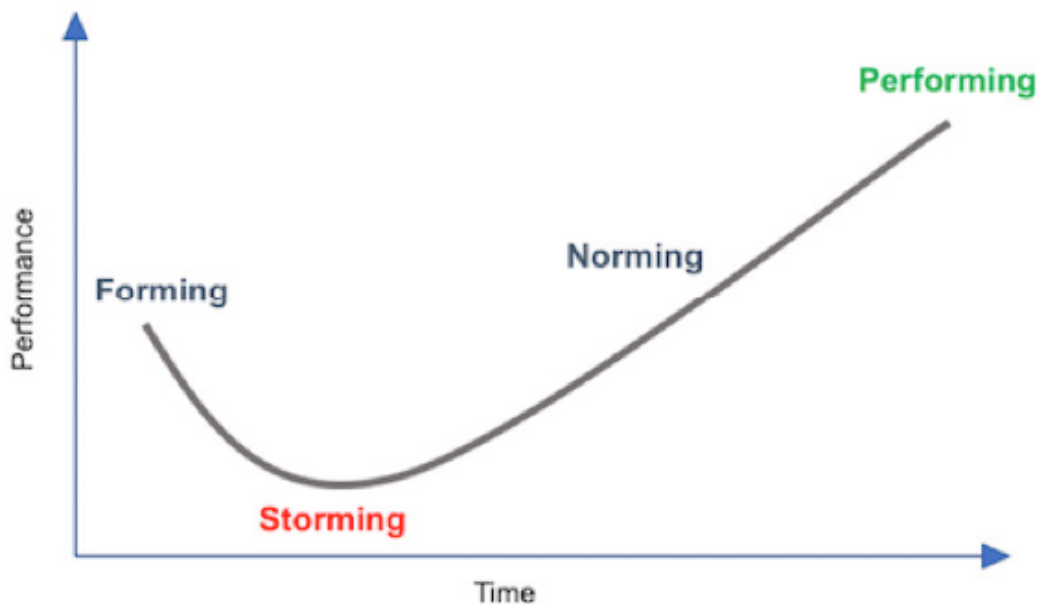
Note. This figure illustrates the progression of team performance over time through each stage of team maturity.

This study sought to find what happens over time to influence the progression from one stage to the next in co-teachers. Tuckman's model of small group development was operationalized by capturing co-teachers' perceptions of how strongly each of the four stages resembles their current co-teaching relationship. This study then examined the extent that variables such as relationship duration, primary role, collaborative environment, and enjoyment can predict co-teachers' stages of development. Since each stage is inevitable and necessary, the Tuckman stages make for a reliable and valid dependent variable for studying co-teachers relationships. Relationship duration was chosen as an independent variable in order to study if time working together is a reliable predictor of progression through the stages of team development. This study examined relationship duration as a measure of time co-teachers have been paired together. Co-teachers' enjoyment of co-teaching is something that may influence their ability to progress through the stages of team development, and is another variable that can change over time. I measure it only during a single instantiation, such that it is the enjoyment at the stage the co-teachers are currently experiencing. Collaborative environment is a measure of the degree of consistency in which teacher collaboration exists within the school culture, which in turn might affect willingness to work through struggles together as a co-teaching partnership. Finally, teachers' primary role (special educator or general educator) was used as an independent variable. Since collaboration has been a part of special education for a long time (Robinson & Robinson, 1965), the general educator may need time to adjust.

REVIEW OF RELATED LITERATURE

AN OVERVIEW OF CO-TEACHING

Co-teaching is a special education service delivery vehicle (Friend et al., 2010). In co-taught classes, both teachers plan and deliver instruction together. Friend and Cook (2010) have identified six approaches for co-teaching, which are illustrated in Figure 2. *One Teach, One Observe* is an approach where one teacher leads instruction for the entire class while the other gathers data on specific students' academic, behavioral, or social levels of performance. *Station Teaching* is when instruction is divided into three areas of the classroom and students rotate from station to station, with teachers leading two stations and students working independently at the third. *Parallel Teaching* has both teachers, each leading a group of half the students in the class, present the same content to their group in order to offer greater instructional differentiation and increase student participation. *Alternative Teaching* asks one teacher to work with most students while the other works with a small group for a specific purpose such as assessment, preteaching, intervention, enrichment, or remediation. *Team Teaching* has both teachers leading the whole class instruction simultaneously through lecturing, representing opposing views in a debate, illustrating two ways to solve a problem, and so on. Finally, *One Teach, One Assist* is when one teacher leads instruction for the whole class while the other circulates among the students offering individual assistance, prompting, refocusing, and repeating of directions.

Figure 2

Co-Teaching Approaches
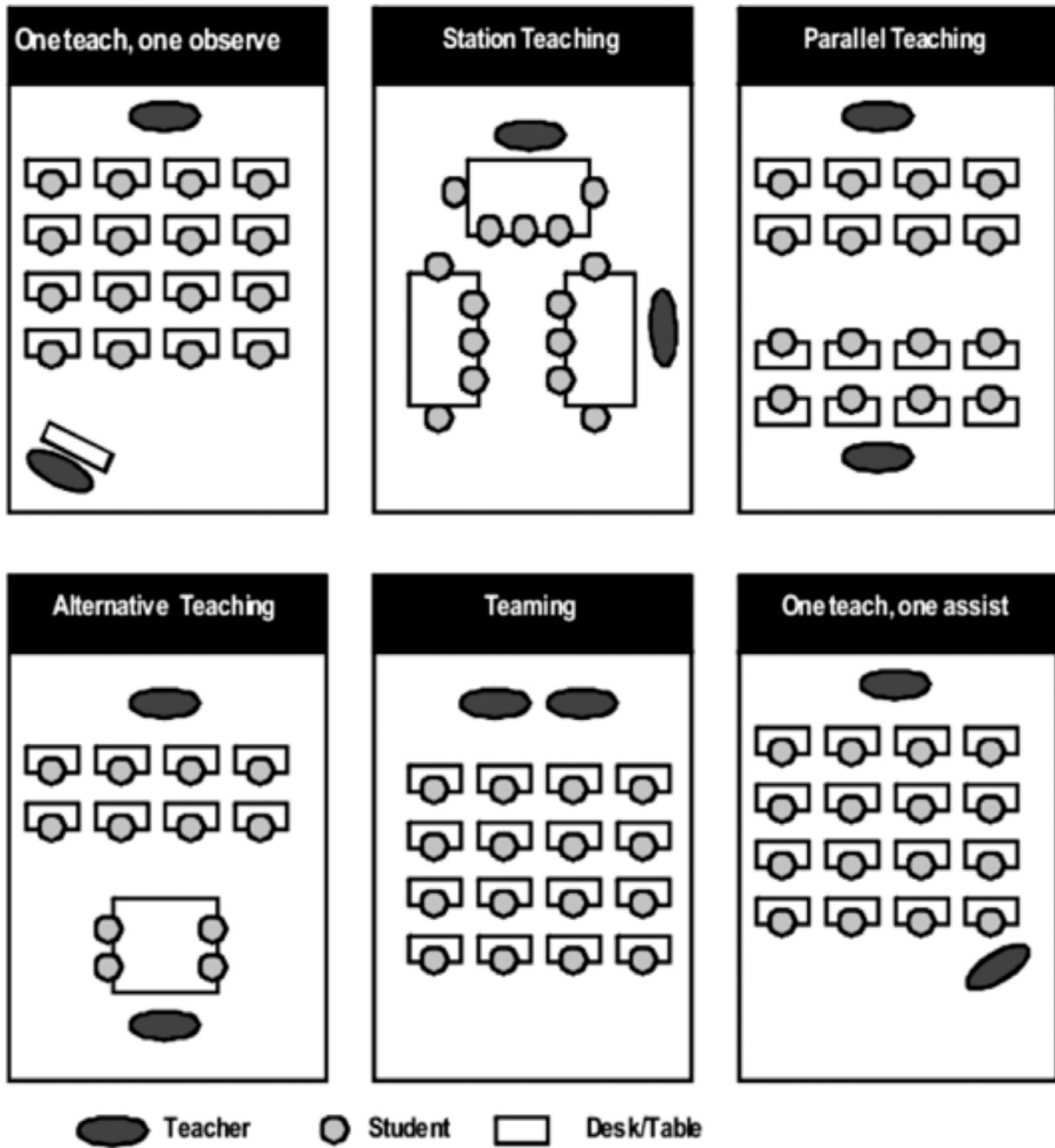
Note. From M. Friend & W. D. Bursuck, 2009, Including Students With Special Needs: A Practical Guide for Classroom Teachers (5th ed., p. 92). Columbus, OH: Merrill.

Selection of these approaches is based on student needs and instructional objectives (Friend & Cook, 2010). Within the six models, the roles of the teachers are fluid with either teacher delivering instruction to SWDs or general education students, and either teacher delivering content instruction. Students within these models are grouped flexibly, switching between heterogeneous and homogeneous groups depending on the lesson objectives, learning activities, and needs of the students. In co-teaching, the general educator brings key instructional pieces such as content expertise, curriculum competencies and learning standards. The special educator adds expertise in the pedagogical process of learning and highly individualized nature of students' needs (Friend et al., 2010). Significant differences in the areas of expertise of the co-teaching professionals complement each other and are meant to add value to all learners in the classroom.

IMPORTANCE OF THE CO-TEACHING RELATIONSHIP

Co-teaching is a significant adjustment for educators as teaching is typically conducted independently by one teacher in each classroom. It can be difficult for teachers to adjust to sharing responsibilities, and understanding their roles within a co-taught classroom. In other words, due to the individualistic nature of classroom teaching, it can be difficult for teachers to teach together. When two teachers are assigned to a single classroom, their roles often go undefined leading to confusion (Moorehead & Grillo, 2013) and resentment regarding who is doing more work in the classroom. In a statewide survey of general and special education co-teachers, each group saw itself as having more responsibilities than the other for instructional and behavioral management (Fennick & Liddy, 2001). To be an effective co-teaching pair, an identification and understanding of roles and responsibilities must occur (Dieker, 2001).

Understanding each other's roles and responsibilities requires significant planning and discussion time between the teachers. However, co-teachers have reported that a lack of planning time is a significant problem often caused by a lack of administrative support in scheduling this time (Correa et al., 2005; Dieker & Murawski, 2003; Eaton et al.,2004; Keefe & Moore, 2004; Mastropieri et al., 2005; Trent et al., 2003).

Without co-planning, teachers are not able to co-deliver instruction, forcing a majority of special educators into a support role (Weiss & Lloyd, 2002) and leaving them unable to make pedagogical contributions to the lesson (Dieker, 2001; Murawski, 2009; Walther-Thomas, 1997) that are mandated for SWDs. The general educator will then carry most of the instructional load (Moorehead & Grillo, 2013). When special education co-teachers do not assume roles equal to the general education teacher, confusion about roles and responsibilities is increased (Rice & Zigmond, 2000). Gerber & Popp (1999) stated that in situations where teachers cannot co-plan and co-teach a lesson, students are often provided different explanations from different teachers which may lead to student confusion.

Qualitative research has revealed the importance of communication and collaboration between co-teachers. Keefe and Moore (2004) studied high school teachers' perceptions of co-teaching by interviewing eight co-teachers. Some interview questions asked were: "Describe an inclusive classroom."; "Tell me about a typical day in your classroom."; "What are the roles and responsibilities of the special and general education teachers in this classroom?"; and "How did you decide on these roles and responsibilities?" Interviews revealed that co-teaching pairs who did not demonstrate collaboration and communication struggled to understand their roles and responsibilities. Scruggs et al. (2007) similarly concluded that co-teacher teams who did not demonstrate collaboration, struggled to work out past differences in teaching styles which lead to conflict instead of compromise. In both studies, teachers described a trend of special educators taking on the role of helper rather than co-teacher, which prevents all students from receiving the benefits of a co-taught lesson. As a result, the researchers found few benefits for SWDs occurring in these classes.

Magiera et al. (2005) observed middle school co-teachers and found without good communication and collaboration, they struggled to understand roles and responsibilities. Results showed the general education teacher spent less time working with SWDs when the special education teacher was in the room. The authors determined that the co-teachers had little planning time to prepare for their roles and spent the majority of instructional time with students in large groups rather than one of the six co-teaching models. It seems like a simple matter for teachers to share their expertise with each other, but such is not the case (Friend et al., 2010).

The co-teaching relationship is not only crucial to student success, but it is complex and personal for the teachers involved (Kohler-Evans, 2006). Co-teachers should have the collaboration skills to facilitate the negotiation of roles and responsibilities in co-taught classrooms, in addition to the knowledge to provide the necessary instructional supports for students with disabilities. Without both sets of skills, it is more likely that the special educator will remain acting as a classroom assistant rather than become an instructional partner (Friend, 2007; Scruggs et al., 2007). In short, an identification and understanding of roles and responsibilities must occur for both general and special education teachers to be effective (Dieker, 2001). The better understanding between the two teachers, the better their practice (Shin et al., 2016).

METHOD

PARTICIPANTS

Participants included special and general educators who were currently paired with a co-teacher in grades k-12. Participant ages ranged from approximately 22 to 55 and came from diverse socioeconomic and racial backgrounds. To obtain the sample of participants, a recruitment email was sent to eight superintendents of public school districts in New York City. Specific community school districts were recruited due to their economic and racial diversity, which would enhance the generalizability of results.

TUCKMAN TEAM MATURITY QUESTIONNAIRE

In alignment with the theoretical framework of Bruce Tuckman's model of small group development (1965), the Tuckman Team Maturity Questionnaire (TTMQ) was given to all co-teachers' to determine their perceptions of teamwork. Teachers completed the TTMQ online; the survey contained 32 items on a five point Likert scale, divided into four subscales, each providing a score for Tuckman's four stages of team maturity: forming, storming, norming, and performing.

The TTMQ was not designed specifically for co-teachers, but rather small groups in general, which may include teams from corporate, labor and political fields. As such, the wording of the questions was vague in order to be accessible to all types of teams from any field of collaboration. To improve the validity of this instrument for the current study, a team of nine experts in the field of co-teaching were assembled to review and edit some survey items. Each team member was currently employed as a district level instructional coach specializing in co-teaching and all had more than 10 years of experience in the field of co-teaching. Two team members pursuant to their doctorate degrees had previous experience in survey construction. The team edited survey items to more effectively assess how teaching experience affects perceptions of co-teaching teamwork.

Each question was scored on a five point Likert scale. For example, a response of "1-Almost Never" was scored as one point. A response of "2-Seldom" was scored as two points, and so on. Point totals for each subscale were summed to produce a total score for forming, storming, norming, and performing. The lowest possible score on each subscale is eight points while the highest possible score is 40. Higher scores in the subscales norming and performing indicate higher perceived characteristics associated with those stages of team development. Those include an understanding of roles and responsibilities, agreed upon team norms and strategies to navigate disagreements and accomplish tasks, and a shared vision for team goals.

In short, higher scores in the subscales of norming and performing reflect greater teamwork. In contrast, high scores in the subscales of forming and storming indicate higher perceived characteristics associated with those stages of team development, such as uncertainty of one's role within the team, unclear team goals, and frustration. Higher scores in these subscales can be interpreted to reveal poor teamwork. Internal consistency analysis on the modified scale was conducted and yielded a Chronbach's a coefficient of .733 for forming and .752 for storming, which is considered acceptable, as well as .859 for norming and .896 for performing, which is considered preferred (Cortina, 1993). The raw scores on each subscale of the TTMQ were used as dependent variables.

A series of demographic questions were added to the TTMQ to gather information on: relationship duration, primary role, collaborative environment, enjoyment, years of teaching experience, years of co-teaching experience, and grade level.

DATA

A total of 120 survey responses were collected. Data were screened for coding errors and for missing data. Less than 5% of cases had missing data; a listwise default was used to delete those five observations. No outliers were found. The result was in 115 remaining teachers being included in the study. Sample statistics are shown in Table 1.

Table 1

Sample Statistics

Variable	Group	N	%
Relationship Duration	0-1	60	50
	2	28	23.3
	3+	32	25.8
Primary Role	Special Educator	80	66.7
	General Educator	40	33.3
Collaborative Environment	Inconsistent	33	27.5
	Consistent	87	72.5
Enjoyment of Co-teaching	Dislike	43	35.8
	Like	77	64.2
Years of Teaching Experience	0-4	35	29.2
	5-10	39	32.5
	11+	46	38.3
Years of Co-teaching Experience	0-4	64	53.3
	5+	56	46.7
Grade Level	Elementary School	54	45
	Middle School	41	34.2
	High School	25	20.8

MODELS

Multiple regressions were conducted to answer the four research questions. Each multiple regression included the independent variables (relationship duration, primary role, collaborative environment, and enjoyment) and covariates (grade level, years of teaching experience, and years of co-teaching experience). Each of the multiple regressions used one of the dependent variables (forming, storming, norming, or performing). Unstandardized coefficients are shown. The assumptions of multicollinearity, independent errors, variance of residuals, and normally distributed errors were checked and found to not be violated.

RESULTS

The results of the multiple regression analyses for the dependent variable forming can be found in Table 2. There were no significant relationships between the covariates (teaching experience, co-teaching experience, and grade level) and forming in Model 1 ($R^2 = 0.05$, p = .34). Model 2 incorporated the three covariates, as well as relationship duration, primary role, collaborative environment, and enjoyment. Model 2 had significant predictors and accounted for 24.9% of the variance in the forming stage of team maturity ($R^2 = 0.24$, p = <.001).

Two of the variables in Model 2 had a significant relationship with the forming stage. As displayed in Table 2, a relationship duration of two years was found to have a significant negative relationship compared to one year (B = -2.35; p = 0.01). The TTMQ's scores for the subscale of forming can range from 8-40 points. Co-teachers who have been paired together for two years were associated with a 2.35 point decrease in the score for forming compared to the 0-1 year group. A relationship duration of three or more years was also found to have a significant negative relationship compared to one year (B = -3.43; p = <0.001). A partnership lasting three years was associated with a 3.43 point decrease in their score of forming compared to the 0-1 year group.

Table 2

Model Results for Forming

	Model 1	Model 2
Teaching Experience (0-4 Years)	-0.008	-0.165
	(1.026)	(0.963)
Teaching Experience (5-10 Years)	-0.778	-1.073
	(0.889)	(0.836)
Co-teaching Experience (0-4 Years)	-0.358	-1.408
	(0.835)	(0.791)
Middle School Teachers	-0.672	-1.135
	(0.847)	(0.862)
High School Teachers	1.387	1.212
	(1.002)	(0.965)
Relationship Duration (2 Years)		-2.357**
		(0.900)
Relationship Duration (3+ Years)		-3.437***
		(0.874)
General Educators		-0.347
		(0.761)
Inconsistent Culture of Collaboration		0.703
		(0.886)
Dislike of Co-teaching		1.289
		(0.839)
(Constant)	22.161***	24.057***
	(0.814)	(0.990)

Note. * p < .05, ** p < .01, *** p < .001.

Next, multiple regression analyses were conducted to determine the extent to which there is a relationship between the stage of storming and relationship duration, primary role, collaborative environment, and enjoyment. Two models were employed for this regression as well (Table 3). There were no significant relationships in Model 1 and the dependent variable ($R^2 = 0.07$, p = <.014). However, Model 2 had significant predictors and accounted for 25.4% of the variance in the storming stage of team maturity ($R^2 = 0.25$, p = <.001). Several of the variables in Model 2 had a significant relationship with the storming stage.

As displayed in Table 3, a relationship duration of three or more years was found to have a significant negative relationship compared to one year (B = -2.33; p = 0.48). Co-teachers who have been paired

together for three or more years were associated with a 2.33 point decrease in the score for storming compared to the 0-1 year group. Teachers who dislike co-teaching were found to have a significant positive relationship with the storming stage (B = -3.55; p = .002) and were associated with an increase of 3.55 points in their scores for storming. Within Model 2, high school teachers were found to have a significant positive relationship with storming (B = -2.74; p = .036) while being associated with an increase of 2.74 points in their scores for storming.

Table 3

Model Results for Storming

	Model 1	Model 2
Teaching Experience (0-4 Years)	0.841	0.753
	(1.362)	(1.289)
Teaching Experience (5-10 Years)	0.217	-0.175
	(1.180)	(1.119)
Co-teaching Experience (0-4 Years)	0.157	-0.873
	(1.109)	(1.059)
Middle School Teachers	1.409	-0.218
	(1.125)	(1.154)
High School Teachers	3.713**	2.744*
	(1.331)	(1.291)
Relationship Duration (2 Years)		-1.339
		(1.204)
Relationship Duration (3+ Years)		-2.337*
		(1.170)
General Educators		-1.059
		(1.019)
Inconsistent Culture of Collaboration		1.393
		(1.186)
Dislike of Co-teaching		3.551**
		(1.123)
(Constant)	18.223***	19.441**
	(1.081)	(1.325)

Note. * p < .05, ** p < .01, *** p < .001.

For the third research question, I examined the extent to which there is a relationship between the stage of norming and relationship duration, primary role, collaborative environment, and enjoyment. The model summaries can be found in Table 4. Model 1, with the covariates, had significant predictors and accounted for 11.4% of the variance in the norming stage of team maturity (R^2 = 0.11, p = .02). High school (B = -3.09; p = .032) and middle school (B = -3.93; p = .001) teachers had significant negative relationships with norming compared to elementary school teachers. High school teachers were associated with a decrease of 3.09 points and middle school teachers were associated with a decrease of 3.93 points in the scores for norming compared to elementary school teachers.

Model 2 added relationship duration, primary role, collaborative environment, and enjoyment. Model 2 had significant predictors and accounted for 38.7% of the variance in the norming stage of team maturity (R^2 = 0.38, p = <.001). As displayed in Table 4, a dislike for co-teaching was found to have a significant negative relationship with the norming stage compared to a like for co-teaching (B = -5.23; p = <.001). Co-teachers who reported a dislike for co-teaching were associated with a 5.23 point decrease in the score for norming compared to those who reported a like for co-teaching. High school and middle school teachers were found to have no significant relationship to the stage of norming in Model 2.

Table 4

Model Results for Norming

	Model 1	Model 2
Teaching Experience (0-4 Years)	-1.183	-1.274
	(1.461)	(1.283)
Teaching Experience (5-10 Years)	0.057	0.294
	(1.265)	(1.114)
Co-teaching Experience (0-4 Years)	-0.838	0.418
	(1.190)	(1.053)
Middle School Teachers	-3.936***	-1.598
	(1.207)	(1.148)
High School Teachers	-3.099*	-1.920
	(1.427)	(1.284)
Relationship Duration (2 Years)		2.185
		(1.198)
Relationship Duration (3+ Years)		1.649
		(1.164)
General Educators		0.832
		(1.013)
Inconsistent Culture of Collaboration		-2.027
		(1.180)
Dislike of Co-teaching		-5.230***
		(1.117)
(Constant)	34.780***	34.056***
	(1.160)	(1.319)

Note. * p < .05, ** p < .01, *** p < .001.

Finally, a multiple regression was conducted to determine the extent to which there is a relationship between the stage of performing and relationship duration, primary role, collaborative environment, and enjoyment. Model 1 had significant predictors and accounted for 11.8% of the variance in the performing stage of team maturity (R^2 = 0.11, p = <.01). High school (B = -3.25; p = .030) and middle school (B = -3.59; p = .005) teachers had significant negative relationships with performing compared to elementary school teachers. High school teachers were associated with a decrease of 3.25 points and middle school teachers were associated with a decrease of 3.59 points in the scores for performing compared to elementary school teachers.

Model 2 incorporated the three covariates, as well as relationship duration, primary role, collaborative environment, and enjoyment. Model 2 had significant predictors and accounted for 48.3% of the variance in the performing stage of team maturity (R^2 = 0.48, p = <.001). As displayed in Table 5, a dislike for co-teaching was found to have a significant negative relationship with the performing stage compared to a like for co-teaching (B = -7.21; p = <.001). Co-teachers who reported a dislike for co-teaching were associated with a 7.21 point decrease in the score for performing compared to those who reported a like for co-teaching. High school and middle school teachers were found to have no significant relationship to the stage of performing in Model 2.

Table 5

Model Results for Performing

	Model 1	Model 2
Teaching Experience (0-4 Years)	-1.641	-2.008
	(1.513)	(1.222)
Teaching Experience (5-10 Years)	-0.208	-0.067
	(1.31)	(1.061)
Co-teaching Experience (0-4 Years)	-1.647	-0.265
	(1.232)	(1.004)
Middle School Teachers	-3.59**	-0.697
	(1.249)	(1.094)
High School Teachers	-3.253*	-1.778
	(1.478)	(1.224)
Relationship Duration (2 Years)		1.337
		(1.141)
Relationship Duration (3+ Years)		1.510
		(1.109)
General Educators		0.647
		(0.966)
Inconsistent Culture of Collaboration		-1.451
		(1.124)
Dislike of Co-teaching		-7.212***
		(1.064)
(Constant)	36.366***	36.241***
	(1.201)	(1.256)

Note. * p < .05, ** p < .01, *** p < .001.

DISCUSSION

ENJOYMENT IS CRITICAL FOR SUCCESS

Teachers who dislike co-teaching were found to have lower group cohesion – they had not accepted being part of a group. Acceptance of being part of a group includes accepting different views and individual approaches for meeting team goals. These acceptances help co-teaching pairs develop communication skills needed to process issues and adapt to play complementary roles to each other. Teachers who dislike co-teaching were also less likely to forecast potential future conflicts and resolve them without disrupting the established team process. Furthermore, on average teachers who dislike co-teaching had an increase in developing emotional responses to the demands of the partnership leading to intra-group conflict and hostility. Failure to work through intra-group conflicts can prevent progress through the stages of small group development and can lead to team disbandment (Aydin & Gumus, 2016; Fall & Wejnert, 2005).

RELATIONSHIP DURATION IS AN IMPORTANT FACTOR IN TEAM DEVELOPMENT

Relationship duration was a key indicator in predicting the time required to become a high performing team. On average, teachers who have been paired together for two or more years were associated with decreases in team behaviors such as struggling to find ones place on the team and a primary feeling of uncertainty or anxiety. Compared to partners in their first year, partnerships with two years or more demonstrated more certainty about the expectations of the team and one another. Teachers with a relationship duration of two years or more demonstrate an increased willingness to share more meaningful aspects of themselves (Aydin and Gumus, 2016). By the second year of co-teaching together, it is likely that pair has moved on from forming into the storming stage, compared to co-teaching pairs in their first year together.

By the 3rd year of partnership, teachers are less likely to demonstrate intragroup conflict, hostility, and power struggles. In contrast, the third year partners are more likely to agree about roles, responsibilities, and how to meet their goals. By the third year, partners are more likely to demonstrate

healthy dialogue in order to process and navigate disagreements. There was no significant difference in a relationship of two years compared to one year in the stage of forming which indicates that it is likely that pairs need a third year to become a high performing team.

GRADE LEVEL AFFECTS TEAMWORK

Teachers in middle and high schools were associated with less focus on team goals and more on individual goals, less of an acceptance of being part of a team, and less of an acknowledgement and acceptance of individual differences and approaches compared to elementary school teachers. Moreover, middle and high school teachers demonstrated a reduced ability to adapt and switch to different roles while playing to each other's strengths, compared to elementary school teachers. Middle school and high school teachers also exhibited a lower sense of responsibility towards each other, compared to elementary school teachers. However these results came from Model 1 which included only the three covariates of teaching experience, co-teaching experience, and grade level. In Model 2, with all seven variables used in this study, grade level did not demonstrate a significant relationship with the stages of norming or performing. In contrast, grade level was a significant predictor of storming in both Model 1 and Model 2. These results imply that high school teachers are more likely to provide each other more blunt feedback, stick to accomplishing tasks "their way", and disagree about roles, responsibilities, and how to meet team goals.

RECOMMENDATIONS FOR FUTURE PRACTICE

The results of this study reinforce the idea that teacher preference regarding co-teaching is significant in improving the co-teachers' relationship which has been linked towards improving student achievement (Lindeman & Magiera, 2014; Pettit, 2017; Roth & Tobin, 2001). Often due to limited staffing or budgets, the principal must assign teachers into co-teaching classrooms without regard for preferences. In these instances it is important to remember how impactful teachers' enjoyment to co-teaching can be towards student achievement. Best efforts to support teachers in feeling more comfortable, and even growing to like co-teaching should be made though through professional development workshops focusing on the co-teaching

models, as well as team building workshops where teachers are made aware of the Tuckman stages and how to advance through them with their partners.

It is important to realize that co-teachers, like most other relationships, take time to develop. According to the results of this study, we should expect a co-teaching partnership to take approximately two to three years before we see advanced cohesion and productivity. However, half of the teachers in this study were in the first year of partnership with their co-teaching pair, which speaks to how often co-teachers are reassigned to new partners. Principals and superintendents should be recommending a two or three year commitment when creating a co-teaching partnership, and including professional development plans to support advancement through the stages of team maturity as quickly as possible.

CONCLUSION

The results generated by this study are not a criticism of any teacher, but rather serve to highlight areas in need of support. This study should inform schools and districts as to where that support is needed if they intend to improve academic outcomes for their special education population. Teachers are often untrained in co-teaching prior to being assigned to a co-teaching classroom. As a result, some aspects of practice require refinement. Supporting teachers in becoming a co-teaching team requires both technical and adaptive change. Refining pedagogical practice may be technical. For example, if teachers to be assigned to a co-teaching classroom do not fully understand the co-teaching models, a simple professional development to understand how to implement them will suffice. However, some changes will be adaptive and involve more nuance, such as relationship building. As with most adaptive changes, progress can take time and the need for support rather than evaluation is paramount.

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