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Richard Scott
Factors that Affect the Success of Students with Emotional and Behavioral Disorders in Inclusive Placements

Naomi Arseneau M.S. Ed

Abstract

Over the last several decades, inclusive placements for students with disabilities have become increasingly common. Although benefits are associated with inclusion, questions remain about the effectiveness of these placements for students with Emotional/Behavioral Disorders (E/BD). As a result of the move toward more inclusive placements, the roles of special education teachers are shifting and becoming increasingly complex. As a result, there are a number of important supports that should be provided to teachers of students with E/BD and the students themselves. The purpose of this paper is to examine factors that have an effect on the success of students with E/BD in inclusive placements including the roles of special educators related to collaboration and the critical supports necessary.

Factors that Affect the Success of Students with Emotional and Behavioral Disorders in Inclusive Placements

Historically, a critical component of special education has been the practice of offering a continuum of placements to provide the least restrictive environment appropriate to meet the needs of all students with disabilities (Landrum, Katsiyannis & Archwamety, 2004). This continuum ensures that appropriate placements and necessary services will be available for students with even the most specific and intense needs. When discussing the least restrictive environment for students with disabilities, it is important that policy makers and educators keep in mind the overall goals of education for each individual student, which may include social, vocational and independent living skills, in addition to the academic goals most often the focus of educational programs. Specific and direct instruction of these skills is not typically included in the general education curriculum, but is often necessary for meeting the educational goals of students with disabilities.

Since the 1980s inclusive placements for students with disabilities have become a popular trend in educational reform (Friend, Cook, Hurley-Chamberlain & Shamberger, 2010; Landrum et al., 2004). With the passage of No Child Left Behind (NCLB) in 2001 and the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004, schools are now being held to a higher level of accountability for the academic achievement of all students, including those with disabilities. As a result, many school districts have begun to implement school-wide academic and behavioral service delivery models including Response to Intervention (RTI) and Positive Behavioral Interventions and Supports (PBIS). These service delivery models are designed to assist educators in providing varying levels of academic and behavioral supports within the general education environment. This movement has helped to increase the popularity of inclusive placements, with some advocates and professional
organizations calling for the inclusion of all students with disabilities (Fuchs, Fuchs & Stecker, 2010).

In an inclusion model students with disabilities are educated in general education classrooms, and supports are provided both to the students and general education teachers within that classroom environment. Special education teachers are frequently called upon to provide these supports through a variety of consultative roles (Austin, 2001; Heflin & Bullock, 1999; Lamar-Dukes & Dukes, 2005; Volonino & Zigmond, 2007) along with providing individualized assessments, specialized instruction and collaborating with general education teachers through the use of co-teaching arrangements. In theory, inclusive placements of students with disabilities incorporate the best of both general and special education by offering students access to the general education curriculum while providing individualized supports and services.

Several benefits have been associated with inclusive placements of students with disabilities including increased socialization and academic achievement (Austin, 2001; McDuffie, Landrum & Gelman, 2008). However, questions remain about the effectiveness of inclusive placements for some groups of students with disabilities, particularly students who have a primary diagnosis of an Emotional/Behavioral Disorder (E/BD) (Kauffman, Bantz & McCullough, 2002; Kauffman & Lloyd, 1995). The educational needs of students with E/BD extend beyond the academic domain and include specific instruction in behavioral and coping strategies and social skills. For many students these skills are learned through a gradual and informal process where no specific instruction is needed, however; for youth with E/BD this is often not the case (Nickerson & Brosof, 2003).

In the past students with E/BD were educated primarily in restrictive, separate facilities, including special schools and residential treatment centers that focused on behavioral interventions and social skills training (Landrum et al., 2004; Simpson, 2004). In recent years due to the increasing popularity of inclusion models this practice is much less common. According to a literature review conducted by Trout and colleagues (2003) nearly 82% of students with E/BD are now being served in regular school buildings with less than 26% spending more than one-fifth of their day outside of a general education classroom. Proponents of inclusion of students with disabilities may view these numbers as a success, and in many ways they are, as this trend may reflect an increasing acceptance of students with E/BD among educational professionals and commitment to holding all students to high academic standards. However, when compared to students in other disability categories, students with E/BD still experience more negative academic outcomes such as failing courses, grade retention, dropping out of high school and testing significantly below grade level in reading and math, regardless of their educational placement (Bradley, Doolittle & Bartolotta, 2008; Landrum et al; Simpson; Trout, Nordness, Pierce & Epstein, 2003). Bradley, Doolittle and Bartolotta (2008), examined longitudinal data from the National Adolescent and Child Treatment Study (NACTS), and reported that 40% of students diagnosed with emotional and behavior disorders left high school without a diploma or GED, 75% were below their expected grade level in reading, and 97% were below their expected grade level in math.

In addition, Landrum and colleagues (2004) analyzed data from the Annual Reports to Congress on the Implementation of the Individuals with Disabilities Act from 1989 to 1998 and
determined that there was a positive correlation (.22) between placement in the general education environment and dropout rates for students with E/BD and also a positive correlation (.13) between placement in the general education environment and graduation with a diploma. The authors explain this apparent contradiction by suggesting that more rigorous educational standards might push a specific subgroup of students with E/BD toward higher academic achievement and eventually graduation, while others who cannot meet these demands drop out.

Clearly, the least restrictive environment for students with E/BD may not rely only upon the “place”, but also upon the supports and services provided within that placement. In fact, “the exclusive emphasis on setting ignores the fact that settings are merely contextual variables in which the interactions of importance occur” (MacMillan, Gresham & Forness, 1996 pg. 146). However, concerns have been raised about whether general education teachers have the training and support to provide those “important interactions” to students with E/BD. General education teachers have expressed concerns about educating students with severe emotional and behavioral issues within the general education environment (Austin, 2001; Heflin & Bullock, 1999; Idol, 2006; Wagner et al., 2006). Behavioral issues in the classroom are often seen as interfering with instruction, demanding teacher attention, impeding social relationships with adults and other students and damaging the educational experiences of all students in the environment (Lane, 2007). Additionally, a majority of both special and general education teachers do not think that general education teachers have the skills necessary to educate students with E/BD (Nickerson & Brosof, 2003).

It might appear that the solution to the issue of inclusion of students with E/BD is to provide supports and specialized services, such as behavioral interventions and social skills training, within the general education environment. However, this will require special education teachers to serve a number of roles in addition to delivering individualized instruction to students with disabilities. Furthermore, supports will need to be in place for both educators and students. While inclusive placements may be a promising instructional practice and potentially offer academic and social benefits, extreme care needs to be taken before its implementation with students with E/BD. The purpose of this paper is to examine factors that affect the success of students with E/BD in inclusive placements including the roles of special educators related to collaboration and the critical supports necessary for the inclusion of students with E/BD in general education classrooms.

Standards for Professional Practice

As the responsibilities of special education teachers become more complex and inclusive placements for students with E/BD become more frequent, it is important to examine the standards of professional practice related to educating students with severe behavioral concerns to ensure that they are still relevant for practical classroom application. The Council for Exceptional Children (CEC) has identified 10 standards and 162 knowledge and skill statements that educators should demonstrate when working with students with E/BD, yet, only 23% of elementary, 30% of middle school and 13% of high school teachers strongly agree with the statement that they have adequate training for teaching students with disabilities (Wagner, et al., 2006). This discrepancy between available knowledge and what educators feel comfortable
implementing may be due in part to the standards set by the CEC being too broad or out of touch with what is realistic for classroom practice.

Teachers who work with students with E/BD have identified that of those standards established by the CEC many are not critically important and are difficult to implement within the classroom. A recent study used input from teachers from across the country who were members of the Council for Children with Behavioral Disorders and who worked with students with E/BD, to identify a more focused and specific set of standards (Manning, Bullock & Gable 2009). Two areas identified as most important were collaboration through fostering respectful and beneficial relationships with families and professionals and instructional planning, specifically integrating academic instruction and behavior management for individuals and groups of students with disabilities. Unfortunately, these two standards - collaboration and instructional planning - and the related knowledge and skills are often seen as challenges for the inclusion of students with E/BD and reflect both the necessity of changing roles for special educators and areas where supports are needed.

**The Role of the Special Education Teacher in Collaboration**

Collaboration, which for the purposes of this paper is defined as individuals or groups working together in a variety of roles to meet the needs of students with disabilities (Friend & Cook, 2010), has long been an essential characteristic of special education. Decisions about educational services and placements for students with disabilities are typically made by a team that consists of special and general educators, students’ families, administrators and others involved both professionally and personally in students’ lives. However, until recently these partnerships were primarily concerned with making decisions related to student progress within a special education setting (Friend et al., 2010; Volonino & Zigmond, 2007). Due to the movement toward more inclusive placements for students with disabilities, collaboration between special and general education teachers in general education environments is becoming more common (Conderman & Johnston-Rodriguez, 2009; Friend et al., 2010). As a result the roles of special education teachers are becoming more complex and include a variety of responsibilities that go beyond providing direct, specialized instruction in self-contained settings. Collaboration among educators is frequently accomplished through the use of a co-teaching arrangement where both teachers work together within one classroom to provide instruction and individualized supports to students with disabilities.

**Co-Teaching as a Form of Collaboration**

Co-teaching is defined as a partnership between a general education and special education teacher with the purpose of providing instruction to a diverse group of students, including those with disabilities, within a single space, typically a general education classroom (Friend et al., 2010; McDuffie et al., 2008). Several approaches to co-teaching have been utilized in general education environments. Four common approaches are: (a) one teach, one assist: where one teacher delivers large group instruction while the other circulates to provide individual assistance; (b) station teaching: where students are divided into three groups and rotate among three stations - two to receive instruction and one to complete independent seatwork; (c) parallel teaching: where the class is divided into two groups that receive instruction in the same content...
at the same time; and (d) team teaching: where both teachers share equally in providing instruction to the whole group (Friend et al.; McDuffie et al.; Volonino & Zigmond, 2007).

The one teach, one assist approach has been found to be the most common method of co-teaching (McDuffie et al., 2008). This approach allows all students access to the general education curriculum while receiving individualized instruction and support. However, in practice this approach often leads to the special education teacher assuming the role of instructional assistant while the general education teacher provides instruction and decides how content information is presented (Bouck, 2007; Friend et al., 2010; Volonino & Zigmond, 2007). According to a study conducted by Vannest and Hagan-Burke (2010) special education teachers working in a co-teaching partnership spent 19.2% of their time during a typical school day on instructional support and 14.8% on academic instruction. There are several different variables that contribute to the role assignments in the one teach, one assist model including limited time for joint planning and preparation, a lack of understanding of the content area, general education teachers’ acceptance of co-teaching and the skill levels of the students (Weiss & Lloyd, 2002).

Although the one teach, one assist approach may help ensure that students have access to the general education curriculum while receiving individualized supports, implementing this approach exclusively does not effectively utilize the special education teacher’s expertise in designing and modifying curriculum or using specific strategies to provide instruction to students with disabilities. Additionally, it may actually limit the amount of interactions that occur between the general education teacher and students with disabilities because students with disabilities might be seen as the responsibility of the special education teacher while students without disabilities are seen as the responsibility of the general education teacher. Magiera and Zigmond (2005) found that under typical conditions where teachers had little to no shared planning time or training, students with disabilities in co-taught classes had significantly fewer interactions with the general education teacher if a special education teacher was present.

The theoretical foundations of co-teaching suggest potential benefits for students and teachers involved in classrooms where co-teaching is implemented. Specifically, co-teaching could provide additional support for students with E/BD in the areas where they are most affected including academically, behaviorally and socially (McDuffie et al., 2008). The presence of two qualified teachers in the classroom reduces the student-teacher ratio and provides a greater opportunity for students to receive individualized support and instruction both from a teacher who is trained in the content and from a teacher who is trained in addressing learning and behavioral issues with research-based practices. Additionally, having two professionals in the classroom increases opportunities to monitor, assess and evaluate student progress because one teacher can be made available to observe and collect data while the other provides instruction. This may be especially important for inclusive classrooms in which students with E/BD are present because it is common for students with behavioral issues to have a Behavioral Intervention Plan (BIP) as part of their IEP. In order to accurately address behaviors included in a BIP, a student’s behaviors must be directly observed and monitored both before and after interventions are implemented. The presence of two professionals in the classroom could lead to this task being carried out more consistently and with greater accuracy.
Unfortunately, these potential benefits are often not evident in practice. A study conducted by Magiera and Zigmond (2005) examined co-teaching arrangements and found limited instructional benefits for students in co-taught classes when teachers had no shared planning time or training. In addition, there were no significant differences between co-taught classes and inclusive classes where only a general education teacher was present in several of the areas where students with E/BD are especially affected including on-task behavior, student participation, and peer interactions. These results underline the importance of providing a common planning time and training in co-teaching for educators who are involved in teaching students with E/BD in inclusive settings.

Consultation as a Form of Collaboration
In addition to co-teaching arrangements, special and general education teachers frequently collaborate through consultative relationships. In consultative relationships, special and general education teachers do not share direct teaching responsibilities; instead the special education teacher is available to offer advice and expertise to a number of general education teachers regarding the needs of students with disabilities within a general education environment (Friend & Cook, 2010). According to data from the Special Education Elementary Longitudinal Study (SEELS), three-fourths of elementary and middle schools students and 60% of high school students with E/BD had general education teachers who received consultation from a special educator (Bradley, et al., 2008). In addition, approximately 8% of special education teachers’ time during a typical school day is spent on consulting with other professionals (Vannest & Hagan-Burke, 2010).

Teacher personalities, teaching styles, attitudes toward inclusion, and knowledge and skills related to teaching students with disabilities affect the consultative relationship. This requires special education teachers to be aware of differences and negotiate them in order to work collaboratively with a variety of other professionals. In addition, administrative support and school policies have an impact on the type of consultative practices that are offered and how they are carried out (Sayeski, 2009). Therefore, working in a consultative role requires special education teachers to take on a variety of dynamic responsibilities and to consider the connection between the general education environment and the educational needs of students with E/BD.

There have been a number of articles that outline the specific tasks and responsibilities that special education teachers should be able to provide in order to effectively fulfill their role as consultant to general education teachers working with students with disabilities in inclusive settings (Dover, 2005; Lamar-Dukes & Dukes, 2005; Sayeski, 2009). These tasks include but are not limited to responsibilities in assessment, curriculum (development, modifications and accommodations), instruction, communication, documentation, positive behavior supports, in-class supports and sharing of knowledge regarding effective teaching strategies. Furthermore, special education teachers are often expected to concurrently facilitate these tasks and fulfill direct teaching responsibilities in self-contained or co-taught classes (Heflin & Bullock, 1999; Idol, 2006). In order to support special education teachers in facilitating inclusion and providing consultation to general education teachers, it is imperative that formal consultative time be planned for and assigned (Idol, 2006).
Formal consultative practices have been shown to be effective in maintaining or increasing the inclusion of students with E/BD into general education environments. A study conducted by Shapiro and colleagues (1999) examined the consultation process in facilitating staff development in the inclusion of students with E/BD in general education environments. Participants from 22 school districts received 2 ½ days of in-service training in self-management, social skills and problem-solving training, peer tutoring and cooperative learning strategies. Half of the schools received 6-8 weeks of immediate consultative services including: consultants working directly in classrooms where targeted students were being instructed, working with general education and special education teachers to structure interventions, working with school psychologists and guidance counselors to provide facilitative support, assisting in data collection and analysis, providing advice to overcome attitudinal barriers, and collecting outcome and follow-up data. The remaining school districts were provided consultative services 6-8 weeks after the initial in-service training. The majority of schools with delayed consultative support were not successful at implementing interventions. However, once consultation was provided, interventions were successfully implemented. In addition, 70% of targeted students maintained or increased the amount of time spent in general education settings when consultative services were provided. In this study, staff from a local university provided consultative services. In order for special education teachers to provide the same level and quality of consultation they need adequate time for planning and preparation, and on-going training opportunities in inclusive practices and working with other professionals. For example, Wallace, Anderson and Bartholomay (2002) described consultative supports provided to general education teachers (i.e., moral support, advice on modifying the curriculum, behavior management strategies, student evaluation strategies and teaching strategies) in four secondary schools that had exemplary student outcomes and success at including students with disabilities into the general education environment. However, these schools also offered formal time for planning, joint professional development opportunities and an overall school culture of shared responsibility for all students. Unfortunately, this type of intensive support is not provided for many special and general education teachers working to include students with disabilities in general education settings. In order to facilitate successful inclusion of students with disabilities, specifically students with E/BD who may pose the most significant challenges, it is critical that certain supports are available and readily accessible.

Critical Supports for Inclusive Placements

Critical Supports for Educators

Even though the inclusion of students with E/BD in general education environments has steadily increased over the last several decades, these students continue to be included at a lower rate than students with other disabilities and are often used as an exemplar for when inclusion is not appropriate (Heflin & Bullock, 1999). Additionally, many educators do not view themselves as having the knowledge or skills necessary to effectively teach students with severe behavioral concerns (Nickerson & Brosof, 2005; Wagner, et al., 2006).

Heflin and Bullock (1999), interviewed special and general education teachers to determine their insights and impressions regarding the inclusion of students with E/BD. They found that there were several common barriers to inclusion: insufficient support and training in collaboration, finding time for communication and planning with team members, being unable to meet the
educational needs of the included students, and a lack of behavior management and curricular modifications skills. To facilitate the inclusion of students with E/BD these barriers must be addressed and supports must be provided for working in a collaborative role with other professionals and working with students with E/BD.

**Critical Supports for Working in a Collaborative Role**

In the past special and general education teachers have seen themselves as somewhat separate from each other and in many ways the structure of the educational system has helped to foster that divide. It is common in public school environments for special and general education teachers to work primarily with different groups of students and to utilize different strategies and methods to deliver instruction, intervene on student behavior, and evaluate progress. They may even work in different parts of the building or in separate schools. Given that teacher education programs are generally set up to distinguish those who will eventually become special educators from those who will be general educators, it is not surprising there is an unstated message of “us” and “them” and of “our kids” and “their kids” that permeates many public school environments. The current movement toward inclusion of all students with disabilities in the general education environment is now forcing educators to step outside of their traditional roles and learn to work together.

However, collaboration between professionals can be seen as challenging to both special and general education teachers. Conderman and Johnston-Rodriguez (2009) examined beginning teachers’ perceptions of their preparation and skills associated with collaborative roles under IDEIA, and their current training needs. When asked to indicate what they found most professionally challenging in their current teaching situation, the most common response was interpersonal issues and challenges of working with others because of differences in philosophy or style. Despite these challenges, collaborative practices are becoming more and more commonplace in public school environments and the teachers expected to implement them are not typically given the supports and training necessary to make them effective.

Teachers currently working within the public school environment may be able to provide the best insight into the supports that are necessary to facilitate successful collaboration between professionals (Austin, 2001; Conderman & Johnston-Rodriguez, 2009; Heflin & Bullock, 1999; Idol, 2006; Johnson, 2000; Wallace, Anderson & Bartholomay, 2002). Several common supports have emerged from an educator’s perspective. These supports are adequate time for planning and communication, instructional support, administrative support and the need for training and professional development opportunities in collaboration. While educators were able to identify that these supports would be beneficial in theory, in practice they were not always available (Austin, 2001; Bradley, et al., 2008; Heflin & Bullock, 1999). These supports are interrelated and in most cases one must be present for the others to occur. For example, without administrative support, teachers will not receive adequate time for planning and communication or opportunities for professional development. In addition, what is the benefit of professional development if there is not time for educators to discuss and plan to implement new strategies and methods?

The support most frequently identified by professionals needed to facilitate the inclusion of students with disabilities was training and professional development opportunities in
collaboration and co-teaching (Austin, 2001; Conderman & Johnston-Rodriguez, 2009; Heflin & Bullock, 1999; Idol, 2006; Johnson, 2000; Wallace et al., 2002). Training programs and professional development opportunities have been associated with increased implementation of collaborative practices in public schools (Johnson, 2000; Wallace et al., 2002). An evaluation conducted by Johnson (2000) reported outcomes from The Arkansas Schools are for All Kids Program (AR-SAFAK), a 2-level, 4-day training workshop on inclusion offered to public schools in Arkansas. During this workshop teams comprised of an administrator, a special education teacher and a general education teacher received training that focused on understanding leadership challenges and the change process associated with inclusive practices, and assisted with the development of a plan for implementation. The evaluation assessed the behaviors exhibited by school teams following the implementation phase of the training. The results indicated that schools that had been through training were significantly different from schools that had not in several areas related to inclusive practices including sharing knowledge and beliefs and discussing co-teaching as a strategy. Most notably, schools that had been through the training were more likely to have established a school action plan and implemented co-teaching. Specifically, co-teaching had been implemented in 82% of AR-SAFAK trained schools and only 55% of schools where training was not received. Unfortunately, student outcomes and implementation fidelity were not discussed, so it is not clear what effect if any the implementation of co-teaching arrangements had on student outcomes, or if a certain degree of implementation fidelity was associated with improved student outcomes.

Educators involved in these studies have identified that adequate time for planning and communication, instructional support, administrative support and the need for training and professional development opportunities in collaboration would be beneficial (Austin, 2001; Conderman & Johnston-Rodriguez, 2009; Heflin & Bullock, 1999; Idol, 2006). However, very little empirical evidence exists to support the effectiveness of collaborative practices on student outcomes. One exception is a study conducted by Wallace et al. (2002) that described collaboration and communication practices between secondary-level teachers working in general education classrooms. The schools were selected from four states based on exemplary student outcomes including graduation rates, post-secondary outcomes, scores on standardized tests, inclusion of students with disabilities, accountability testing, and support from stakeholders. Interviews and focus groups, including principals, superintendents, special and general education teachers, school advisory groups, student advisory groups and community members were utilized to gather information regarding the teaching practices, instructional supports, and communication and collaboration practices of teachers and administration within these successful schools.

Results identified examples of school-wide elements associated with success including a culture of sharing and serving all students and collaborative school structures such as inclusion of students with disabilities, block scheduling, joint professional development opportunities, and scheduled time for planning among teams. Classroom elements associated with successful outcomes included a continuum of special education teachers’ roles including: the special education teacher as a consultant to provide expertise, the special education teacher to provide direct support to students with disabilities and the special education teacher as an equal partner in delivering instruction through the use of co-teaching.
The results from this study give weight to the perceptions and beliefs of teachers working in collaborative roles regarding the critical supports necessary to make these practices successful. However, the study only examined collaborative practices within secondary schools. It is clear that further research needs to be conducted to identify what supports or combinations of supports are critical to the successful implementation of consultative and co-teaching practices in elementary and middle schools and to determine if these practices contribute to positive student outcomes.

**Critical Supports for Working with Students with E/BD**

In addition to providing training in collaborative practices to teachers working with students with E/BD in inclusive environments, supports are also needed specifically related to working with students with severe behavioral concerns. Although most general education teachers report a positive attitude toward the inclusion of students with disabilities, students with E/BD are often an exception (Austin, 2001; Heflin & Bullock, 1999; Idol, 2001; Wagner, et al., 2006). According to a study conducted by Austin (2001) in which 92 teachers working in inclusive environments completed the Perceptions of Co-Teaching Survey, many had concerns about the effects of disruptive behaviors on the classroom environment and on the behavior of students without disabilities. Furthermore, special and general education teachers do not feel they have the skills necessary to address severe behavioral issues (Bradley, et al., 2008; Nickerson & Brososof, 2003). It is no surprise that teachers feel this way as many teachers have little to no training in working with students with E/BD, implementing behavior management strategies, or creating a supportive classroom environment. Data from the SEELS indicated that only 17% of elementary teachers, 21% of middle school teachers and 6% of secondary school teachers working with students with E/BD had received training specifically related to working with students with severe behavioral issues (Bradley et al.). In addition, less than half of teachers across grade levels received training in behavior management or creating a positive school environment (Wagner, et al.). Overall, teachers working with students with E/BD have no more instruction in providing behavioral supports or working with students with behavioral issues than teachers of students with other disabilities (Bradley et al.; Wagner, et al.).

Students with E/BD frequently experience academic difficulties along with severe behavioral concerns and educators must be prepared to address both issues simultaneously (Bradley, et al., 2008; Lane, 2007; Wagner, et al., 2006). Providing integrated behavioral and academic interventions across skill areas may contribute to positive student outcomes and have been found to reduce problem behaviors and increase academic achievement (Bradley et al., 2008; Gable, Hendrickson, Tonelson, & Van Acker, 2002). Educators working with this population need professional development in effective, research-validated instructional strategies, behavioral interventions and the special education process in general (Conderman & Johnston-Rodriguez, 2009). Ideally, educators should begin to receive training on specific strategies before the inclusion of students with E/BD occurs. This will help to ensure that teachers are prepared to work with students with E/BD and have the necessary “tools” to address behavioral and classroom management issues in addition to providing instruction to students whose academic skills may be lagging behind the standards for their grade level.

It is apparent that a lack of training in instructional strategies and behavioral techniques is a barrier to the inclusion of students with E/BD in general education classrooms and that
professional development is an important component of successful inclusion. However, educators who work with students with E/BD have identified other supports that may be beneficial to their students’ success in inclusive placements if implemented correctly.

One support that is commonly used to provide assistance within a general education environment is the use of instructional aides or paraeducators. According to data from the SEELS, almost 30% of elementary teachers, 25% of middle school teachers and 16% of high school teachers received a paraeducator because a student with E/BD was in his or her class. In addition, students with E/BD are more likely to receive individualized instruction from a paraeducator than are other students in the class, including those with other disabilities (Wagner, et al., 2006). Paraeducators can be a valuable resource for special and general education teachers involved in inclusion. Their presence in the classroom may help alleviate stress related to the completion of routine tasks and give teachers more time to concentrate on designing and delivering instruction and behavioral interventions. Although, the intended role of a paraeducator is to provide assistance with routine instructional tasks, basic classroom management and supervision of practice opportunities, in reality, they are often put in a position to provide individualized, one-on-one instruction or behavioral interventions. In many cases paraeducators have no formal background in education or behavioral interventions and receive limited training on the job. Paraeducators themselves have reported that they lack the training needed to perform job responsibilities, especially for supporting students with behavioral challenges, and were often asked to assume duties beyond their skills (Giangreco, Suter & Doyle, 2010).

The CEC has identified 10 standards and 47 knowledge and skill statements that paraeducators should demonstrate when working with students with disabilities. There are several specific skills statements that are especially relevant to the inclusion of students with E/BD including the use of strategies to assist in the development of social skills and manage behaviors as directed, the ability to follow written plans, seeking clarification as needed and the ability to prepare and organize materials to support teaching and learning as directed (Council for Exceptional Children, 2010). According to the standards set by the CEC, the tasks performed by paraeducators should be prescribed and directly supervised by a fully licensed and certified special education teacher. The misuse of a paraeducator to independently design and implement specialized instructional or behavioral tasks is unethical and abuses their intended purpose in the classroom. Furthermore, it is not sound educational practice to have staff with little background or training responsible for the instruction and behavior management of students with the most intensive and specific needs without receiving adequate supervision and training from certified special education professionals as it may further divide students with disabilities from their general education peers and hinder their academic and behavioral progress. According to a survey completed by staff at four elementary and four middle/secondary schools educators thought that although the support of instructional aides was important only 10% responded that students with special education needs in general education classes are best taught by paraeducators. In addition, educators indicated a need for increased training opportunities and preparation for paraeducators in working with students with disabilities (Idol, 2006; Wallace et al., 2002).

It is clear that special and general education teachers across grade levels understand the importance of specific supports in order to provide effective instruction and behavioral
Interventions for students with E/BD included in general education environments. Furthermore, teachers report a desire for opportunities to gain skills and knowledge regarding the education of students with severe behavioral concerns. However, in addition to providing supports to educators involved in inclusion it is imperative that the needs of students with E/BD are also addressed.

**Critical Supports for Students with E/BD**

General education classrooms typically differ from special education classrooms in significant ways and present challenges for the included students who are expected to adjust to a new environment, new set of classmates, new teachers, new rules and curriculum and sometimes even a new school. In addition, in an inclusive environment, students with E/BD may be required to demonstrate academic and behavioral skills that they have not yet mastered. For students who struggle with social, coping and behavioral skills meeting these challenges may be too much to reasonably expect without providing preparation and ongoing supports.

Nickerson and Brosof (2003) examined the skills necessary for successful inclusion of students with E/BD with the *Scales for Predicting Successful Inclusion* (SPSI) that measured work habits, coping skills, peer relationships and emotional maturity and the *Devereux Behavior Rating Scale* (DBRS) that measured levels of emotional disturbance. Results indicated that on the SPSI students with E/BD had below average performance in work habits, and poor performance in coping skills, peer relationships and emotional maturity. On the DBRS students with E/BD were in the borderline category for emotional disturbance related to interpersonal problems, inappropriate behavioral feelings and physical symptoms and fears and in the significant category for depression. Students with more severe E/BD according to DBRS scored lower on the SPSI, implying that students with more severe E/BD would be less likely to experience success in inclusion because of a lack of necessary skills. These results indicate that many students with E/BD are not prepared emotionally or behaviorally to transition into general education environments without supports specifically relating to the development of these skills.

In addition to demonstrating deficits in emotional and behavioral domains, students with E/BD frequently experience considerable deficits in academics and require direct instruction in school survival skills such as participating in class and completing work (Wagner, et al., 2006). In fact, severe problem behaviors have been shown to relate to long-term academic failures. A longitudinal study conducted by Fleming and colleagues (2005) found that disruptive, defiant and aggressive behaviors in middle school were related to low academic achievement in high school. In the Fleming study, the problem behaviors of students in the seventh grade at 10 public schools in the Pacific Northwest were compared to their standardized test scores in the tenth grade. Results indicated that higher levels of school bonding and better social, emotional and decision making skills were related to higher test scores and higher grades. Elevated levels of attention problems, negative behavior of peers and disruptive, defiant and aggressive behaviors were predictive of lower test scores and grades. The results of this study support what research over the last several decades has shown: behavioral and academic issues are interconnected and interventions to address one can lead to improvements in the other (McIntosh, Chard, Boland & Horner, 2006), therefore, addressing both issues simultaneously may improve outcomes for students with E/BD in general education environments.
However, there is a discrepancy between what is known to be effective in supporting the academic and behavioral needs of students with E/BD and what is practical for classroom application. This is especially true in general education environments where there is typically a higher student-to-teacher ratio and less emphasis on individualized instruction. Research has shown that interventions considered easy to implement, less time-intensive, and compatible with the environment are the most likely to be implemented consistently and with fidelity (Landrum, Tankersley & Kauffman, 2003; Niesyn, 2009). Although many of the practices shown to be effective with students with E/BD do not easily fit these criteria, several promising practices have been identified that address inappropriate behaviors and academic deficits concurrently and are realistic for implementation in general education environments. Furthermore, they require little training or preparation to implement.

Teacher Directives. Noncompliance, or the refusal to respond appropriately to a request or directive, has been identified as one of the most challenging and frequent behaviors demonstrated by students with E/BD. However, the way that directives are delivered can have an effect on whether or not a student complies. In order to increase the likelihood of compliance, directives should be predictable and specific, incorporate consequences for compliance (and noncompliance) and provide time for the student to follow-through. In addition, educators should deliver directives that students are likely to comply with before delivering directives that might be more difficult or unpleasant for the student to complete (Landrum, et al., 2003; Niesyn, 2009).

Teacher Attention and Praise. Perhaps the easiest and least time consuming practice a general education teacher can implement is the use of positive teacher attention or praise. Although basic, the effects of positive teacher attention on the behavioral and academic performance of students with E/BD are well-established in the literature (Landrum, et al., 2003). In order to be effective however, praise should be delivered in a systematic way and be contingent on appropriate behaviors being demonstrated. In addition, praise should be given immediately following an occurrence of a behavior and specifically describe the behavior being reinforced (Landrum, et al; Niesyn, 2009). While providing praise to students for positive behaviors seems obvious, studies have suggested that students with E/BD rarely receive praise or positive attention for compliance (Landrum, et al; Sutherland, Wehby & Yoder, 2002).

Opportunities to Respond. In general, students with E/BD across all levels are less likely than other students to respond to questions or participate in class (Wagner et al., 2006). This may indicate that as a group, students with E/BD are less engaged in academic instruction and less confident in their academic ability. However, a study conducted by Sutherland, Wehby and Yoder (2002) showed that when teachers provided opportunities to respond coupled with praise and positive attention, students with E/BD produced a higher rate of correct responses. The combination of praise and opportunities to respond has significant implications for the success of students with E/BD in general education classrooms as both have been shown to have positive effects on students’ academic and behavioral progress. Teachers can increase the likelihood of students with E/BD responding in class by structuring questions to contain some of the required information to elicit responses from students that are correct and therefore, increase opportunities for praise (Niesyn, 2009). Providing opportunities for correct responding could potentially result
in increased self-confidence in academic ability and improved academic engagement for students with E/BD.

Direct Instruction. Academic achievement, on-task behavior and class participation are positively related to the amount of time that students spend engaged in the learning process (Landrum, et al., 2003). The direct instruction model seeks to increase the academic engagement of students through the use of a systematic method to present information, offer feedback, provide opportunities for practice and evaluate progress (Nelson, Johnson & Marchand-Martella, 1996). Similar to improving academic achievement, the direct instruction method can be used to remediate behavioral concerns by teaching prosocial skills in an orderly and systematic manner. The direct instruction model consists of a specific sequencing of steps that should be followed when introducing a new concept (1) gain student attention, (2) review prior knowledge, (3) present the goal of the lesson (4) present new information, (5) guided practice (6) independent practice, and (7) review of the information presented (Gunter, Coutinho & Cade, 2002; Niesyn, 2009). Direct instruction has been shown to provide benefits both to students with E/BD and the teachers who work with them by increasing academic engagement and decreasing challenging behaviors (Englert, 1984; Gunter et al.; Nelson et al.).

Peer Tutoring. Peer tutoring has been shown to improve academic and behavioral deficits by increasing academic engagement and class participation among students with special needs (Harper & Maheady, 2007; Kamps, et al., 2008; Landrum, et al., 2003; Niesyn, 2009). In addition to increasing positive interactions with peers, which could in turn assist with the development of appropriate social skills (Kamps, Kravits, Stolze & Swaggart, 1999), peer tutoring also increases opportunities for guided practice and praise, two practices that have been shown to increase appropriate behaviors in students with E/BD. When implementing peer tutoring in general education classrooms, teachers should provide a format or structure for students to follow and consider the pairing of students so that maximum benefits are achieved for both students.

These practices are by no means an exhaustive list of supports that have been shown to be effective with students with E/BD. However, they do represent a sampling of sound educational practices that are supported by research and are easy to implement, not time-intensive and compatible with a general education setting. In addition, they require little to no formal training or advanced preparation. Although, research suggests that these practices are effective for improving academic and behavioral deficits of students with E/BD, currently they are not being consistently implemented in inclusive settings. However, due to changes in legislation and the move toward more inclusive placements there is an increased focus on providing varying levels of supports to address academic and behavioral concerns within general education environments (Gable, Hendrickson, Tonelson, & Van Acker, 2002). Whether in a consultative or collaborative role the implementation of these practices often falls to the special education teacher. Special education teachers are generally seen as having expertise in research-based instructional strategies, while general education teachers are seen as experts in content areas (McDuffie et al., 2008). As a result, special education teachers are often put in the position to implement, monitor and evaluate the effectiveness of specific interventions, particularly for students with academic and behavioral concerns, who may be viewed as being outside of the general education teacher’s responsibility.
Discussion

The passage of NCLB and the reauthorization of IDEIA have led to the public educational system in the United States being held to a higher level of accountability for providing access to the general education curriculum, and for the increased academic achievement of all students. As a result, many in the educational community are advocating for the inclusion of all students with disabilities, even those with the most severe emotional and behavioral needs. However, it is important that educators and policy makers remember that a continuum of educational placements, from most to least restrictive, is a cornerstone of special education. This continuum of placements helps to ensure that appropriate settings and necessary services will be available for all students, including those whose educational goals need to address more than just academics, and may also include behavioral, social, vocational and independent living skills.

Critics of the inclusion of students with E/BD in general education settings argue that these skills are best taught by specially trained teachers in separate special education classrooms (Kauffman et al., 2002; Kauffman & Lloyd, 1995). However, data on student outcomes suggest that even in special education environments many students with E/BD are not being taught necessary skills or provided with effective supports. It appears that the essential component is not where the instruction takes place, but that these skills are taught in a careful and systematic manner by educators who have the ability to teach them.

Inclusive placements should provide the best of both general and special education by offering students access to the general education curriculum while providing supports and services in the skill areas most critical to individual students. In practice, however many school districts are falling short on meeting this goal. This is a particular concern for students who have a primary diagnosis of E/BD and who are often not prepared emotionally or behaviorally to transition into general education environments without supports specifically relating to the development of these skills (Kauffman et al., 2002; Kauffman & Lloyd, 1995; Nickerson & Brosof, 2003). Data on educational and post-school outcomes make it apparent that simply placing a student with E/BD into a general education classroom does not adequately address the complex set of needs demonstrated by this population. The least restrictive environment for students with E/BD should not rely only upon the “place”, but also upon the supports and services provided within that placement. Unfortunately, in the current educational system many general education teachers have expressed concerns about educating students with severe emotional and behavioral issues within the general education environment (Austin, 2001; Heflin & Bullock, 1999; Idol, 2001; Wagner, et al., 2006). Additionally, a majority of both special and general education teachers working with students with E/BD have little to no training related to working with this population, behavior management or creating a supportive classroom. This implies that on a whole, professionals who lack the basic competencies and skills necessary to be effective are educating students who might arguably have the most challenging and multi-layered educational needs. This lack of confidence and formal training coupled with outcome data may indicate that in the current educational system students with E/BD are not getting their educational needs met in inclusive or self-contained settings.
It is easy to suggest that a solution to the issue of inclusion of students with E/BD is to provide professional development opportunities to educators and supports and specialized services such as behavioral interventions and social skills training to students within the general education environment. However, in order to do this, many involved in education including teachers, administrators and support personnel will need to change the way they think about special education and students with disabilities. A school-wide culture of shared responsibility for all students regardless of their educational placement or disability, a commitment to collaboration with other professionals and support from administrators contribute to positive student outcomes (Wallace et al., 2002). Unfortunately, there are many schools at which this culture is not evident, and many educators who still see special and general education as existing separately. Furthermore, in order for inclusion to be successful, policy makers will need to be committed to providing on-going and consistent school-wide supports to both educators and students in a systematic and careful manner even if it means making sacrifices in other areas. For example, the resources dedicated to providing training opportunities for educators involved in the inclusion of students with disabilities, will require additional funds. Likewise, co-teaching arrangements and special education teachers working in consultative roles, which require formal time to plan and communicate may result in less time to provide instruction and an increased need for additional faculty.

Often these decisions are difficult to make, but must be considered before implementing the inclusion of students with E/BD into general education settings. While inclusive placements for students with E/BD may be a promising instructional practice and potentially offer academic and social benefits, extreme care needs to be taken before its implementation. If students with E/BD are pushed into inclusive settings without adequate planning, preparation or support it is unlikely that their educational needs, which extend far beyond academics, will be met, and the cycle of negative academic and post-school outcomes that are too frequently experienced by this population will continue.

Given the dearth of empirical research on the inclusion-related outcomes of students with disabilities (Simpson, 2004) future research should focus on identifying the combination of supports provided to educators and students involved in inclusion that are positively related to successful outcomes in academic, behavioral, and social domains. In addition, researchers should further examine the components of teacher preparation and training programs that are necessary to prepare teachers to more effectively meet the needs of students with severe behavioral issues in inclusive settings. Finally, as the roles and responsibilities of special education teachers shift and become more dynamic it will be increasingly important to investigate how to best prepare them for collaboration with other professionals and support them in the facilitation of inclusive placements for students with disabilities.

Despite a lack of research to support the implementation of inclusive placements for students with E/BD the practice is becoming more common. Although inclusive placements potentially offer benefits to students, it is clear that in most cases the inclusion of students with E/BD into general education environments is not being executed in the intended or most effective manner. For inclusion to be successful in improving the academic, behavioral and social outcomes of students with E/BD, it is imperative that all involved educators be provided with formal time for
consultation and collaboration, intensive on-going training and support from administrators and the community.

**Implications**

A review of the literature reveals numerous challenges related to the implementation of inclusive placements for students with E/BD (Bradley, et al., 2008; Gable, et al., 2002; Heflin & Bullock, 1999; Kamps, et al., 1999; Muscott, 1995; Nickerson & Brosof, 2003; Shapiro et al., 1999). There is an extensive literature base and several government studies including the SEELS, the National Longitudinal Study-2 (NLTS-2) and the National Adolescent and Child Treatment Study (NACTS) that document the poor academic and post-school outcomes for students with E/BD. These outcomes include a 55% high school dropout rate for students with E/BD, with only 20% continuing on to some form of post-secondary education and approximately 43% being arrested at least once (Bradley, et al.) While it is hard to determine the exact extent to which these outcomes are attributable to the nature of the disability, it is clear that overall the educational system is not meeting the needs of students with E/BD.

These challenges have implications not only at the school and classroom levels, but also on a much larger scale. In order to successfully address these challenges it might be most effective to confront them using a top down approach starting with educational policy and teacher education programs, with the intention of having the effects “trickle down” to the educators and students directly involved. To do this, educational policy makers need to examine the concept of adequate yearly progress and determine how that progress can be accurately assessed and measured for students whose educational needs extend beyond the academic domain. Recent history has taught us that it is not enough to simply demand that teachers improve the academic achievement of all students while ignoring other factors that may have an effect on student performance, such as behavioral issues or poor social skills. To address this issue, it might be beneficial for students with disabilities to have common core standards not only in academic content areas, but also in areas that are directly affected by their disability. While it is not good practice to assume that all students with similar disabilities have exactly the same needs, it makes sense that there are general areas that could be addressed based on a student’s diagnosed disability and past performance. In addition, funding should be provided to support intensive early intervention programs, similar to those sometimes available to children with other disabilities such as autism spectrum disorders and developmental disorders. For young children at risk for behavioral issues, programs that incorporate basic academics, social and behavioral skill development and supports and strategies for families, could provide long-term benefits and help ease the transition to general education environments.

The increase in inclusive placements has implications for the way in which teacher education programs are designed. Teacher education programs should be up-dated to reflect the changing roles of special and general education teachers and students with disabilities should no longer be seen as solely the responsibility of the special education teacher. Therefore, preparation for general education teachers should include more comprehensive training in research-validated instructional strategies and behavioral interventions for students with disabilities in addition to a focus on academic content. Special education teachers still need to be highly skilled in a variety of areas including assessment, developing and modifying curriculum, making accommodations,
instructing students with disabilities, communicating with families and other professionals and documenting student progress. However, due to the emphasis now being placed on the special education teacher as a consultant, it is important that teacher education programs also provide instruction in developing skills to effectively offer support and training to other professionals to implement these tasks. In addition, as part of certification requirements both general and special education teachers need to have increased training in collaboration, specifically related co-teaching.

Inclusive placements for students with E/BD also have implications for educators at school and classroom levels. Implications for general education teachers include sharing responsibility for the education for all students, even those with behavioral concerns. This will require knowledge of effective behavior management techniques in addition to an openness to work with special education teachers as equals within a general education classroom. Implications for special education teachers include accepting a change in job description, which may involve moving away from delivering individualized one-on-one or small group instruction to working more closely with other professionals to offer support and guidance or through shared teaching responsibilities with general education teachers.

As with many complex educational issues there are no perfect solutions for the challenges related to the inclusion of students with E/BD into general education environments. Due to budgetary and time constraints, every policy or practice that is implemented to facilitate successful inclusion means that another program will have to be reduced or eliminated. However, it is essential that educational policies and teacher education programs change to support current educational practices. As educational policy and teacher education programs are modified to reflect the changing landscape of special education, the ways in which students with E/BD are included into general education environments and the roles that general and special education teachers play will have to adapt to meet the changes. In addition, it will become increasingly important to examine what outcomes need to be experienced by students with E/BD in order to determine if inclusive placements can be considered a success for students with severe behavioral concerns.

References


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Naomi Arseneau is currently an instructor at a post-secondary, transitional program for students with learning disabilities located in the Midwest. She received her Master of Science degree from Southern Illinois University in Special Education with a specialty in Behavioral Interventions. Her research interests focus on inclusion for students with Emotional and
Behavioral Disorders as well as transition-related issues for students with disabilities including post-secondary education and vocational training.
Theoretical Frameworks for Math Fact Fluency

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Abstract

Recent education statistics indicate persistent low math scores for our nation’s students. This drop in math proficiency includes deficits in basic number sense and automaticity of math facts. The decrease has been recorded across all grade levels with the elementary levels showing the greatest loss (National Center for Education Statistics, 2009). The purpose of this paper is to use Vygotsky’s sociocultural theory as a framework to discuss the benefits of peer assisted drill and practice for math fact fluency. One basic aspect of this theory centers on the contention that cognitive growth and development can be promoted in less capable peers if they are given opportunities to interact with more capable peers (Vygotsky, 1978). In addition, the delivery and effectiveness of computer assisted drill and practice will be discussed within the context of the Information Processing Theory. These theories are based on the assumption that cognitive manipulation of input must precede its release as output (Miller, 2011). The theory is based on a model much like a computer. Through a review of literature and current research, the two methods of math practice will be compared and contrasted.

Theoretical Frameworks for Math Fact Fluency

Reflecting national trends, many school districts have seen a drop in math proficiency, especially with number sense and automaticity of math facts. To address this situation, systems are investing in research based, computerized drill and practice math remediation programs, such as those developed by iLEARN, called Think Fast(iLEARN, 2011). This program is a diagnostic instructional tool meant to provide practice in identified math skill deficits to those students lacking proficient math skills. General education as well as special education often uses programs such as this to increase math fact fluency, and special education and general education teachers have used various methods and strategies to provide drill and practice opportunities to students with deficient skills in math facts.

This paper will focus on the current research examining the effects of computer assisted drill and practice as a method to address deficits in math fact fluency. Research will also be reviewed which investigates the effectiveness of peer assisted math fact drill and practice. Specific elements of the sociocultural theory are used to discuss peer assisted drill and practice and the information processing theory is used to discuss computer assisted drill and practice. The literature discussed will provide additional information about the effectiveness of each method in providing opportunities for remediation and to increase math fact fluency. This paper concludes with a personal view on whether or not there is a difference between the effectiveness of computer assisted drill and practice and peer assisted drill and practice.
Findings from the National Center for Education Statistics (2009) indicate that many students in the elementary grades have not mastered basic math facts fluently. An important issue for teachers is finding ways to help their students memorize and utilize math facts with fluency, a skill which requires students to respond quickly and correctly. Not only is fluency necessary but automaticity in generating these facts is critical to effective problem solving. Another consideration for teachers is determining which students would benefit from drill and practice strategies to increase fluency and which strategy would show the greatest gains and be most effective. Teachers must also ensure that time with drill and practice is spent productively.

Vygotsky and other sociocultural theorists (Vygotsky, 1978) believe that more competent students paired with less competent students can increase the development of their less competent peers. Research does indicate that when drill and practice is configured after this model, the less competent students are able to increase their fluency rate of math fact retrieval. Rhymer, K., Skinner, C., Jackson, S., McNeill, S., Smith, T., and Jackson, B. (2002) examined strategies such as peer tutoring using flashcard procedures for drill and practice and found that these procedures did improve fluency and were effective, but also required an inordinate amount of time and, therefore, may not be an efficient use of time. When students engaged in this type of collaborative peer tutoring using unmatched peers, the potential development for each could be enhanced. According to Vygotsky, (1978) these peers are operating in the zone of proximal development. While more able peers help them to proceed through the zone, they reach a higher level of competence and this increased competence further develops their readiness to learn new concepts. Through repeated trials of drill and practice, students become more agile in retrieving math facts and are ready to apply the learned math facts into problem solving which, ultimately, is the goal.

Vygotsky (1978) defined schools as cultures where students interact with the teacher and their peers in the instructional setting. These peers and adults all interact through a process which helps children learn how to use the tools of the culture, namely math facts. This is clearly shown when requisite skills such as fluency of math facts are developed and competence is demonstrated by the students who are ready to move on to more complex mathematics and problem solving. Vygotsky (2011) believed that as students become more adept at recall of math facts, they can advance their own thinking in the area of problem solving with or without the scaffolding assistance from peers and become efficient in recall of math facts.

According to Woodward (2006) complex mathematics and problem solving objectives require skill and competence in basic computation. However, those students who devote too much time to basic computations may not have sufficient capacity to apply cognitive processes toward the acquisition of complex math operations. In this respect, a needed corollary of fluency in facts is the automatization of these facts.

Researchers such as Nist and Joseph (2008) have used the term automaticity to describe a student’s ability to respond rapidly and accurately with minimal cognitive effort. Working at this level is most efficient and developing automaticity is an important first step in successful problem solving. Poncy, B., Skinner, C., and O’Mara, T., (2006), developed the Detect, Practice,
Repair strategy as a class wide procedure that focuses on increasing fluency by allowing students to practice only those math facts that are not developed to the point of automaticity. Axtell, P., McCallum, S., Bell, S., and Poncy, B., (2009) expanded this research and found when deficits were detected by the teacher and peer assisted drill and practice was implemented, students were able to repair the gap in skills and increase their fluency. This allowed teachers to use peers to remedy skill deficits while applying instructional time only to target those skills in need of remediation. Both peer mediated strategies were very effective in increasing fluency and automaticity of math facts. Use of these, and other, strategies appear to allow what Rogoff (1990) termed guided participation: those students who have developed and demonstrated math fact fluency skills were now ready to apply those skills to problem solving through a gradual decrease in their dependency on peer assistance.

Vygotsky (1978) labeled this mutually beneficial collaboration intersubjectivity: states of shared understanding where both students are focused and share a common goal: Namely, the practice of known facts for the more able peers and provision of opportunities to increase fluency skills for the less competent peers.

Aspects of the sociocultural approach to development of cognitive skills and studies supported by the literature, indicate that peer assisted drill and practice of math facts appears to be an effective strategy to increase fact fluency to the point of automaticity. In addition, the collaborative nature of the remediation appears to be beneficial to the child in need of remediation as well as the more capable peer.

Human information processing theorists focus less on the steps in problem solving but more on the specific mental processes that must be developed and used prior to reaching a problem solution (Andre, 1996). Theorists from the information processing orientation would therefore, focus on how students acquire, process and remember information. According to Miller (2011), the information processing researchers examine the flow of information through the cognitive system. For purposes of this paper, the process begins with some input, such as a math problem, into the human information processing system and ends with the output, which can be viewed as the student’s response or answer. When students are using a computer assisted program to drill and practice math facts, they are taking in information through their senses in the form of a software application and providing output by quickly calling the answer from memory. The relevant issue for information processing theorists is in the processing of information once it has been input. Or, in this context, what does the student do with the image of the math fact?

The visuospatial sketchpad processes and retains visual information. Here it is stored briefly in the episodic buffer before being sent to long term memory (Miller, 2011). Research provided by iLearn (2011) points to the need for students to develop strategies prior to the development of math fluency. These strategies need to be activated in the episodic buffer so the visual information can be coded before it is sent to storage.

Siegler’s (2006) research on microgenetic methods centered on how children develop strategies over several problems and sessions. Programs such as ThinkFast (2011) provide explicit instruction in rules and a variety of strategies to use when problem solving, in the hope that
Children begin to use these strategies automatically when encountering novel problems. Information processing models also rely on rules as a basis for children to problem solve. Siegler’s (1996) important overlapping waves model represents a theory in which children would use a certain strategy to learn the math fact but would retain the use of that strategy until a newer or more efficient strategy is fully developed and can be used in its place as well as with other problems calling for novel solutions.

According to Miller (2011) another important feature of the information processing theory is the child’s use of encoding. How a child labels information is critical for future recall. Through the use of strategies, children can modify the mathematical information before it is stored in long term memory. Once the data has been manipulated, the child can store it for future retrieval. Drill and practice strengthens the learning and makes it more enduring because the more frequently the math fact data is recalled from memory the stronger the learning. The computer provides the drill and practice for these stored facts. Children become fluent in the recollection of facts and this leads to automaticity. Information processing theorists (Miller 2011) identify this process as automatization or the condition when the recall of math facts no longer requires conscious awareness. The recall becomes second nature.

Lynch (2006) used another area of computer assisted math fact drill and practice methods to combine strategy instruction which focused on errorless learning, as well as clearer understanding of the processes of computation. Programs which combine extended practice and looping back to any missed facts ensure that students do not have the opportunity to practice incorrect answers which is believed to be a weakness of peer mediated drill and practice. Teachers should also ensure that while students are using the computer for drill and practice that the time spent is productive and their attention is focused and consistently applied to repetitive aspects of the strategy. A study completed by Cates (2005) investigated the use of computer-assisted math programs and concluded that while such programs did increase active student engagement, simple engagement may be insufficient for effective learning. Their research indicated that many times the facts were not encoded sufficiently to be stored for future retrieval.

There is a great body of research available on the efficacy of computer assisted drill and practice as a method to increase fluency and ensure automaticity of math fact retrieval.

**Conclusion**

Both theories are feasible when discussing a model of how children can learn math facts to the point of automaticity. Both theories consider developmental stages and when a child would be developmentally capable of recalling facts fluently and applying them in problem solving. While both theories recognize the cognitive manipulation of information that is necessary to problem solve, the socioculturalists see it as an extrinsic exercise while interacting within a culture, such as a school, with peers or adults. Evidence of learning is demonstrated by a change in behavior such as an increase in math fact fluency as peers interact with one another. The information processing theorists, on the other hand, view this as an intrinsic exercise happening internally with effectiveness demonstrated by the presentation of correct output or math facts. Clearly students should have enough computational fluency to automatically recall a fact and apply it to a problem. Perhaps the most important point is that students practice facts with an understanding.
of the applications. If students can directly apply the facts, the procedures will be less likely to be forgotten or confused. In the classroom, the most effective application of either theory to the practice of math facts would involve a teacher who is knowledgeable of the students in class and know their learning styles. Both methods, peer assisted drill and practice and computer assisted drill and practice, have a place in the classroom. The wise teacher would differentiate and use both depending upon the needs of the students. The issue of motivation is an important consideration as well. A child interacting with the computer may need to be more self directed and motivated to remain on task and interested in the lesson, while the interaction with peers may be motivating enough for others. Reinforcement is overt when in a social context; it may not be so when interacting with a computer.

As with most research, this topic also raises more questions. For example, which method is more effective in retention of math facts? Which method is more motivating and engaging to students? Which method maintains a student’s level of motivation and self direction more consistently? It is clearly evident that learning does not happen by chance but, rather, through a complex and cumulative process.

References


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Katherine Arnold, Ed.S is currently a doctoral candidate at Liberty University. She is employed by the Douglas County School System in Douglasville, Ga., as an education evaluator and system resource teacher for students with intellectual disabilities. Katherine Arnold, Ed.S has worked in special education in various capacities for the past 25 years. Her current interests include alternate assessments, issues in special education, and investigations into the utility of formative education assessments.
FAPE Model of Exceptional Student Education Leadership

Dr. Russell G. Dubberly

Abstract

The FAPE Model of Exceptional Education Leadership is defined as facilitative, affiliative, praising and rewarding, and experiential and empirical. The FAPE administrator uses a facilitative approach that guides and coaches to help employees find a pathway to success. This leader works to build emotional capacity between all members of the educational organization and is seen as accessible. The FAPE administrator recognizes and praises staff for their accomplishments and is a support for all employees. Finally, the FAPE administrator does not “go it alone”, but uses the resources of all staff and faculty and connects all instruction and curricular choices to empirical research.

FAPE Model of Exceptional Student Education Management

FAPE is a common acronym in exceptional education services. FAPE typically represents the terminology found in Section 504 and the Individuals with Disabilities Education Act (IDEA), which is the cornerstone of assuring students with special needs a Free and Appropriate Public Education (FAPE), regardless of the nature or severity of the person’s disability (U.S. Department of Education, 2010). This acronym is widely known throughout the exceptional education community as a key tenet for providing educational equality to children with special needs. The acronym FAPE is used in an alternate format for the purpose of illustrating the following leadership model for exceptional student education administrators and exceptional education teachers who plan to pursue administrative roles.

Exceptional student education administrators vary in scope of responsibilities from a lead teacher and principals who oversee exceptional student education services in their school to state or federal administrators who create exceptional student education policy. All levels of these leadership positions are critical to ensure FAPE for students with special needs. This article details the attributes of exceptional education leaders and elucidates a combination of leadership ideologies correlated to successful leadership practices in exceptional education settings. These suggestions are intended to promote critical thinking among administrators, as well as current teachers who plan to pursue administrative roles. The proposed model of exceptional education leadership is based on the following constructs:

F - Facilitative

A - Affiliative

P - Praise and recognition of performance

E - Experiential and Empirical knowledge
Facilitative Leadership

Facilitative refers to an exceptional educational leader setting a vision, mission, and objectives for the teachers and staff. The administrator uses a facilitative approach that guides and coaches as needed to help employees find a pathway to success within the educational organization. This is in contrast to a transactional or authoritarian leader who typically leads with a less cooperative and more directive style. The leader is not the holder of all knowledge, but often takes on the role of organizer who understands and utilizes the strengths of team members. The education leader who takes the role of a facilitator:

blends his or her role of visionary decisive leader with that of listening and empowering leader. As a facilitative leader he or she involves followers as much as possible in creating the group’s vision and purpose, carrying out the vision and purpose, and building a productive and cohesive team. (Rees, 1998, pp. 17–18)

Moore (2004) referred to the facilitative qualities of a leader as core values, underlying principles or action strategies that guide the leader. Based on the suggestion of Glickman, Gordon, and Ross-Gordon (2009), the administrator should be the glue of success that binds collegial teams and empowers them as decision makers who provide input toward the direction of the instructional program. Moore posited that “facilitative leadership helps people to better understand each other so that common goals can be established, agreed upon, committed to, and reached” (p. 236).

Moore (2004) described a hiring scenario to demonstrate an educational organization’s use of a facilitative approach. Most would agree that in current practice, educational leaders make hiring decisions with very little input from staff members. Typically, a manager or panel of managers review applicants, interview and make a hiring decision. The case study group reported by Moore collectively shared everything they thought about “potential job candidates, they were able to discuss all strengths and weaknesses and to address those with the candidates themselves” (p. 236). Moore reported that the staff believed as a cooperative effort, they will hire people who better fit into the organization.

Affiliative Leadership

Affiliative refers to building emotional capacity. Emotional capacity strengthens through camaraderie between all members of the educational organization. The affiliative leader is seen as one of the team who is accessible to staff and students. Gurley and Wilson (2011) described an affiliative leader as “creating harmony and building emotional bonds” (p. 3). This is an important component of building collegial teams that collaboratively work to plan and implement the best curricula and instructional methods for students. The affiliative style supports a warm and friendly work atmosphere. Employees feel like team members who are valued as individuals, not just as workers. This style of management recognizes each educational team member’s emotional needs and individual personality traits. The Colour Works (2008) (a team performance building organization) described the affiliative leadership style as:
promotes friendly interactions among staff; places less emphasis on task directions, goals and standards than on meeting staff’s emotional needs; pays attention to and cares for “the whole person” and stresses things that keep people happy; identifies opportunities for positive feedback but avoids performance related confrontations; rewards personal characteristics as much as job performance (p. 1)

The idea of caring for the whole person seems to align with exceptional education ideology, which typically looks holistically at the child to determine what may impede learning. Sensory, emotional, and physical concerns are addressed along with cognitive abilities when considering a child’s (with special needs) learning. The preference to accentuate positive feedback, while minimizing the need for confrontational leadership is easily correlated to tenets of positive behavior support plans often implemented by teachers working with students with behavioral disabilities. It should be understood that these leadership constructs are guiding ideas and not intended to be applicable in all situations. Some research demonstrates a concern for the affiliative style of leadership when organizations have deeply problematic areas of concern such as racism, sexism, or other circumstances that need immediate and direct attention from an educational leader.

Kenmore (2008) explained “If affiliative leaders are too concerned with creating harmony among team members for example, they can be unwilling to tackle awkward or sensitive issues head on. This can in turn lead to resentment and disharmony among other team members” (p. 25). Kenmore explicated (in this statement) that a more direct and less collaborative approach is at time necessary for leaders. This is not dissimilar to the role of teachers working with students with disabilities. Exceptional education teachers need to create a warm, inclusive feeling classroom that values all members, but at times must address issues with stern and precise decisions without the consent of the class. As a general rule, the teacher wants to create strong affiliation with students, as well as develop the affiliation of students and their peers. This process may be difficult with an educational leader who is typically directive or authoritarian. This leadership styles requires immediate compliance and implements leadership philosophy more indicative of Mcgregor’s Theory X style of leadership (Kenmore, 2008).

The affiliative leadership ideology is in many ways the antithesis of Theory X leaders who see their employees as incapable of organizational problem solving. A Theory X administrator who uses praise at times may be viewed by others as using disingenuous manipulations, rather than recognition of a job well done. Koppelman, Prottis, and Davis (2008) suggested that the core of Theory X leadership implies that there is only one true way to manage. In contrast, the affiliative leadership style uses myriad methods to differentiate as needed. This is reflective of educators using differentiated instruction to meet the many needs of their students in a way that is personally thoughtful of their needs as learners. The adept educator works to build autonomy and self-determination in students in a democratic classroom setting. The affiliative leader collaborates with self-directed employees who have organizational input and are capable of making decisions that emphasize personal and organizational goals within the democratic constructs of the educational organization. This attribute may be particularly critical in dealing with what Sergiovanni (2009) elucidated as the management of paradox often found in educational institutions. The management of paradox is the leadership ability to bring together
ideas that seem to be at odds with each other. Sergiovanni used the following examples to clarify some to the paradoxical situations often found in school leadership:

Combining an emphasis on rigorous standards with a refusal to impose standardization or compromise local discretion; expecting a great deal from teachers while empowering them to take control of their professional lives; responding to adolescent needs for independence while providing the disciplined safe havens they need; involving parents without compromising professional autonomy; and bringing everyone together in a common quest united by shared values while honoring diversity and promoting innovative ideas are examples (p.11).

It is conceivable that an affiliative leadership style that empowers all stakeholders will help increase institutional support and likely alleviate some of the stressors mentioned in the paradoxical situations above.

**Praise and Recognition in Leadership**

Praise and recognition refers to the administrator recognizing and praising staff for their accomplishments. The FAPE leader is a support for all employees and works to empower employees to proficiently perform their duties. This leader empowers everyone in the organization to grow professionally and strive toward new professional goals and objectives. This leader understands that true leadership strength is derived not from personal power, but the ability to empower others toward the same common organizational goals. This leader also understands that people have varied interests and attributes that are personally important, but can be related to the overall strength of the educational organization. An administrator implementing the FAPE model of leadership appreciates differences in culture, personality, and personal interests and views these as a richness of organizational strength. Some may believe that faculty and staff members need to be clones of the administrator in order to act professionally. In contrast, this model purports that the leader should strive to learn staff members’ interests and strengths. These interests should be recognized in the staff member’s daily work and praised as components of vitality within the educational organization. Just as teachers should not treat students like automatons without individualized goals and interests, the leader should understand varied learning styles and interests found within the staff and faculty of the school.

**Experiential and Empirical Leadership**

The experiential construct of the FAPE leadership model refers to the administrator implementing teams to collaborate and share knowledge that is beneficial to shared students. Collegial teams build camaraderie and provide faculty and staff opportunities to use their experiential knowledge to provide input toward the direction of the school. This creates a greater feeling of buy-in and likely leads to reduced frustration and teacher attrition.

Empirical refers to the administrator deeply valuing research-based methods that promote productive behaviors by faculty, staff, and students. Empirical also refers to the administrator
using research-based curricula and instructional methods that create highly proficient learning environments for all students including those with special needs or who are at risk of school failure. This is especially important for students with special learning needs. Strategies such as the Strategic Instruction Model (SIM), which is based on over 25 years of research is one example of a strategy strongly supported by research. The SIM promotes “effective teaching and learning of critical content in schools. SIM strives to help teachers make decisions about what is of greatest importance, what we can teach students to help them to learn, and how to teach them well” (University of Kansas, Center for Research on Learning, 2011, para. 2). Marzano (2000) identified ten research-proven, effective instructional strategies that cut across all content areas and all grade levels (comparing, contrasting, classifying, analogies, and metaphors, summarizing and note-taking and non-linguistic representation). Administrators should ensure a school-wide implementation of all domains found in Bloom's Taxonomy (1956). There should be a holistic instructional ideology to promote the usage of all categories in Bloom's Taxonomy with students with special needs. Administrators need to stay continually apprised of best practices that are not instructional and curricular fads, but empirically grounded in peer-reviewed research. An educational leader needs to be the model of research-based practice that personifies this expectation for all faculty and staff members.

**Conclusion**

In conclusion, the FAPE administrator uses a facilitative approach that guides and coaches as needed to help employees find a pathway to success. This leader works to build emotional capacity between all members of the educational organization. This person is not seen as atop the pyramid, but part of the educational team who is collaborative and accessible to all faculty and staff. The FAPE administrator recognizes faculty and staff as individuals and empowers each person to strive toward self-actualization. Finally, the FAPE leader does not administer in a unilateral fashion, but collegially uses the resources of all staff members to make many decisions. Finally, the FAPE administrator stays informed to ensure that instruction and curricular choices are based on empirical evidence, rather than passing fads.

**References**


Working Towards Math Facts Mastery

Anne Durham

Abstract

Fluency in math facts is essential if students are going to be able to work through more complex math processes with ease. Most of my special education students arrived at middle school with limited skills. To help them achieve mastery with their multiplication and division facts, the intervention described in the article was conducted. Most of the students showed significant improvement in their abilities. The data shows the before and after positions of each student and discusses possible reasons why most did not develop these necessary skills while still in elementary school.

Introduction

Special Education students may either be included in the general education curriculum or placed in separate small group special education classes. Even though the inclusionary setting is preferable, there are students who are believed to lack the prerequisite skills necessary to succeed in that environment. The result is that those students still attend some classes in the resource room.

Fourteen members of two sixth grade special education small group pull out math classes participated in an intervention with the goal of achieving mastery of multiplication and corresponding division facts. Each of the students had an Individuals With Disabilities Education Act (IDEA) eligibility category and an Individualized Educational Program (IEP), but other than that, each was unique as far as learning styles, interests, family backgrounds, cognitive abilities, and social/behavioral challenges are concerned. The IDEA law of 1997 requires “that all students, including those with disabilities have access to the curriculum and that these students must participate in accountability measures, like statewide performance-based or standardized tests” (Jackson & Davis, 2000 p. 33.). The hope was that mastery of math facts would enable all the students to make progress toward grade level standards and make progress toward proficiency on mandated statewide tests.

Rationale/Significance

Many special needs students, by the time they reach middle school, already have a history of math failure. They doubt their ability to succeed, lack motivation, and often display negative attitudes. They see math as something that is neither enjoyable nor relevant to their lives. Therefore, appropriate attitudes and beliefs, along with motivation are important for the special education student to achieve mathematical success (Mercer & Mercer, 1998). Often, special needs students have not mastered basic math facts, and if students do not develop the background necessary for future math success they are in danger of becoming remedial students later on (Loveless, 2004). This is the situation with many special education students.
The development of number sense is necessary to learning basic math in the early grades. Number sense is a relatively new term in mathematics education and is defined as a conceptual framework of number information that helps people understand numbers, number relationships, and helps them solve mathematical problems (Way, 2005). A person’s ability to use and understand numbers is usually first taught informally by parents, siblings, and other adults. These early teachings are related to the later development of math problem solving skills and appear to have a socioeconomic correlation, with students from more affluent families displaying more highly developed number sense at an earlier age than students from disadvantaged backgrounds. Gersten and Chard (2001) found, that by age seven students with disabilities were able to recall fewer math facts than those without and the gap widened every year to the point of tripling by age twelve.

People acquire knowledge in different ways and less “scholastic” students are often deemed to be failures even if they can display understanding in less commonly accepted ways than standard academic assessments (Gardner, 1991). Special education math instruction must incorporate concrete, semi-concrete, and abstract activities in its efforts to ensure the success of all students (Mercer & Mercer, 1998).

Enjoyment of math and mathematical success has been positively linked. Supportive relationships both at home and at school are also important and can lessen student academic and emotional anxiety. In general, students who view themselves as competent and consider school important perform better than students who do not feel that way (Ahmed, Minnaert, van der Werf, et al, 2008). Regardless of how students achieve skills, basic math mastery serves as an equalizer, is necessary for advancement in math, and is a predictor of future adult earning (Loveless, 2004).

There are specific traits that when fostered, will help lead students with disabilities toward success. The first is that the student possess an awareness of his/her individual strengths and needs and have a willingness to freely discuss them without being defined by them. Students who wish to achieve success must be proactive instead of blaming others for their difficulties. They must persevere, even when it is difficult and understand the difference between failing at something and being a failure. They must receive help to set meaningful and achievable goals. Special needs students must possess and use effective support systems. They must know how to use emotional coping strategies (Raskind, 2009). The resilience of self-discipline, empathy, persistence, autonomy, a healthy outlook, positive expectations, and a sense of humor are the qualities of success for all people, students and adults in life (Gibbs, 2001).

**Methods/Procedures/Participants**

Fourteen special education students participated in a variety of activities meant to increase fluency in recalling multiplication math facts. Progress was tracked by the scores achieved on individual timed three minute drills during the second and third quarters of the school year. Drills initially consisted of one hundred ordered multiplication facts from one through ten. Once a student reached 80% mastery on the ordered drill, he/she progressed to a mixed version of the same facts. Upon reaching 80% on this version, he/she moved on to one hundred mixed...
corresponding division facts. Table A describes each student’s initial score and high score of the ordered drill. Only students who were present in class at the beginning of the intervention are included. Students with a ** after their names only participated sporadically and students with a ++ left the class before the project was completed.

Table A

<table>
<thead>
<tr>
<th>Student</th>
<th>Base Score</th>
<th>High Score</th>
<th>Difference</th>
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<tbody>
<tr>
<td>K</td>
<td>51</td>
<td>90</td>
<td>+39</td>
</tr>
<tr>
<td>D</td>
<td>45</td>
<td>84</td>
<td>+39</td>
</tr>
<tr>
<td>R**</td>
<td>37</td>
<td>60</td>
<td>+23</td>
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<tr>
<td>B</td>
<td>60</td>
<td>93</td>
<td>+33</td>
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<td>92</td>
<td>+38</td>
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<td>A</td>
<td>53</td>
<td>80</td>
<td>+27</td>
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<tr>
<td>S</td>
<td>40</td>
<td>82</td>
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<td>I</td>
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<td>88</td>
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<td>Ka</td>
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<td>82</td>
<td>+50</td>
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<td>St++</td>
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<td>82</td>
<td>+24</td>
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<td>G**</td>
<td>12</td>
<td>56</td>
<td>+44</td>
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<tr>
<td>Lo++</td>
<td>58</td>
<td>80</td>
<td>+22</td>
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<tr>
<td>Le</td>
<td>40</td>
<td>87</td>
<td>+47</td>
</tr>
<tr>
<td>Is**</td>
<td>28</td>
<td>59</td>
<td>+31</td>
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</tbody>
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Eleven of fourteen students regularly participated in the three minute drills. These students all met the proficiency level of at least 80%. The three students who participated only sporadically did not meet proficiency. The eleven proficient students went on to 100 mixed up multiplication facts with the goal of again achieving a score of at least 80%. The results of the mixed three minute drills are in Table B
Two of the eleven students achieved 80% mastery on the mixed multiplication drill. Two others, while not achieving mastery, showed a 50+ improvement in their skills.

Two students went on to the division facts. S began with 60% and left the class with a score of 72%. B started with a score of 9% and ended with 12%.

**Conclusions/ Reflection**

The three minute drill multiplication intervention was successful to the extent that every student who regularly participated was able to reach the target 80% mastery level in the ordered facts. Even though only two of eleven students mastered the mixed multiplication facts, every student made gains and in some cases, those gains were significant.

There was also score improvement on some of the state restructuring required benchmark tests. However, even though many of the students were able to demonstrate written competence, none could immediately recall verbally presented facts. They all required "think time". Progress also might have been more significant if more of the students had reviewed their facts outside of class.

The project is currently being repeated with new students and some changes but it is still too early in the year to know what the final results will be. Timed drills are being supplemented
with other activities, such as bingo, flashcards, and games. It is hoped that regular computer access will soon become available.

References


Abstract

Students with emotional and behavioral disorders (E/BD) and those with challenging behaviors are often served in alternative education (AE) settings due to behavior that interferes with their learning and the learning of others to a degree that warrants placement outside of the traditional, neighborhood school environment. Placement in AE settings, however, is temporary as it is expected that students will transition out of the AE setting and back to their neighborhood school. Therefore, it is necessary for district schools collaborating on the transition of students between alternative and traditional placements to plan for the successful integration or reintegration of students in the least restrictive environment. This paper details the collaboration of one school district considering the use of the school-wide positive behavioral interventions and supports (SWPBIS) framework to assist in the integration and/or reintegration of students with behavioral challenges from the district alternative school to traditional middle school and vice versa.

Students with emotional and behavioral disorders (E/BD) are characterized by behaviors that may negatively impact their social, personal, and educational performances. These inappropriate behaviors may be externalizing (e.g., verbal/physical aggression, noncompliance, disruption) and/or internalizing (e.g., withdrawal, depression, sleeping); all of which may interfere with the student’s learning or the learning of others within an environment. These internalizing and externalizing behaviors may provide the student with an inability to interact with others, to respond to expectations in the school environment, and may lead to possible aversive responses within the school environment (Lane, Barton-Arwood, Nelson, & Wehby, 2008). While students
with E/BD make up only 0.94% of the school population (U.S. Department of Education, 2002), they can demand a significant portion of teacher and administrator time as they commonly require increased management by classroom teachers, intervention from behavior specialists, and discipline contact with school administrators. According to the National Longitudinal Transition Study – 2 (NLTS – 2) conducted in 2001-2002, 44% of students expelled from school due to their inappropriate behaviors were students with E/BD (Wagner & Davis, 2006).

**Alternative Education Settings**

Responding to the unique and challenging behaviors presented by students with E/BD in educational settings often warrants placement of students in more restrictive, small group, or alternative educational (AE) settings which may include alternative schools, psycho-educational schools, day treatment settings, residential facilities, and juvenile justice facilities with many of these settings being involuntary placements. According to the U.S. Department of Education (2002), more than 50% of the 471,306 students with E/BD receive their education in an environment separate from their peers in general education settings. According to the National Center on Education Statistics (NCES, 2001) approximately 612,900 students, which is equivalent to 1.3% of the public school population, are served in AE settings (NCES, 2001) with 33% to 75% of these students having E/BD (NCES, 2001).

The number of students with E/BD in AE settings reflects an increase of 13% in AE placements over the last 10 years (U.S. Department of Education, 2002). These numbers may be impacted by the fact that there is no common, agreed upon definition of AE settings and school zero tolerance policies (Nelson, Jolivette, Leone, & Mathur, 2010). Therefore, much higher or lower numbers of students may be receiving educational services within these settings. A majority of the educational schools within AE settings are governed by a public school district through direct contact or via contract while others are accredited as standalone schools or districts within specific facilities (e.g., juvenile justice facilities). AE school settings can exist within a traditional school environment (e.g., a portion of a middle or high school building) with shared administrative leadership and school policies with the typical school or can function as a separate entity within a facility (e.g., day treatment, residential, juvenile justice) with a separate set of rules, policies, and administrators/staff (Jolivette & Nelson, 2010; Nelson, Sprague, Jolivette, Smith, & Tobin, 2009).

AE settings are nontraditional environments developed to assist those students who (a) are at-risk for school failure, (b) display chronic or intense inappropriate behaviors across environments (e.g., school, home, community), or (c) are not responding to the requirements of traditional education environments (Aron, 2006; Tobin & Sprague, 2000). Large urban school districts and those districts with minority and low socioeconomic representation are more likely to offer multiple AE options, as are districts in the southeast (NCES, 2001). According to Raywid (1994), AE environments can be classified according to three categories: (1) Type I: voluntary student placement that provides opportunities to focus on specialized content areas (e.g., Spanish immersion magnet school); (2) Type II: typically non-voluntary student placement in a setting to specifically address inappropriate school behavior as a means to reduce occurrences of suspension, expulsion, and/or dropout; and (3) Type III: typically non-voluntary student placement in a setting with a focus on rehabilitation of behavioral, mental, and academic deficits.
as a means to reintroduce the student back into less restrictive environments (e.g., residential, day treatment, neighborhood school). Students with E/BD are most commonly served in Type II and III environments which provide high levels of structure, monitoring, and supervision (Raywid, 1994). Historically, AE settings served adolescent students; however, due to increases in disruptive and violent behavior of younger students, AE settings are now serving all ages (Tobin & Sprague, 2000). AE settings of all types and across all age/grade levels are not permanent placements for students, but are temporary whether the length of stay is determined by the student and family, school administrators, or judges. Therefore, at some point, students in AE settings may transition back to their neighborhood school. As such, students with E/BD who are transitioning out of an AE setting into another educational setting should be afforded the same rights and services as their peers.

Transition Process

Successful transition is a process that requires the collaboration of many stakeholders, but transition may not be effective if not begun and continued from the first day in an AE setting. To ensure the successful transition of students with E/BD and other disabilities as well as those without disabilities, many AE settings have instituted an “exit at entry” transition process (Valore, Cantrell, & Cantrell, 2006). This means, the faculty and staff begin the transition process during the intake process at the AE setting. This approach to transition is important in ensuring student success because it includes all stakeholders in the integration and re-integration process. By thinking “exit at entry” all stakeholders have the opportunity to provide the student with the necessary tools to be successful in their new educational setting. Through this holistic approach to transition, key members have the ability to effectively plan using the strengths of the student for the expectations and procedures for the new setting. For transition to be effective, all stakeholders must have the means for consistent communication across settings, so that new policies or procedures can be shared in advance to help ensure the information is passed down to the student. This process can be an asset for the successful transition of students with E/BD between AE settings and other educational settings.

The transition process affords a student and their family the opportunity to work closely with school staff in their current AE placement and the school staff in their future educational placement. This process typically includes three-steps with a purpose of successful integration (first placement in setting) and re-integration (placement for a second or additional setting) of a student from one educational setting to another. Though each school and AE setting implements the transition process differently, typically three steps are included: (1) preparation and planning, (2) school/facility integration, and (3) follow-up (Mellard, 2005; Valore et al., 2006). For preparation and planning, advocates from the home school and AE setting communicate specifics related to the upcoming student’s arrival and timeline. During this step, a student folder is created which highlights the student’s strengths and interests and a plan for improvement for the future educational setting. Usually, it is during this time that a liaison, which could be the school counselor or a court-appointed advocate, is identified from the new educational setting to communicate directly with the student about the upcoming transition. During the second step, facility integration, the transition planning team is formed to review the student’s IEP (Individualized Education Plan) and an integration (or re-integration) plan is created. Key members of a transition team may include the parent(s)/guardian(s), special educator, guidance
counselor, vocational teacher, alternative program staff, and the student. For students with E/BD the transition process also must include considerations for the behavioral, academic, and other pre- and post-school outcomes for the student (Carter, Trainor, Sun, & Owens, 2009; Owens, & Konkol, 2004). It is during the second step that special considerations are made for each student including individualized crisis plans, if needed. During the third step, follow-up, the student is observed in their new setting per the transition plan goals and objectives with changes to the plan made per the observation data collected, and the guidance counselor or advocate may schedule visits to speak with the student about their progress.

PBIS

The positive behavioral interventions and supports (PBIS) framework has many implications for use to successfully transition students from AE settings to neighborhood schools and vice versa. Specifically, the key PBIS components of systems, data, and practices (National Technical Center on Positive Behavioral Interventions and Supports, 2010; see Figure 1) may assist in the successful integration (or reintegration) of students with E/BD. These intertwined components provide the overarching support and framework for PBIS and include: (a) systems, this level are the aspects of PBIS which support school staff in the implementation of PBIS across the tiers; (b) data, this level provides a context in which all discipline and related to data are collected and analyzed as part of the decision-making process related to PBIS implementation and continuous data monitoring; and (c) practices, this level includes all the specific interventions, strategies, and methods which school staff implement as part of PBIS to support the needs of the students across the tiers. This paper addresses the presence of PBIS systems, data, and practices within a school district considering the use of school-wide PBIS (SWPBIS) for transitioning students between the district alternative school and middle schools.

District Example

As is with most serviced-based research, this paper ‘grew’ out of discussions and questions SWPBIS leadership team members had related to their SWPBIS efforts within a district near the end of their second year of SWPBIS implementation, review of their current data, and referral data for the district alternative school where students with E/BD and other challenging behaviors were often referred. The purpose of this paper is to use this discussion and questions posed as a district example of how leadership teams may use the PBIS framework of systems, data, and practices to improve the transition services of students from the alternative school back to their neighborhood school as well as between middle schools within the district.

Six middle schools and an alternative school within the same urban, southern school district participated in implementing SWPBIS for two years. Across the three years (baseline and two years of SWPBIS), the school district had an approximate total enrollment of 24,662 students with 11% of those receiving special education services and 70% of students eligible for free and reduced lunch. The ethnic/racial make-up included 73% Black/African American, 23% White, 2% Hispanic, 1% Asian, and 1% Multiracial. The average demographic information for the six middle schools per year included (a) enrollment: baseline (B) 837 (range, 575-1142), year 1 (YR1) 880 (range, 731-1136), year 2 (YR2) 814 (range, 650-1095); (b) free and reduced lunch: B 73.33% (range, 60-92), YR 1 75.17% (range, 56-95), YR 2 78.17% (range, 54-95); and (c)
ethnicity/race: African American 60.33% (range, 48-96), Caucasian 21.66% (range, 3-52), Other 3.67% (range, 0-8), YR 1 Black/African America 82.33% (range, 54-97), White 19.67% (range, 2-51). Other 3% (range, 0-8), YR 2 Black/African American 78.33% (range, 47-97), White 18.17% (range, 1-48), Other 3.5% (range, 0-8). Students who displayed chronic and/or intense inappropriate behaviors in one of the district’s six middle schools could be referred for services within the district’s alternative school which served approximately 2.4% of the district’s students each year. Their enrollment for baseline (B) was 258, year 1 (YR1) was 265, and year 2 (YR2) was 237. These enrollment figures were based on the district’s consensus FTE count and do not reflect the changing student (e.g., new students and those transitioning back to their neighborhood schools) population or increases in student enrollment (e.g., steady increase) throughout the school year. The free and reduced percentages were B 85%, YR1 91%, and YR2 91%; and ethnicity and race was B 92% Black/African American and 8% White, YR1 89% African American and 11% Caucasian, YR 2 93% African American and 7% Caucasian.

The six middle schools and alternative school received external support throughout the two years of SWPBIS implementation from external consultants and district coaches. These school SWPBIS leadership teams received support across the PBIS systems, data, and practices framework (see Figure 2). At the systems level, commitments from district administrators were secured with a district model of all middle schools to have the support of several district coaches identified with release time for ongoing training and time to visit and assist the middle and alternative schools monthly, and release time for school leadership teams (i.e., typically 6-11 members including an administrator in charge of discipline, teachers from each grade level, a special education educator, a non-teaching staff member) to participate in ongoing training activities. On-going activities were incorporated in bi-annual leadership conferences related to data and practices levels where new PBIS content and assessments were taught, individual school and district-wide PBIS data were reviewed and analyzed, and site visits were conducted that included meeting with leadership teams and conducting School-Wide Evaluation Tool (SET; Sugai, Lewis-Palmer, Todd, & Horner, 2001) assessments. At the data level, all the leadership teams (a) adopted and were trained on the School-Wide Information System (SWIS; May et al., 2000) to collect office discipline referral (ODR) data; (b) met bi-weekly to review discipline data and make decisions based on what the data indicated; and (c) annually reviewed multiple years worth of data (i.e., baseline, YR1 and YR2) to make decisions, set goals, and devise action plans. At the practices level, the leadership teams were initially trained in SWPBIS with planned and purposeful ongoing training activities focused on various strategies to be used at the universal tier.

As part of the ongoing system level activities during the leadership conference in year two of SWPBIS implementation, in which all the middle school and alternative school PBIS leadership teams were in attendance and reviewing their SWPBIS data analyses and recommendations (e.g., percent change in ODRs; administrator time saved in ODRs; student time saved; analyses of ODR patterns in months, types of problems, locations, times, referral staff, consequences applied; SET scores; tier percentages, etc.), members of the alternative school PBIS leadership team asked for (a) ideas to better understand how ODR data and SET data of the middle schools may influence the referrals of students to their school, and (b) to better help transition students from the alternative school back to the neighborhood middle schools since all the schools were implementing SWPBIS. A discussion among all attendees ensued with the addition to the
alternative school team’s second request to include transitioning of students between middle schools too since teams reported clusters of transient students transferring from school to school across the county. Additionally, team members discussed how the demographic characteristics of their school populations varied (e.g., smaller versus larger schools, SES percentages, ethnicity/race percentages) and presented many challenging issues. In addition, they discussed how their unique demographic characteristics may have influenced referral rates to the alternative school. Thus, the purpose of this inquiry began with the following questions: (a) which condition (baseline, SWPBIS year 1, SWPBIS year 2) yielded the least number of ODRs per student; (b) what is the correlation between the mean number of ODRs per student and the number of alternative school referrals; (c) what is the correlation between SET scores per year and the number of referrals to alternative schools; and (d) what school demographics lead to higher rates of mean ODRs per student and number of referrals to alternative schools? Then, specific ideas regarding district-wide systems, data, and practices related to the transition of students from the alternative school back to their neighborhood school and students from one middle school to another within the district were generated and shared with the leadership teams.

**Data Analysis**

Correlational research is not based on randomized clinical trials and therefore causal implications cannot be inferred (Thompson, Diamond, McWilliam, Snyder, & Snyder, 2005); however, correlational research describes the strength and direction of linear relationships between two groups with confidence and is utilized when addressing preliminary research questions with sound theoretical bases. Correlational research was combined with descriptive statistics to address the four research questions. Three primary types of data were collected: (a) mean number of ODRs earned per student per year, (b) SET scores per year, and (c) number of students referred to the alternative school per year. The mean number of ODRs per student was recorded by each school during baseline by reviewing archival records and in years one and two of SWPBIS implementation ODRs were recorded using the SWIS database. The SET data for each school were collected by four researchers trained on conducting the SET during baseline prior to SWPBIS and at the end of years one and two with SWPBIS being implemented. The SET score produces two numbers: the first is the score for the behaviors taught feature and the second is the composite score for all seven features of the instrument. The second SET score was used for data analyses as it represented all SET features. The number of students referred to the alternative school was recorded by the district at the end of each school year. Secondary data included race/ethnicity and socioeconomic status. The race variable recorded was the total percentage of minority students and socioeconomic status was measured by total percentage of students receiving free and reduced lunch services.

Data analysis for the first research question resulted in descriptive statistics presented in Table 1. The mean number of ODRs per student and corresponding standard deviation were calculated for each of the three years. Results indicate higher rates of ODRs per student during baseline without SWPBIS as would be expected. This number was lowest year two after two years of SWPBIS implementation. The mean number of ODRs per student year two of SWPBIS implementation was less than half of the mean number of ODRs during baseline. These results suggest SWPBIS implementation was effective in decreasing problematic student behaviors.
To address the second research question regarding the relationship between the number of ODRs earned per student and the number of alternative school referrals, correlation coefficients were calculated (see Table 2 for correlation coefficients and significance). A significant, positive correlation was found between the mean number of ODRs per student during baseline and the number of alternative school referrals during baseline, \( r(4)=0.97, p<0.005 \). This result suggests a strong, positive relationship exists between the number of ODRs earned per student and the number of referrals to the alternative school in that as the number of ODRs increase, the number of referrals to the alternative school correspondingly increase. No significant correlations were found between the number of ODRs per student and the number of alternative school referrals for years one or two of implementation \( (p<.05) \).

Correlation coefficients were calculated for the third research question examining the relationship between the schools’ SET scores and the number of students referred to the alternative school (see Table 3 for correlation coefficients and significance). A statistically significant negative correlation was found between the schools’ SET scores year two and the number of students referred to the alternative school that year, \( r(4)=-0.83, p<.05 \). This significant negative correlation suggests a higher SET score correlates with lower rates of referrals to the alternative school. Results from correlation calculations for year one did not result in significant correlations \( (p<.05) \). Overall, the results suggest that implementation of SWPBIS with high fidelity results in lower numbers of student referrals to alternative schools for students attending the typical middle school.

Correlation coefficients were calculated for the fourth research question examining the relationship between school variables (i.e., race/ethnicity percentages, free and reduced lunch percentages, number of students, number of ODRs, number of alternative education referrals; see Table 4 for means, standard deviations; and Tables 5 and 6 for correlation coefficients, and significance). Results indicated that there were no significant differences when comparing (a) ethnicity-race/number of ODRs/number of students each year; (b) ethnicity-race/alternative referrals each year; (c) free and reduced lunch/number of ODRs/number of students each year; and (d) free and reduced lunch/alternative education referrals each year \( (p<.05) \). These results suggest no relation between school variables and referrals to the alternative school.

**Implications for Practice**

Using the PBIS framework with the *systems, data, and practices levels*, suggestions related to (a) increasing fidelity of SWPBIS implementation and (b) the transition practices between the alternative school and district neighborhood schools or between one neighborhood school within the district to another were made. The ideas and suggestions below may be applicable to other SWPBIS leadership teams depending on their current *systems, data, and practices* as well as ODR and fidelity data.

**Increasing Fidelity**
First, each leadership team was to plan ‘booster’ sessions based on predictable patterns of behavior related to data from the current and past year. These ‘booster’ sessions should be specific to the needs of each school but did include topics such as expected behavior during statewide testing days, expected behavior and reinforcement system upon return from school
holidays, staff meetings with time dedicated to review of operational definitions of behaviors for which students may accrue ODRs (e.g., difference between disrespect and disruption, difference between classroom-managed and office-managed behaviors), and grade level discussions with new goals based on the most current grade level data. Second, leadership teams were to create or review their teacher/staff reinforcement systems for accurate implementation of SWPBIS to address staff motivation for implementing with fidelity. A few of the middle schools did not have a teacher/staff reinforcement system so they could meet with team members from other schools to learn about their teacher/staff reinforcement systems, to hear what had improved teacher/staff behavior and what was not as effective, and to gain ideas of how to ask community partners and businesses for support (e.g., for either teacher/staff reinforcement, student reinforcement, or both). For those who had existing teacher/staff reinforcement systems for accurate implementation, discussions could occur related to the effectiveness of the current system, ‘tweaking’ of tangible reinforcements with the addition of more privilege and status items, and action plan items with specific goals of implementation linked to school discipline goals added. Third, for the few schools whose SET fidelity score fell below the minimum 80/80 score those teams were asked to (a) prioritize the features with low scores to target, (b) create action plans to address each feature, (c) plan a ‘booster’ staff buy-in activity, and (d) schedule another SET to be conducted near the end of the school year. In addition, all the schools were encouraged to schedule appointments with their PBIS coaches for additional supports as they addressed fidelity issues or other school-specific SWPBIS issues.

Improving Transition Practices

At the systems level, several suggestions were made that involved district and school personnel which could be embedded within their current SWPBIS district efforts. Monthly ‘lunch bunches’ were encouraged that focused on: (a) creating a SWPBIS sense of community among the participating schools by bringing together a member of each leadership team at a PBIS school, (b) sharing SWPBIS implementation data and practices along with what is working well and what ideas have not worked, (c) discussing common district issues which may affect SWPBIS implementation and how to possibly address them, and (d) discussing practices that may be helpful in transitioning students to and from the alternative school to other PBIS schools within the district across middle schools. Related to transitioning of students for integration and reintegration to and from the alternative school and other schools within the district, it was suggested that information be shared on current practices used by school administrators which widely varied from school to school, ideas of practices not in place but possibly worth trying, and how to better communicate SWPBIS implementation plans per school. Some of the system level ideas suggested for implementation district-wide related to transition included: (a) brief neighborhood school administrator/teacher/staff visits with students at the alternative school on a scheduled basis, (b) students at the alternative school being invited to public after-school and weekend events at their neighborhood school (e.g., sport events, dances), and (c) purposeful PBIS communication across all schools to include public postings on the school websites of their respective SWPBIS data and practices for accessibility (more details in the ‘practices’ section).

At the data level, many suggestions were made to improve and unify the transition processes within the district. A common issue raised by staff at the alternative school was the delay in receiving student records even after the student was enrolled in the alternative school, and this
delay sometimes extended several weeks. Since the district adopted SWIS as a means to collect behavioral data for SWPBIS, the suggestion was for the referring school to provide the alternative school with a custom student SWIS report with a few supporting documents on the day of enrollment and when a student transitioned back to a neighborhood school, the alternative school would do the same. This way, either school would have current discipline data and tentative plans to continue to implement and monitor student behavior. To address feasibility of this idea as well as what data may be included, the following recommendations were made pending further discussion with the leadership teams and district approval: (a) a custom SWIS report would contain ODR data (e.g., average monthly referrals, types of problem behavior, location of problem behavior, time of day of problem behavior, peers/staff involved, and the consequences for the problem behavior); (b) a brief summary of the data (e.g., predictable patterns) along with intervention/strategies in placed or tried; (c) a copy of any current IEP or behavior plan; (d) a copy of a transition synopsis (e.g., may be from student IEP) for future reentry to the neighborhood school; and (e) a contact person at the referring school who will be assisting in the transition to and from the alternative school (e.g., this person would be kept up-to-date with services provided to the student while at the alternative school and invited to progress meetings with the student and alternative school staff member). Also, a brief summary of the incident(s) leading to the final decision to enroll the student in the alternative school would be included. In addition, the above information could be emailed or faxed to the contact in the alternative school on the day of enrollment. It is critical the alternative school have these data so that appropriate services and tiers of support can be provided to the student upon entry as well as planning for exiting to occur.

At the practices level, many specific suggestions were made to assist in the transition process which the individual school leadership teams could create, implement, and share. First, each leadership team could create an electronic SWPBIS notebook for public sharing at the school as well as on the internet on their school website. The purpose of this electronic notebook is to promote access to SWPBIS information and processes for all those in the district who may need it, especially for those in charge of transitioning students to and from the district’s schools. The notebook could include the following: (a) the SWPBIS rules and acronym, (b) the behavioral teaching matrix, (c) team member contact information, (d) pictures of SWPBIS bulletin boards, posters, and other prompts, (e) copies of lesson plans per SWPBIS rule, (f) a description of the student reinforcement system, and (g) any other information the team wanted to share. Second, the leadership team could create a one page, two-sided flyer with all the highlights of their SWPBIS for sharing with parents of the students in their school, sharing with all the other middle schools and the alternative school implementing SWPBIS, and posting as a link on their website. This flyer also could serve as a means to educate students and their parents during the transitioning process to a new school. Third, it was suggested that a ‘transition lunch bunch’ be implemented a couple of times per semester. During that lunch bunch, a member from each school who has a role in the transition process would meet. Possible meeting topics throughout the year may include: an initial meeting for all PBIS schools to share their SWPBIS practices, with follow-up meetings to (a) discuss how the alternative school SWPBIS is similar to and/or different from the other schools for teaching purposes, (b) update the current data regarding the number of students at the alternative school and any referral behavioral patterns of these students to possibly address in the neighborhood school environment (e.g., specific behaviors), (c) schedule visits with students, and (d) discuss ways in which to teach students who are
transitioning the behavioral expectations of their new school. Building from idea’d’, the team members could share with one another how they teach their SWPBIS expectations and provide specific examples per environment for each rule. This sharing provides a venue for the alternative school staff to explicitly teach and prepare students for transition by pointing out similarities and differences of the alternative school SWPBIS with their new school. Fourth, it was suggested that as the actual transition time nears students at the alternative school visit their new school for a day with a peer mentor. For the student in the alternative school and the peer mentor this privilege may be built into the SWPBIS reinforcement system.

In this district example, SWPBIS was the focus; however, other districts may be implementing PBIS across the three tiers. In those cases, additional practice level suggestions may be recommended as a means to support the transition of students. For example, some students with E/BD transitioning from an alternative school to a neighborhood school may require support above and beyond the universal PBIS tier for a successful transition. The leadership teams should share what secondary- and tertiary-tier interventions their schools provide and add this information to their electronic PBIS notebook.

Practicality of Suggestions for Students with E/BD or Challenging Behaviors

The above system, data, and practice level suggestions should be appropriate and feasible for students with E/BD or challenging behaviors as they transition within a district to or from an alternative school or from one school to another. At the systems level, students with E/BD already have a team of adults (i.e., an IEP team) advocating for and working with the student and family to improve academic and social outcomes. One of the team members would be an appropriate transition liaison may be who can assume a role at the lunch bunch and/or remain in close contact with the student while he/she is at the alternative education school. At the data and practice levels, data are continuously being collected on students with E/BD related to their academic and social progress and monitored by their IEP team. With these data already collected, it is a matter of synthesizing and sharing the data with the new school which could be a responsibility of a member of the IEP team. Also, students with E/BD may be being provided multiple interventions and strategies as part of their IEP or behavior support plan. Sharing of the methods and effects of these current practices should be part of the transition plan for students with E/BD and a responsibility of an IEP team member. In addition, the explicit instruction of SWPBIS policies of the new school prior to enrollment, when possible, could be helpful to students with E/BD who may benefit from clear examples and non-examples as well as time to process and internalize the new expectations.

Conclusion

Considering students with E/BD are served in temporary AE settings at the highest rates, transition is of significant concern. Transition should be addressed at the start of a placement in an AE setting – “exit at entry” planning, and can be embedded within the SWPBIS framework, including systems, data, and practice levels. These levels offer numerous implications for practice when addressing the transition of students from neighborhood to alternative schools, transition between schools within a district, and reintegration of students in neighborhood schools within districts who have adopted SWPBIS district-wide.
References


About the Authors

Dr. Kristine Jolivette is an Associate Professor at Georgia State University in the Department of Educational Psychology and Special Education. Her research interests include children and youth with emotional and behavioral disorders, positive behavioral interventions and supports across the tiers, proactive and preventative interventions for use with youth in alternative and juvenile justice settings.

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Table 2

*Correlation Coefficients and Significance for ODRs and Referrals*

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<td>Ref YR 2</td>
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Note. ODRs= average number of office discipline referrals per student, Base.= Baseline, YR= year, Ref= alternative school referrals, *=p<.05, **=p=.00
Table 3

**Correlation Coefficients and Significance for Referrals and SET Scores**

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*Note. SET= SET score, Base. = Baseline, YR= year, Ref= average number of alternative school referrals*
Table 4

Means and Standard Deviations for SES and Race

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Note. SES= socioeconomic status
Table 5

*Correlation Coefficients and Significance for Race*

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Note. Ref. = number of referrals to alternative school, ODRs = average number of office discipline referrals per student, Base. = Baseline, YR = Year
Table 6

_Correlation Coefficients and Significance for SES_

<table>
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*Note. Ref= number of referrals to alternative school, ODR= average number of office discipline referrals per student, Base.= Baseline, YR= Year, SES= Socioeconomic status*
Figure 1

*PBIS Systems, Data, and Practices Framework*

Source: National Technical Center on Positive Behavioral Interventions and Supports; www.pbis.org
Figure 2

District Middle School Example of Multi-Year Training and Supports Across Systems, Data, and Practices

- Commitment from Superintendent for several years
- District-wide (all middle schools & alternative school)
- District-wide coach visits 1-2 times per month
- Release time for PBIS Leadership Team trainings

- All schools adopted School-Wide Information System (SWIS) for data collection
- School-wide Evaluation Tool fidelity collected year 1 pre/post, year 2 post
- Annual comprehensive progress reports with recommendations
- Outside entity support with data-based decision-making strategies

- SW-PBIS based on PBIS framework training of 5 steps
- Effective teaching practices and strategies linked to data-based decision-making
- Purposeful training (Teams: initial, bi-annual; Coaches: monthly support meetings with other coaches, support from outside entity, advanced data & practices training; Schools: monthly visits, data analyses, problem-solving in real-time from outside entity)
**Students with Obsessive Compulsive Disorder Participating in Recess**

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**Abstract**

The participation of a student with Obsessive Compulsive Disorder (OCD) in recess can often be both challenging and rewarding for the student and teacher. This paper will address common characteristics of students with OCD and present basic solutions to improve the experience of these students in the recess setting. Initially the definition, symptoms, and prevalence of OCD will be presented. The paper will then address the special education classification of children with OCD, benefits of recess for children with OCD, and recommendations for these children in recess.

**Definition, Symptoms, and Prevalence of OCD**

OCD is a disorder in which the individual experiences unwanted obsessions, repetitive thoughts, and impulses that the individual tries to ignore or suppress. Obsession commonly leads to compulsions which are repetitive rituals that a person cannot resist performing. Some examples of compulsive behaviors are complex cleaning rituals, repeating words, and touching a doorknob to make sure it is locked. People with OCD often fear that if they do not engage in their compulsions, they or their loved ones will be plagued by a catastrophic event. Though the compulsion may sometimes be resisted, it often causes anxiety which is only relieved by the compulsive action (Hawkins & Young, 2011).

The lifetime prevalence of OCD is around 2.5%, occurring in males and females equally (Hawkins & Young, 2011). The onset for OCD in males is generally 6-15 years and 20-29 years for females, but can occur earlier, a point very important to this paper. The onset is usually gradual and the course of OCD tends to be “chronic with waxing and waning of symptoms” (Hawkins & Young, 2011). About 15% of individuals with OCD experience a progressive decline in occupational or social functioning (Hawkins & Young, 2011). The decline of social functioning is often because their compulsions become extremely severe and time consuming.

**Special Education Classification of Children with OCD**

The Individuals with Disabilities Education Act (IDEA) states that children who are determined to have disabilities under one of twelve categories, receive special education if the condition negatively affects the educational performance of the child. One such
category, which includes a variety of specific disabilities, is *emotional disturbances* (ED). ED is defined in IDEA as follows:

"(i) The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance:

(A) An inability to learn that cannot be explained by intellectual, sensory, or health factors
(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
(C) Inappropriate types of behavior or feelings under normal circumstances.
(D) A general pervasive mood of unhappiness or depression.
(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance" (CFR §300.7 (a) 9) (IDEA, 2004).

The category ED includes a variety of specific disorders. One such disorder that has often been considered in this category is OCD. It is interesting to note that since OCD is neurobiological in nature, as opposed to emotional, classification under the category of Other Health Impairment (OHI) is considered by some to be more appropriate (OCD Education Station, 2012). OHI is defined in IDEA as follows:

IDEA states that:

*Other health impairment* means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that—

(i) Is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome; and

(ii) Adversely affects a child’s educational performance. [§300.8(c)(9)] (IDEA, 2004)

As noted, one can make the point for classification of OCD under the categories of ED or OHI. The most important point for the reader to understand is that the disability, if it affects educational performance, is justification for special education services, regardless of specific classification.
**Benefits of the Recess Setting for Children with OCD**

Simply stated, the benefits of the recess setting are high for all children. These include a variety of physical and social benefits. In terms of physical benefits, studies have shown that recess leads to the following:

- Improvement of out-of-school activity levels – children usually are involved in physical activities on days in which they participate in in-school physical activities (Dale, Corbin, & Dale, 2000).
- Improvement of general fitness
- Improvement of endurance levels (Kidshealth.org, 2009)

In terms of social benefits, recess has been shown to lead to the following social skills:

- Conflict resolution
- Cooperation
- Taking turns
- Sharing
- Problem solving in situations that are real

All of these benefits are very important for the student with OCD because of the often decline in social functioning previously noted. Also, especially important in terms of OCD, is the fact that a large amount of exercise has been determined to be a natural and effective anti-anxiety treatment that helps to control OCD symptoms. Exercise allows the individual to refocus the mind when obsessive thoughts and compulsions arise. Exercise has been shown to have a variety of benefits such as relieving tension and stress, boosting physical and mental energy, and enhancing well-being through the release of endorphins, the brain’s feel-good chemicals (Helpguide.org, 2012).

**Recommendations for Children with OCD**

To achieve the aforementioned goal of participation in exercise through recess, a variety of items should be remembered for the student with OCD:

- Consume water before, during, and after exercise to avoid dehydration.
- Perform exercises that utilize large muscle groups
- Keep the exercise intensity at a moderate level. High-intensity exercise can cause pain as a result of dehydration - increase intensity with caution (Livestrong.com, 2010)

In addition to the suggestions noted above to help ensure a high level of participation and thus a release of tension and stress, boost energy level, and enhance well-being, the teacher also needs to be aware of actual specific modifications to the recess “setting” to make it more “comfortable” for the student with OCD. Such modifications include:

- Maintain a calm recess that reduces stress – which often makes OCD symptoms more prominent. Reduce any “surprises” to the class.
- Teacher should never punish a student for their OCD behaviors. It not only will not work, it can aggravate their symptoms.
• Teachers should respect the physical boundaries of a student who is afraid of germs. Many OCD people who are afraid of germs, become highly agitated when touched.
• Student should be allowed to take a break from recess activities when it is compounding their symptoms and making them worse (Bright Hub Education, 2012).

**Conclusion**

The participation of a student with OCD in recess can often be both challenging and rewarding for both the student and teacher. The rewards can manifest themselves in the student refocusing the mind when obsessive thoughts and compulsions arise, relieving tension and stress, and boosting physical and mental energy levels. This paper has hopefully addressed some basic concerns and solutions to improve the recess setting of students with OCD (National Dissemination Center for Children with Disabilities, 2010).

**References**


Current Issues in Teaching Bilingual Children with Autism Spectrum Disorder

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Abstract

This paper presents a narrative review of the literature at the intersection of bilingualism and practices for teaching children with Autism Spectrum Disorder (ASD). We highlight the gap in the empirical literature about instructional practices for young bilinguals with ASD. Special attention is given to the monolingual ASD and multicultural special education literatures for shared evidence on designing interventions for bilingual children with ASD. Implications are discussed for special educators who may not speak one or more of the world languages of the child.

Current Issues in Teaching Bilingual Children with Autism Spectrum Disorder

Current Issues in Teaching Bilingual Children with Autism Spectrum Disorder: Although many studies have been conducted regarding teaching children with Autism Spectrum Disorder (ASD), there are few that address the bilingual child with ASD. In fact, more often than not, the adjective bilingual is not used to describe the child with ASD, but rather the family or environment. Autism Spectrum Disorders (ASD) are defined and characterized by atypical language development, social interaction, and idiosyncratic behaviors, including preservative and repetitive repertoires. Considering bilingualism, the well-known Interdependence Hypothesis (Cummins, 1979) proposes a minimal level of proficiency in the first language (L1) as a precursor for success in the second language (L2), based on a shared foundation for academic/cognitive skills.

Within a sociolinguistic framework, Wei and Moyer (2008) give special attention to the unique abilities of bilingual speakers to draw upon past experiences and attitudinal judgments when making moment-by-moment pragmatic decisions during communication with both monolingual and bilingual listeners. This theoretical framework is especially useful for approaching the literature on teaching procedures for children with ASD that consider bilingual complexities not only within a child as mechanism strengths and weaknesses, but also in terms of her/his language history and life participation needs.

Teaching Practices in Monolingual ASD

Numerous treatment studies have been conducted with monolingual, mostly English-speaking, children with ASD. Traditional ASD intervention has focused on increasing the child’s ability to focus and sustain attention to a presented task (Patton & Watson, 2011) in order to provide skills that the child will need in various educational settings. Some of the common teaching methods used when working with ASD students include: highly supportive teaching environments; low staff-to-student ratios; plans for generalization;
interventions to promote language and communication; predictable and routine schedules; behavioral approaches to address challenging behaviors; supports to facilitate program transitions; and, parent involvement (Wetherby & Prizant, 2000). Patton and Watson (2011) suggest educators develop an evidence-based practice tailored to each individual child.

Applied Behavior Analysis (ABA) is an evidence-based practice widely accepted and implemented by teachers and therapists across the U.S. (Alberto & Troutman, 2009). With this approach, the child with ASD is trained to focus his/her attention of the stimuli presented with an expectation of a response from the child, developed from historical behavioral studies of stimulus-response.

The symbolic deficits and non-verbal outcomes for many children with ASD have led researchers to examine several augmentative/alternative communication (ACC) possibilities. As a common example of ACC, the Picture Exchange Communication System (PECS) was developed as an intervention to teach functional and intentional communication through aided symbols (Frost & Bondy, 1994).

Another traditional intervention approach to working with students with ASD is the implementation of social stories based on work by Gray and Garand (1993). With this approach, children are provided with a visual and auditory means for introducing social concepts. It should be noted that these stories are very culturally based, in both the representation of a specific situation and the expected behavior in that situation. Some cross-cultural literature exists on the nature and beliefs about ASD (e.g. Tincani, Travers, and Boutot (2009), suggesting inter- and intra-cultural modifications to the strategy should be expected.

Method

The goal of this review is to find relevant research on intervention practices for bilingual children with ASD. To locate this literature, we searched the electronic database Academic Search Premier by key-word mapping and combining the terms teaching (or instruction, intervention, treatment), bilingualism (or multilingualism, second language, English as a Second Language, English Language Learners) with Autism (or Autism Spectrum Disorder, Aspergers Syndrome). For all searches, wildcard characters were used to identify terms varying by spelling, root of the word and alternate word endings. The search field was narrowed to “Title, Abstract” or “Subject Headings.” For publications meeting our intent, we then searched within-text citations for additional references.

After eliminating duplicates, 19 articles were deemed relevant to investigating the current issue of teaching practices for bilingual children with ASD. The articles were divided into the following categories: ASD in bilingual populations (N=5); original-data studies on bilinguals with ASD (N=5); and, multicultural considerations for working with ASD (N=9).
Results

ASD in Bilingual Populations

Identification Differences. As in most areas of disability studies, it is difficult to characterize empirically-driven best practices with diverse populations. This is due to the complexity of gathering accurate, valid, and reliable data from population with diverse language input and use histories. Several studies address cultural sensitivity in ASD assessment. For example, research has been conducted to identify ASD in the Hispanic population in Texas by looking at socioeconomic factors impacting educational identification (Palmer, Walker, Mandell, Bayles & Miller, 2010). Other studies (e.g. Manning, Wainwright & Bennett, 2010) have explored family adaptations to having a family member who has been diagnosed with ASD. Diagnostic instruments used with Hispanics in Texas were addressed using the Autism Diagnostic Observation Schedule (ADOS) and the Autism Diagnostic Inventory-Revised (ADI-R) to determine reliability in this specific population (Overton, Fielding & de Alba, 2007). Schneider and Hopp (2011) discussed the use of the Bilingual Aphasia Test to determine the language functioning of bilingual children identified with ASD.

Linguistic Environment. The impact of bilingual exposure on language learning has not been experimentally studied in children with ASD, although no additional risk is expected. In a review of records, Hambly and Fombonne (2011) studied the correlation between bilingual exposure and the social and language abilities of children (Mean age = 56 months) with ASD by comparing profiles among bilingual (n = 45) and monolingual (n = 30) families. The bilingual children were categorized into simultaneous and sequential dual language exposure groups. Holding language exposure constant, results were significant for interpersonal social skills as measured by the Vineland Adaptive Behavior Scales. There were no significant group differences in language performance. The study provides preliminary evidence that bilingual/multilingual environments do not contribute to additional delays in language development outside those symptomatic of ASD.

Original-data Studies on Bilinguals

The core features pertaining to cross-cultural research and cultural sensitivity deserve attention to expand the scope and practice of special educators and clinicians working with bilingual children. Although prevalence rates are on the rise, approximately 1 in 150 children in the U.S. are behaviorally diagnosed as having ASD (Smith & Tyler, 2010). Notwithstanding cultural differences, early screenings, language intervention, and positive behavior support, however, may lessen the negative impact of ASD.

Intervention for Bilingual Language Impairment. While a recent review of the literature (Kohnert & Medina, 2009) identified 32 between-group studies investigating assessment practices for bilingual learners with language impairment, only three case studies and one group study examined treatment outcomes with this population (see Perozzi, 1982; Perozzi, 1992; Thordardottir, Weismer, & Smith, 1997; Tzivinikou, 2004 as cited in Kohnert & Medina, 2009).
Language Intervention for Bilingual ASD. Seung, Siddiqi and Elder (2006) described a longitudinal case study of the ongoing assessment and home-based intervention for a young boy using Korean-English bilingual speech-language services from age 3 years 6 months through age five. Intervention was provided twice weekly in the home language, Korean, for the first 12 months by a Korean-English bilingual speech-language pathologist. During the next six months, English was gradually introduced, then used almost entirely during the last six months of intervention. The authors also describe parent-clinician collaborations for treatment planning, with results indicating positive expressive and receptive growth in both languages, supporting the idea of using the home language as foundational to second language learning for children with ASD.

Multicultural Issues in ASD
In the U.S., English is the language for academic and long-term advancement. Still, a first language is often the glue that binds parent/child relationships. Recent immigrants learn the importance of English quickly, but often at the cost of the first language within and across generations. Similar to typical bilinguals, language proficiencies are expected to fluctuate as a function of input and use in bilingual children with ASD. Brice and Roseberry-McKibbin (2001) highlight issues regarding assessment and instruction for dual language learners. The authors emphasize the question of choosing which language(s) for instructional purposes and the social aspects of being a bilingual, i.e. code-switching, community needs. Basic teaching strategies are given for the monolingual teacher who does not share the home language of her/his students, including audio-visual supports, hands-on learning, peer translation, and code-switching. In the same vein, Dopke (2006) instructs practitioners to ask child- and family-specific questions about language programming for children with ASD. Dopke highlights the lack of evidence suggesting children with ASD would be adversely affected by exposure to and expectations of using two or more languages. Instead, family-centered practice is suggested to address case-by-case decision making based on language history, input, and functional needs.

It is also important to explore the multicultural issues related to children with ASD from families outside the dominant Euro-American (i.e. English-speaking) culture in the U.S. Culture-specific differences in prevalence rates, values, beliefs, nonverbal behaviors, and communication style are likely to influence how multicultural families might desire to raise their children with ASD, as compared to the common school-based goals for independence and vocation in U.S. society (Dyches, Wilder, Sudweeks, Obiakor, & Algozzine, 2004; Tincani, Travers, and Bouthot, 2009; Wilder, Dyches, Obiakor, and Algozzine, 2004). Finally, Kremer-Sadlik (2005) examined the consequences of not being bilingual for children with ASD with both family and community language needs.

Discussion and Conclusion
Testing components of a social and language training for bilingual children with ASD remains relatively unexplored. Although several professional articles have been published regarding bilingual children with ASD, the authors of this literature review found few original accounts of teaching strategies to use with these bilingual children. According to
the evidence base, the preliminary guidelines for training language choice and social skills in bilingual children with ASD are based on one empirical study (Seung, Siddiqi, & Elder, 2006), a review of records (Hambley & Fombonne, 2010), and multiple expert opinions about the implications of multicultural teaching practices in ASD (e.g. Dyches et al., 2004; Wilder et al., 2004). Despite an intersection of the available literatures, it should be concluded that there is an overall lack of empirical knowledge in this area to guide special education of bilinguals with ASD.

In review, we have considered whether traditional interventions for language from diverse literatures is also appropriate for bilingual children with ASD from families and homes outside the dominant Euro-American, English-speaking culture. We emphasize the importance of communication with family members and the need for children with ASD to share the language(s) of their home. In this view, the family environment is the primary site in which a child learns all foundations of both social and language skills necessary for academic and social progress, even if in a different majority language (i.e. English as is the case in the U.S.). Since treatment of ASD is often driven by an individual’s needs, or in a case-by-case manner, clinical experts often see issues in multiculturalism and bilingualism as extensions of other findings, recommendations, and descriptions. To gain understanding of intervention effects on functional language learning, research is needed to examine ASD, while accounting for differences in bilingual children’s cultural and linguistic experiences. This includes, but is not limited to, language input and use history, the diagnostic profile, previous treatment experiences, and social regard of bilingualism. Future research in these areas is clearly warranted.

References


**About the Authors**

Amelia Medina, M.S. CCC-SLP, and Judy Salamon, M.A., CCC-SLP, are nationally certified speech-language pathologists with over 30 years of combined experience in early intervention, schools, and university settings. Ms. Medina specializes in assessment and intervention for bilingual children, while Ms. Salamon’s area of expertise is in Autism Spectrum Disorders research. Both authors are currently housed in the Department of Special Education and Communication Disorders, New Mexico State University, Las Cruces, NM.
An Evaluation of Inclusive Education of Students with Visual Impairment in Schools and University in Beira, Mozambique

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Abstract

Education of the visually impaired is associated with problems throughout the world. This problem is more pronounced in developing countries characterized by limited support, material, inadequate specialist teachers and negative attitudes towards people with visual impairment. The study sought to evaluate the implementation of inclusive education to the visually impaired in secondary and tertiary institutions in Mozambique. Questionnaires, observations and interviews were used in data collection. A sample of 110 respondents formed the study sample inclusive of students, teachers and lecturers. The study established that teachers were at different stages of concern. Most (68%) teachers seem to be on the stage of management on how best they can use available resources to make sure inclusive education works effectively. Additionally, some (22%) teachers are on the collaborative stage where they are ready to work for the success of inclusive education. Availability of support material and resources was seen falling below expected levels as most basic material is not provided for the learning of the visually impaired. Students (92%) with visual impairment acknowledged that they have problems of inadequate resources both material and human resources. It was recommended that teachers could be assisted to have an insight of providing brailed material and books to students by holding workshops and in-service courses about inclusive education issues. It is also recommended that most teachers be sent for extra training in dealing with the visually impaired in an inclusive setup.

Introduction

People with disabilities have often been subjected to unfair treatment (Hardman, Drew and Egan, 1999). This led to discontentment resulting in advocacy groups calling for equal opportunities of all people. Inclusion calls for equalisation of opportunities to all (United Nations, 1994) without discrimination especially to those with disabilities. The process of inclusion focuses on the system in order to make it welcoming to all people especially those disadvantaged by their disabilities. The United Nations General Assembly at its 48th session adopted the standards on the equalization of opportunities for persons with disabilities (United Nations, 1996:8). In education systems, the visually impaired need to be accommodated just like anywhere else. This calls for the
environment to be responsive to their needs, allowing them to learn with their peers and to fully participate in school activities. As a response, the United Nations Universal Declaration of Human Rights proclaim that human beings have equal and inalienable rights of human dignity and freedom of access to education and training to enable development of their abilities to their fullest potential (United Nations, 1996). The 1948 Bill of Human Rights considers education as a fundamental human right. The goal of education for all was also set by the United Nations at the 1990 Jomtein (Thailand) World Summit for children including those with disabilities (UNESCO, 1991:8). Additionally, the Salamanca Conference (1994) in Spain reinforced the provision of education to people with disabilities by encouraging nations of the world to provide appropriate education for all citizens with disabilities therefore advocating for inclusive education. Educationists today propound the principles of inclusive education as advocated by the Salamanca statement and framework for actioning of special needs education access and quality. The Salamanca statement encouraged the learning of people with disabilities in the same class as those without disabilities without discriminating them.

Mozambique is a signatory to the above UN conventions and agreements. Vayrynen (2000) pointed out that in Mozambique inclusive education was adopted as the principle in addressing the diversity of special needs of learners. For example, in 1990, the government of Mozambique signed the World Declaration on Education for All. In 1992 the Ministry of Education began devising a plan for the long-term development of basic Education. It affirmed its intention to strive towards the “Education for All” goals. The Government of Mozambique bases the inclusion of special education in its national policy stressing that there should be education for all without discrimination. The National Education Policy and Strategies for Implementation was passed in 1995, setting up special education as a key component. By 1998, the Education Sector Strategic Plan 1999-2003 (ESSP) was launched, followed by ESSP II in 2004 (UNESCO, 2008). The strategic plans emphasised that all children should have the right to education in any ordinary schools without discrimination on the grounds of disability. However, according to Tembe (2002), the implementation of inclusive education was actually initiated in Mozambique in 1999. The slogan was to combat exclusion, increase access to basic education and improve the quality of education to people with disabilities. This is illustrated by the quotation below (Tembe, 2002:2)

> the national policy concerning people with disabilities states that the education system must guarantee to the person with disability, in general and to people with special needs in education, in particular, access to and integration in specialised schools, paving attention to appropriate pedagogical, technical and personal considerations.

The above assertion implies that people with disabilities be allowed to enrol in schools and appropriate teaching methods used including support material needed by individuals with disabilities.
The Ministries of “Education” and “Health, Women and Social Action” were mandated to be in charge of special education, and tasked to establish support, monitor implementation, and define criteria for the opening, functioning and closure of special education establishments (UNESCO 2006). The Ministry of Education (2004) asserted that the main strategic lines for the development of special education are; promoting the principle of integration, through sensitising and mobilising regular schools and communities for the programme of integrated special education, training itinerant support teachers; supplying education materials and equipment; and designing flexible study plans for children with special needs education. Children whose level of disability is deemed less acute are to be placed in the mainstream schools where they receive special and individual care, while those with severe disabilities have to attend special schools. Using this dual system of education, by the end of the 1990s there were four special schools nationwide, two for the mentally disabled, one for the hearing impaired and one for the visually impaired (UNESCO, 2006). Though the government is trying to implement inclusive education the existence of special school undermines the success of special education as the two would seem to be competing.

The five main types of inclusion identified by Mnkandla and Mataruse (2002) are as follows: (i) location inclusion, (ii) inclusion with partial withdrawal from ordinary classroom settings, (iii) inclusion with clinical remedial instruction and (iv) unplanned de facto inclusion (v) total inclusion. With location inclusion, students with severe disabilities attend ordinary schools and are taught the national curriculum in a secluded resource room within the school. Inclusion with partial withdrawal implies the visual impaired are taught the core subjects of reading and mathematics in the resource room and attend regular classroom with the other students for social studies and other subjects. These students are given partial support in their learning. Students served through inclusion with clinical remediation take the full curriculum in ordinary classrooms and receive clinical remediation as needed. The remediation targets the student’s specific learning difficulties. The last type of inclusion is unplanned or de facto inclusion. With unplanned inclusion, students with visual impairment are exposed to the full national curriculum in regular education settings. In Mozambique students are exposed to full nation curriculum in regular schools that is unplanned or de-facto inclusion. However, inclusive education for the visually impaired is associated with problems the world over. These problems are more pronounced in developing countries characterised by limited support materials, inadequate specialist teachers and negative attitudes towards people with visual impairment (Kisanji, 1999).

Inclusion can be ascertained using the various Stages of Concern. Hord et al (1987) defines concerns as the composite representation of feelings, preoccupations, thoughts and considerations about a particular issue or task. This implies that concerns have to do with how we perceive different issues and situations depending on past experiences. Hord et al (1987) further points out those concerns about the innovation were proposed in the CBAM as one of the key diagnostic dimensions that change facilitators should consider in designing interventions. After refining the Stages of Concern in the 1970s a set of seven stages of concern was verified to occur in teachers, teacher educators and students. The stages of concern are; stage 0: awareness, stage 1 : informational, stage 2: personal,
stage 3: management, stage 4: consequence, stage 5: collaboration and stage 6: refocusing (Hord et al 1987). The awareness stage is concerned with the “I am not concerned about it”, the informational is concerned with “wanting to have more information”, personal stage is concerned with “how will using it affect me”, management is concerned with “I seem to be spending all my time getting material ready”. The consequence stage is concerned with “how is my use affecting learners?”. How can I refine it to have more impact? Collaboration is concerned with how one can relate what he/she is doing to what others are doing and refocusing is concerned with having some ideas about something that would work even better. Self Concerns are found in Stages 0, 1, and 2; task Concerns is found in stage 3 and impact or results concerns are found in stages 4, 5 and 6.

The majority of United Nations members in developing countries adopted the Salamanca framework on inclusive education without proper backing of binding laws, or proper implementation and provision of necessary support systems for the full benefit of those with disabilities. However, information on the adoption of inclusive education at different levels of the education system is important for effective planning and implementation of this education policy. This baseline data is also important in providing an insight into how the countries meet the Salamanca declaration of education for all as well as for policy evaluation. In this context, this study stands to help teachers in improving teaching in areas they might not be paying attention especially for students with visual impairment. Additionally, pupils will benefit when the teachers make amendments on how best to deliver education to students with visual impairment. The study is important to heads of schools as they will be made aware of the necessary support systems that need to be provided by the school for the benefit of children with visual impairment.

Lehtomaki (2001) pointed out that in Mozambique, national evaluation on the extent of inclusive education has not yet taken place primarily because of resource constraints. It is within this context of inclusion that this study was carried out with the aim of establishing the levels of inclusion, constrains associated with, and impediments to implementing inclusive education, especially for the visually impaired in selected secondary and tertiary institutions in the City of Beira, Mozambique. The sub aims of the study were to: establish the main components of inclusive education, determine the kind of support given to teachers, schools and the visually impaired; establish the stages of concern of teachers, non- visually impaired and the visually impaired students towards the learning of the visually impaired in an inclusive set up and establish the innovation configurations of the inclusion of the visually impaired children in different institutions.

Data and Methodology

Study area
Beira is the second largest city in Mozambique located in the central region in Sofala Province, at the mouths of the Pungwe and Buzi Rivers. Located in the central part of Mozambique along the Indian Ocean coast line (Figure 1), Beira was founded in 1891 as headquarters of Mozambique Company (“Companhia de Moçambique”) on site of an old Muslim settlement (Kyle, 1999; Silva, 2003). The city’s administration passed from trading company to Portuguese government in 1942 and then to independent
Mozambique in 1975 (Kyle, 1999). The port developed as a trade and transportation outlet for products of Central Africa as well as a transhipment point for coastal cargo. Currently, it also serves as an ocean terminus for railways from South Africa, Zimbabwe, Zambia, Congo, and Malawi, and is the main port for Zimbabwe and Malawi. Principal exports passing through Beira are metal ores, tobacco, food products, cotton, hides and skins. Main imports are liquid fuels, fertilizers, wheat, heavy equipment, textiles, and beverages (Mbendi, 2008). A fishing harbor, which includes canneries, processing plants and refrigerated stores, was constructed in Beira in early 1980s (Kyle, 1999). Together, these activities provide close to 80 percent of employment in Beira City. Figure 1 below shows the location of Beira city and the associated residential areas.

Figure 1: Location of Beira and associated residential areas

Beira city had a population of 412,588 people in 1997 and an estimated 439,264 in 2008 (INE, 2008). During the 1980s much of population increase was attributed to people moving away from ‘unsafe’ war ravaged rural areas to ‘safe’ cities. In 1970 the population of Beira was estimated at 113,770 people, 1980 (230,744), 1997 (412,588), 2007 (436,240) and by 2008 it is estimated to reach 439,264 people (INE, 2008). Additionally, during and after the civil war (1984-1992), heavy migration from rural areas into Beira resulted in on average a 90.8% increase in the city’s population and metropolitan area of Dondo. However, such phenomenal population increase has not been without consequences: unemployment, informal settlements, poor service delivery and environmental degradation are common features. This phenomenal population increase has also increased the number of potential students, especially those with
disabilities in need of education. To date Beira has xx secondary schools and xx universities. However, there are only two schools and one university was pupils with disabilities are catered for. As such this study was carried out in two Schools and a University where the visually impaired are enrolled. These are Samora Machel Secondary School, St Methews Samutembo Secondary School and Universidade Pedagogic.

Methods

The survey research design was used, which according to O’Connor (2006) captures the attitude or patterns of behavior. The design is associated with both quantitative and qualitative design commonly used in Social Sciences. The design is also simple and easy to understand (Leedy and Ormrod, 2005). The design was deemed appropriate in determining the innovation configurations, stages of concern (attitudes of teachers and students) and support strategies (resources and materials to use like Braille machines) in an inclusive set up for the visually impaired. The research instruments used in this study included questionnaires, interviews, and observations. To determine the stages of concern, the “Concern Based Adoption Model” questionnaire was used. Using non participatory observation and a checklist, the researcher observed both the teachers and students during the normal day working time and noted how inclusive education was practiced especially obtaining information on the innovation configurations using an observational guide checklist. Interviews were carried out with the lecturers and some of the teachers and responsible authorities to verify some of the data observed and obtained from the questionnaires.

Sample selection

For this study, our entire population consisted of all visually impaired students, their teachers and fellow students who learn with the visually impaired drawn from the two secondary schools and Pedagogic University. These were in constant and continuous contact with students who are visually impaired and hence know the problems, strengths and weakness of learning in an inclusive set up. Convenience sampling was used in data collection. Firstly, schools and the university were the visually impaired learn and these are the only institutions practicing inclusive education. Secondly, respondents from the selected schools and University were selected likewise, specifically targeting the visually impaired as well as those in contact with them.

Out of a total population of 290 potential respondents, 35% (110) were included in this study. The two secondary schools had about 20 teachers a piece in contact with students with visual impairment. On the other hand, the university has 10 lectures in contact with the visually impaired. A total of 10 teachers (half) from the two schools were chosen to take part in the study. All the lecturers (10) at the University were also selected to take part in the study. For students, there were five classes with an average of approximately 50 students per class. Approximately, one third from each class (18 students), were selected giving a total of 90 students. The total number of participants included in the sample was therefore 110 (10 teachers, 5 Lecturers, and 90 students) as shown in table 1 below:
Table 1: Sample selection for the research

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Selected</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>40</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Lecturers</td>
<td>10</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>Students</td>
<td>240</td>
<td>90</td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>290</strong></td>
<td><strong>105</strong></td>
<td><strong>36.2%</strong></td>
</tr>
</tbody>
</table>

**Questionnaires**

Questionnaires were adopted from the stages of concern by (Hord et al., 1987). The questionnaire had 35 items covering seven stages of concern configurations and support systems provisions. Thus the questionnaires covered the seven stages of concern for teachers and the five stages of concern for students. Also included on the questionnaires were the eight items for innovation configurations and support. The questionnaires were distributed to teachers and students who were not visually impaired. O’Connor (2006) stated that questionnaires have an advantage of being self-administered; allowing respondents to fill them out on their own.

**Observations**

Observations gathered information on how the students and teachers work in an inclusive classroom. According to Brown (2001) there are two types of observations, direct observation (reactive) and unobtrusive observation. In this study unobtrusive observation was employed and respondents were not informed that they are under observation. This allowed respondents not to change their behavior (Brown, 2001). Information obtained included methods of teaching. Observations also obtained information on the possible problems faced by the visually impaired in their learning in an inclusive set up. An observation guide check list was used to guide the researcher not to concentrate on issues deemed unimportant to the study.

**Interviews**

Face-to-face interviews targeted the visually impaired because of their inability to read print and hence could not respond to the self administered questionnaires. Structured interviews were used in this study, which restricted the researcher to concentrate on pertinent information relevant to the research, such attitudes towards the inclusion of people with visual impairment. Interviews are widely reported to yield high return (Trochon, 2006). Information obtained through interviews included finding out the attitudes and aspirations of the visually impaired in an inclusive setup, the problems encountered during their learning process, and derived benefits from learning in an inclusive environment. Additionally, information on suggestions to overcome problems the visually impaired came across in their learning process was also obtained. The involvement or non involvement of students in sporting activities was also sought as well as reasons for such choices.

**Data analysis**

Data collected under observation was described in the analysis on how teachers teach their visually impaired students and also if support is being given to inclusive learners.
Data on interviews was analyzed by considering the responses and interpreting on what students say about learning in an inclusive set up. Data on inversion configuration group was used by tallying the number of individuals that are high on each stage. This gave a picture of the range of the peak scores within a group.

**Results and Discussion**

**Qualifications and experience of teachers**

From questionnaires administered to teachers, results revealed that the majority (60%) of teachers are male and 40% are female. Generally, in everyday life, it is accepted that ladies are kind and loving. The dominance by man in teaching the visually impaired probably explains why teachers do not assist students individually with their learning.

Professionally most teachers are holders of Honours Degrees showing that they are well qualified. However, having a high academic qualification does not prepare the teachers for special requirements of the visually impaired. A qualification in special education, however, could have been more desirable in such an inclusive setup in order to offer the best possible services to the visually impaired. Warnock (1978) point out that it is vital for teachers to have defined responsibility for children with special needs. This means that having the right qualification in special education would make teachers take responsibility of their students.

On the other hand, most teachers have less than 10 years teaching experience. This naturally may translate to having little experience in handling different needs of learners and especially of the visually impaired. Students with visual impairment require special treatment in their learning. This point is raised by Kapp (1991) who asserts that life experiences of the visually impaired go in their own way which is totally different from those of the normal. This implies that experience in handling different cases of individuals can enable teachers to handle people with visual impairment in their classes by providing them the necessary learning material.

It was also established that all teachers are Mozambican nationals. Although they have reasonable experience these teachers do not have exposure on how other teachers from other countries conduct lessons in an inclusive environment. This has an implication of teachers taking the traditional way of thinking that people with disabilities are objects of pity resulting in not paying attention to their needs. There is need for exposure to teachers to visit places were inclusive education has been successfully implemented to have an insight of what they should do in their schools.

**Innovation configurations for teachers**

Teachers gave different views on what inclusive education (Figure 2). The different views could also affect how individual teachers implement inclusive education. Badza and Tafangombe (2008) assert that the process of inclusion focuses on the system and making it welcome to all people. If we consider views of teachers who say inclusion is learning of the visually impaired in an ordinary class without support. It implies that the system will not be well coming all as certain provision that remove the barriers in
learning are not considered. Teachers with such kind of thinking are the one who do not provide students with what they need in their learning. UNESCO (1997) adds that the systems should accommodate people with disabilities making the environment respond to their needs which is through the provision of support systems.

![Pie chart showing the percentage distribution of inclusive education models]

**Figure 2: Main components of inclusive education**

*Skills and ability to teach*

None of the teachers indicated that they can teach orientation, mobility and Braille writing. However 30% indicated that they could read Braille (Figure 3). The Ministry of Education directed that learners with visual impairment should follow the same curriculum as their sighted counter parts with the necessary adaptations and modifications. The adaptations and modifications are the ability to read and write in Braille. Inability to teach this skill disadvantages the students. Orientation and mobility is a very important skill which enhances independence to the visually impaired. Telford and Sawrey (1977) point out that one of the most difficult tasks is independent travel which can only be achieved if a student is taught orientation and mobility. Failure to teach such skills results in the visually impaired student depending on other people for mobility and thus depriving him/her of privacy. The inability to teach skills affected the teaching of social skills in schools and university.
Availability and use of appropriate teaching materials

Teachers indicated that none of them provided brailled books during the learning of the visually impaired. Also shocking was the revelation that teachers do not have access to, and hence do not bring concrete materials for teaching in their lessons. Even with sighted students it is recommended that teachers use pictures for students to understand concepts. One of the teaching methods ideal for the visually impaired for better understanding of learnt material is through the use of concrete material. As the sensory experience of the visually impaired is meaningful only to the extent to which it can be associated with the concrete material. Not providing concrete material in lessons deprives the student who is visually impaired to full gain knowledge gained primarily through hearing and touch. This was also proposed by Kapp (1991) who asserts that the child’s experiences should be associated with the concrete substances. This implies that use of concrete material is of much importance in the learning of the visually impaired. The foregoing statement is reinforced by Kirk and Gallagher (1983) who point out that the visual experience tends to unify knowledge in its totality. The visually impaired cannot obtain this unification in the absence of concrete experience which should be given through the use of concrete material in the teaching/learning situation. Observations were in agreement with findings obtained through questionnaires, that very little is done on the use of concrete media in the learning for students with visual impairment.

Data from questionnaires indicate that there are no Braille books for use by the visually impaired students. The absence of talking books was also noted. Observations also confirmed that teachers do not bring in brailed work or books for their students. This was again raised by students during interviews that they need brailed books or material to read as the teacher explains or reads with the other sighted students. Failure to supply these reading materials in Braille seriously puts the students with visual impairment at a disadvantage. Chakuchichi, Mapepa and Mutasa (2008) point out that children with visual impairment require the following as support material in their learning; Braille material, Audio aids, reading and magnifying glasses, voice enabled computers, balls
with bells and tactile audio sensitive environment. Thus the provision of these materials is essential in the learning of the visually impaired.

The visually impaired reading skills are through the sense of touch. What this means therefore is that if the student does not get reading material in Braille their reading skills are slowly destroyed as they will depend much on the sighted to read for them. Depending on other people to read for them removes the notion of equal opportunities to every learner in an inclusive set up. Other missing provisions are the supply of tape recorders. In the absence of brailed books they can play an important role when students reply explanations that were done by the teacher during lessons.

Observations also revealed that students were supplied with Braille paper and Braille machines for their writing. White canes were also seen to be in supply which is an essential tool in their orientation and mobility. Provision of these materials goes a long way to enhance the independence of students with visual impairment. When they show their ability to learn with the sighted this builds up their confidence and raises their self-esteem.

Teaching of social skills
On the question of social skills taught at school, 40% of teachers indicated that they teach interaction skills; none teach skills to keep friends and hygiene; 60% said they do not teach any social skills to the visually impaired (Figure 5). Due to loss of sight the individuals with visual impairment miss a lot of skills which are picked up by the sighted as they interact with the environment. For them to have acceptable social skills there is need to teach these skills. If skills are not taught it leaves a vacuum in the child’s development. Only 40% of the teachers indicated that they teach interactive skills. Teachings of these skills are not on the time table and are taught during interactions with students. This kind of teaching is encouraging as it uses real life situations. However, the skills training has to be put on timetable so that they can be properly taught to students. The absence of teaching these skills could also result from teachers not having the knowledge to teach these skills. Kirk and Gallagher (1983) point out that the special child must acquire the knowledge and skills, which will allow him/her to live a socially acceptable and independent life. This can be achieved through the teaching of social skills.
Sporting Activities and adaptations for the visually impaired

On the question of specific sporting activities the students participate in, teachers indicated that the majority (100%) of students with visual impairment take part in football activities while none take part in basket ball and chess. Some teachers said that visually impaired students get involved in athletics. However, findings from the interviews and observations reflect that students with visual impairment are mostly involved in football only.

All teachers indicated that the visually impaired use large sounding balls when playing football for easy detection of the ball. Sporting activities build confidence in students with visual impairment. Lowenfeld (1973) asserts that due to uncertainty and or fear moving through an environment makes the student not have confidence in what he/she is doing. Confidence gained during sport will remove the fear.

Use of specialist teacher for Braille

Responding to the question of working hand in hand with a specialist teacher the majority (80%) of teachers do not work with a specialist teacher (Figure 4). Ideally in an inclusive environment there is need of having at least a specialist who would work collaboratively with other teachers helping with brailing and transcription brailed work by students for marking. The working together of a specialist teacher would lessen problems of students not having work in Braille as the teacher who specialised in that area would so the brailing. From the questionnaires administered there is no collaboration with a specialist teacher in this respect. Those teachers who claim to be working with a specialist teacher might have given false information as observations revealed that there was no specialist to work with the students and teachers.
Figure 5: Working hand in hand with specialist teachers

Results from questionnaires reflect the same views obtained through observation that most teachers cannot read Braille nor do they have someone to transcribe for them except for about 30% (3) who can read Braille. The marking of students’ work and tests is done by making the student read what he/she has written then the teacher marks the work as the student reads. The system has flaws in that if the student realises a mistake he reads what is not written by saying the correct answer or statement of which the teacher is not able to notice.

**Innovation Configurations**

It was observed that orientation and mobility training was not taking place. This was also collaborated from the casual talk with students who also indicated that they would like to have support in this area. The use of individual education plans (IEP) was also observed to establish if teachers use this in their teaching. It was observed that there are no IEPs used in the teaching and learning of the visually impaired in an inclusive set up. The use of IEPs is important as pointed out by Individual with Disability Education Act (2000) that IEPs are designed to meet the unique needs of learners with disabilities. If teachers do not use the IEPs in their teaching it implies that individual needs are not met.

**Teachers attitudes “Stages of Concern” for the visually impaired**

According to Hord et al, (1987) the stages of concern are: stage 0: Awareness, stage 1: Informational, stage 2: Personal, stage 3: Management, stage 4: Consequence, stage 5: Collaboration and stage 6: Refocusing. Table one below summarises the results obtained on analysis of the stages of concern as per the teachers’ attitudes towards students with visual impairment.
Table 2: Teachers Attitudes Stages of Concern for the visually impaired

<table>
<thead>
<tr>
<th>Teachers Attitudes</th>
<th>Stages of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits from inclusion</td>
<td>0: Awareness 0 1: Informational 0 2: Personal 5 3: Management 2 4: Consequence 0 5: Collaboration 2 6: Refocusing 0</td>
</tr>
<tr>
<td>Teaching of social skills</td>
<td>1 0 3 3 1 1 1</td>
</tr>
<tr>
<td>Teaching of orientation and mobility</td>
<td>0 7 2 1 0 0 0</td>
</tr>
<tr>
<td>Learning of the visually impaired in an inclusive set up</td>
<td>0 0 2 6 1 1 0</td>
</tr>
<tr>
<td>Student’s attitudes towards inclusive education</td>
<td>0 0 0 7 0 2 1</td>
</tr>
<tr>
<td>Knowledge on the availability of resources for the visually impaired</td>
<td>0 0 0 4 1 6 1</td>
</tr>
</tbody>
</table>

On benefits from inclusion, the highest concern was mostly on how inclusive education should be managed. Such concerns are positive as attitudes by teachers affect the way inclusion is managed for students to benefit from it. Concerns in stage 4 and 6 focus on consequences and refocusing. The concerns of most teachers indicate that students benefit from inclusive education.

On teaching of social skills to the visually impaired, most teachers’ concerns centre on stage 2 and 3, Personal and management respectively. In stage 2 teachers are not sure if they can teach the skills as they feel they are not adequately prepared to the skills. This is also collaborated by data from the questionnaires were teachers indicated that they are not able to teach social skills. Those with concerns on management need to know the best way of teaching the skills even if they do not have the ability to learn. The implication is that given the opportunity to learn they are prepared to learn and assist students with visual impairment in social skills learning. The other stages might not affect the general feeling on skills training though there is need to attend to needs of each individual teacher.

The concerns on the teaching of orientation and mobility indicate that teachers are not concerned with the teaching of orientation and mobility. As such most indicated that they were in the stage 1: awareness with a few (2) in Stage 2: Personal. From the questionnaires, the majority of the teachers (80%) also indicated that they do not teach orientation and mobility. However, orientation and mobility is the harbour of skills training and independent living of an individual with visual impairment. This is also pointed out by Welshman and Gearheart (1988) who assert that without orientation and mobility the student with visual impairment is denied the opportunity to exercise independence on daily living skills like walking.

Responding to concerns on the learning of the visually impaired in an inclusive set up most teachers have concerns in stage 3 the management stage. Teachers have concerns on how their learning can be managed, which implies being positive that they can learn in an inclusive set up. This is contrary to Mahaham, Marino and Millar in Sperandio and Klers, (2007) who assert that a study in Asia found that 75% of teachers surveyed did not believe the inclusion of children with special needs in their classrooms would
succeed. From the findings Mozambican teachers seem to be positive that their inclusion would be a success.

On the attitude on “limited knowledge on where the visually impaired should learn” most teachers were in the refocusing stage. Their concerns were on the best place for the visually impaired. The concerns are that if the best place is in an institution let them learn in an institution. The concerns might be in contradiction to the idea of inclusive education on equal opportunities for all students as pointed out by the United Nations (1994) that inclusion calls for equalisation of opportunities. In an inclusive environment people with visual impairment have a right to be included in the ordinary classes and not to be discriminated.

One of the things that can affect the inclusion of people with disabilities is attitudes. If attitudes are negative it is difficult to include the visually impaired in the classroom with the non-visually impaired. Figure 5 below shows that teachers thought that the majority of teachers are concerned on how the inclusion of the visual impaired in ordinary classes can be managed, stage 3. The concerns are positive in that the teachers might alert visually impaired students on why it is important to include them in classes. When students understand their inclusion it enhances acceptance and social inclusion which will ultimately raise the self-worthiness of people with visual impairment.

Figure 6: Members of Staff "Stages of Concern" for inclusive education

Responses to the attitude on “knowledge on the availability of resources for the visually impaired” the majority of teachers were found to be in the “collaboration stage” (stage 5). At this stage teachers want to collaborate and acquire knowledge on the availability of resources for the learning of the visually impaired. This implies that teachers are ready to work with other members to avail resources for the betterment of children with visual impairment. If these concerns were to be put into practice it could help students with visual impairment. Management concerns (stage 3) come second in ranking (Figure 5
above). The concerns at this stage are on the availability and management of resources. Concerns focus more on how resources can be managed to the benefit of the child with visual impairment. Such concerns may assist teachers to change and make sure that their teaching methodologies make use of resources like concrete materials.

**Students attitudes “Stages of Concern” for the visually impaired**

From the study it was apparent that stage 0: awareness stage is mainly comprised with students not being concerned about using the same facilities with those who are visually impaired as well their responsibilities in assisting the visually impaired (Figure 7). In stage 1, the informational stage, most respondents were mainly concerned the perceived responsibilities of those with sight over those with visual impairment. In stage 2, the personal stage, there was an equal representation of students who felt that students with visual impairment slowed them down and that other options had to be found instead of having an inclusive setup. In stage 3, the management stage, all views were expressed except that visually impaired students actually benefit from the inclusive setup. Stage 3 had most responses with respondents indicating in equal proportions that (1) Students with visual impairment slow down our learning, (2) students with visual impairment benefit from inclusive education and (3) they were not concerned about the learning of the visually impaired in an inclusive set up. Stage 4, the consequence stage, also had proportional responses regarding the view that students with visual impairment slow down our learning, but benefit from inclusive education and as such were not concerned about the learning of the visually impaired in an inclusive set up. However, the major response was that other options of learning should be considered in ordinary schools. Stage five and six had two outstanding attitudes each but in different proportions. In stage five the collaboration stage students felt in equal proportions that their peers with visual impairment benefit from inclusive education and at the same time slow down their learning. In stage six however, the majority of students felt that the visually impaired benefited in an inclusive setup more than they slowed down learning Figure 7 below summarises these concerns and attitudes of students towards their visually impaired.
Figure 7: Students attitudes “Stages of Concern” for the visually impaired

On the first concern that students with visual impairment slow down learning, 33% of students indicated that they were in stage 3 which is the management stage. There were also 33% in stage 5 which is the collaboration stage; 22% in Stage 2 which is the personal stage and 11% in the consequences stage (Stage 4). Students concerns centred on management (Stage 3) were concerned with how the visually impaired felt about them. They were concerns on the social and personal relationships with the visually impaired. In some way they were concerned that their learning is affected by the visually impaired. Others have concerns on the collaboration stage, this group seems be in a position of collaborating with the visually impaired so that their learning is improved and they feel at easy to learn in an inclusive set up. Another group has concerns that are on the personal (Stage 2) students in this stage are concerned about their ability to learn with the visually impaired. They are not sure if they can go along with the visually impaired in the same class. While others have concerns on consequences these have questions on what happens if they learn with the visually impaired. The concerns are mixed up as shown in the diagram below. This might make it difficult for children with visual impairment to learn with the sighted as some students view their learning with the visually impaired as slowing down their learning. Table 3 below summarises the results obtained on analysis of the stages of concern as per the students’ attitudes towards their colleagues with visual impairment.
Table 3: Students attitudes “Stages of Concern” for the visually impaired

<table>
<thead>
<tr>
<th>Students Attitudes</th>
<th>Stages of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0: Awareness</td>
</tr>
<tr>
<td>Students with visual impairment slow down our learning</td>
<td>0</td>
</tr>
<tr>
<td>Students with visual impairment benefit from inclusive education</td>
<td>0</td>
</tr>
<tr>
<td>Not concerned about the learning of the visually impaired in an inclusive set up</td>
<td>20</td>
</tr>
<tr>
<td>Other options of learning should be considered than have the visually impaired in</td>
<td>0</td>
</tr>
<tr>
<td>ordinary schools</td>
<td></td>
</tr>
<tr>
<td>Concerned on the responsibilities the sighted have over the visually impaired</td>
<td>30</td>
</tr>
</tbody>
</table>

The different students’ attitudes are looked at in detail below.

**Students with visual impairment benefit from inclusive education**

The majority of students show that it is true that the visually impaired benefit. These are in stage 6 of refocusing; 33% (30) indicated that. Additionally, this is also the same scenario in stage 5 which is the collaboration stage and the other 11% (10) it somewhat true in stage 4 which is the consequences stage. Concerns of students range from stage 4 to 6. This shows that students assume that the visually impaired benefit from inclusive education as they are prepared to improve the way students with visual impairment learn. In stage 6: the collaborative stage, students are ready to collaborate with the visually impaired so that they benefit from inclusive learning. This was realised by the assistance rendered for instance when they read for them as they are in short supply of brailed books and brailed material. The minority group is in stage 4 the consequences stage.

**Not concerned about the learning of the visually impaired in an inclusive set up**

Mixed feelings have been shown from the data presented (Table 3). Stages of concern vary from group to group. The differences in variation indicate different opinions on the learning of visually impaired in an inclusive environment. Stage 3 has the greatest number of students who are concerned about management of the inclusion of people with disabilities.

**Other options of learning should be considered than have the visually impaired in ordinary schools**

Students have the highest concerns of 33% (30) in stage 3; 22% (20) each in stages 2 and 4; the other concerns share 11% (10) each in stages 1 and 6.concerns on other options for the learning of visual impaired are spread from stage 1 to stage 6. Students in stage 3 are concerned on how other options of learning are managed if tare available. Their concerns are on the trial of other options of learning if they are available. They seem to be concerned on how they feel about people with visual impairment and having the best options. Stage 2’s concerns are that they need more information about inclusive education and other options if any that are available for the learning of the visually impaired. This can be done through support systems like awareness campaigns through radio, magazines and demonstration schools to show the learning of the visually impaired in a real functioning state. Those in stage 4 have concerns on consequences of having
other options of having the visually impaired to have to learn in other environments that are different from an inclusive set up.

Concerned on the responsibilities the sighted have over the visually impaired

The majority of students 55% indicated that it is not true for now (stage 1) the information stage; 33% (30) said this is irrelevant in stage 0 the awareness stage; 6% (5) each is shared on responses in stage 2 and 3. Stage 2 is the personal stage and stage 3 is the management stage. The information (stage 1) students have concerns on what their responsibilities are when they are learning with those with visual impairment. The second largest group of students has concerns in (stage 0) these are not concerned whether they have any responsibilities over the visually impaired or not. It implies that students in this stage of concern need to be educated on their responsibilities that they might have in promoting a conducive environment for learning with the visually impaired.

Structured Interviews with the Visually Impaired

Benefiting from learning in an inclusive set up

From the 10 interviewed individuals with visual impairment, all indicated that they benefit from learning in an inclusive environment and they do not mind to learn in such a set up. The visually impaired students seemed to be quite happy to learn in an inclusive environment. They pointed out that they normally share ideas with their class mates on issues they don’t understand the sighted peers take their time to explain.

Problems faced by the visually impaired in an inclusive set up

From the 10 interviewed students there was a general feeling that there was not enough material provided such is written work in Braille since there are no books written in Braille. The interviews indicated that teachers write on the chalkboard and they do not have anything they can refer to on what will be talking place. When teachers are making illustrations they requested to be provided with tangible materials they can touch or read for better understanding. Respondents also indicated that their teachers inability to read Braille makes it difficult for them to mark their work meaningfully.

Suggestions to overcome the problems faced by students

From the interviews it was suggested that more material in Braille be brought to classes. They also suggested that with the coming up of new technology, it could be best if they are provided with (jazzy) computers that talk, print material written in print into Braille. They also suggested that teachers be trained to read and write in Braille so that they can provide them with brailed material during lessons. Respondents also indicated that they are involved in sporting activities especially football and at times athletics. They attributed the limitations to limited special facilities or adaptations for them to fully participate. Their engagement in sporting activities is therefore still at a small scale.
Conclusions and Recommendations

The way inclusive education is run in schools and university needs some improvements. Although students with visual impairment claim that they are happy to learn in an inclusive set up there are certain issues that need to be addressed for the full benefit of inclusive education to the visually impaired. For example, teachers need more information on inclusive education issues and the methodologies that best benefit students with visual impairment. Sighted students generally have a fair treatment of the visually impaired even if some showed concerns of their learning being slowed down by those with visual impairment.

Recommendations

The following recommendations cover what needs to be done by the responsible ministries, teachers and students as well as material provision as a way of bettering the provision of education to the visually impaired under inclusive setup. Overall, there is need for close supervision from the Ministry of Education to see if the implementation of inclusive education is done as per expectation rather than leaving the responsibility to school to decide how they can run inclusive education.

On one hand, teachers need to be involved in in-service training so that they get to know on how to teach and assist students with visual impairment in an inclusive environment. Newly trained teachers should be taught some basic special education issues so that when confronted with the situation of teaching the visually impaired they are in a position to do so. Teachers should also be encouraged, through workshops, to utilize students with visual impairments compensatory senses like the sense of touch by providing them concrete objects in their learning. Teachers and responsible authorities need to provide students with brailed books for reading in the various disciplines.

On the other hand, students should be provided with jazzy computers, that is computers that talk and can translate Braille into print or vice versa. Additionally, students concerns on aspects that negatively affect the smooth running of inclusive education need to be dealt with as early as they are detected. This can be tackled through awareness programs on inclusive education conveyed through magazines or teachers forums. Furthermore, collaboration should be encouraged so that inclusive education implementation becomes a success such as having at least one specialist teacher who works in collaboration with other teachers to Braille, transcribe and possibly teach other teachers to read and write in Braille.

Since students are not given brailed books or material written in Braille it is recommended that it could be ideal for them to be supplied with tape recorders. Children with visually impairment mostly get most of their information through audition. Providing children with tape recorders will assist students to be comfortable with their learning. Students find it difficult to understand illustrations that are done by teachers as they do not have sight. Recording the teacher during lesson enables the student replay the tape to understand what would have been taught. None availability of such material is
denying a child his or her right to full education with all the support needed. All the above recommendations will not only better schools in Beira but stands to improve provision of education in Mozambique in general if implemented.

References


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Lawrence Nhemachena is a Senior Lecturer at the Catholic University in Mozambique. He is a graduate from the Zimbabwe Open University. He initially trained as teacher at Mkoba Teachers College an Associate College of the University of Zimbabwe and obtained a Certificate in Education. He later went for further training at United College for Education an Associate College of the University of Zimbabwe and got a Diploma in Education (Special Education), where he specialised in Special Education with (Visual Impairment as his major subject). He covered courses like Mental Retardation, Hearing
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Transition Knowledge of High School Special Education Teachers in a Midwestern School District

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Abstract
Teachers’ knowledge of transition services and programming in their schools is crucial for their students with disabilities to successfully transition from school to adult life. The purpose of this study was to examine high school special education teachers’ knowledge of transition programming offered at their schools. Twenty-five special education teachers from three suburban high schools in the Midwest completed surveys of their knowledge of transition programming. Results indicated respondents were accurate in their knowledge on 15 of 25 questions (60%), somewhat accurate in their knowledge on 4 of 25 questions (16%), and somewhat inaccurate on 6 of 25 questions (24%). No statistically significant difference was found in the accuracy of knowledge between respondents who held a Developmental Disabilities license and those who held licensure in other areas, or between respondents with varying years of experience. Implications for research and practice focusing on improving teachers’ knowledge of transition services are discussed.

Transition Knowledge of High School Special Education Teachers

Prior to the passage of PL 94-142 in 1975, many individuals with disabilities lived in institutions where they received little to no formal education and vocational training. The passage of PL 94-142 moved individuals with disabilities out of institutions and into community settings. Subsequent legislation has continued to improve the quality of life for individuals with disabilities. In fact, the 1990 revision of the Individuals with Disabilities Education Act (IDEA) mandated that transition services should be addressed on a student’s Individualized Education Plan (IEP) beginning at age 16. In 1997, IDEA reauthorized transition services to begin at age 14 (Katsiyannis, deFur, & Conderman, 1998; Lindstrom & Benz, 2002) and, in 2004, IDEA was reauthorized and again mandated transition services beginning at age 16 (Etscheidt, 2006).

Since the mandating of transition services for students with disabilities, states and local school districts have taken a variety of approaches to define transition services for special education students. Modell and Valdez (2002) defined transition programming as “the plan that details interagency responsibility and community linkages that address students’ needs, interests, and opportunities in postsecondary education, employment, independent living, and community participation” (p. 47). A major component of transition planning and programming centers on the Individual Education Plan (IEP). Special education teachers are responsible for developing and monitoring progress on the transition plan,
with assistance from the student, family, regular education teacher, and relevant adult agencies.

Awareness and knowledge of available transition classes, programming, curricula, and opportunities are crucial for secondary special education teachers as they develop and implement the IEP. Teachers need to be aware of transition options in their school so students with disabilities can access both general education and transition-focused classes that will prepare them for the transition to adulthood. Without this knowledge, teachers are unlikely to effectively prepare their students for life after high school. To examine the extent of teachers’ transition knowledge, several researchers have examined pre-service transition instruction, transition competencies, roles and responsibilities, and transition knowledge of secondary special education teachers; this research is briefly reviewed below.

**Preservice Instruction**

Wolfe, Boone, Filbert, and Atanasoff (2000) surveyed universities across the United States to determine the extent of transition instruction preservice teachers received. Results from the 52 returned surveys indicated that transition instruction was offered in 69% of the universities surveyed. Sixty-seven percent of those universities offered a course about transition services and programming; however, only 33% designated transition instruction as a requirement for state teacher certification programs. Seventy-eight percent required preservice special education teachers to take a transition course; however, only 8% required regular education teachers to take a course in transition programming at the secondary level.

Wolfe et al. (2000) argued that participation in the transition process is important for both regular and special education teachers. Without preparation on this topic, both regular and special educators are entering the profession without knowledge of how to successfully program for older students with disabilities. Through participation in a transition course in college, regular and special education teachers should gain a better understanding and appreciation of the goals of transition to prepare young individuals with disabilities for the adult world.

**Transition Competencies**

To address the issue of what content should be included in preparing practitioners to provide transition services, DeFur and Taymans (1995) developed a transition survey that examined needed transition competencies for professionals working with older individuals with disabilities. DeFur and Taymans surveyed 149 transition specialists from across the United States using the transition specialist practitioner (TSP) survey, which included 116 competencies and 12 domains developed from multiple sources. Respondents rated each competency from 1 (unessential) to 5 (essential). Respondents indicated that they considered 112 out of 116 to be essential. Examples of competencies rated as critical for individuals working with transition-age students included: “Knowledge of agencies and systems change, development and management of individualized transition plans, working with others in the transition process, vocational assessment and job development, professionalism, advocacy, and legal issues, job training and support, and assessment” (p. 48). DeFur and Taymans recommended direct
instruction of these competencies in graduate school to prepare special education
teachers, vocational instructors, rehabilitation counselors, and administrators for their
work with individuals with disabilities.

In another study examining transition competencies for professionals working with older
students with disabilities, Blanchett (2001) surveyed 74 special education teachers using
the Transition/Inclusion Planning Protocol (TIPP) on competencies they believed
educators should have to prepare students with disabilities for life after high school. The
30 competencies were generated from a review of literature. Respondents rated each
competency from 1 (unimportant) to 4 (very important). Results indicated that teachers
believed 14 competencies were important, including interagency support, cooperative
team planning, and focus on career and vocational education instruction, social skill
instruction, and facilitating IEP meetings. Blanchett suggested that results from the study
confirmed the importance of competencies for transition teachers.

Roles and Responsibilities
In addition to identifying competencies that should be included in teacher preparation
programs, researchers have also examined the roles secondary special education teachers
have in their students’ transition process. Conderman and Katsiyannis (2002) randomly
selected 199 secondary special education teachers in Wisconsin to participate in a survey
to investigate the roles and responsibilities of special education teachers. Respondents
indicated that special education teachers were responsible for providing instruction in the
area of employment, coordinating a variety of employment experiences, maintaining
contact with the community, and developing the student’s transition IEP. These results
suggested that special education teachers play a diverse role in the education and
planning for transition-age students. Understanding the roles of special education
teachers and the responsibilities they face on a daily basis is important to ensure that the
needs of the students are being met.

Transition Knowledge
Researchers have also examined special education teachers’ knowledge of transition
services. Knott and Asselin (1999) surveyed 236 special education teachers in Virginia
who worked with individuals with mild disabilities on their perceived knowledge and
involvement of transition programming. The Transition Competencies Survey was
developed from a review of literature and included 71 competencies and 8 categories of
knowledge. Respondents rated each competency from 0 (no knowledge or experience) to
3 (much knowledge or experience). Results showed that special education teachers
judged that they understood the major components of transition programming and
planning. They developed transition IEPs that included both the student and the family
and indicated a general knowledge of transition concerns affecting their students. Further
results showed the special education teachers did not understand the eligibility criteria of
adult agencies, had little involvement in the employment piece of transition, and were not
involved in selecting curriculum for their transition classes. Knott and Asselin concluded
that disparities existed between teacher knowledge of transition and their implementation
of transition services and activities.
Special education teachers are primarily responsible for the development and implementation of the IEP. Starting at age 16, transition services need to be addressed for students with disabilities. Several researchers have examined pre-service transition instruction, transition competencies, roles and responsibilities, and transition knowledge of secondary special education teachers. These researchers have suggested that pre-service transition instruction for both regular and special educators should include a number of competencies deemed “essential” by practitioners, and have highlighted the diverse roles and responsibilities of special educators today.

Yet, disparities still exist between teacher knowledge of transition and their implementation of transition services and activities (Knott & Asselin, 1999). For example, the special education literature has not explored whether years of experience and licensure area increase teacher awareness and knowledge of the field of transition programming and planning. One could argue that, as teachers gain experience in the field of special education, and specifically in their work with older students with disabilities, they become more knowledgeable and aware of transition programming and services available to their students. The potential impact of teacher experience and licensure area are important areas to explore because accurate transition programming is essential for the successful transition from school to adult life for students with disabilities. If amount of teaching experience does indeed predict teacher awareness and understanding of transition programming, teacher educators should ensure that transition coursework is being offered to all special educators so less experienced teachers are not at a disadvantage when working with older students with disabilities and their families. On the other hand, if even the most experienced teachers demonstrate limited knowledge of transition programming, schools and districts may wish to consider offering ongoing professional development opportunities to teachers with all levels of experience.

One of the myths still prevalent in the field of special education is that there is one transition planning process for all students (Flexer, Baer, Luft, & Simmons, 2008). Teachers need to be aware that disability label should not drive transition programming, but rather transition programming should be based on student need. In the past, many educators viewed students with more “mild” disabilities such as learning disabilities or emotional and behavioral disorders as not needing transition services. Transition and life skill programming was reserved for those students with more significant cognitive impairments. At some colleges and universities throughout the United States, coursework in transition planning and programming is not required for teachers seeking licensure in learning disabilities (Wolfe et al., 2000). One might predict, then, that teachers who work primarily with students with cognitive impairments are more familiar with transition programming in their building than teachers who work with students with learning disabilities and emotional and behavioral disorders.

**Purpose of this Study**
In an age of increased accountability, special education teachers are facing increased responsibilities to ensure that data-driven decisions are being made. Research that continues to examine the knowledge, skills, roles, and responsibilities of secondary special education teachers across different states should be conducted to create a more
comprehensive picture of the extent to which transition-age students’ needs are being met.

The purpose of this study was to examine the accuracy of high school special education teachers on their knowledge of transition programming being offered in their high school. Specifically, we addressed the following questions: (1) How accurate is the knowledge of high school special education teachers of the transition programming being offered in their high schools? (2) How accurate is the knowledge of high school special education teachers with varying years of teaching experience of the transition programming being offered in their high schools? and (3) How accurate is the knowledge of special education teachers with differing teaching licenses of the transition programming being offered in their high schools?

Method

Participants
Secondary self-contained, full-service special education (FSSE) and resource room special education teachers from three suburban high schools in a Midwestern school district participated in the study. The special educators served students with autism, learning disabilities, emotional and behavioral disorders, and developmental disabilities. Occupational therapists, speech and language pathologists, and developmental adaptive physical education teachers were not included in the study because in the participating district, these teachers were not case managers for students with disabilities. Secondary special educators from the district’s three site-based special education programs were also not included because the focus of this study was limited to special education teachers who worked with high school-aged students. The Special Education Building Coordinator (SEBC) in each high school also completed the survey.

An SEBC was assigned to each high school in the district. The SEBC was responsible for special education scheduling and programming for their building. SEBCs are special education teachers who have significant experience working within the field of special education. The SEBC from High School 1 had worked within the field of special education for 31 years and had spent the last 28 years working as the SEBC for High School 1. The SEBC from High School 2 had worked within the field of special education for 26 years and had spent the last 24 years working as the SEBC in High School 2. The SEBC from High School 3 had worked within the field of special education for 23 years and had spent the last 13 years working as the SEBC for High School 3.

Forty participants were identified as eligible for participation in the survey based on a personnel list supplied by the school district. Respondents had four weeks to complete the survey. Non-respondents were sent a follow-up email. A total of 40 surveys were mailed out; 25 surveys were returned for a 63% completion rate. Twenty-two of the surveys returned were from special education teachers; 3 were from the SEBCs in each building. Demographic data were collected from the 22 special education teachers who completed the survey (see Table 1).
**Instrumentation**

A three-part survey was created for the study (see Appendix). The survey was created with input from several special education teachers working with individuals ages 18-21 with disabilities in a transition program. The 25 questions were selected based on transition skills that are emphasized in the literature across all transition areas (employment, postsecondary education and training, community participation, recreation and leisure, and home living). Prior to distribution, the survey was piloted with these teachers. Part One of the survey asked participants to rate their knowledge of available transition services and classes offered in their high school. Questions were asked in each of the five transition areas. In the employment section, six questions were asked about work seminar class, job preparation skills, and job search skills. Four questions about educational opportunities and support outside of high school were asked in the postsecondary education and training section. In the community participation section, three questions were asked about community resources and civic responsibility. Three questions about participating and organizing recreation and leisure opportunities were asked in the recreation and leisure section and nine questions about independent living were asked in the home living section. Respondents circled “1” if the class or service was offered in their school or “2” if the class or service was not offered in their school. Respondents were asked not to consult other teachers or the SEBC when filling out the survey. Part Two of the survey asked respondents to list the purchased transition curriculum their high school used in each of the five transition areas. Nine demographic questions were asked in Part Three of the survey.

**Procedures**

Surveys were mailed to the participants with a self-addressed stamped envelope. Each survey was coded making responses to the surveys confidential. A gift card to a popular local store was offered as an incentive to complete the survey.

The responses from the SEBC in each of the three high schools served as the answer key to the survey. Answers from each completed survey were compared to the responses from the SEBC. If the respondent agreed with the SEBC, the answer was recorded as a correct answer; conversely, if the respondent disagreed with the SEBC, the answer was recorded as incorrect. All 25 questions were coded in this manner. The SEBC in each building was responsible for overseeing every facet of the special education program in the high schools including course offerings, curricula development and purchasing, and course scheduling; therefore, we can reasonably conclude that each SEBC was aware of the transition offerings at their respective high school.

**Data Analysis**

Transition knowledge data from the special education teachers were coded as correct or incorrect when compared with the responses from the SEBC from their building. T-tests were used to compare transition knowledge between respondents with Developmental Disability (DD) licensure and respondents with other licensure areas, and transition knowledge between special educators with more experience (11+ years) and special educators with less experience (1-10 years) in their current position. Ten years was used as the cut-off point because in this particular school district, after ten years of teaching
experience, steps on the experience schedule are weighted differently. In the first ten years of teaching, teachers go up one step for every year they teach; after ten years, the teachers only get step increases every five years.

**Results**

**Transition Knowledge**

Respondents were asked to identify what transition services or classes were offered in their high schools in each of the five transition areas. Responses were compared with the SEBC in each building. An evaluation scale was used to group information into accurate (80-100% agreement), somewhat accurate (60-79% agreement), somewhat inaccurate (40-59% agreement), and inaccurate (39% and below agreement). Table 2 presents transition knowledge for the three high schools, and results are also highlighted below.

**High School 1.** In High School 1, respondents were accurate in their knowledge of transition classes, programs, and services offered in their high school in several areas. In the area of employment, respondents were aware of the work seminar class. In the areas of community participation and recreation and leisure, respondents were aware that civic responsibility classes were offered at their high school. Respondents in High School 1 were somewhat accurate about community participation offerings in their school. Seventy-one percent of respondents were aware that courses that taught students how to access their community and to use transportation in their community was offered in their school.

In High School 1, respondents were somewhat inaccurate in several transition areas. In the area of employment, approximately half of the respondents were unaware that a job skills program was offered in their high school. In the area of postsecondary education, over half of the respondents were unaware that college support services were offered to students with disabilities. In the area of recreation and leisure, respondents were somewhat unaware of recreation and leisure activities offered at the high school. At High School 1 there was no course that allowed students to practice organizing recreation and leisure activities.

Respondents in High School 1 were inaccurate when asked about sex education classes, separate from health class, available at their high school. Almost 70% of respondents thought a class existed to teach students with disabilities about sex education when, in fact, no such class was offered.

**High School 2.** In High School 2, respondents were accurate in their knowledge of transition classes, programs, and services offered in their high schools in several areas. In the area of employment, respondents were aware of the work seminar class. In the area of postsecondary instruction, respondents were aware that students had the opportunity to participate in classes at both the technical college and the community college. Respondents in High School 2 were somewhat accurate in their knowledge of employment programs offered in their school. Unlike High School 1, High School 2 does not offer a job preparation or volunteer program where students can learn employment related skills. Almost 40% of respondents thought the employment program existed. In the area of postsecondary education, students at High School 2 had the opportunity to
access other postsecondary institutions, like the university. Approximately 40% of the respondents were unaware that courses in civic responsibility and community resources were offered in their high schools.

In High School 2, respondents were inaccurate in their transition knowledge in several areas. In the area of postsecondary education, 75% of the respondents were unaware that college support services were not offered to students with disabilities. Unlike High School 1, High School 2 does not offer college support services to individuals with disabilities. In the area of community participation, almost 60% of respondents were unaware that a transportation skills class was offered in their school. In the area of recreation and leisure and homeliving, respondents were unaware that a recreation and leisure skills class and a laundry class were offered in their school.

High School 3. In High School 3, respondents were accurate in their knowledge of transition classes, programs, and services offered in their high school in several areas. In the area of postsecondary instruction, respondents were aware that students had the opportunity to participate in classes at both the technical college and the community college. In the areas of community participation and recreation and leisure, respondents were aware that civic responsibility and community resource courses were offered at their high school, as well as classes that taught and allowed students to participate in recreation and leisure activities. In the area of homeliving, respondents were aware that classes that offered self-advocacy skill instruction, cooking instruction, and friendship instruction were offered in their high school. Respondents from High School 3 were somewhat accurate of community participation courses offered in their high school. Approximately 70% of respondents were aware of courses that taught transportation skills. In the area of homeliving, respondents were somewhat accurate in their knowledge of laundry instruction and sex education classes, separate from health class, offered at their high school. Almost 30% of respondents thought a class existed to teach students with disabilities about sex education when in fact, no such class was offered.

In High School 3, respondents were somewhat inaccurate in several transition areas. In the area of employment, approximately 40% of the respondents were unaware that a volunteer program was offered in their high school. High School 3 does offer a job preparation where students can learn employment related skills. Over 40% of respondents were unaware such an employment program existed. In the area of postsecondary education, over half of the respondents were unaware that college support services were not offered to students with disabilities and that students had the opportunity to access other postsecondary institutions, like the university. In the area of recreation and leisure, respondents were somewhat unaware that recreation and leisure activities were offered at their school. At High School 3 there was a course that allowed students to practice organizing recreation and leisure activities.

Respondents in High School 3 were inaccurate when asked about courses that taught students’ skills needed to be successful in a romantic relationship. Over 70% of respondents were not aware such a class was offered.

All three high schools. Across all three high schools, respondents were accurate in their knowledge on 15/25 questions (60%), somewhat accurate in their knowledge on 4/25 questions (16%), and somewhat inaccurate on 6/25 questions (24%).
License and experience. A t-test was conducted to compare transition knowledge between respondents with DD licensure and respondents with other licensure areas (see Table 3). There was no significant difference in the knowledge between those respondents who held a DD license and those who held licensure in other areas. A t-test was also conducted to compare the accuracy of transition knowledge and programming among special education teachers with fewer years of teaching experience (1-10 years) and special education teachers with more years of teaching experience (11 + years). There was no significant difference in the accuracy of knowledge between respondents with varying years of experience in their current teaching position (see Table 3).

Discussion

The purpose of this study was to examine the knowledge of high school special education teachers of transition programming being offered in their high schools. Specifically, this study asked the following questions: How accurate is the knowledge of high school special education teachers of the transition programming being offered in their high schools; how accurate is the knowledge of high school special education teachers with varying years of teaching experience of the transition programming being offered in their high schools; and how accurate is the knowledge of special education teachers with differing teaching licenses of the transition programming being offered in their high schools? Over half of the respondents were accurate in their understanding of transition classes and services available to secondary students with disabilities in their high schools; however, there were also several inaccuracies in the areas of employment, postsecondary education and training, recreation and leisure, and home living. It is noteworthy that these results varied from high school to high school—this variation suggests that there may be inconsistencies even within one district in terms of teachers’ preparation in the area of transition and/or schools’ success in coordinating and communicating transition information effectively to teachers.

In the area of employment, respondents were asked if a program where students learn job skills through volunteering was offered in their school. Respondents from both High School 1 and High School 3 were inaccurate in their knowledge of volunteer opportunities available to students at their high school. Preparing students with disabilities for the world of employment is essential. Without proper instruction in the area of employment, students with disabilities may find it difficult to find and keep jobs. Johnson, Stodden, Emanuel, Luecking, and Mack (2002) argued, “Young adults with disabilities still face significant difficulties in securing jobs, accessing postsecondary education, living independently, and fully participating in their communities” (p. 524). Individuals with disabilities need repeated exposure to a variety of job choices. By being unaware of volunteer opportunities available to students, special educators are not preparing students for the successful transition from school to adult life for their students.

In the area of postsecondary education and training, respondents from all three high schools were inaccurate in their awareness of college support services available to students taking classes at other postsecondary institutions. Awareness of availability of college support services is essential information as IEP teams plan for the transition of students with disabilities. Without support, many students with disabilities may find it
difficult to be successful in college-level coursework. IEP teams must not only be aware of what supports and services are available to high school students taking college classes, but they must also be aware of what supports, services, and accommodations the student will need to be successful when they enter a postsecondary institution full time (Johnson et al., 2002).

In the area of recreation and leisure, respondents from all three high schools were unaware of courses that allowed students to practice organizing recreation and leisure activities at their schools. Yet, practice and participation in recreation and leisure activities is an essential transition outcome for individuals with disabilities. IEP teams must ensure that individuals with disabilities are afforded a diverse exposure to a variety of recreational activities (Modell & Valdez, 2002). Like individuals without disabilities, individuals with disabilities often want to participate in a variety of social activities. Teachers’ inaccurate knowledge about available coursework at the high school may lead to confusion in the IEP process.

In the area of home living, respondents from High School 1 were inaccurate in their awareness of sex education coursework being offered in their school. As suggested by Blum, Resnick, Nelson, and St. Germaine (1991), many students receive their instruction on sex education in the public school; therefore, accurate awareness of course offerings on this key life topic is essential for teachers. Additionally, respondents from High School 3 were unaware that their high school offered a course on skills needed to be successful in a romantic relationship. Inaccuracies and unawareness of what classes are offered in a school will only lead to confusion in the IEP process and cause miscommunication between the school and the family. Additionally, the student may not receive instruction in essential transition areas as a result of teacher unawareness.

**Implications for Practice**

To avoid inaccuracies in teacher knowledge about transition programming in their schools, administrators, special education coordinators/directors, and human resource personnel should offer training sessions and/or web-based materials to both special education and regular education teachers so they can gain a better awareness of what transition programming is offered in their high schools and in their district. It also might be helpful for these same individuals to survey teachers using an instrument similar to the one created for this study, to gain a better understanding of the inaccuracies and gaps in teacher understanding of what programs and services are offered to transition-aged students in their district. This study did not highlight why the inaccuracies among teachers existed in the different buildings but by surveying teachers, district-level administrators may have a better understanding in what areas they need to focus training and/or web-based resources and information to their increase teacher understanding of transition programming available in their high school and district. Districts may want to further explore which teachers have more or less knowledge of transition programming and look to see if differences exist among their schools. Districts could then identify what qualities (i.e., communication, leadership, knowledge of resources) informed teachers possess. Districts may also want to consider exploring what knowledge their
newly hired teachers have about the transition planning process. This information may help district-level administrators identify what areas to target their training resources on.

Implications for Research

There were no significant differences in the accuracy of knowledge between those respondents who held a DD license and those who held licensure in other areas or in the accuracy of knowledge between respondents with varying years of experience in their current teaching position. These results suggest that licensure area and years of teaching experience might have little relation to special educators’ knowledge and awareness of transition programming available at their schools, at least for the participants in this study. Thus, it would appear that all teachers, regardless of licensure area or years of teaching experience, could benefit from ongoing professional development in the area of transition programming and planning. Due to the small sample size in this study, however, these results should be interpreted with caution; a larger sample size across broader populations of teachers may yield different results.

From this study, researchers should know that years of teaching experience and teaching licensure area do not necessarily make a significance difference in transition knowledge and awareness of special education teachers. Future studies should focus on larger samples to generalize the results to a broader population of teachers who work with transition-age youth with disabilities. Future work could interweave essential transition competencies and transition knowledge of special education teachers with student outcomes and could include research question such as: (a) does teachers’ effectiveness at writing and facilitating IEPs improve a student’s transition process and their postsecondary outcomes? or (b) does teacher knowledge and skill at accessing adult agency participation prior to a student’s exit from special education improve their postsecondary outcomes? or (c) what factors contribute to teachers knowledge of transition services in their schools?

There are several limitations to this study. This study was a nonrandom convenience sample of special education teachers from three high schools in the same Midwestern school district, limiting its generalizability. Generalizations to larger populations of special education teachers should be made with caution. Additionally, because the three high schools were limited to one school district in a Midwestern state, assumptions that these results would translate to other states may not be supported. Finally, although this study does shed light on special education teachers’ knowledge of available transition services and programming offered at their high school, it is not a comprehensive picture of the teachers’ general transition knowledge. The survey created for this study was limited to 25 questions and was not a thorough questionnaire of transition knowledge.

Conclusion

The purpose of this study was to test the accuracy of high school special education teachers on their knowledge of transition programming being offered in their high school. As stated by Etscheidt (2006), “Transition plans must be individualized to meet each student’s unique postsecondary needs. Services must be individualized to integrate the
various types of support that a student will require after high school” (p. 35). A teacher’s accurate knowledge of available transition services in their school is essential for a students’ successful transition from school to adult life. Without such teacher knowledge, students will enter the adult world ill equipped to face the challenges that await them.

References


About the Authors

Christine Pepe, Ph.D. is a lecturer in Special Education at the University of Minnesota in the Department of Educational Psychology, University of Minnesota. Prior to joining the staff at the University of Minnesota, she worked with a small group of individuals to start a transition program for students ages 18-21 with a variety of disabilities. Her work in the classroom has led to her main research interests including increasing student participation in their IEP meetings, improving existing self-determination scales used for older students with disabilities, and improving transition assessment and instruction for older students with disabilities.

Kristen L. McMaster, Ph.D. is an Associate Professor of Special Education in the Department of Educational Psychology, University of Minnesota. Her research interests include creating conditions for successful response to intervention of students at risk and students with disabilities. Specific research focuses on (1) promoting teachers’ use of data-based decision making and evidence-based instruction and (2) developing individualized interventions for students for whom generally effective instruction is not sufficient.
Table 1

Demographic Information for Special Educators

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<td>5</td>
<td>23</td>
</tr>
<tr>
<td>11-20</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>21+</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>Survey Completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School 1</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>High School 2</td>
<td>8</td>
<td>36</td>
</tr>
<tr>
<td>High School 3</td>
<td>7</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 2

Transition Knowledge of Special Educators in the Three High Schools

<table>
<thead>
<tr>
<th>Question</th>
<th>HS 1</th>
<th>HS 2</th>
<th>HS 3</th>
<th>Total</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A work seminar class is offered in my high school.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A job preparation program that offers on-the-job training is offered in my high school.</td>
<td>57%</td>
<td>75%</td>
<td>57%</td>
<td>64%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A program where students can learn job skills through volunteering is offered in my school.</td>
<td>43%</td>
<td>63%</td>
<td>57%</td>
<td>55%</td>
<td>Inaccurate</td>
</tr>
<tr>
<td>A class is which students complete a resume in offered in my high school.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class in which students practice their interviewing skills is offered in my high school.</td>
<td>86%</td>
<td>100%</td>
<td>100%</td>
<td>95%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class in which students are taught job-related social skills, is offered in my high school.</td>
<td>100%</td>
<td>88%</td>
<td>86%</td>
<td>91%</td>
<td>Accurate</td>
</tr>
<tr>
<td>Students have the opportunity to participate in classes at a technical college.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Accurate</td>
</tr>
<tr>
<td>Students have the</td>
<td>100%</td>
<td>100%</td>
<td>86%</td>
<td>95%</td>
<td>Accurate</td>
</tr>
</tbody>
</table>
opportunity to participate in classes at a community college. 
Students have the opportunity to participate in classes at another postsecondary institution. 

<table>
<thead>
<tr>
<th>Question</th>
<th>HS 1</th>
<th>HS 2</th>
<th>HS 3</th>
<th>Total</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students have access to college support from staff at their high school.</td>
<td>100%</td>
<td>75%</td>
<td>57%</td>
<td>77%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class that teaches students to access resources and services (post office, library, social services, etc.) in their community is offered in my high school.</td>
<td>57%</td>
<td>25%</td>
<td>43%</td>
<td>41%</td>
<td>Inaccurate</td>
</tr>
<tr>
<td>A class that teaches transportation skills is offered in my high school.</td>
<td>71%</td>
<td>38%</td>
<td>71%</td>
<td>59%</td>
<td>Inaccurate</td>
</tr>
<tr>
<td>A class that teaches civic responsibilities and duties is offered in my school.</td>
<td>100%</td>
<td>63%</td>
<td>86%</td>
<td>82%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class that teaches recreation and leisure skills is offered in my high school.</td>
<td>86%</td>
<td>88%</td>
<td>100%</td>
<td>91%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class that has students practice organizing recreation and leisure activities is offered at my high school.</td>
<td>43%</td>
<td>25%</td>
<td>57%</td>
<td>41%</td>
<td>Inaccurate</td>
</tr>
</tbody>
</table>

JAASEP FALL, 2012 114
Students participate in a variety of recreation and leisure activities at my high school during the school day. A class that teaches self-advocacy skill is offered in my high school. A class that teaches cooking skills is offered in my high school. A class that teaches laundry skills is offered in my high school. A class that teaches students about skills needed to be a friend is offered in my high school. A class that teaches students about skills needed to be in a romantic relationship is offered in my high school. A class in sex education (separate from health class) is offered in my high school.

<table>
<thead>
<tr>
<th>Question</th>
<th>HS 1</th>
<th>HS 2</th>
<th>HS 3</th>
<th>Total</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A class that teaches basic computer skills is offered in my high school.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Accurate</td>
</tr>
<tr>
<td>A class that teaches students about skills needed to be a friend is offered in my high school.</td>
<td>86%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
basis banking skills is offered in my high school. 
A class that teaches basic organization skills is offered in my high school. 

<table>
<thead>
<tr>
<th></th>
<th>75%</th>
<th>86%</th>
<th>82%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>100%</th>
<th>88%</th>
<th>100%</th>
<th>95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3

Comparison Of Transition Knowledge Between Educators With DCD Licensure And Educators With Other Special Education Licenses and Educators With Fewer Years Of Teaching Experience And Educators With More Years Of Teaching Experience

<table>
<thead>
<tr>
<th>Item</th>
<th>Educators with DCD licensure</th>
<th>Educators with other special education licenses</th>
<th>Educators with fewer years of experience (1-10 years)</th>
<th>Educators with more years of experience (11+ years)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>12</td>
<td>10</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>19.83</td>
<td>19.80</td>
<td>19.88</td>
<td>19.6</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>2.44</td>
<td>2.78</td>
<td>2.55</td>
<td>2.79</td>
</tr>
<tr>
<td>Difference in Means</td>
<td>0.03</td>
<td></td>
<td>0.28</td>
<td></td>
</tr>
<tr>
<td><em>t</em>-value</td>
<td>0.0299</td>
<td></td>
<td>0.2136</td>
<td></td>
</tr>
<tr>
<td>Significance</td>
<td>0.9764</td>
<td></td>
<td>0.8329</td>
<td></td>
</tr>
</tbody>
</table>
Appendix

Transition Survey

Directions: The purpose of this survey is to understand what transition–related programming is currently being offered at your high school. Please answer each question to the best of your knowledge. Please do not consult your colleagues, the district website, or your SEBC when completing this survey. Your responses will be kept confidential.

Part I

Please answer each question using the following Likert scale rating system:

<table>
<thead>
<tr>
<th>Yes:</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No:</td>
<td>2</td>
</tr>
</tbody>
</table>

Employment

1. A work seminar class is offered in my high school.  
   Yes: 1  No: 2

2. A job preparation program that offers on-the-job training is offered in my high school.  
   Yes: 1  No: 2

3. A program where students can learn job skills through volunteering is offered in my school.  
   Yes: 1  No: 2

4. A class in which students complete a resume is offered in my high school.  
   Yes: 1  No: 2

5. A class in which students practice their interviewing skills is offered in my high school.  
   Yes: 1  No: 2

6. A class in which students are taught job-related social skills, is offered in my high school.  
   Yes: 1  No: 2
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Students have the opportunity to participate in classes at a technical college.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Students have the opportunity to participate in classes at a community college.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Students have the opportunity to participate in classes at another postsecondary institution.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Students have access to college support from staff at their high school.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. A class that teaches students to access resources and services (post office, library, social services, etc.) in their community is offered in my high school.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. A class that teaches transportation skills is offered in my high school.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. A class that teaches civic responsibilities and duties (voting, recycling, etc.) is offered in my high school.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. A class that teaches recreation and leisure skills is offered in my high school.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. A class that has students practice organizing recreation and leisure activities is offered at my high school.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Postsecondary Education and Training**

**Community Participation**

**Recreation and Leisure**
16. Students participate in a variety of recreation and leisure activities at my high school during the school day. 

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**Homeliving**

17. A class that teaches self-advocacy skills is offered in my high school.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>

18. A class that teaches cooking skills is offered in my high school.

20. A class that teaches students about skills needed to be a friend is offered in my high school.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>

21. A class that teaches students about skills needed to be in a romantic relationship is offered in my high school.

22. A class in sex education, (separate from health class) is offered in my high school.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>

23. A class that teaches basic computer skills is offered in my high school.

24. A class that teaches basic banking skills is offered in my high school.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>

25. A class that teaches basic organization skills is offered in my high school.

|   | 1 | 2 |
Part II

**Directions:** Please answer the following questions to the best of your ability. If you are unsure of an answer, please write “unsure”.

---

**Employment**

1. What purchased curriculum does your high school use to teach employment skills?

---

**Postsecondary Education and Training**

2. What purchased curriculum does your high school use to teach postsecondary education and training skills?

---

**Community Participation**

3. What purchased curriculum does your high school use to teach community participation skills?

---

**Recreation and Leisure**

4. What purchased curriculum does your high school use to teach recreation and leisure skills?

---

**Homeliving**

5. What purchased curriculum does your high school use to teach Home Living skills?

---

Part III: Demographic Information

**Directions:** Please answer the following questions about yourself.

---

1. Total years teaching, including this year: _____
2. Years in current position, including this year: __

3. Total years teaching in the Osseo District: __

4. Total years teaching special education, including this year: __

5. Age:
   - 21-29: __
   - 30-39: __
   - 40-49: __
   - 50-59: __
   - 60+: __

6. Sex: F____ M____

7. Educational Degrees:
   - B.S./B.A.: __
   - B.S./B.A. + 30: __
   - M.Ed./M.S.: __
   - M.Ed./M.S. + 15: __
   - M.Ed./M.S. + 30: __
   - M.Ed./M.S. + 45: __
   - Ed.S.: __
   - Ed.D./Ph.D: __

8. Areas of Certification:
   (please check all that apply)
   - LD: __
   - EBD: __
9. **Setting you teach in:**

- FSSE  
- Resource  
- Self-Contained  
- Other  

(please list)

---

*Thank you for taking the time to complete this survey!*
The Competency Based Community Assessment: A Five Step Process

Laura A. Roberts, Ph.D.
Orv C. Karan, Ph.D.

Abstract

A crucial step in the process of preparing students with disabilities for adult life is transition assessment. Using a comprehensive assessment that is built around the student’s interests, followed by assessment administration within the context of his/her community can provide special education professionals with rich data that is useful for program planning and establishing IEP goals. This article describes each step of a transitional assessment called the Competency Based Community Assessment (CBCA) which the others have found useful as a tool for creating individualized transition plans, along with program planning that is geared toward helping students with disabilities reach their full capacity in the areas of independent living, community participation and post-secondary education/employment.

The Competency Based Community Assessment: A Five Step Process

Each night before she goes to bed, twenty-one year old Jenny sets her alarm for 6:30 am so that she can wake up, eat breakfast, get dressed, catch the early bus and make it to her job on time. For the past one and a half years, Jenny has been working full time as an animal groomer at a local pet shop. At the end of her shift, Jenny gets back on the bus and heads for home where she will spend the evening preparing and enjoying a simple meal, cleaning up the dishes and then tending to any tasks in need of completion such as laundry or paying bills. After she has completed her chores, she walks over to the community center and attends either a yoga class or goes for a swim. Afterward Jenny goes back home and gets ready for the next day. Weekends are for shopping and like having fun with friends.

To some people, Jenny’s life may sound rather ordinary. However to Jenny and members of her family, her life is extraordinary. Jenny is a vibrant young woman with a learning disability. Her post-school outcome is somewhat unique in comparison to many of her peers with disabilities because she is gainfully employed, is living independently and is an active participant in her community. Jenny’s success can be attributed in part to her own unique talents and self-determination. However, between the ages of age 18 and 21, Jenny has been fortunate enough to receive transitional services that were geared toward preparing her to live independently, obtain and maintain desirable employment and participating fully in community activities. Jenny’s transitional program may not have been possible had she not taken an appropriate transitional assessment.

The Competency Based Community Assessment
The Competency Based Community Assessment (CBCA) (Karan, DonAroma, Bruder & Roberts, 2010), a type of situational assessment (Anthony, 1994; Peters, Koller, & Holliday, 1995), is a strength-based, person-centered (Morningstar & Liss, 2008) tool that is useful for helping teachers and others, who work with 16-21 year old youth with disabilities in transition planning. The assessment generates an overview of what an individual is able to do while situated in a variety of real life, community situations (Karan et al.) and determines whether the conditions are a good match to the student’s personality. The CBCA also identifies the individual’s specific training needs and supports that are necessary so that he/she can perform to his/her fullest capacity within his/her own community in transitioning to adult life. There are five steps involved in the CBCA (see Table 1) that, when executed in the suggested sequence, generate important data necessary for creating meaningful transition goals and developing transitional programs that are specific to the student’s individual needs.

Table 1
Steps Involved in Conducting a Competency Based Community Assessment

<table>
<thead>
<tr>
<th>Step 1: Creating the vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule a gathering among student, family members, school personnel and close friends.</td>
</tr>
<tr>
<td>Discussion of the hopes, dreams and concerns about the student’s future.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 2: Determining and prioritizing the skills to be assessed in a variety of settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying questions and priorities</td>
</tr>
<tr>
<td>Finding the common high priorities among the stakeholders</td>
</tr>
<tr>
<td>Identifying settings and situations within the student’s community that allow the evaluator to assess particular skills</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3: Familiarize the student with the evaluator and setting(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spending time with the student prior to the assessment to establish a rapport</td>
</tr>
<tr>
<td>Creating an itinerary of the sites/settings to be visited, possibly having the student select the order of occurrence and initiating the assessment</td>
</tr>
<tr>
<td>Visiting the places and settings to be included within the assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 4: Gathering Baseline Data on Current Levels of Functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing the student with a task to complete</td>
</tr>
<tr>
<td>Observing the student’s level of independence in completing the task</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 5: Increase Instruction to Determine Proximal Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offer minimal assistance to help student perform the task</td>
</tr>
<tr>
<td>Gradually increase supports as needed</td>
</tr>
<tr>
<td>This step helps to pinpoint the student’s specific instructional needs and levels of support needed</td>
</tr>
</tbody>
</table>

*Step 1: Creating a Vision*

This step involves bringing together the student, family members, teachers, clinicians and anyone who is close to the student to determine the hopes, dreams as well as greatest concerns that they have for the student when they become adults. This gathering, which
is typically facilitated by the person(s) conducting the assessment (teacher, consultant, etc.), should be scheduled in a comfortable setting such as the school library, a community center or even in the student’s home. The facilitator generates an open dialogue by asking the attendees to share any information they have about the student in terms of his/her strengths and interests as well as the highest expectations they have for him/her in adulthood in terms of employment, living situation, and community involvement. The information that is gathered at this meeting is used as a framework for creating a long-term plan for the student’s future. See Table 2 for an example of the data that are gathered during this step.

Table 2

Example of Data Obtained from Vision Planning Session

<table>
<thead>
<tr>
<th>Student’s strengths:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Intelligent</td>
</tr>
<tr>
<td>• Friendly</td>
</tr>
<tr>
<td>• Outgoing</td>
</tr>
<tr>
<td>• Curious</td>
</tr>
<tr>
<td>• Motivated</td>
</tr>
<tr>
<td>• Eager to help others</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student’s Interests:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reading</td>
</tr>
<tr>
<td>• Bicycling</td>
</tr>
<tr>
<td>• Music</td>
</tr>
<tr>
<td>• Gardening</td>
</tr>
<tr>
<td>• Puzzles</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hopes and Dreams: Student will</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Live independently in an apartment</td>
</tr>
<tr>
<td>• Plan weekly trips to places in the community (museums, movies, etc.)</td>
</tr>
<tr>
<td>• Obtain employment at a music store</td>
</tr>
<tr>
<td>• Establish a peer group</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biggest fears or worries about the student’s future</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financially dependent upon family</td>
</tr>
<tr>
<td>• Unemployment or working in an unfulfilling job</td>
</tr>
<tr>
<td>• Health problems</td>
</tr>
</tbody>
</table>

Step 2: Determining and Prioritizing the Skills to Be Assessed in a Variety of Settings

Once the teacher has established a framework of what is desired for the student’s future, it is time to identify the student’s specific skills that need to be assessed. To do this, the student, along with family members, close friends and other school personnel must complete a series of checklists that contain items related to employment, activities of daily living and community participation. Each individual is expected to select five items...
that they see as a priority for the student. Using a five point rating scale, they are asked to rate the selected items from one to five with one being of highest priority Table 3 contains a sample of some of the skills contained on the checklists.

Table 3
Checklist Items Related to Employment, Independent Living and Community Participation

Employment:
- Interacts well and is respectful of co-workers and supervisors
- Develops a workflow or routine within a task or set of tasks
- Demonstrates good problem solving skills and decision-making on the job
- Works as a member of a team
- Displays good time management skills for pacing work and taking breaks
- Is polite, respectful and helpful when dealing with the public
- Demonstrates adequate reading, writing and math skills as applicable to the setting
- Follows through on instructions
- Knows how to report hours worked/ use of time clock, special forms

Independent Living Skills:
- Manages and keeps track of his/her own money
- Establishes or follows a budget and lives within his/her means
- Uses his/her own bank account including e-banking if available
- Pays bills on time
- Attends to personal hygiene and grooming.
- Explores new leisure experiences
- Follows through on everyday tasks, commitments and responsibilities
- Demonstrates reasonable house cleaning skills
- Demonstrates reasonable safety awareness in using appliances
- Maintains good health practices in eating, sleeping and exercise routines
- Plans and makes time for spending time with friends and family

Community Participation Skills:
- Identifies services offered by the library and obtains a library card.
- Identifies services offered by the community recreational center.
- Demonstrates how to use at least three community resources, e.g., post-office, bank, library, health club, hair salon, etc.
- Accesses the community for preferred activities, goods, and services.
- Attends community functions in his/her local community.
- Plans a day trip.
- Participates in community activities with peers.
- Visits with neighbors in socially appropriate ways.
- Buys items on a shopping list at the grocery store and unpacks and appropriately stores items in the refrigerator or freezer in a timely manner upon returning home.
- Accesses medical services and makes and keeps appointments as needed
- Safely participates in the community.
Once they have completed the checklists the next step is to tally the items. The items to be assessed will be the five items on each list that received the highest amount of responses. While keeping in mind the long-term vision that was established in the first step the evaluator proceeds by determining a variety of settings and situations within the student’s community that will provide real-world opportunities to assess the student’s performance on each skill. It is important to carefully select activities that are typical for the student and within settings that the student is likely to encounter, as this will provide the most accurate data about the student’s abilities. This is particularly true for individuals with more severe disabilities as studies have shown that members of this population experience challenges in generalizing from classroom to natural environments (Lohrmann-O’Rourke & Browder, 1998).

Step 3: Familiarize the Student With the Evaluator and Setting(s)
While transitional assessments can be administered by a variety of school professionals, a rapport between the evaluator and student must be established prior to administering the assessment. This will help by alleviating any anxieties surrounding the testing experience (Buskist & Saville 2001). If the evaluator does not already know the student there are several strategies that have been found to be useful such as spending time with the student and discussing their interests, disclosing personal information about their own life, adding on to the stories that the student tells and actively listening (Mendes, 2003). If attempts to establish a rapport are not working then the evaluator may need to consider bringing along someone who knows the student in order to alleviate any discomfort. To assist with easing anxieties about the actual assessment, the evaluator should discuss the assessment details and take the student to visit the various settings they will visit on the day of testing.

Steps 4 and 5: Gathering Baseline Data on Current Levels of Functioning and Increasing Instruction to Determine Proximal Instruction

The last two steps of the CBCA go hand in hand and are performed on the day of the assessment, in each of the different settings and for each specific task that is being examined. For purposes of Gathering Baseline Data on Current Levels of Functioning, the evaluator explains to the student what he/she is expected to do. After receiving the instructions, the student is then asked to complete the activity, while the evaluator merely observes and documents the student’s level of independence in completing the task. If the student is not able to perform the task with complete independence, the evaluator proceeds to the last step of Increasing Instruction to Determine Proximal Instruction, by first providing the minimum level of supports and then increasing the support until the student can perform the task. Table 4 provides an example of the last two steps.

Table 4
Example of Gathering Baseline Data on Current Levels of Functioning and Increasing Instruction to Determine Proximal Instruction

Gathering Baseline Data:
Teacher: “Here is a recipe that I would like you to make.”
Student: “This is too hard.”
Teacher: “What is too hard, making the recipe?”
Student: “I can’t read it.”

Increasing Instruction to Determine Proximal Instruction:
The teacher proceeds to assist the student by helping him sound out only the list of
ingredients, which happen to be the words that he does not know.
Teacher: “Can you take it from here?”
Student: “I got it.”

By questioning the student about his/her response and then providing a minimal amount
of assistance, the student is able to perform the remainder of the steps with independence
and complete the recipe. Had the teacher assumed that the student could not complete the
task, based on his/her initial response and instead offered help with the cooking portion, it
may not have revealed that the student already possessed cooking skills. Furthermore,
had she not provided any support, he may have given up altogether. By gradually adding
supports, the evaluator can pinpoint more accurately the student’s specific training needs.

Conclusion

Transition to adulthood is challenging for most students. However, students with
disabilities continue to fall short in terms of employment (National Organization on
Disability, 2004; Hughes, & Avoke, 2010) and independent living in comparison to their
typical peers (Deschler & Schmacker, 2006). Federal mandates state that all students with
disabilities must receive transitional planning (IDEA, 1990). Further, such planning must
begin with an appropriate transition assessment. The Competency Based Community
Assessment is a user-friendly transitional assessment that provides rich data about an
individual’s current performance levels on different tasks in a variety of settings, all
within the context of the person’s own community. The utilization of such a thorough
assessment sets the stage for quality transitional programming, which will ultimately
improve outcomes for students with disabilities.

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About the Authors

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