Co-Teaching:

A Literature Review

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by

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Part 1: Co-Teaching 101

Background

Education in Saskatchewan, like most Canadian provinces, is in the midst of a number of change initiatives intended to improve the learning outcomes for all students. One such initiative that is gaining the attention of the educational community is the notion of co-teaching – a service delivery model that is based on the philosophy of inclusive education and the principles of collaboration. The intent behind this model is to provide special needs students with greater access to the general education curriculum and classroom teacher, and in doing so, provide rich educational experiences that maximize the learning for all students.

Over the last number of decades, Saskatchewan has utilized a number of service delivery options for students with special needs. Before the 1990s, special schools and programs were established to serve students with special needs. A concern about the segregation and labeling of these students brought about widespread closure of such schools and programs. Inclusive education and the concept of "least restrictive environment" resulted in more special needs students being served within their neighborhood schools. Over the past number of years, educators have been using a number of strategies to meet the needs of students with disabilities within the neighborhood school, including: collaborative consultation with a special educator, teacher assistance teams, technological supports, differentiated instruction, support from a teacher assistant, and the use of individualized education plans (IEPs). The primary service delivery model for the past two decades has been the "pull-out" model, whereby students with special needs receive specialized instruction from a special educator away from the general education classroom. These same students typically attend a portion of the school day within the general education classroom, at times with the support of a teacher assistant. While this may indeed be an appropriate approach

for serving some students, educators express three major concerns with the pull-out model: (a) many students experience fragmentation by moving between two classrooms, not fully belonging to one particular peer group; (b) students develop a dependency on the support provided by a teacher assistant; and (c) the misconception of general education teachers that the needs of students with disabilities are being met by the special educator and/or a teacher assistant, therefore require little involvement on their part. Co-teaching is a model that is intended to address some of these concerns and is considered a "promising option for meeting the learning needs of the many students who once spent a large part of the school day with special educators in separate classrooms" (Friend, 2007, p. 48).

Co-teaching is promoted as best practice in the United States and is used in part to meet the legislative requirements associated with No Child Left Behind (NCLB) and the Individuals with Disabilities Education Act (IDEA). NCLB emphasizes the importance of accountability for all students and requires teachers to be highly qualified (Basso & McCoy, 2007, p. 3). IDEA emphasizes that students with special needs be provided with access to the general education curriculum and that they be educated by highly qualified teachers (ibid.). This legislation has caused many school districts to implement coteaching as a "model for increasing the achievement of students with disabilities while also meeting the needs of diverse learners in the general education classroom" (Basso & McCoy, 2007, p. 3).

"Coteaching arrangements ... are one promising option for meeting the learning needs of the many students who once spent a large part of the school day with special educators in separate classrooms."

Friend, 2007, p. 48

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Definition

Co-teaching combines the expertise of two professionals, typically a general educator and a special educator, as they work together to meet the needs of a diverse student population within a general education setting. It is based on the belief that students are best served in settings most like their non-disabled peers, that students with special needs should have access to an enriched general education curriculum, and that they require instruction from highly qualified teachers. Bauwens, Hourcade, and Friend first described the merger between general and special educators and coined the term "cooperative teaching" to represent the relationship between the co-teachers (in Murawski & Swanson, 2001, p. 258). These authors define co-teaching as:

Cooperative teaching (or co-teaching) refers to an educational approach in which general and special educators work in a coactive and coordinated fashion to jointly teach academically and behaviorally heterogeneous groups of students in educationally integrated settings (i.e., general classrooms) ... Specifically, in cooperative teaching both general and special educators are simultaneously present in the classroom, maintaining joint responsibility for specified instruction that is to occur within that setting. (In Popp, 2000, p. 1)

Later, Cook and Friend shortened the term to "co-teaching" and further clarified the co-teaching relationship (in Murawski & Swanson, 2001, p. 258). They define co-teaching as "two

Co-teaching is defined as "two or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space."

Cook & Friend, in Murawski & Swanson, 2001, p. 258

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or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space" (ibid.).

Co-teaching is considered a new variation of the traditional team teaching model, typically characterized as involving two general education teachers working together to meet the needs of a particular group of students. In the co-teaching model the general educator and special educator share different, but complementary knowledge and skills as they work together to meet the diverse needs of students. For example, the general educator shares expertise related to "curriculum, effective teaching, and large-group instruction, whereas the special educator contributes knowledge in such areas as learning styles and strategies, clinical teaching, and behavior management" (Popp, 2000, p. 1). Patricia Popp (2000) refers to co-teaching as a "keep-in" rather than a "pullout" service delivery model (p. 1).

Essential Elements

A number of authors suggest the following key elements as co-teaching characteristics:

 Involves two or more professionals, typically a general educator and a special educator. (Basso & McCoy, 2007; Friend, 2007; Friend & Cook, in Simmons & Magiera, 2007; Gately & Gately, 2001; Murawski & Swanson, 2001; Weichel & Lee, in Mitchell, 2005)

Friend and Cook (in Simmons and Magiera, 2007) emphasize that co-teachers "are peers with equivalent credentials and status in the

"For inclusion to be possible. students must be provided with services and supports within the general education environment. One such delivery option for students is through the use of coteaching between general and special education teachers."

Murawski & Swanson, 2001, p. 258 classroom" (p. 1). The majority of the authors on this topic tend to refer to co-teaching as blending the teaching expertise of a general education and a special education teacher; however, Villa, Thousand, and Nevin (2004) expand this definition to include any number of adults who may have an instructional role (p. 9).

2. Instruction within the same physical space. (Basso & McCoy, 2007; Cook & Friend, in Murawski & Swanson, 2001)

Most authors suggest that the physical space is the general education classroom. Basso & McCoy (2007) also suggest that "both teachers are actively involved and remain in the classroom for the entire period of instruction" (p. 3).

3. A sharing of teaching responsibilities. (Basso & McCoy, 2007; Friend, 2007; Friend & Cook, in Simmons & Magiera, 2007; Murawski & Swanson, 2001; Gately & Gately, 2001)

Much of the literature suggests that the coteachers share responsibility for *all* the students in the classroom and jointly share in planning, instruction, and assessment. Friend and Hurly-Chamberlain (2006) indicate that both educators participate fully in the instructional process, although differently. For example, general educators have primary responsibility for instructional content, while special educators hold primary responsibility for facilitating the learning process.

"Because of the presence of a special education teacher in general education classes, coteachers are expected to provide a wider range of instructional alternatives, to enhance the participation of students with disabilities, and improve performance outcomes for all students."

Magiera, Lawrence-Brown, Bloomquist, Foster, Figuero, Glatz, Heppler & Rodriguez, 2006. p. 7

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4. Instruction provided to a heterogeneous group of students. (Basso & McCoy, 2007; Friend, 2007; Friend & Cook, in Simmons & Magiera, 2007; Gately & Gately, 2001; Murawski & Swanson, 2001)

Much of the literature refers to the importance of both teachers working with all students, rather than the special educator assuming sole responsibility for students within a class that has special needs.

From their review of the literature, Simmons and Magiera (2007) identify the following elements to describe teachers who are "truly" co-teaching: "personal and professional compatibility among the teaching pairs, equity of the teaching roles for both teachers, and more active individualized student instruction" (p. 2). Villa, Thousand, and Nevin (2004, p. 3) define co-teaching as two or more adults who agree to:

- 1. Coordinate their work to achieve at least one common, publicly agreed-on goal
- 2. Share a *belief system* that each of the co-teaching team members has unique and needed expertise
- 3. Demonstrate *parity* by alternatively engaging in the dual roles of teacher and learner, expert and novice, giver and recipients of knowledge or skills
- 4. Use a distributed functions theory of leadership in which the task and relationship functions of the traditional lone teacher are distributed among all co-teaching group members

The elements of co-teaching:

- 1. Involves two or more professionals, typically a general educator and a special educator
- 2. Instruction within the same physical space
- 3. A sharing of teaching responsibilities
- 4. Instruction provided to a heterogeneous group of students

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5. Use a *cooperative process* that includes face-to-face interaction, positive interdependence, performance, as well as monitoring and processing of interpersonal skills, and individual accountability

What Co-Teaching is Not

In an effort to further clarify the concept of co-teaching, some authors describe "non-examples" or in other words, what co-teaching is not. Villa, Thousand, and Nevin (2004, p. 2) suggest that the following *do not* constitute co-teaching:

- one person teaching one subject followed by another who teaches a different subject;
- one person teaching one subject while another person prepares instructional materials ... or corrects papers ...;
- one teacher conducts a lesson and others stand or sit by and watch;
- the ideas of one person prevail for what is to be taught and how it is to be taught, and;
- the assignment of someone to act as a tutor.

This list clearly indicates that co-teaching involves a collaborative partnership whereby both co-teachers are actively involved in the instructional process within a classroom of diverse learners.

"Co-teachina provides a vehicle for school communities to move from feelings of isolation and alienation to feelings of community and collaboration. Another way of saying this is that the 'lone arranger' model of teaching is replaced with a co-teaching model."

Villa, Thousand & Nevin, 2004, xv

Rationale

There are a number of important reasons why school jurisdictions consider implementing a coteaching service delivery model.

1. Co-teaching promotes the principles of inclusion.

Cook (2004) eloquently states:

As a result, it [co-teaching] shares many benefits with other inclusion strategies, including a reduction in stigma for students with special needs, an increased understanding and respect for students with special needs on the part of other students, and the development of a sense of heterogeneously-based classroom community. (p. 7)

 Co-teaching provides a number of benefits for students, including greater access to the general education curriculum for those with special needs and the support of two high-qualified teachers for all students.

Having two teachers in the classroom reduces the student-teacher ratio and allows for greater opportunity for differentiating and enhancing the curriculum, as well as attending to students' needs.

"Educators must pull together by sharing their work through collaboration; too much knowledge and too many skills are needed for any single professional to keep up with and master all of them."

Friend & Pope, 2005, p. 59

3. Co-teaching provides a number of benefits for the co-teachers, including increased job satisfaction, blending of expertise and resources, and professional growth.

Teachers report that they benefit both personally and professionally from the experience of working closely with another professional to serve the needs of students. Teachers often bring different and complementary knowledge and skills to the co-teaching arrangement that enrich the education experience for students and foster the professional growth of teachers.

Challenges

The literature identifies a number of common challenges associated with the co-teaching model. This information has been gathered primary from interviews conducted with teachers and administrators:

- 1. Lack of common planning time for the co-teachers.
- 2. Lack of administrative support.
- The need for ongoing training for administrators and co-teaching partners.
- 4. Relationship factors that impede the co-teaching arrangement.
- 5. An insufficient number of special education teachers to co-teach in the

"Admittedly, there are many challenges to co-teaching; but when it works, the feelings of accomplishment, trust, mutual respect, and camaraderie are indescribable."

Keefe, Moore, & Duff, 2004, p. 41

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wide range of general education classrooms.

6. Increased workload for both general and special educators.

In addition to the commonly cited challenges listed above, several constraints unique to secondary schools have been identified in the literature: "the intensity of the content, the tighter scheduling issues, and the pressure on secondary teachers to prepare students to perform well on exit exams" (Rice & Zigmond, in Simmons & Magiera, 2007, p. 1).

Some positive solutions to addressing these challenges are identified throughout the remaining text of this report.

Glossary of Related Terms

Collaboration

Co-teaching is a partnership between two professionals that is enhanced by collaboration. Collaboration refers to the kind of interaction among professionals that encompasses a variety of behaviors, including: "communication, information sharing, coordination, cooperation, problem solving and negotiation" (Intelligence Community Collaboration study, in Friend & Pope, 2005, p. 58). Santamaria and Thousand (2004) identify the following characteristics of successful collaboration: "(1) being voluntary; (2) requiring parity among participants; (3) based on mutual goals; (4) depending on shared responsibility for participation and decision making; (5) consisting of individuals who share

"As educators try to meet the continuing goal of changing our practice, the enemies of change and renewal await: inertia. impatience, fear of faddism, misinformation, lack of information, and mistrust. Patience and persistence will be required to overcome the habits of isolation and privacy and to gain the greater good of combined effort."

Smith, in Cramer, 2006, p. 24 their resources; and (6) consisting of individuals who share accountability for outcomes." (p. 2)

Consultation

Consultation refers to a person providing advice and recommendations, as an expert or consultant, to others. At times, special educators provide consultative support to general education teachers about the needs of students with disabilities. However, most special educators have shifted away from the consultative model toward a collaborative model, which places the special educator in the role of collaborator or joint problem solver (Cramer, 2006, p. 18).

Cooperative Teaching

Bauwens, Hourcade, and Friend first used the term "cooperative teaching" in describing the merger between general and special educators (in Murawski & Swanson, 2001, p. 258). Later, Cook and Friend (in Murawski & Swanson, 2001, p. 258) further clarified the teaching relationship between these teachers and shortened the term to "co-teaching". Thus the term "cooperative teaching" is synonymous with the term "co-teaching".

Differentiated Instruction

Differentiated instruction refers to the adaptations and modifications that teachers make to the instructional content, the learning environment, the teaching strategies, the learning options, and the assessment of student work for the purpose of enabling all students to benefit from the educational experience.

Inclusion

Co-teaching is a service delivery model that supports inclusive practices. Inclusion is a belief system that supports the notion that all students are welcomed and accepted members of a learning community (Cook, 2004, p. 6). It is often used to denote a physical location, for example, using general education classrooms for the education of special needs students. While inclusive philosophy supports students with disabilities

being educated in the same classroom as their non-disabled peers, this is a limiting definition. Inclusion is a broad-based philosophy that implies a sense of belonging and acceptance for all students.

Team Teaching

Co-teaching has its roots within the traditional team teaching model. According to Cook (2004) "team teaching is often used to describe the situation in which two general education teachers combine classes and share instruction" (p. 6). Co-teaching on the other hand, blends two significantly different orientations (general educator and special educator) in the instructional process and results in a much lower student-teacher ratio (ibid.). While some authors, like Cook, are clear about the distinction between these two terms, others are less so. Villa, Thousand, and Nevin (2004) identify team teaching as one of four approaches of co-teaching and define it as "two or more people who do what the traditional teacher has always done – plan, teach, assess, and assume responsibility for all the students in the classroom" (p. 9).

Part 2: The Evidence

The research findings, thus far, have yielded mixed results on the effects of co-teaching (Kohler-Evans, 2006, p. 1). In part, this could be due to the lack of both experimental and quantitative research regarding co-teaching. Magiera and Simmons (in Nevin, 2006) contend that the research base for co-teaching is "scant", but that it is growing (p. 250).

The literature identifies a number of benefits for students, teachers, and organizations associated with the practice of co-teaching. The majority of this information was gathered through observations and interviews with teachers, administrators, parents, and students.

Benefits for Students

- Students with disabilities gain access to the general education curriculum (Basso & McCoy, 2007; Lawton, 1999; Magiera, Smith, Zigmond & Gebauer, 2005; Rice, Drame, Owens, & Frattura, 2007)
- Reduced social stigma associated with leaving the classroom for special education services (Afflect, Madge, Adams, & Lowenbraun, in Popp, 2000; Basso & McCoy, 2007; Friend & Cook, in Friend and Pope, 2005)

"The structure of coteaching provides excellent support to students with disabilities or other special needs – as well as to students who struggle but have never been identified as having special needs."

Friend, 2007, p. 5

- Students receive more teacher attention (Capp, 2004; Lawton, 1999; Walther-Thomas, in Mitchell, 2005; Villa, Thousand, & Nevin, 2004)
- Learning problems can be identified earlier (Lawton, 1999)
- Enhanced academic performance (Afflect et al., in Popp, 2000; Dieker and Jones, in Capp, 2004; Magiera et al., 2005; Schwab Learning, in DSSU website n.d.; Walther-Thomas, in Villa et al., 2004)
- Effective for students with learning disabilities (Rice & Sigmond, in Kohler-Evans, 2006; Trent, in Cramer et al., 2006; Welsch, in Kohler-Evans, 2006)
- Increased literacy achievement (Miller, Valasky, & Molloy, in Cramer et al., 2006; Welch, in Santamaria & Thousand, 2004)
- Positive effects on self esteem (Afflect et al., in Popp, 2000; Dieker and Jones, in Capp, 2004; Villa et al., 2004)
- View themselves as capable learners (Walther-Thomas, in Mitchell, 2005)
- Improved social skills (Capp, 2004; Walther-Thomas, in Villa et al., 2004)
- Increased student enthusiasm and involvement (Basso & McCoy, 2007)
- Increased participation of students with disabilities (Magiera et al., 2005; Villa et al., 2004)

"All students benefit when their teachers share ideas, work cooperatively, and contribute to one another's learning. There is a growing research base to support this claim."

Villa, Thousand, & Nevin, 2004, xiii

- Students have a positive response to the co-teaching model (Cramer et al., 2006; Dozier, 2007; Friend & Hurly-Chamberlain, 2006)
- Stronger peer relationships (Friend & Cook, in Friend & Pope, 2005; Malhoney and Walther-Thomas, in Villa et al., 2004)
- Increased individualized instruction (Basso & McCoy, 2007)
- Minimized instructional fragmentation (Cook, 2004)

Benefits for Teachers

- Receive personal and professional support (Capp, 2004; Cramer, 2006; Cramer & Stivers, 2007; Lawton, 1999; Villa, et al., 2004; Walther-Thomas, in Mitchell, 2005)
- Opportunities for professional growth (Basso & McCoy, 2007; Bauwen & Hourcade, in Mitchell 2005; Friend & Reisling, in Tichenor, 2004; Villa et al., 2004)
- Sharing of knowledge, skills, and resources between co-teachers (Friend & Pope, 2005; Santamaria & Thousand, 2004)
- Ability to intensify instruction (Friend & Pope, 2005)
- Provides a sense of camaraderie between participating teachers (Friend & Pope, 2005)

"As in a successful marriage, once partners figure out and understand each other's perspectives, they no longer are just two individuals, but a union that is fundamentally different from each person alone. Furthermore. because of their differing perspectives, experiences, and skills, they create a synergy that is greater than either of their individual strengths."

Villa, Thousand, & Nevin, 2004, p. 10

- Increased job satisfaction (Basso & McCoy, 2007; Friend & Reisling, in Tichenor, 2004)
- Reduced discipline problems (Basso & McCoy, 2007; Schwab Learning, in DSSU website, n.d.)
- Willingness to try new things and be more creative (Basso & McCoy, 2007; Friend & Cook, in Gately & Gately, 2001; Santamaria & Thousand, 2004; Villa et al., 2004)
- Increased feelings of worth (Friend & Cook, in Gately & Gately, 2001)
- Helps to meet the psychological needs of belonging, fun, choice, power, and survival (Villa et al., 2004)
- Feel more empowered to make decisions and solve problems (Duke, Showers, & Imber, in Villa et al., 2004; Santamaria & Thousand, 2004)
- Reduced student-teacher ratio (Austin, in Beamish, Bryer, & Davies, 2005; Villa et al., 2004)
- Reduced paperwork (Schwab Learning, in DSSU website, n.d.)
- Improved communication between general and special educators (Basso & McCoy, 2007)
- Special educators increase their understanding of the general education curriculum and expectations of students within the general education classroom

"As educators try to meet the continuing goal of changing our practice, the enemies of change and renewal await: inertia, impatience, fear of faddism, misinformation, lack of information, and mistrust. Patience and persistence will be required to overcome the habits of isolation and privacy ... and to gain the greater good of combined efforts."

Smith, in Cramer, 2006, p. 24

- (Capp, 2004; Cook, 2004; Rice et al., 2007)
- Special educators have the opportunity to observe how students with disabilities fare within general education classes (Capp, 2004; Lawton, 1999)
- General educators increase their ability to adapt lessons (Rice et al., 2007)
- General educators increase their repertoire of instructional strategies (Rice et al., 2007)

Benefits for Organizations

- Enhanced sense of community within general education classrooms (Capp, 2004; Villa et al., 2004; Walther-Thomas, in Mitchell, 2005)
- Fewer referrals for special education services (Basso & McCoy, 2007; Lawton, 1999; Pugach & Johnson, in Villa et al., 2004; Schwab Learning, in DSSU website, n.d.)
- Parent satisfaction (Afflect et al., in Popp, 2000; Cramer et al., 2006)
- **Staff more united** (Nordlund, in Beamish, Bryer, & Davies, 2006)
- Provides a way to sustain inclusive practices (Rice et al., 2007)

Other Research Evidence

The most cited quantitative study in the literature is the meta-analysis of co-teaching research by Murawski and Swanson, 2001. Walsh (2004) refers to this study as "the most recent and complete analysis of the benefits of co-teaching" (p. 15).

From a review of 89 articles, Murawski and Swanson (2001) were only able to find six articles that provided sufficient quantitative information from which an effect size could be calculated. Table 1 outlines the results of the six studies.

Table 1: Quantitative Studies on Co-Teaching

Primary	Date	Length	Sample	Grades	Basic Results	М
Author	of Pub.	of Study	Size (n)			
Self, H,	1991	1 acad.	170	K-3	Gains in reading for co-taught students; positive teacher reports	0.95
Lundeen, C.	1993	1 acad. year	134 SE 249 ND	9-12	Grades for team-taught program increased 1 st sem.; same overall 2 nd sem.	
Walsh, J. M.	1993	1 acad. year	343 exper. 363 control	9	No difference for attendance, discipline, or grades; improved scores for minimum competency tests for co-taught classes	0.41
Rosman, N. JS	1994	3 weeks	59	9-12	Students in co-taught condition had higher math achievement scores 0.24	
Vaughn, S.	1998	1 acad. year	59 SE 126 ND	3-6	More peer acceptance/friendship, increases in consult./collab. condition, than in co-teaching	
Klinger, J. K.	1998	1 acad. year	25 SE 89 ND	3-6	Gains in LD in reading but not 0.50 math; lowest readers did not improve	

Note: SE = special education; ND = nondisabled; LD = learning disabled; M = mean

of effect sizes

Source: adapted from Murawski & Swanson, 2001, pp. 261-262

There is a fair amount of variability within the six studies, for example: (a) different grade levels were involved, (b) not all reported on the types of disabilities within the classrooms, and (c) dependent measures varied. However, the authors were able to calculate a mean effect size for each study and report an average total effect size of 0.40 from the six studies. Murawski and Swanson found that reading and language arts achievement (based on three studies) had the highest mean effect size of 1.59; mathematics achievement received an effect size of 0.45 (based on three studies); and social outcomes had an effect size of 0.08 (based on one study) (p. 263). The authors recommend that the results be interpreted cautiously as only three of the studies included effect sizes related to students with reported disabilities (p. 264).

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Joyce, Weil, and Calhoun (2004) define effect size as "the magnitude of gains from any given change in educational practice and thus to predict what we can hope to accomplish by using that practice" (p. 204). Effect size is the difference in the means of the experimental group and control group and is expressed in standard deviation units (Murawski & Swanson, 2001, p. 261). Cohen (in Murawski & Swanson, 2001, p. 260; Marzano, 2003, p. 6) suggests that an effect size above 0.80 is considered a large effect estimate: an effect size of 0.50 is a moderate estimate: and an effect size of 0.20 is a small estimate. Based on the overall effect size of 0.40 for the above six studies. Murawski and Swanson (2001) state that "coteaching is a moderately effective procedure for influencing student outcomes" (p. 264). Joyce et al. (2004) suggest that "when using the research base to decide when to use a given model of teaching it is important to realize that size of effects is not the only consideration" (p. 406).

Based on their review of the research, Murawski and Swanson (2001) make the following statement pertaining to the effectiveness of coteaching:

The limited data suggest that co-teaching can have a positive impact on student achievement. ... These results indicate that there is a potential for positive results in the areas of achievement using co-teaching as a service delivery option for students with special needs in a general education setting. (p. 265).

"The limited data suggest that co-teaching can have a positive impact on student achievement. ... These results indicate that there is a potential for positive results in the areas of achievement using coteaching as a service delivery option for students with special needs in a general education settina."

Murawski & Swanson, 2001, p. 265

There are some authors who express concern with using the co-teaching model. Boudah, Schumacher, and Dreshler (in Kohler-Evans, 2006) found that the performance of students with high-incidence disabilities worsened when involved with co-teaching (p. 1). These researchers "found that mildly disabled and low-achieving students had a low level of engagement in such activities as raising their hands, recalling prior knowledge, or using strategic skills" (Lawton, 1999, p. 4). Popp (2000) states that some researchers have questioned "whether the intensity of the instruction provided to students with LD in general education is sufficient and whether the general education classroom can effectively incorporate special education strategies" (p. 6). Doug Fuchs (in Lawton, 1999) states:

We have no evidence that it promotes satisfactory student achievement. ... Co-teaching often times involves teachers not working with one kid for sustained periods in a sustained manner, [but] working with kids fleetingly in the back of the room or with groups of kids. ... Many kids need individualized services. I'm deeply skeptical that all of those kids can get that in the general education classroom. Co-teaching is a risky enterprise. (p. 4)

Marilyn Friend (2007) writes extensively about co-teaching and suggests that before student achievement outcomes can be measured, the quality of the implementation must be established (p. 50). Simmons and Magiera (2007) agree, reiterating the point that the integrity of the co-teaching model must be ensured prior to measuring student achievement (p. 9).

Many authors agree that more experimental and quantitative research is required. Murawski and Swanson (2001) who analyzed much of the quantitative studies state "further research is needed to substantiate that co-teaching is an effective service delivery option for students with disabilities" (p. 258). Popp (2000) encourages full implementation of the co-teaching model, followed by empirical study, and appropriate adjustments (p. 6). Murawski and Swanson (2001) recommend that teachers using the co-teaching model should open their classrooms to researchers. The data collected from such classrooms would help to inform the education community about the impact of co-teaching and how to best implement this model.

In addition to more research, educators are encouraged to continue to provide students with many levels of support based upon their unique needs. Marilyn Friend (2007) is clear that coteaching is but one option for supporting students with disabilities within an inclusive school. She states:

Some students with disabilities need the structure and intensity of small-group settings to raise achievement. Nothing about coteaching implies that schools should eliminate such approaches. (p. 49)

Villa et al., (2004) agree that "not every student eligible for special education needs to be placed in a co-taught classroom" (p. 113). Boudah, Schumacher, and Dreshler (in Lawton, 1999) suggest that some students with disabilities may continue to need the support of "pullout" programs, even if they are attending a co-taught classroom (p. 4).

"For coteaching to be considered a valid service delivery option more experimental research must be conducted. however, the limited data that does exist suggests that co-teaching can have a positive impact on student achievement."

Mitchell, 2005, p. 9

Part 3: The Teaching Partnership

There is significant reference in the literature to the importance of the teaching partnership required in a co-teaching arrangement. Villa, Thousand, and Nevin (2004) have likened this partnership to a marriage. They state:

> Partners must establish trust, develop and work on communication, share the chores, celebrate, work together creatively to overcome the inevitable challenges and problems, and anticipate conflict and handle it in a constructive way. (p. 3)

Roles and Responsibilities

While some authors state that co-teachers need to share all the teaching responsibilities in the classroom on an equal basis (Ashton, 2003), there are others who believe that "equitable tasking is not a necessary precondition for a genuine co-teaching partnership" (Beamish, Bryer, & Davis, 2006, p. 2). Villa et al. (2004) recommend that teaching partners identify their roles and responsibilities before the teaching, during the teaching, and then after the lesson is taught (p. 13). These authors provide a roles and responsibilities matrix to assist teachers with this decision making process (p. 16).

When examining the roles of the co-teaching partners, it is important that both teachers are

"The biggest change for educators is in deciding to share the role that has traditionally been individual: to share the goals, decisions, classroom instruction, responsibility for students, assessment of student learning, problem solving, and classroom management. The teachers must begin to think of it as our class."

Ripley, in Cramer, 2006, p. 13

viewed as equals by the students. "If the students see the special education teacher as an aide, they tend to only accept help from the general education teacher" (Magiera et al., 2005, p. 22). Fully utilizing the skills and strengths of the special educator will provide students with an enriched learning experience by two professionals, as well as increase the likelihood that the co-teaching partnership will be motivating for both teachers.

In determining their particular roles and responsibilities in the classroom, it seems appropriate that the co-teachers would capitalize on their individual expertise. Special educators can often offer knowledge about learning styles, educational accommodations/modifications, knowledge of students' IEPs, and specific learning strategies (Basso & McCoy, 2007, p. 3). General educators often bring expertise regarding curriculum content, pacing of curriculum, curriculum objectives/performance standards, and management of large groups (ibid.).

Building and Maintaining a Positive Relationship

A co-teaching partnership based on trust and respect is a highly desirable situation. It requires a commitment to team goals, strong interpersonal skills, and an understanding of yourself and your partner. Positive relationships require a continuous investment of time and effort. This investment can result in an enjoyable and stimulating teaching experience and can prevent destructive conflict.

"The essence of co-teaching is about building a professional relationship between the co-teachers, which is motivated by the drive to increase student achievement."

Magiera, Simmons, Marotta, & Battaglia, 2005, p. 3

"Working collaboratively takes more time than working alone. It requires that all participants recognize that they may have to set aside their own preferences as they work with others who think differently; and it involves sharing key decisions, the work involved in teaching, and the accountability for results."

Friend & Pope, 2005, p. 58

The literature provides numerous suggestions on how to build and maintain the relationship between co-teachers. Many researchers advocate for spending time developing rapport with one's partner before the school year starts, as well as spending time together throughout the year discussing and assessing the working relationship. Attending training sessions together to develop effective interpersonal and conflict management skills is also seen as an important step to building and maintaining a positive relationship.

Keefe, Moore, and Duff (2004) write about the "four knows" required for successful coteaching relationships: "know yourself, know your partner, know your students, and know your 'stuff'" (p. 37). These authors, as well as many others, recommend that teachers spend time understanding each other's preferences and styles and have created a worksheet for this purpose (p. 39). Gately and Gately (2001) have developed a Co-teaching Rating Scale (p. 45) to assist co-teachers in assessing their relationship and in setting goals. They state:

By completing the CtRS [Co-teaching Rating Scale], these teachers have taken an initial step in examining their partnership; pinpointing areas of strength and weakness in their relationship; and setting goals that will enable them to work toward a satisfying, rewarding, and collaborative partnership. (p. 47)

An essential aspect of a good relationship between co-teachers is their ability to successfully collaborate with one another. Friend and Pope (2005) describe collaboration

"Lastina changes occur when stakeholders build collaborative cultures ... Over time, ... within Ithe school's open and collaborative climate. teachers redefined their roles, accepted greater responsibility for all student learning, shared teaching ideas. allowed others to suggest curricular and instructional modifications. and developed a greater sense of personal and collective teaching efficacy."

Webb & Barnash, in Cramer, 2006, p. 5

as "a style based on valuing one another's contribution, trust and respect, and sharing the workload." (p. 58). Webb and Barnash (in Cramer, 2006) advocate for collaborative cultures in schools and suggest that the isolated work of teachers create resistance to school reforms, "especially those that threatened classroom autonomy" (p. 5). The good news is that collaborative skills can be learned and a number of programs and books exist for this purpose.

Many authors identify critical qualities and skills required of the co-teaching partners. Bauwens and Hourcade (in Cramer & Stivers, 2007) suggest that the two most important qualities are "an inner pressure to achieve results and a high level of confidence in their own abilities" (p. 8). They also suggest that "respect for, and trust in, one's partners and a tolerance of failure and mistakes while seeking results" are equally important qualities (ibid.). In their interviews with co-teachers, Magiera et al. (2006) report that the educators identified four elements of an effective relationship: (a) communication, (b) flexibility, (c) respect, and (d) organization (working on goals and prioritizing student needs) (p. 6). Basso and McCoy (2007) suggest "co-teachers need to be proficient in effective interpersonal skills. These skills include the ability to listen, actively observe, ask questions, compromise, negotiate to resolve differences, and provide feedback" (p. 3).

Communication is essential to an effective collaborative partnership. Villa, Thousand, and Nevin (2004) write that the "underlying key to success comprises the Three Cs of Co-

"Collaboration is no longer a choice: it is a necessity. Working together is not iust rhetoric - it is essential in order to address the increasingly diverse and sometimes daunting needs of students ... If we work together. both when it is easy and when it is difficult we can meet these needs. No single educator can possibly hope to know all that is necessary to effectively reach today's students, and only by pooling expertise sharing it without losing its focus, respecting and drawing upon the differences in perspectives to create new options, can those professionals succeed at their task."

Friend, 2003, p. 2

teaching: communicate, communicate in a different way, and communication again" (p. 91). These authors suggest the following strategies for communicating more effectively: "helping to meet each other's psychological needs, adjusting to each other's learning styles, and inviting each other out of distress patterns" (p. 91). Kohler-Evans (2006) recommends that teaching partners have ongoing dialogue "about what bugs them, their pet peeves, the good parts, the tough parts, the struggles and the victories" (p. 3).

Some authors recommend that teaching partners understand and recognize the developmental stages of the co-teaching relationship (Villa, et al., 2004, p. 90). Bauwen and Hourcade (in Mitchell, 2005) identify three co-teaching stages: beginning stage, compromise stage, and the collaborative stage. Table 2 summarizes the characteristics of the various stages in conjunction with eight components identified by Gately and Gately (2001) as important to the collaborative learning environment.

Managing Conflict

Conflict within the co-teaching partnership will occur. "Johnson and Johnson (1988) define conflicts in terms of actions that frequently prevent, block, or interfere with another person's attempts to achieve his or her goals" (Villa et al., 2004, p. 97). Villa, Thousand, and Nevin (2004) write that "conflict is a natural, ever-present part of co-teaching" (ibid.).

There are many sources of conflict and Villa et al. (2004) recommend that when co-teachers

"Teammates
must connect
on both
personal and
professional
levels. Their
relationship
must be a
model for the
students in their
classrooms, as
well as a
guiding force."

Keefe, Moore, & Duff, 2004, p. 38

"Communication needs to be open, honest, confidential, and continuous. There is no substitute for daily, sometimes gut-wrenching and cathartic, yet cleansing and growthcausing communication."

Kohler-Evans, 2006, p. 3

understand these they are better able to resolve issues (p. 98). Conflict can occur when someone is not getting their psychological needs met or when someone fears their needs will not be met (ibid.). "Schrumpf and Jansen (2002) suggest that some conflicts arise because of different values and convictions" (in Villa et. al., 2004, p. 98).

Table 2: Components and Developmental Stages in the Co-Teaching Process

Components	Beginning Stage	Compromise Stage	Collaborative Stage
Interpersonal Communication	Communication occurs in a guarded manner	Is more open and interactive	Effective communication is modeled; nonverbal and verbal
Physical Arrangement	An impression of separateness exists	More movement and shared space and materials occurs	Teachers are fluid in their positioning
Familiarity with the Curriculum	Lack of confidence in both teachers exists	More confidence and competence exists	Appreciation of one another's competencies exists
Curriculum Goals and Modifications	Driven by textbooks and tests	Adaptations are put in place	All concepts are differentiated
Instructional Planning	One educator teaches and the other acts as a paraprofessional	Planning is shared	Planning is continual outside and during instruction
Instructional Presentation	One teacher is the "boss" and the other is the "helper"	Both teachers direct some of the activities in the classroom through mini-lessons	Both teachers participate in the presentation of the lesson
Classroom Management	One teacher is the behaviour manager so the other can teach	Mutual development of rules & routines occurs	A classroom management system is developed with individual behavior plans in place
Assessment	Measures for evaluation are objective and examine knowledge of content	Alternative assessment ideas are explored and performance measures are used	A variety of assessment options are used with individualization of grading procedures in place

Source: Bauwens & Hourcade, in Mitchell, 2005, pp. 11-12.

When challenging behaviors occur there are a number of strategies that can be tried ranging from ignoring — if infrequent and isolated — to confronting directly — if persistent and unproductive (Villa et al., 2004, p. 101). The use of humor and calling attention to alternative behaviors may be effective first attempts for dealing with challenging behaviors (ibid.).

Cramer (2006) says our tendency when faced with difficult behaviors is to avoid the particular person (p. 6). She suggests a more appropriate approach may be to visualize the relationship as a teeter-totter - "when one moves, both are influenced" (p. 9). Cramer states that one person working on the relationship, by taking ownership of their thoughts and actions, can make a difference.

Sofield (in Buckley, 2000) suggests that an important step in developing teams is to confront the main obstacles that impede teamwork (p. 54):

- Low self-esteem
- Burnout
- Failure to deal with loss or failure
- Fear of conflict
- Dealing with anger poorly
- Lack of shared vision
- Self-righteousness
- Poor communication within the team

"A team can only win when team members can assess themselves accurately and take full responsibility for meeting team goals."

Cramer, 2006, p. 9

Buckley (2000, p. 61) identifies the following strategies for dealing with conflict:

- Exodus. Get into the other's shoes, inside the other's skin; try to see and feel as the other does. ...
- Revelation. Get to the real issues, the values underlying the conflict. ...
- Empathy. In words or signs,
 communicate "feeling with" the other.
 ...
- Goal Setting. All must be headed in the same direction before a fruitful discussion of how to get there is possible.
- Covenant. If the other person is now ready to make the exodus, present your point of view, needs, pressures, fears, and values.

If there is no listening or empathy on the other side, wait, but do not give up.

"Covert conflicts need to be made overt and resolved, or they will fester and destroy the potential for a positive coteacher relationship."

Villa, Thousand, & Nevin, 2004, p. 97

Part 4: Implementation

Well-conceived change initiatives can fail as a result of poor implementation. The following text outlines some of the most critical factors that need to be addressed to ensure successful implementation of co-teaching.

Pre-Planning

In preparing for co-teaching it is essential that co-teachers spend time together discussing and developing common approaches to classroom situations. Part of this process is gaining an understanding of the preferences and styles of each teaching partner, which is essential to building and maintaining a positive relationship. Mitchell (2005) suggests that teachers begin preparing for co-teaching the year before they expect to implement (p. 15).

Gately and Gately (2001, p. 40) present eight components that they believe need to be considered by co-teachers prior to and during implementation:

- 1. Interpersonal communication
- 2. Physical arrangement
- 3. Familiarity with the curriculum
- 4. Curriculum goals and modifications
- 5. Instructional planning
- 6. Instructional presentation

"New mandates or programs often are introduced at the beginning of a school year with the announcement that they are to be implemented immediately. This 'ready, fire, aim' approach negates what we know about change needing time and professional buy-in."

Murawski & Dieker, 2004, p. 53

- 7. Classroom management
- 8. Assessment

Some of the specific topics that teaching partners should discuss prior to implementing co-teaching include: (a) goals and expectations for the co-teaching project, (b) roles and responsibilities, (c) teaching expertise, (d) time for planning, (e) instructional content and strategies, (f) co-teaching approaches, (g) physical arrangement of the classroom, (h) student assessment procedures, (i) expectations for classroom management, (j) communication with each other and with families, and (k) process and time for assessing the co-teaching partnership. A number of authors provide ready-made templates to facilitate the discussion related to these topics (Basso & McCoy, 2007; Villa et al., 2004).

Selecting and Scheduling Teachers

While some teachers will embrace the prospect of working with another professional within their classroom, many will be uncomfortable teaching in the presence of another. Most teachers are used to working in relative isolation and having total control of "their" classrooms.

Some authors advocate for allowing teachers to volunteer for co-teaching (Ashton, 2003; Friend, 2007; Popp, 2000; Simmons & Magiera, 2007; Lawton, 1999). The volunteer approach may create greater initial teacher buy-in, increased commitment to the process, and fewer conflicts between the teaching partners. There are a

"Administrators need to understand that a teacher's initial reluctance to co-teach is not necessarily a permanent barrier to implementing co-teaching or any other innovation. ... McLaughlin (1991) found that teacher commitment to an innovation (e.g., coteaching) only comes after teachers have acquired initial competence in the new skills necessary to implement the innovation."

Villa, Thousand, & Nevin, 2004, p. 122

number of other authors, however, who believe that it is not possible or even desirable to view co-teaching as a voluntary activity. Kohler-Evans (2006) claims that the overwhelming majority of participants who were told, rather than asked, to co-teach said they would do it again (p. 3).

Villa, Thousand, and Nevin (2004) agree that the volunteer approach may be appropriate during the early stages of co-teaching, but they argue that educators "have a professional, legal, and ethical responsibility" to collaborate in planning and teaching (p. 122). Friend (2007) advocates for a school culture that encourages professionals to collaborate to achieve shared results (p. 49). Such a culture views co-teaching as "a standard of practice that is integral to a school's efforts to reach all students" (p. 50). Johnson and Donaldson (2007) go so far as to state that the traditional norms of teaching - autonomy, egalitarianism, and seniority - actually impede a school's instructional quality (p. 13).

Noonan, McCormick, and Heck (in Nevin, 2006) have created the *Co-Teacher Relationship Scale* that can be used as a tool for matching potential co-teaching team members (p. 2).

It is not possible for the special education teacher to co-teach in every general education classroom. The special educator's experience with co-teaching, the size of the caseload, and other role responsibilities (e.g., meetings with parents) must be taken into consideration. The following outline some of the recommendations from various authors with respect to scheduling

"The traditional norms of teaching autonomy, eaalitarianism. and seniority exert a powerful and persistent influence on the work of teachers. They reinforce the privacy of the individual's classroom, limit the exchange of good ideas among colleagues, and suppress efforts to recognize expert teaching. Ultimately, they cap a school's instructional quality far below its potential."

Johnson & Donaldson, 2007, p. 13

the special educator in co-teaching arrangements:

- Basso and McCoy (2007) say "experienced special educators have found that they are most successful in the classroom if they limit the amount of lesson plan preparations to three" (p. 9).
- Mitchell (2005) recommends that special educators consider co-teaching in one or two classrooms per year (p. 15).
- Cook (2004) says if co-teaching is a new venture, then implementing in a single classroom may be a prudent approach (p. 31).
- Friend (2007) suggests limiting the assignments to certain grade levels or subject areas (p. 51).
- Walsh and Jones (2004) provide a number of scheduling options, while not ideal, do allow the special educator to work with more general education classes. Some of the options involve the special educator splitting the time between different classes within the same period or during different days of week. Another option is to develop a weekly schedule among a few classrooms on the basis of need for instructional support by the special educator (p. 16).

Selecting and Scheduling Students

As previously stated, co-teaching may not be an appropriate service delivery model for all students with special needs. Some students may require different levels of support, as well as different kinds of support. For example, some students may benefit more from the intensive supports of the "pull-out" model, while others may require time in a self-contained classroom in addition to attending a co-taught classroom.

The literature is unclear as to which students should be considered for a co-taught classroom, but there is significant reference to students with mild-to-moderate disabilities (Cramer et al., 2006; Lawton, 1999). Lawton (1999) claims that students served with co-teaching in the

general education classroom are typically those considered to be academically able (p. 1). Santamaria and Thousand (2004) state that "co-teaching has been found to be effective for students with a variety of diverse instructional needs, including English language learners (Mahoney, 1997); students with hearing impairments (Luckner, 1999; Compton, Stratton, Maier, Meyers, Scott, & Tomlinson, 1998); students with learning disabilities (Rice & Zigmond, 1999; Trent, 1998; Welch, 2000); highrisk students in a social studies class (Dieker, 1998); and students in a language remediation class (Miller, Valasky, & Malloy, 1998)" (p. 4).

However, rather than focusing on the specific disabilities that would best be served with a co-teaching model, it is likely more appropriate to select students using the following criteria: (a) the goals of the IEP can be met within a general education classroom, (b) inclusion in the general education class would be motivating for the student, (c) the student is likely to benefit from instruction from both a general educator and a special educator, and (d) the student's learning is likely to be enhanced by attending a co-taught general education class. Kohler-Evans (2006) suggests that student need is the basis upon which placement decisions should be made (p. 3).

In terms of scheduling students into a cotaught classroom, authors provide varying guidelines so as not to create an imbalance of students with unique learning needs in the general education classroom. Friend (2007) for example, suggests that the percentage of students with disabilities should be below one-

"One size does not fit all.
Although coteaching seems to be a promising practice, this does not mean that every student can have his/her educational needs met this way."

Kohler-Evans, 2006, p. 3

"When a cotaught class has a larger percentage of students with learning and behavior challenges. teaching to the academic standards can be affected and positive role models for these students in the co-taught classroom are lacking."

Basso and McCoy, 2007, p. 8 quarter in elementary classes and one-third in middle and high school classes (p. 51). Basso and McCoy (2007) write "studies of effective co-teaching programs show co-taught classes are made up of no more than 25-30 percent of students with disabilities" (p. 8). In their study, Mageria et al. (2006) found that the school limited the number of students with disabilities to a maximum of 30 percent of the total classroom composition and that they also looped for two years to provide greater stability (p. 2). Lawton (1999) reports that a class should comprise only about 10 percent of the total class enrolment (p. 2).

The literature provides examples of co-teaching at all grade levels from preschool to high school. Language arts and mathematics tend to be the subject areas where co-teaching is used most often. Capp (2004) believes language arts is usually the first choice of subject areas for co-teaching because: (a) many of the students are already receiving special education support in this subject area, and (b) it is often the area of priority for a school-wide improvement initiative (p. 2).

Co-Teaching Approaches

Co-teachers will need to decide what co-teaching approach(es) they will implement in the classroom. Table 3 shows a comparison of some co-teaching approaches identified by four authors. While the categories may be different, there appears to be significant overlap in the descriptions of the various approaches.

"No one coteaching approach is better than another, and when deciding which to use. the goal always is to improve the educational outcomes of your students through the selected coteaching approach."

Villa, Thousand, & Nevin, 2004, p. 9

It is important that co-teachers have a clear understanding of the various co-teaching approaches before selecting an approach to use in the classroom. For illustrative purposes, the co-teaching approaches presented by Villa, Thousand, and Nevin (2004) are used as the categories in Table 4 to describe the various approaches and associated advantages and disadvantages.

Table 3: Various Co-Teaching Approaches

Bauwens (in Lawton, 1999)	Villa, Thousand, & Nevin (2004)	Cook (2004)	Basso & McCoy (2007)	
Complementary	Supportive	One Teach, One Observe	One Instructs, One Circulates	
Team Teaching	Parallel	One Teacher, One Drift	One Instructs, One Observes	
Supportive Learning Approach	Complementary	Parallel Teaching	Rotation Grouping	
	Team Teaching	Station Teaching	Parallel Grouping	
		Alternative Teaching	Large Group, Small Group	
		Team Teaching	Team	

Villa, Thousand, and Nevin (2004) state that "no one co-teaching approach is better than another" (p. 9). These authors advise teachers who are new to co-teaching to start with supportive or parallel teaching approaches and then, as they develop confidence and trust, to move to the complementary and team teaching approaches. Teachers may decide to use one approach for an entire lesson or use more than one approach within a lesson. When selecting a co-teaching approach the following factors need to be considered: (1) student characteristics and needs, (2) teacher characteristics and needs (e.g., teaching competencies and subject matter expertise), (3) time available for collaborative planning, (4) the length of the class period, and (5) how the material will be presented. Basso and McCoy (2007) caution

teachers not to overuse one co-teaching approach, especially the approach that places one teacher in an assistant role.

Table 4: Description of Co-Teaching Approaches

Approach	Description	Advantages	Disadvantages	
Supportive Teaching	One teacher leads and the other rotates among students to offer assistance to students or to observe their work. Each teacher should have the opportunity to lead instruction.	 students receive additional teacher assistance allows for more detailed observation of student learning 	 one teacher is placed in the role of assistant often overused as requires few demands for change 	
Parallel Teaching	Teachers work with different groups of students in different parts of the classroom and present the same information. A variation of this approach (known as station teaching) is teachers teach different content and rotate among groups of students. Sometimes a group of students may work on their own for part of the time.	 may increase student participation allows for small group work may lead to more effective discipline provides more individualized support 	higher noise level students may become distracted	
Complementary Teaching	A teacher enhances the instruction provided by the other co-teacher. It may include a demonstration or mini-lesson.	 capitalizes on the teaching strengths of two teachers students receive instruction from two teachers 	 requires more planning time requires more flexibility requires high level of trust 	
Team Teaching	Both teachers share the planning and the instruction in a coordinated fashion. Lessons are divided to allow for each teacher's strengths or both instruct together in a conversational manner.	 capitalizes on the teaching strengths of two teachers students receive instruction from two teachers highest level of collaboration teachers model positive collaborative working relationship 	 requires more planning time requires more flexibility requires high level of trust most interpersonally complex approach most dependent on teaching styles 	

Source: The information in Table 4 was adapted from a number of sources (Mitchell, 2005; Villa, Thousand, & Nevin, 2004; Cook 2004; Basso & McCoy, 2007).

Professional Development

Many authors refer to the need for effective professional development for both creating and sustaining co-teaching (Ashton, 2003; Friend, 2007; Hollingsworth, 2001; Simmons & Magiera, 2007; Villa et al., 2004).

Villa, Thousand, and Nevin (2004) suggest that "people who co-teach are in an ideal situation to spur their own professional growth through dialogue with their co-teachers" (p. 85). In fact, many teachers involved in co-teaching indicated that professional growth was an important benefit.

Some of the essential topics that need to be included in the professional development for teachers include: (a) an understanding of coteaching, (b) development and mastery of interpersonal and communication skills, (c) conflict management, (d) knowledge and skills for differentiating instruction, (e) how to work collaboratively, (f) characteristics of learners with different learning needs, (g) instructional strategies, and (h) and strategies for engaging students.

In addition to the traditional workshop formats, co-teachers should consider visiting other co-teaching partners to learn from their experience with this service delivery model (Basso & McCoy, 2007; Simmons & Magiera, 2007).

Administrators will also need to participate in professional development, that includes both the theory and practice of co-teaching, so that they can provide effective support and

"This research confirms that there is less power in coteaching without training in selecting and planning for implementing the various approaches to co-teaching."

Thousand, Villa, & Nevin, in Cramer, Nevin, Thousand, & Liston, 2006, p. 15

encouragement to co-teaching partners (Cramer et al., 2006, p. 18).

Common Planning Time

It is clear from the literature that the greatest complaint of teachers with the co-teaching model was the lack of common planning time (Mitchell, 2005; Villa et al., 2004; Kohler-Evans, 2006; Mageria et al., 2006). Planning time is essential for the following purposes: (a) planning lessons, (b) determining curricular and instructional adaptations/modifications, (c) establishing classroom procedures and expectations, (d) assessing students' work, (e) shared parent and student meetings, and (f) assessing and developing the co-teaching relationship.

Part of the solution to this issue is to schedule the preparation time for the teaching partners at the same time. Other suggestions to assist in finding shared prep time include: (a) providing substitute coverage; (b) use of school-wide activity days (e.g., school assemblies); (c) compensate teachers for planning time during the summer holiday time; (d) plan before and after school; (e) use of common lunch time; (f) combine two classes to release a teacher; (g) release teacher(s) from other committee responsibilities; and (h) have administration cover classes.

In addition to finding adequate common planning time, it is important that the coteachers use their time effectively and efficiently. Villa et al., (2004) suggest that a meeting agenda format be used to record the outcomes of the meeting and clearly identifies

"The real issue is not just adding or manipulating time, but changing the fundamental way that teachers do business when they do sit down face-to-face to plan."

Villa, Thousand, & Nevin, 2004, p. 80

accountability for task completion (p. 80). Hawbaker, Balong, Buckwalkter, and Runyon (in Mitchell, 2005) describe a time-efficient process – BASE – to keep the planning focused on critical tasks (p. 14). These authors suggest that teachers require 60-90 minutes for each 3-4 week unit, in addition to individual teacher prep time.

BASE

Big ideas
Analyze the areas of difficulty
Creating strategies and supports
Evaluating the process

Teachers may wish to use a common template for lesson planning purposes to ensure they have a clear understanding of: (a) lesson objectives; (b) co-teaching approach(es) to be used; (c) adaptations/modifications; and (d) the role of each teacher before, during, and after the lesson. A number of experts provide lesson planning templates and resources for this purpose (Basso & McCoy, 2007; Dieker, in Murawski & Dieker; Villa et al., 2004, p. 84).

Instructional Considerations

One important reason to use co-teaching is to better provide differentiated instruction within the general education classroom. There are a number of lists that have been developed to assist educators with adapting and modifying the instruction, assessment, and learning environment for students. Friend and Bursuck (in Friend & Pope, 2005) present a strategy for differentiating instruction that they call

"We have found that teachers who have a strong collaborative relationship may be able to have a successful experience despite systemic barriers. For example, teachers who are committed to co-teaching will find the time to plan and seek out professional development opportunities."

Keefe, Moore, & Duff 2004, p. 37

"INCLUDE" (p. 60):

INCLUDE

Identify classroom demands.

Note students' strengths and needs.

Check potential areas of student success.

Look for potential problem areas.

Use information to brainstorm accommodations.

Decide which accommodations to implement.

Evaluate students' progress.

"The actual process of teaching in the same classroom to the same students at the same time is often the component that is most disconcerting [to teachers]" (Murawski & Dieker, 2004, p. 56). Murawski and Dieker (ibid.) suggest that teaching partners will experience greater success if they address the following steps:

- Find out more about the different approaches to instruction that have been well-documented in the literature.
- Discuss learning style preferences of co-teachers.
- Come up with unobtrusive signals for one another to communicate when its time to move on, extra time needs to be given ...
- Give students short "brain breaks" to process information and to clear their heads.
- Create signals with students that are consistent and can be used by either teacher to aid in transitions, to gain attention, or to make an announcement.
- · Vary instructional practices.
- Post a structured agenda for the class, which includes the standard to be addressed, as well as an additional goal.
- Use disagreements and discussions for modeling appropriate communication techniques among adults.

Murawski and Dieker believe that if teachers take the steps identified above they will find teaching in the same classroom with another professional "the most rewarding part of co-teaching" (p. 56).

Assessment

Two aspects of assessment must be considered in the implementation of co-teaching: (1) assessing students, and (2) assessing the co-teaching process.

In the early planning stages co-teachers will want to discuss how they assess and evaluate students, and the manner in which this information will be communicated to students and their families. As with all teachers, co-teachers will need to use the effective assessment practices that the literature outlines, including the use of both formative and summative data to assess student progress and determine required instructional changes. Co-teaching partners will need to reach an agreement on the following factors: (a) what aspects of students' work will be included in the overall evaluation (e.g., homework, projects, tests, effort, process); (b) how the marks will be allocated; (c) how the goals of IEPs will be reflected; and (d) how assessment practices will be modified and adapted to meet students' needs. Teachers may consider developing rubrics to help themselves and their students clearly understand what is being assessed and how (Murawski & Dieker, 2004, p. 57).

Teachers may choose to share the task of grading assignments. There are a number of options to consider, such as: (a) split the assignments between the two teachers; (b) one teacher evaluates those assignments that have been modified, while the other evaluates the remainder; and (c) one teacher assumes responsibility for evaluating all students' work for one particular assignment, while the other teacher assumes responsibility for the next assignment. When sharing the grading of assignments, teachers will want to achieve consistency in the marking process. One way to create greater consistency is to have each teacher grade the assignments individually, switch assignments and re-grade. Then, they need to discuss and refine the process (Friend, 2007, p. 50; Murawski & Dieker, 2004, p. 57).

In addition to assessing students, it is important that teaching partners spend time reflecting on the co-teaching process and relationship. Two resources that may be helpful are:

- The "Are We Really Co-Teachers Scale" identifies desirable coteaching behaviors. This scale was created by Villa, Thousand, and Nevin and is available in their book, A Guide to Co-Teaching: Practical Tips for Facilitating Student Learning (2004, p. 86-87)
- The "Magiera-Simmons Quality Indicator Model" identifies five categories of quality indicators: (a) professionalism, (b) classroom management, (c) instructional process, (d) learning groups, and (e) student progress. This tool was developed by Magiera and Simmons and is available in their book Guidebook for the Magiera-Simmons Quality Indicator Model of Co-Teaching (Nevin, 2006, p. 250).

Murawski and Dieker (2004) assert that two questions should guide the co-teaching process:

Is what we are doing good for both of us? and Is what we are doing good for all of our students? If the answer to these two questions is yes, then the teachers should continue to co-teach, refining and improving as they go. (p 58)

Administrative Support

The support of administration, particularly that of the school principal, is key to the successful implementation of the co-teaching model. "The findings of several studies (da Costa, Marshall, & Riordan, 1998; Bunch, Lupart, & Brown, 1997; Idol & Giffith, 1998) involving collaborative activities share a theme that school administrators are highly influential in shaping the school culture and are often looked to as a source of leadership necessary to cause systemic change" (Sharpe & Hawes, 2003, p. 3).

Villa, Thousand, and Nevin (2004) suggest that administrators can provide support for coteaching by attending to the following variables (pp. 112-125):

- 1. Build a vision based on the following assumptions: "(a) all children are capable of learning, (b) all children have the right to an education with their peers in their community's schools, (c) everyone who provides instruction shares responsibility for the learning of every child in the school, and (d) co-teaching is an organizational and instructional strategy that benefits students and educators alike." (p. 112)
- 2. Build the skills and capacity for coteaching by providing necessary training
- 3. Provide incentives (e.g., time, training, encouragement, and opportunities) to engage people in co-teaching
- 4. Allocate resources (e.g., technical, material, or organizational) for coteaching

Knosler (in Pearl, n.d.) presents a similar list of elements as being essential for successful change. This author maintains that all five elements must be present to avoid negative staff reactions. Table 5 provides an overview of the five key elements and potential reactions of staff based upon whether or not these elements are present. An important role of school-based and district administrators in supporting co-teaching is to ensure these five elements are addressed.

"Studies of effective schools have consistently drawn attention to the importance of strong educational leadership. ... Change and sustained improvement are impossible without good educational leadership ... Educational leadership and coordination ... are not the sole responsibility of school principals: They can and should be exercised at all levels of the organization."

Fullen, Hill, & Crévola, 2006, p. 95

Table 5: Essential Elements to the Change Process

Common Vision	Incentives	Knowledge and Skills	Resources	Action Plan	Result
?	X	X	X	Χ	Confusion
X	?	Χ	X	Χ	Resistance
X	X	?	X	Χ	Anxiety
X	X	X	?	Χ	Frustration
X	X	X	X	?	Treadmill
X	X	X	Χ	Χ	Change

Source: Knosler, in Pearl, n.d.

Popp (2000) emphasizes the importance of the principal in establishing a collaborative climate through the provision of essential resources, communicating the successes of the program, and evaluating the program to promote continual improvement (p. 5).

Part 5: Conclusion

The research evidence regarding co-teaching has not been firmly established, due to the relative newness of this service delivery model and to a lack of quantitative and experimental studies. Clearly more research is required to fully understand the co-teaching model and its impact on all students. However, a lack of research does not mean that schools should not implement a co-teaching model. Rather, it does suggest that schools should move forward by using the information gleaned from the experiences of others and by closely studying the outcomes of their efforts. Educators will enhance the knowledge base for everyone when they recognize they have a role to play in advancing educational research.

Many experts agree that the co-teaching model offers significant educational advantages to students, teachers, and education organizations. Students with special needs receive not only an additional program option for meeting their unique needs, but also have access to a rigorous and enriched curriculum. As well, they have the opportunity to feel a greater sense of belonging within an inclusive setting. Nondisabled students have the personal and educational benefits from having two teachers in their classroom; a wider range of teaching expertise and skills can be offered to meet their individual learning and personal needs. All students can grow through the modeling of the teacher collaborative relationship and gain an appreciation for diversity within their

"The field of education is experiencing a paradigm shift from providing isolated services for students with special needs to collaboratina within schools to include all students. ... Simultaneously, teaching is evolving from an isolated act to one requiring increased interaction."

Walther-Thomas, Korinek, McLaughlin, & Williams, in Hollingsworth, 2001, p. 4

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learning and social communities. The coteaching process provides teachers with the opportunity to grow professionally and personally. Working cooperatively through the sharing of knowledge, skills, and expertise can reduce teacher isolation, improve self-esteem and confidence, inject pedagogical passion and vigor into one's professional life, and ultimately grow teachers' professional repertoires.

Educational organizations that lead learning agendas grow through the innovative process. Commitment to a vision of educational significance – such as the promotion of coteaching within the inclusive philosophy – can inspire staffs and raise the level of professionalism. By doing important educational work, the organization's reputation is elevated in the immediate and broader communities. Above all else, the goal of educators must always be to improve and enhance the learning opportunities of all of our students.

The co-teaching model is well aligned with the philosophies and practices of both inclusion and collaboration. If we truly believe in both inclusion and collaboration, then co-teaching should be considered an option with great promise for serving students with special needs.

"If the goal is for all students to be fully included in the mainstream of school life, then co-teaching is a strategy that should be considered. ... Co-taught classrooms foster an atmosphere where diversity is accepted as having a positive impact in all students, where labels are avoided, and where everyone is thought of as a unique individual with gifts and needs."

Mitchell, 2005, p. 17

Appendix I: Co-Teaching Resources

- 1. The Magiera-Simmons Quality Indicator Model provides 25 measurable indicators under five categories to help teachers study their classroom practices, plus a teacher survey it is a reflective tool, not an evaluative tool (Guidebook for the Magiera-Simmons Quality Indictor Model of Co-Teaching, 2005). See page 45 of report.
- 2. Co-Teacher Relationship Scale by Noonan, McCormick & Heck, 2003 focuses on attitudes, beliefs, and personal characteristics of co-teachers. It may be useful in matching co-teacher partners. See page 34 of report.
- 3. The book by Villa, Thousand, & Nevin (2004), A Guide to Co-Teaching: Practical Tips for Facilitating Student Learning, contains a number of checklists and templates for teacher use. For example:
 - The Are We Really Co-Teachers Scale focuses on teaching interactions and classroom behaviors of co-teachers. It may be useful in designing effective professional development and helping teachers improve their co-teaching actions. Located in authors' book (p. 86). See page. 45 of report.
 - Co-teaching Roles and Responsibilities Matrix (p. 16)
 - Strategies for Expanding Time for Planning (p. 79)
 - Co-Teaching Planning Meeting Agenda Format (p. 81)
 - Co-Teaching Daily Lesson Plan (p. 84)
 - Administrator Actions to Promote Co-Teaching (p. 123)
 - A checklist of sample supplemental supports, aids, and services (p. 126)

- Examples of different models of co-teaching lesson plans (p. 131)
- 4. The book by Basson & McCoy (2007), *The Co-Teaching Manual*, contains checklists and templates for teacher use. For example:
 - Co-Teaching Lesson Plan (p. 24-27)
 - Co-Teaching Worksheet (p. 28)
 - Co-Teaching Evaluation form (p. 34)
 - Co-Teaching Observation form (p. 36-38)
- 5. The article, *Tips and Strategies for Co-teaching at the Secondary Level*, by Dieker and Murawski (2004) can be found at http://www.dldcec.org/pdf/teaching_how-tos/murawski_36-5.pdf. It provides the following:
 - A table that outlines ways to prepare for co-teaching
 - A worksheet for co-teaching partners to share their hopes, attitudes, responsibilities, and expectations for co-teaching
 - · A table on teacher actions during co-teaching
- 6. A Collaborative Teaching Rubric developed by Deer Lakes Middle School is available at http://www.iu08.org/gsec/downloads/coll-teach-rubic.pdf
- 7. Laminated Reference cards are available at http://www.nprinc.com/co-teach/vpw2r.htm. For example:
 - Co-Teaching at a Glance by Villa, Thousand, & Nevin
 - Fundamentals of Co-Teaching by Burggraf & Sotomayor
- 8. Book by Lisa Dieker called *Co-Teaching Lesson Planning Book* (2007) can be found at http://www.nprinc.com/co-teach/vpw2r.htm and http://www.knowledge-by-design.com/plan_book_flver.pdf

- 9. A number of videos are available for order at http://www.nprinc.com/co-teach/vpw2r.htm For example:
 - The Power of 2 DVD by M. Friend
 - · Complexities of Collaboration DVD by M. Friend
 - · Collaborative Planning and Teaching Videos by R. Villa
 - How to Co-Teach to Meet Diverse Student Needs by ASCD
 - Teacher Collaboration: Opening the Door Between Classrooms by The Master Teacher
- 10. The Arkansas Department of Education provides a Needs
 Assessment for Co-teaching Implementation that can be
 downloaded at
 http://arksped.k12.ar.us/documents/co_teaching/needs_assessment.pdf.
- 11. The Northeast and Islands Regional Technology in Education Consortium (NEIRTEC) has developed a *Collaborative Evaluation Led by Local Educators: A Practical, Print- and Web-Based Guide* with a variety of downloadable "how to" web resources to assist in program evaluation. It is available at http://www.neirtec.org/evaluation
- 12. Gately and Gately have developed the *Co-teaching Rating Scale* (2001) to assist co-teachers in assessing their relationship and in setting goals. See page 26 in report.

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