Student Achievement: Collaboration, a Main Ingredient

Herman Clark, Jr., Ed.D
Phyllis Clark-Freeman, Ed.D
Valerie Walton, Ed.D

May 30, 2012

Student Achievement: Collaboration, a Main Ingredient

Abstract

This article provides a comprehensive review of the literature, which explains issues with implementing, monitoring, and sustaining research-based instruction to include brain-based methodologies. In particular, it explains the role of co-teaching in a collaborative environment as a vital role in understanding the necessity for brain-based instructional strategies that will enhance student achievement for all learners, specifically for students with disabilities (SWD). Educating SWD in the least restrictive environment is a major principle of the Individuals with Disabilities Education Act (IDEA). SWD have gained access to the general curriculum; yet, they require adequate support to achieve favorable outcomes (U. S. Department of Education [USDOE], 2004). In recognizing this premise, all teachers must be adequately prepared to structure, support, and sustain programs required for optimal student success.

Student Achievement: Collaboration, a Main Ingredient

If ever there was a time for teachers to pool resources to support students with learning differences, the time is now. Due to the economic situation in our country today, budgets have been cut, especially within the educational realm. Not only are programs being eliminated, but also positions, which cause a rippling affect thus affecting students in the classroom. More students with disabilities (SWD) are being included in general education classrooms (Tonnsen, 2000) and are also participating in local, state, and national assessments. Thus, the roles and responsibilities of teachers with regard to instruction have accelerated and must intensify the enhancement of the quality of education for all students.

Given the increasing numbers of SWD in general education classes and the requirements to educate them, general education teachers' responsibilities have increased dramatically and, in many cases, have become too numerous to be managed by a single classroom teacher. Hence, special education teachers are increasingly sharing the duty of teaching the general curriculum. Special education teachers and para-professionals (teacher assistants) work in the classrooms with the regular education teachers to serve the students and teachers in order to acquire enduring understandings of academic standards (Chenoweth, 2007). This is the shift from a philosophy of inclusion to the reality of educating SWD alongside their non-disabled peers. Previously, SWD would have their direct instruction in a classroom separate from the general education classroom and would join their peers in ex-curricular classes such as music, art, physical education/health, media, and technology.

Current literature describes the roles and responsibilities of teachers in regards to an accountability system. Less is known about how general and special education teachers perform instructional duties together to meet these requirements. At present, the Individuals with

Disabilities Education Act (IDEA) and the Elementary and Secondary Education Act (ESEA) reauthorized as the No Child Left Behind Act (NCLB) emphatically state that SWD are full participants in all aspects of school programs (IDEA, 2004). Furthermore, NCLB mandates that all students, including SWD, be included in its accountability system. School administrators must ensure that IDEA and NCLB are put into practice in their schools. However, it is the classroom teacher who carries out the process and addresses the diverse needs of students daily. As such, they fulfill major components of both mandates. Yet, the extent to which general and special education teachers collaborate to ensure that all students, including SWD, experience school achievement remains unclear.

Educating SWD in the least restrictive environment is a major principle of IDEA. SWD have gained access to the general curriculum; yet, they require adequate support to achieve favorable outcomes (U. S. Department of Education [USDOE], 2004). To succeed, these students typically require increased levels of administrative and instructional support in their schools (Council for Exceptional Children, 2001; DiPaola & Walther-Thomas, 2003; Sage & Burrello, 1994; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). In supporting SWD, school leaders attempt to model and promote data-based decision making and create collaborative cultures throughout the entire school (Crockett, 2004; DiPaola, Tschannen-Moran & Walther-Thomas, 2004; Glanz, 2004; McLaughlin & Nolet, 2004). However, all teachers must be adequately prepared to structure, support, and sustain programs required for student success.

This article provides a comprehensive review of the literature, which further explains current issues with implementing, monitoring, and sustaining research-based instruction to include brain-based methodologies. In particular, it explains the role of co-teaching as a vital

role in the delivery of brain-based strategies for instruction to enhance student achievement for all learners, specifically for SWD.

Collaboration

"It is understandable that educators often feel overwhelmed by growing demands for inclusion, multicultural education, multiple intelligences, and differentiated instruction to deal with the growing [student] diversity" (Sapon-Shevin, 2008). In order to meet the needs of all students, many different instructional strategies must be used; for no one strategy, intervention, or pedagogical technique can fit the needs of every child so that he will be academically successful (Jensen, 2012; Sousa, 2008). This is the power of collaborative teaching – teachers and paraprofessionals alike synergizing their individual pedagogical skills to collectively meet the needs of each of their students. Wilson (2010) asserts that students in each classroom will be able to succeed if each teacher would teach students to think effectively and in ways that the brain learns best.

Schools have become more inclusive and collaboration more essential in promoting student achievement for all students, including SWD (Walther-Thomas et al., 2000). Fullan (2001) explained that effective leaders understand that collaborative relationships are essential in all successful change initiatives. As change agents, school leaders have the responsibility of promoting collegial school cultures among stakeholders and enhancing schools' performance (Senge, et al., 2000). By providing opportunities for collaboration, especially for classroom teachers, school leaders must foster collaboration by ensuring that productive instructional practices are being implemented for all students and SWD are no exception. Productive teaching is a delivery of instruction using a considerable amount of strategies to assist the individual students during their academic activities (Marzano, 2007). As school leaders closely monitor

instruction, they must ensure that general and special education teachers share expertise (Collins, 2005). Sulzberger (2007) stressed that collaborative practices provide support for educators as they work to ensure that all students achieve at high levels, thus improving school performance.

According to Chenoweth (2007), one of the issues concerning co-teaching is teacher mindset, for there is sometimes a clash over space and pedagogy. Teachers must be willing to serve their students as a team with no territorial sensitivity. The mindset of the teachers must be one that accepts the classroom as belonging to the students and not to the teachers. Both teachers must acknowledge that not only everything they do but also their shared space must be focused on the students. There must be an interconnection in order for this collaboration to be effective. Therefore, this issue is not about the adults but is about the children (Chenoweth, 2007).

Since such practices have been validated by scientific studies and examined by the larger educational community, NCLB and IDEA urge implementation. However, important issues surrounding the use of evidence-based methods have emerged (Faust, 2005). One major issue is the amount of administrative support required to implement the legal aspects of IDEA. According to Protz (2005), compliance with legal mandates is a high priority for school leaders. While focusing primarily on the legal aspects of IDEA, school leaders might be ignoring the leadership skills needed to encourage and support scientific approaches to learning.

School leaders should communicate how students learn (Johnson, 2008). They should gather and disaggregate data to find those specific students who need additional assistance. The principal masterminds a design by which to lead the staff to achieve their desired results of higher academic achievement for regular education students and SWD. Many times the SWD's learning progress proceeds at a slower pace with potholes of knowledge and skills. The principal,

with her team of content specialists uses her architectural plan to induce educational evidences of excellence in learning for all of her students.

Co-teaching in a collaborative setting is the teaming of a regular education teacher and a special education teacher to teach a class of students made up of SWD and students without disabilities. Each has his own level of expertise: the regular education teacher has strength in the content areas and the special education teacher has the ability to scaffold the skill-based tasks and make this attainable for each student. Most times this includes Brain-Based Learning (BBL) strategies, which are among the list of best practices.

General education and special education teachers collaborate to ensure student success. Teachers who plan together and make informed decisions together offer optimal support for SWD together and focus on achieving constructive academic and social outcomes for SWD and their counterparts together (McLeskey & Waldron, 2000). If the teachers do not plan together and no collaboration takes place, then no groundwork paves the way for success. Hence, failure ensues. The responsibility is to have these conversations that will lead to a continuous level of improvement of collaborative settings (McLeskey & Waldron, 2000). Collaboration is essential because it helps in deciding on an "action plan." This plan will be in place for each SWD and will include specific strategies to eliminate misguided concepts concerning student needs, methods of pedagogy, and the gathering of non-biased action research. A part of this planning may include visiting other schools for ideas to implement on their own inclusion program. The observation focus is not just on disabilities but abilities as well (Chenoweth, 2007).

Collaborative classrooms have been successful in many schools. In Dayton's Bluff Achievement Plus Elementary School in St Paul, Minnesota, no students are removed from the regular education classroom for instruction by the special education teacher. These special

educators go into the classrooms to offer service to students and teachers (Chenoweth, 2008). Chenoweth further reports that in M. Hall Stanton Elementary School in Philadelphia, PA, collaborative classroom partnerships are being implemented successfully. In St. Paul, 42% and in the state of Minnesota, 36% of fifth grade SWD performed in the lowest achievement level. However, at Dayton's Bluff, zero percent of their fifth grade SWD fell into the lowest achievement level. BBL affords all teachers the opportunity to substantiate these percentages and even have SWD begin to learn at higher levels.

"Inclusive classrooms create students who are comfortable with differences, skilled at confronting challenging issues, and aware of their interconnectedness" (Sapon-Shevin, 2008). In successful collaborative classrooms, the teachers siege opportunities to instill in their students the importance of helping one another by being open about how the special education teacher and the regular education teacher help one another. Their co-teaching styles will prove to be the perfect modeling opportunity to embrace each student's differences, to discover their strengths (Sapon-Shevin, 2008), and to recognize the value of embodying and comprehending the mindset of "we" as opposed to "I" as they endeavor to employ research-based instructional strategies.

Brain-Based Instructional Strategies

All students need quality instruction, for it is paramount to learning and certainly learning at optimal levels. Brain-Based Learning (BBL) gives support to SWD, is effective, and substantially embellishes the academic success of SWD (Sousa, 2006). Brain-based instruction involves teaching practices that have been subjected to scientific testing and found to be consistently effective across many applications; hence, it promises better outcomes for all students, including SWD (Jensen, 2009). Sousa exclaims, "*Teachers try to change the human brain every day. The more they know about how it learns, the more successful they can be."*

Brain research has shown that learning is the process by which we acquire knowledge (Sousa, 2001). It involves the brain, the environment, and the nervous system. This is the learning process by which these entities interconnect to acquire information and skills. This process is affected by various details including the nature and duration of rehearsal (the repetition of information learned). The students' learning style, the intensity of student focusing ability, the specific learning disabilities, and the amount of prior learning can all be influenced by BBL strategies (Sousa, 2001). Research reveals just how the brain restructures itself based on input. This is called Neuroplasticity (Sousa, 2006). The brain itself has a basic fundamental process for learning. It seeks patterns and ways to associate new information with what it has already stored (Wolfe, 2001; Jensen, 2001). Jensen affirms that understanding the brain and its possibility to change, to what changes it, and to how it changes is imperative for educators who want to augment its capacity for optimal achievement. SWD, however, may need the patterns pointed out to them so there is no opportunity to miss the acquisition of the new information.

Emotions affect learning, memory, and recall. In addition, movement and exercise improve mood, increase brain mass, and improves cognitive processes (Sousa, 2001). For SWD, more hands-on activities along with purposeful movement will aid in learning (Sousa, 2001). Sousa and Jensen (2012) further recognize that intelligence and creativity are separate abilities and that both can be modified by environment and schooling.

Our brains are malleable. Everything we do physically changes our brains from the most minute action or experience to the greatest. Our brains react to learning by changing its size, the quantity and survivability of new brain cells, the type of brain chemicals present, the amount of brain mass, the quantity of connections between brain cells, the distribution of brain activity, and the amount of neural firing or cellular activation (Jensen, 2009). All students are creative in one

way or another. Although the level of intelligence for SWD may not be comparable to the students that they sit next to in class, it can be affected positively through the use of BBL strategies. According to Jensen (2012), many of the changes we make in the brains of our students from day to day as teachers provide numerous opportunities for academic growth include strengthened character values, critical access to valued resources, relevant classroom activities, exercise, novel learning, meaningful and supportive relationships, consistent skill building, and stress-management tools.

We *can* influence the growth of brain cells, thereby influencing our students' IQ -- it is not fixed (Jensen, 2001, 2006, 2009, 2012; Wilson, 2010). Neuroscientists are determining that the brain has an almost infinite ability to mature and learn. From birth through the teen years, the brain volume can increase fourfold because learning changes the structure of the brain (Jensen, 2001). Wilson further maintains that the brain can be re-wired so that its potential can increase and a limitless amount of learning can take place over a lifetime. Regardless of a students' IQ, there is the capacity for change (Jensen, 2009). Capacity-Building instructional activities are paramount for SWD and for Title I students to be added to what the teacher is currently doing. These activities include vocabulary, executive function, social/emotional skills, increasing control, extra relationship building, and accommodations. Full student engagement is an outcome of lessons taught by excellent teachers and is propelled by factors such as nutrition, exercise, oxygen, glucose levels, stress levels, emotions, learning, and others (Jensen, 2009).

Jensen (2012) declares that there are seven basic qualities of excellent teachers and how they demonstrate evidence of excellence: High Engagement, Relationship-Building, Attitude-Strengthening, Formative Assessment, Climate Builders, Teaching for Mastery, and Managing Emotional States. As co-teachers build on these basic qualities collaboratively, they will realize

that additional capacity building is needed for SWD in activity areas like vocabulary/language, executive function, social/emotional skills, increasing control, extra relationship, and accommodations (Jensen, 2012). In addition, Sousa (2001) offers strategies for serving SWD. He informs that educators should capitalize on students' strengths by providing opportunities for success in a non-threatening atmosphere, providing positive reinforcement, providing high structure and clear expectations, allowing flexibility in classroom procedures, providing SWD additional time as needed, using short sentences and simple vocabulary, and using self-correcting pedagogy and materials for immediate feedback without embarrassment.

Relationship Strategies

" . . . inclusion is not about disability, and its not only about schools. Inclusion is about creating a society in which all children and their families feel welcomed and valued" (Sapon-Shevin, 2008). Well-functioning classrooms actually extend beyond the four walls of the classroom and into students' homes. The parents and families must feel comfortable to come into the school. One way to ensure that this takes place is to send parent notices home written in a language that they can understand (Sapon-Shevin, 2008) since so many families are bilingual and their children need the services of the English as a Second Language Teachers. This strategy of being cognizant of and creating the right kind of atmosphere is paramount to the academic success of <u>all</u> students.

Cooperative Learning Strategies

Another very important strategy is cooperative learning. Students should spend about 50% of every school day interacting with others. This activity strengthens partner work, helps students to mentally process information that is taught (Allen, 2010), and attempts to strengthen pro-social conditions. Teacher-to-student relationships matter, as do student-to-student

relationships. Teachers should use more acknowledgements in class (Allen, 2010). *Example*: After an interactive activity, students should *"Turn to their neighbor and thank them!"*

In short, nearly everything one does can become social. How does one make this happen? If one gives directions for an activity, ask students to echo them to a partner. When students are successful, allow them to celebrate their accomplishments with a neighbor with a cheer or by sharing a "high-five." Permit students to teach a partner when they learn something new. This will strengthen the myelin sheath that covers the dendrite that fires off toward another dendrite, thus connecting the new knowledge to the old knowledge as was mentioned earlier. Authorizing students to teach newly learned information to their peers gives them a 90% greater chance of retaining the information as opposed to a 10% chance when reading it (Wilson, 2010).

Cooperative Learning gives way to authentic assessments in that as students are discussing what they have learned, the teacher can monitor the teams as she moves about the room listening to students sharing with their classmates. Another example of an authentic assessment is when the teacher is monitoring students, she can ask them to look on their neighbor's paper and raise their hands if they see half or more of the assignment completed. Social learning is important and can be involved in most lessons if it is done in a focused and an organized way (Jensen, 2012). The focus of teaming is that each teammate will gain knowledge and skills with the assistance of the other members of the group.

Student Engagement

The act of engagement is fully attending to the learning activity (Marzano, 2007). Learning strategies are cognitive activities that may be simple in nature or complex (Sousa, 2001); BBL strategies are specifically designed to assist the brain in understanding information. It has been established that the brain consistently seeks meaning. So when teachers make a

concerted effort to make learning meaningful for their students, they are affecting their students' learning and their desire to learn. It is evident that BBL is effective and substantially embellishes the academic success of SWD. Meaning becomes the center to attentiveness, learning, and retention (Sousa, 2001). In order for this to happen, students must be fully engaged in the lessons. The use of music engages students if used correctly. Therefore, it should be a consistent and natural strategy that will keep them engaged and will strengthen social learning (Allen, 2010). Allen insists that to completely engage students include activities in the lesson that will "surprise, startle, and shock" them in a positive way. This will keep their interest high and their minds focused.

Memory Enhancement Strategies

BBL strategies allow teachers to teach students how best to learn and to remember so that students can practice these skills in the context of assimilating the information and studying the information to recall later (Allen, 2010; Jensen, 2009). Mnemonics, a technique used to organize information so it can be easily committed to memory (Wolfe, 2001), is a highly effective strategy to acquire factual information and assist the ADHD/ADD student who is challenged when it comes to remembering information (Sousa, 2001). *Examples:* Treble Clef Line Notes: *Every Good Boy Does Fine;* Directions – North, East, South, West: *Never Eat Slimy Worms;* Names of Great Lakes: *HOMES*= Huron, Ontario, Michigan, Erie, Superior; and The number of days in the months of the year: Poem *"Thirty days hath September, April, June, and November. . ."*

Jensen refers to an acronym, *Roy G. Biv*, which represents the colors in the rainbow, memory strategies, and others. For our purposes here, we will focus on the memory strategies, which regular education and special education teachers can insert in their collaborative delivery

of instruction so that SWD will have stronger opportunities to flourish academically. Many of these strategies are discussed by various researchers including Allen (2010) and Sousa (2001). R=Repetition. The brain needs information to be repeated two to four times within the first hour, again within the first 24 hours, and yet again within the first seven days in order for the information to go into long-term memory (Jensen, 2009). The brain needs various ways of repetition. *Examples*: rubrics, checklists, think-pair-share, peer editing, compare/contrast, small-group discussion, peer-partner review, increased accountability, and story words/story maps (Allen, 2010; Jensen, 2009). O=Oxygen. When teachers give students opportunities to move in the classroom during learning activities, they increase the chance that their students' brains will encode the new learning. Allen (2009) expresses that physical movement is important to learning and so is physical contact. Y=Yearning for Meaning. Teachers must help students understand why new information is important by making content relevant to them, connecting it to what they know and find important, making it rare or the only time for this event, telling students that this information may be on the test, telling a story to connect the information, or encouraging students to identify the main elements on which to focus. G=Glucose. The brain has two main kinds of fuel – oxygen and glucose. Teachers should encourage snacks and drinks with glucose (but not high fructose). Physical activity causes the liver to release glucose while an emotional attachment also causes glucose production. B=Bias the Attention. Teachers must help the brain to focus on the *right* thing. Generate content questions, plan field trips, tell an emotional story, play video clips to bring more attention to the objectives and skills that are at the core of the lesson. I=Intensity of Emotions. Emotions are directly connected to memory. However, it is important for teachers to create positive emotions so the brain will want to remember the material and identify that it is important. *Examples:* guest speakers, music, enthusiasm,

celebrations, drama, debates, quiz shows, projects, rote-plays, rituals, etc. Stress is an emotion that must be moderated. Low stress is especially important for many students with attention deficit hyperactivity disorder, dyslexia, autism, and learning delays (Jensen, 2008). V=Variety of Word Tools. These are strategies that help boost memory to recall information at a later time. *Examples*:

- Location – Teachers must encourage students to connect key information to specific localities with the room, school, or outside the building so that location will be a clue for the brain.
- Acronyms – Teachers must use the method of "chunking" to help students remember a mass of information (Allen, 2010; Jensen, 2009). *Example*: Roy G. Biv
- Peg Words – Pegs are "hooks" on which items are placed to be retrieved later. The objective is to remember the original peg and hook content, knowledge, concept, fact, or idea onto the peg that will "connect" the new information to that peg's representation. Pegs can be assigned any representation. *Example*: first five pegs -- 1=sun, 2=eyes, 3=triangle, 4=stove (four eyes on the cooking stove), 5=fingers. At Poplar Halls Elementary School in Norfolk, VA, fifth graders learn twenty pegs and connect them to history lessons to assist them in memorizing facts. Primary classes use the pegs in learning as well. *Example*: Pegs are used to teach the parts of the flower -- 1=seed, 2=root, 3=stem, 4=leaves, and 5=bloomed flower. Movements are added as the pegs are recited to aid in memory.

Wolfe (2001) asserts additional strategies are needed for different types of learning to take place:

- Cross-Curricular Writing. Writing about what is being learned assists the brain in the process of learning so that it can be recalled later. *Example*: Students can write about the steps in solving a word problem.
- Hands-On Activities for Developmental Timelines. *Examples*: A caterpillar's growth to a butterfly, plant growth, etc. can be demonstrated with playdoh. Fractions – orange or pizza slices to show specific fractions.

Allen (2010) acknowledges additional memory enhancers such as acrostics, association, stories, body location, novelty, rhyming, and activity.

It is important for all students to know that they can achieve academic success, SWD are no different than other students in this respect. Therefore, one must focus on teaching all students strategies that will help them learn specific information and assist them in recalling that information later (Jensen, 2010; Sousa, 2001). Serving SWD in small groups is a viable strategy.

Professional Development

Professional development (PD) is paramount to a school's success. In order to raise the level of pedagogy effectiveness for the faculty, collaboration and data should influence the school's PD schedule. According to Johnson (2008), in the Public Agendas' *Rolling Up Their Sleeves*, 53% of the principals in their 2003 survey report revealed that in their experiences a large number of novice teachers need more PD in order to meet the needs of struggling students of which SWD are included. In the same report, less than 70% of teachers surveyed stated that *their struggling students* will learn that which is intended to be learned by the end of the school year as opposed to approximately 90% of the teachers surveyed felt that *most of their students* will acquire the intended knowledge and skills in the same time period (Johnson, 2008).

One PD practice at M. Hall Stanton School is for special education teachers to have deeper training in different techniques of reading and math. This will equip them to model for and work with the regular education teachers in organizing their lessons and offer suggestions for more effective pedagogical strategies for students who are struggling.

"Who dares to teach must never cease to learn." It is imperative that all educators – special education teachers and general education teachers alike – stay abreast of brain-based research to acquire current knowledge (Sousa, 2001). PD must be specific to the needs identified through data analysis and be continuous and sustained throughout the year.

Summary

SWD must be educated in the least restrictive environment in order for educators to remain in compliance with IDEA. For many, that environment is in a collaborative setting with the regular education teacher and the special education teacher working together toward a common goal of providing the most proficient academic experience for each of their students. However, additional support is needed to enhance student achievement for all learners. The use of brain-based strategies has been effective for many learners and to achieve favorable outcomes for SWD, collaborative teaching should include these research-based instructional strategies. With organized and sustained programs such as this in schools, teachers are well prepared to support students for optimal academic success.

References

Allen, R. H. (2010). *High-Impact teaching strategies for the 'xyz' era of education.* Boston, MA: Allyn & Bacon.

Chenoweth, K. (2007). *It's being done: Academic success in unexpected schools.* Cambridge MA: Harvard Eduction Press.

Collins, E. (2005). Leaders as models for collaboration: Meeting the new challenges and creating opportunities with NCLB and IDEA. *Journal of Special Education Leadership* 18(2), 41-44.

Council for Exceptional Children, (2001). *Implementing IDEA*: *A guide for principals* Arlington,VA:

DiPaola, M. F., Tschannen-Moran, M., & Walther-Thomas, C. (2004). School principals and special education: Creating the context for academic success. *Focus on Exceptional Children, 37, 2-12.*

DiPaola, M. F., & Walther-Thomas, C. (2003). *Principals and special education: The critical role of school leaders.* (COPSSE Document No. IB-7). Gainesville, FL: University of Florida, Center on Personnel Studies in Special Education.

Faust, J. H. (2005 July/August). Evidence-Based practices: Implications for special education administrators. *In CASE* 47(1), 1-2, 5.

Glanz, J. (2004), *The assistant principal's handbook, strategies for success*. Thousand Oaks, CA: Corwin.

Jensen, E. (2001). *Enriching the brain: How to maximize every learner's potential.* San Francisco CA: Jossey-Bass.

Jensen, E. (2009). *Super Teaching.* Thousand Oaks, CA: Corwin Press.

Jensen, E. (2012). *Game-Changers: Brain-Based training for change agents.*Houston, TX: Jensen Learning.

Johnson, J. (2008). The principal's priority 1. *Educational Leadership*, 66(1)72-76.

McLaughlin, M. J., & Nolet, V. (2004). *What every principal needs to know about special education*. Thousand Oaks, CA: Corwin.

McLeskey, J., & Waldron. (2000). *Inclusive schools in action: Making differences ordinary.* Alexandria, VA: ASCD.

Protz, B. M. (2005 October). Administrators' understanding of special education law in the schoolhouse. *Journal of Special Education Leadership*, 18(2), 15-23.

Sage, D. D., & Burello, L. (1994). *Leadership in education reform.* Baltimore: Paul H. Brookes.

Sapon-Shevin, M. (2008). Learning in an inclusive community. *Educational Leadership*, 66 (1) 49-53.

Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education.* NY: Doubleday.

Sousa, D. A. (2001). *How the special needs brain learns.* Thousand Oaks, CA: Corwin.

Sousa, D. A. (2006). *How the brain learns.* Thousand Oaks, CA: Corwin Press.

Sulzberger, L. A. (2007). Collaborative leadership data conversations for student success. *T/TAC Link Lines, 4.*

Tonnsen, S. (2000). *What principals should know about: A primer on school subjects.* Springfield, IL: Charles C. Thomas.

Walther-Thomas, C., Korinek, L., McLaughlin, V., & Williams, B. (2000). *Collaboration for*

inclusive education: Developing successful programs. Needham Heights, MA: Allyn and Bacon.

Williams, B. (2003). *Closing the achievement Gap: A vision for changing beliefs and practices.* Alexandria, VA: ASCD.

Wilson, D. &. (2010). *Administrator's workbook for increasing student achievement: BrainSMART strategies for leading & teaching.* Orlando, FL: BrainSMART.

Wolfe, P. (2001). *Brain matters: translating research into clasroom practice.* Alexandria: ASCD.