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Preservice Teachers' Attitudes Toward Inclusive Education Policy in the United States

**Paul M. Ajuwon, Ph.D.
Missouri State University**

**Effie Laman, Ed.D.,
Digital Media Academy**

**John C. Earle, Ph.D.
Concordia University College of Alberta**

Abstract

The attitudes of 224 preservice teachers from eight universities in the United States were measured to determine if participants' sentiments, attitudes, and concerns about inclusion can be positively affected through a single course, i.e., using pre and post data gathered with one instrument. There were significant differences between a number of institutions' pre and post attitudes, sentiments, and concerns that likely stem from variations in the curricula and timing of the individual courses. Key demographic variables appeared to significantly account for the wide range of responses in sentiments, attitudes and concerns in both the pre and post-training surveys. The percent variance explained by each demographic variable indicates the most influential factors were the level of confidence in one's ability to teach in an inclusive setting, the candidates' level of interactions with persons with a disability, previous training related to working with persons with a disability, knowledge of legislation and policy regarding inclusion, and in their previous experience teaching students with disabilities. Legislation and policy can easily be taught in inclusive programs, but important factors relating to confidence and experience with persons with a disability require "real world", structured opportunities to promote inclusion.

PreService Teachers' Attitudes Toward Inclusive Education Policy in the United States

As used in this study, inclusive education refers to children and youth with disabilities becoming part of the milieu of general education, receiving a meaningful curriculum with necessary supports and services, and being instructed with effective strategies. This education paradigm has increased expectations on both general and special education teachers. The practice of inclusion has also brought to the forefront the need for reform in teacher preparation programs (Fisher, Frey, & Thousand, 2003; Shade & Stewart, 2001; Stayton & McCollum, 2002; Van Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007). Universities are now beginning to reexamine their philosophy and responsibilities as they prepare educators for inclusive classrooms. Forlin, Loreman, Sharma and Earle (2009) have argued that a number of demographic variables such as close contact with a person with a disability, training, teaching experience, knowledge of policy and law, and confidence levels, can significantly impact attitudes. Consequently, preservice training may be viewed as the appropriate time to evaluate teachers' sentiments and concerns, and modify any negative attitudes about inclusion. Research indicates strong evidence that personnel preparation programs need to examine preservice teachers' attitudes and knowledge of

inclusive education (Dingle, Falvey, Givner, & Haager, 2004, p. 38), while others have cited the need for additional teacher preparation and general education support (Janney, Snell, Beers, & Raynes, 1995; Wolery, Werts, Caldwell, Snyder, & Lisowski, 1995).

The U.S. Dept. of Education (2007) stated that, on average, approximately 80% of students with disabilities spend a substantial portion of the school day (40% or more) in a general education classroom. Today, more and more schools in the country practice inclusive education. Thus, researchers are beginning to realize that teachers' preparation, attitudes and, more importantly, opportunity for collaboration and teamwork, are critical to the success of the inclusion model (Hobbs & Westling, 1998; McLeskey, Rosenberg, & Westling, 2010). Reynolds and Birch (1977) noted that teachers will benefit from training prior to receiving students with disabilities in their classrooms; however, such training should occur at the preservice level, where prospective teachers acquire well-grounded techniques in teaching and managing the complex behaviors of some special needs learners, and in building collaboration with other stakeholders. Hammon (2003) showed that there were a number of variables that affected the efficiency of the inclusive classroom. These include: access to opportunities to collaborate on inclusion, adequate training from preservice and in-service programs, initial and ongoing support from administrators and co-teachers, and involvement in the planning and implementation of an inclusionary program. According to Norrell (1997), an inclusive classroom requires prior and ongoing training for teachers, additional planning time, restricting the number of special education students to three per class, provision for para-educators, additional incentives, as well as administrative support.

It has also been argued that the shaping of positive attitudes towards students with disabilities is an important component of the training of preservice teachers (Loreman & Earle, 2007), and that teacher training in the awareness of disabilities and appropriate strategies will have a positive impact on academic success, social outlook, employability and future independence of students with special needs. Thus, teachers who have a negative attitude towards the inclusion of students with disabilities or who have not been trained in the appropriate inclusion strategies are less likely to be successful in assisting such learners to reach their full potential.

The question frequently asked today by administrators and teachers is: How can teacher education programs be shaped to foster positive regard concerning the accommodation of students with disabilities in general education? Roberts (1982) suggested that the most direct step that can be taken is to include in these future teachers' training programs a course in which they are taught about different areas of disabilities, children's learning challenges, how to identify them, how to teach the children despite their learning deficits, and how to remediate their learning problems by instructing them through their strong learning channels. Researchers have also identified consultation, collaboration, and practical problem-solving as major prerequisites to inclusive education (Giangreco, Edelman, & Dennis, 1991). These skills may also be taught in coursework at the preservice level.

Research Objective

The principal objective of this study was to determine the effectiveness of including a course within general and special education programs that provides an overview of exceptionalities dealing with the issues and needs in inclusion. Participants' sentiments, attitudes, and concerns were evaluated separately through the three numerically balanced subscales of the instrument.

Potentially important demographic variables such as gender, age group, educational background, etc. of participants, were investigated to provide greater insights into issues of inclusion.

Methods

Participants

The 224 preservice teachers in this study represented a combination of general elementary and secondary education majors. All of the participants had the common experience of being enrolled in a course where the curriculum provides an overview of issues related to exceptionalities. The respondents' sentiments, attitudes, and concerns towards inclusion were measured with an instrument at the beginning and the end of an introductory course in special education in which participants were enrolled.

Responses to the survey were collected from eight post-secondary institutions across the United States, namely: Missouri State University, Springfield, MO, Portland State University, Portland, OR, McDaniel College, Westminster, MD, Columbus State University, Columbus, GA, Texas Tech University, Lubbock, TX, University of Toledo, Toledo, OH, Dominican College, Orangeburg, NY, and New Mexico Highlands University, Rio Rancho, NM.

Instrument

The latest revision of the Sentiments, Attitudes, and Concerns about Inclusive Education (SACIE) numeric scale developed by Forlin, Earle, Loreman and Sharma (2011) was employed to gather the research data. The instrument is made up of two main sections: Section One addresses the general demographics about each respondent, and Section Two consists of a 15-item questionnaire that elicits information about each participant's sentiments, attitudes and concerns regarding teaching students with disabilities.

For the purpose of examining preservice teacher preparedness for inclusion, we have made a clear distinction between the often confusing concepts of sentiments and attitudes. Sentiments towards inclusion are represented in the SACIE scale by questions probing the thoughts or views of an individual that are based on their emotions instead of reason. Conversely, attitudes towards inclusion represent a person's views or opinions based on reason in an evaluative manner. Consequently, the scale distinguishes between emotional response and practical opinion. The overall scale and its three components (sentiments, attitudes, and concerns) are designed to accurately measure and objectively evaluate the average state of preparedness of preservice teachers before and after the completion of an introductory course on exceptionalities dealing with the issues and needs of teaching in inclusive classrooms.

The SACIE scale, developed from two pilot studies with a combined size of 483 respondents from universities in Canada, Hong Kong and Australia, demonstrated high internal reliability and cross-validation with a second independent set of data consisting of 542 respondents that confirmed the three-factor substructure of the instrument (Forlin, Earle, Loreman, & Sharma, 2011). The internal reliability of the instrument as measured by Cronbach's alpha was relatively high for both the final stage of the development study ($\alpha = 0.85$) and the cross validation study (α

= 0.74) as reported by the developers. The authors noted that values above an α value of 0.70 are considered high, especially given the small number of items comprising the instrument (Netemeyer, Bearden & Sharma, 2003). The independent nature of the three components of the SACIE scale was confirmed by inter-subscale correlations not being significantly different from zero (prob. » 0.10). Comparable results were found in this study where internal reliability for the total SACIE scale ($\alpha = 0.81$) and the three subscales (sentiment scale $\alpha = 0.82$, attitude scale $\alpha = 0.85$, and concern scale $\alpha = 0.77$) were all relatively high.

In typical survey fashion, questions relating to the main themes were organized in random order so as not to develop any systemic patterns of answering. The nature of the negative wording of questions that relates to one's attitudes and concerns dictates that low value responses on the four-point Likert scale in the survey represent positive improvements. On the other hand, the positive nature of the questions related to the respondent's sentiments suggests improvement in the thoughts and views relating to inclusion are represented by higher scale measurements.

Results

Characteristics of Preservice Survey Population

As previously noted, a total of 224 preservice teachers participated in this study. Of the total number of respondents reporting their gender, 80% were female ($n = 175$) and 20% were male ($n = 44$). With respect to age, the majority were 29 years or younger ($n = 133$). Regarding the level of education, they came into the program with 92 having had a High School Diploma, 90 respondents (40%) had a Bachelor's degree, 26 respondents (12 %) had the Associates of Arts (AA) Certificate, and 14 students (6%) had a Master's degree.

Of the 222 participants who identified their gender, 16 (7%) reported having a disability themselves, while the majority (93%) did not ($n = 206$). Five respondents self-identified themselves as having blindness/partial sight/low vision, three identified themselves as having a physical impairment, four with a learning disability, and four with Attention Deficit Hyperactivity Disorder. The majority of people surveyed reported they were teaching or receiving training to teach at the secondary school level ($n = 70$), 68 reported preliminary/elementary, 50 reported special education, and the remaining 26 reported early childhood training.

When asked if they had significant or considerable interactions with a person with a disability, 142 participants responded yes, while 80 participants answered no. Furthermore, the majority ($n = 103$) reported they had no training in special education, 92 had some training, and only 28 had at least 40 hours of training. On the same note, 105 participants had no experience teaching a student with a disability, 77 reported they had some experience, and only 41 reported they had at least 30 full days of experience. Similarly, the majority ($n = 125$) of respondents felt they had poor or no knowledge of the local legislation or policy pertaining to children with disabilities, and only 49 participants rated their prior knowledge as being good or very good. In respect of their self-confidence, 85 respondents had very low or low confidence in teaching students with disabilities, while 88 had average confidence and only 49 had high or very high confidence.

Key Demographic Components Influencing Inclusive Education

There were significant institutional differences in the mean pre-course and post-course sentiments, attitudes and concerns (Table 1). Institutional differences in the three SACIE subscales accounted for 6.4% to 10% of the variation in the responses to the questions. Of the three scale components, concern towards inclusive practices in the classroom was responsible for the largest proportion of the variance, 9.9% (pre-course) and 10% (post-course), followed by attitudes (9.5% pre-course and 8.6% post-course), and sentiments (8.8% pre-course and 6.4% post-course), respectively. (Note that all three components accounted for a greater proportion of the variance in responses from the survey taken prior to the respondents having completed the course on special education). Individual institutional differences were not reported by name to maintain anonymity. Notably, only three of the eight institutions proved to be significantly different than the others.

Following the completion of a course with a major component on inclusion, preservice teachers generally showed a substantial improvement across two of the three components of inclusion. Primarily, respondents showed a very highly significant increase in positive sentiments towards inclusion ($p < 0.001$), and a very highly significant decrease in the level of concerns regarding their ability to meet the needs of students with disabilities in a regular classroom ($p < 0.0001$) (Table 2). An increase in positive attitude towards inclusion was evident after the completion of the course, but the mean differences were not statistically significant ($\alpha = 0.05$). The marked reduction in the level of concerns regarding inclusion accounted for the highest proportion of the variance (16.9%), compared to sentiments (6.4%), and attitudes (1%).

A degree of prior interaction with one or more persons with a disability appears to have had no influence on the sentiments that preservice teachers held towards inclusion, either before or after completing a course that contained a component of inclusion (Table 3). Significantly improved attitudes and substantial lower levels of concern were however experienced by respondents that had reported having previous interactions with individuals with a disability. This was true both before (pre-course) and after (post-course) having completed the special education course. The highest component of the variance in responses was explained by the differences between pre-course attitudes (10.6%) and pre-course concerns (9.5%).

Experience teaching persons with a disability prior to embarking on the education program had a positive influence on all three components of inclusion (Table 4) both before and after completing the special education course. Sentiments, attitudes and concerns all markedly improved with increasing levels of previous experience teaching in a special needs situation. Notably, only the improvement in sentiment levels of teacher trainees expressed after receiving instruction on inclusion (post-course) could not be demonstrated statistically ($\alpha = 0.05$). It is also apparent that the greatest improvement in sentiments, attitudes and concerns occurred when respondents reported the highest level of previous teaching experience, as opposed to only some previous experience (Table 4). The proportion of the variance explained by differences between the three levels of experience was not notably high (i.e., 0.4% to 8.5%). The highest proportions were consistently found in the pre-course surveys.

Previous training in special education prior to enrolling in the education program appears to have markedly reduced the concerns of preservice teachers both before ($p = 0.001$) and after ($p = 0.003$) attending the course on special education (Table 5). No difference in the mean level of sentiments was evident in the pre-course survey, while a significantly more favorable level of sentiment is evident in the post-course group that reported having had a high level of previous training in special education. Pre-course and post-course data showed opposing trends in attitudes among the two groups. In the pre-course group, increasing levels of previous training was negatively correlated with values that represent more favorable attitudes, while the post-course group responses indicated those with a higher level of training exhibited a significantly more favorable attitudes towards inclusion. The most important components of the variation (i.e., attitudes and concerns) accounted for 5.4% to 10.5% of the differences observed in the study (Table 5).

There was no evidence of a significant difference in sentiment scores associated with the five levels of knowledge of the legislation and policy pertaining to inclusion in either the pre-course or the post-course groups (Table 6). On the other hand, concerns (pre-course and post-course), and attitudes (pre-course only), improved significantly as the level of perceived understanding of the legislation and policy increased. Notably, post-course attitudes also increased substantially with perceived understanding of the legislation, but the differences were not sufficiently high to be statistically significant. The concern component accounted for the largest improvement in attitudes with perceived level of understanding of legislation and policy, i.e., 10.1% (pre-course) and 9.6% (post-course).

Perceived level of confidence to teach in an inclusive classroom was not linked to sentiment values, accounting for only 0.9% (pre-course) and 1.5% (post-course) of the variance in the level of sentiments expressed by preservice teachers (Table 7). Attitudes and concerns on the other hand improved substantially with increasing confidence level. Indeed, the influence that confidence to teach in an inclusive classroom had on concerns and attitudes was marked and very highly significant. The level of confidence expressed by preservice teachers had a much greater influence on their concerns pre-course (25.4%) than post-course (11.4%). Notably, no overall change in the mean level of attitudes was observed between the pre-course and post-course results for any of the levels of confidence expressed by preservice teachers. Conversely, concerns among all levels of confidence were substantially lower across all expressed levels of confidence after respondents completed the course.

There was no evidence of a gender difference in the level of sentiments or concerns for either pre-course or post-course data (Table 8). Attitudes, however, were significantly more favorable in women than in men for both the pre-course ($p = 0.001$) and post-course ($p = 0.021$) results. However, the proportion of the variance in attitudes accounted for by gender was not very high ($\leq 3.8\%$).

Individuals who identified with a personal disability exhibited no difference in mean sentiment level compared to those who did not identify themselves as having a disability (Table 9). A significantly more favorable level of attitude was, however, observed in those that reported a disability. This trend occurred in both the pre and post-course groups, but the influence of personal disability on attitudes towards inclusion was relatively small, each accounting for only

about 2% of the total variation in the data. The mean level of concern was also lower in the pre-course and post-course groups reporting a personal disability, but neither was significant (Table 9).

There was little evidence to suggest that the level of education reported by the respondents had any influence on their attitudes or concerns towards inclusion. Sentiments towards the practice of inclusive education were highest in those candidates possessing the Master's degrees, and decreased sequentially in those with a Bachelor's degree, AA Certification and High School Education, respectively. Despite this trend, the only significant difference ($\alpha=0.05$) in the mean sentiment levels was between those that had a Master's degree and those that possessed either an AA Certification or a High School diploma (Table 10).

Discussion

Influence of Demographic Differences in Preservice Teachers on Sentiments, Attitudes and Concerns

Key demographic variables appeared to significantly account for the wide range of responses in sentiments, attitudes and concerns for working in inclusive classrooms expressed by preservice teachers. The percent variance explained by each demographic variable and the level of significance associated with differences between the group responses within each demographic indicate the most influential demographics were the respondents' level of interactions with persons with a disability (Table 3), previous experience teaching students with disabilities (Table 4), previous training related to working with persons with a disability (Table 5), and knowledge of legislation and policy regarding inclusion (Table 6). Essentially, these demographics had a much stronger influence on preservice teachers prior to their completion of an introductory course on inclusive education.

The authors believe that the reduced influence of these factors in the post-survey results suggests that a lack of previous experience, training and interaction with persons with disabilities, and a lack of knowledge about legislation regarding inclusive education can be overcome through classroom instruction on issues related to inclusion. The authors further speculate that the noted differences in sentiments, attitudes and concerns towards inclusion among the eight institutions (Table 1) may be accounted for by differences in the curricular and instructional methodologies employed and the timing and extent of the inclusion component within the various programs. Comparisons of the content and delivery of the special education courses taught at the various institutions should provide insight into the most effective approaches to addressing the sentiments, attitudes, and most importantly, the concerns of preservice teachers anticipating the challenges ahead of them.

Previous Interactions with Persons with a Disability

Respondents who had previous interactions with a person with a disability had a significantly more positive attitude and significantly lower level of concern about inclusion, both before and after completion of the course (Table 3). Clearly, contact with a person with a disability has a strong impact on the formation of appropriate attitudes and in lessening fears and concerns related to inclusionary practices. This suggests that it is important to encourage students to seek

out opportunities to interact with people with disabilities on a personal and professional basis so as to better understand and become comfortable with their goals and needs. Surprising perhaps, the data also suggests that people do not require prior contact with individuals with a disability to feel sympathy for their situation, as evidenced by the high level of sentiments held for such individuals, irrespective of any prior interaction with persons with disabilities.

Previous Experience Teaching and Training

Not surprisingly, previous experience teaching one or more persons with a disability, and previous instruction in teaching persons with a disability, has a strong influence on all aspects of inclusion, especially in the areas of attitudes and concerns (Tables 4 and 5). Previous experience has the greatest impact on forming positive attitudes and reducing implementation concerns during the early stages of the teacher education program (i.e., prior to completing additional instruction on inclusive practices). This does not negate its influence later on in the program, after subsequent instruction in inclusion. Consequently, previous experience teaching persons with a disability can provide benefits that supersede the additional instruction on inclusion received during the educational program. Similarly, early instruction regarding inclusion and early experience teaching persons with a disability are useful at any stage of teacher education and is to be encouraged.

The lesser importance of previous teaching experience and training relating to inclusion on the formation of positive sentiments towards inclusion is also generally apparent (Tables 4 and 5), once again suggesting that the emotional aspects of equal educational opportunities for all persons is less of an issue than the practical aspects of its implementation.

Knowledge of Law and Confidence in Ability to Teach

Preservice teachers' knowledge of national and state legislation and policy, and their perceived level of confidence to teach in an inclusive classroom had a strong positive effect on their attitudes and concerns, both before and after specific training (Tables 6 and 7). Sentiment levels once again appeared not to be influenced by these demographic variables, suggesting the clear distinction between practical (attitude) and emotional (sentiment) issues related to inclusion. Given these findings, it seems prudent that any course curriculum on inclusion contain comprehensive instruction on current legislation and policy. The authors recognize the impact that instruction on specific issues related to inclusion have on bolstering student confidence, and anticipate that such instruction will markedly increase positive attitudes and reduce the student's level of concern.

Gender and Self-Identifying as Having a Disability

Among the three identified areas of inclusion accounted for in the SACIE scale, only attitudes towards inclusion appeared to differ significantly between the genders. Average measures of attitudes as reported by female preservice teachers were significantly more positive than those of their male counterparts on both the pre-course and post-course surveys (Table 8). Encouragingly, the mean level of attitude towards inclusive education appears to have improved in both genders after participants completed the course. This suggests that instruction can improve the attitude of

trainees towards the adoption and implementation of inclusive practices in schools. Despite the lack of any statistically significant evidence of differences between male and female sentiments and concerns, the overall trend in both followed the expected pattern of improvement after completion of the course, especially in females. Again, this suggests that directed instruction is important in the development of appropriate attitudes and in reducing concerns related to inclusion.

Sentiment levels were comparable in both those that self-identified as having a disability and those who indicated they had no disability (Table 9). This finding was unexpected as the authors believed there would be more positive sentiments from those individuals that have experienced the realities of living with a disability than in those with no such practical experience. These results were similar to those reflecting on the influence that experience through personal interactions with persons with a disability had on sentiment levels (Table 3).

A lower level of concerns, especially in the pre-course survey, was noted in those that possess a disability, but the difference was not large enough to demonstrate objectively through statistical analysis (Table 9; $p < 0.05$). Consequently, this may suggest that many individuals with disabilities have learned through experience to deal with the challenges of living with a disability.

Attitudes towards inclusive practices, on the other hand, were substantially higher in the group that identified themselves as having a disability (Table 9). This strongly suggests that persons with a disability have a greater sense of the need to accommodate all levels of learners in regular classrooms. It should be noted that such a strongly positive attitude towards inclusion is evident despite the varying opinions of people with disabilities and organizations they represent. It may be suggestive of the fact that inclusion is far from being universally accepted. A number of organizations of general and special educators and of advocates for students with disabilities, e.g., the Commission on the Education of the Deaf, the Learning Disabilities Association, and the National Education Association, have issued policy statements in favor of a strong separate special education system (Fuchs & Fuchs, 1994). In the opinion of the American Federation of Teachers (1994), there is need to reevaluate the goals and objectives of inclusion in the interest of all stakeholders, including parents of children with multiple disabilities who are being placed in neighborhood schools. These opponents contend there are insufficient medical personnel in school districts to care for medically fragile children under existing circumstances, and inclusion would impose extraordinary burden on educators, paraprofessionals, and administrators. Critics who themselves have a disability, e.g., members of the National Federation of the Blind, have lamented the paucity of resources, as well as untrained teachers who are today charged with instructing special needs children in the various public schools' inclusion programs. Anecdotal evidence points to poor instruction from under-resourced public schools resulting in students with deficits in academic and social skills, and who are consequently unable to fully integrate into society.

Lack of administrative support has also been cited by professionals and parents as militating against meaningful integration of special needs children in general education. This lack of administrative support has been compounded by current changes in economic fortune that continue to impact the level of funding allocated to special education and development of related

services in K-12 schools. We see inadequate funding of inclusion as a potential threat to school systems that are already extremely vulnerable - especially in rural areas with great poverty and social needs.

In our opinion, the preceding split argument may have influenced how participants with disabilities reacted to our research questionnaire. They may have put a lot of consideration into the issue of inclusion and based their opinion from personal experience that may have been a push towards inclusion or a step back from it. Therefore, we believe that their opinions may be based on personal perceptions of inclusive education, as well as their perception of other kids with disabilities. This observation warrants further empirical research to establish its validity and relevance to current practices in special education.

Level of Qualification

The level of advanced education obtained by preservice teachers prior to enrolling in the course on inclusion appears to have had a strong influence on their sentiments towards inclusion. Notably, candidates with a Master's degree ($n = 14$) had significantly higher levels of sentiments in the pre-test results, compared to those with only a Secondary School diploma ($n = 92$), or an AA certificate ($n = 26$) (Table 10). A plausible explanation for this variance could be the increased experience and exposure that participants with higher qualification showed when responding to the questions. It may well be that these participants have had greater previous interactions with students with disabilities, and/or were involved with work in clinical settings that have impacted their sentiments. There was no evidence, however, that higher educational qualifications were sufficiently influential to have a significant impact on respondents' attitudes or concerns. Admittedly, the disproportionate sample size of the different levels of attained education and the small number of respondents with a Master's degree makes any interpretation of educational experience on the issues related to inclusion problematic.

Conclusion and General Recommendations

Participants' overall sentiments, attitudes and concerns significantly improved upon their completion of the course, and this is a testament to the effectiveness of the programs offered at the eight institutions. This finding suggests that the curricula are not equally effective across the three areas of interest. Indeed, the courses are considerably more effective at reducing the concerns that preservice teachers have about teaching in an inclusive environment than on improving either their attitudes or sentiments. Instruction is also quite effective at fostering positive attitudes but considerably less influential on changing preservice teacher's sentiments. Consequently, the curricula should focus on enhancing the attitudes of teacher-trainees. The correlation between sentiments and attitudes in the structure of the SACIE scale (Forlin, Earle, Loreman & Sharma, 2011) suggests that improving one curriculum to address one area will also have a positive influence on the other. The unique structure of the concerns component of the scale, however, indicates changes in curricula to reduce the level of concerns experienced by preservice teachers will necessitate its own set of approaches.

The diverse nature of the skills and experiences seen in preservice teachers as measured by the eight demographic variables characterizing each individual has a strong influence in shaping

their sentiments, attitudes and concerns towards inclusive education. All of the demographic variables in the study, except gender, have a fairly strong influence on the level of concerns felt by the respondents. To a lesser extent, demographic diversity also accounts for the substantial differences observed in attitude, and to a much lesser extent, to the variations in sentiments seen in preservice teachers. The most influential of the demographic variables appears to be the level of confidence that each individual has that they can effectively teach in an inclusive environment. Confidence in one's teaching ability does not appear to have a noticeable effect on a person's emotional feelings or views regarding inclusion (i.e., sentiments). These are most likely formed through life experiences leading up to adulthood. Among the eight demographic variables tracked in this study, only gender had little or no influence. Given the apparent influence that demographic variables have on inclusion issues, it seems prudent to investigate how curricula can best be designed to overcome any common deficiencies identified within the preservice teacher's population.

In addition to identifying marked improvements within individual preservice teachers as noted above, the study also indicated very highly significant differences between the subjects, even after instruction ($p < 0.001$). These considerable differences should be seen as an opportunity to foster even more positive attributes towards the acceptance and implementation of inclusion. To improve on the general acceptance of inclusion among preservice teachers, we recommend that university programs inculcate in their trainees innovative curricular approaches that will enable prospective educators to deal with challenges that are prevalent today in inclusive education practices. Duncan (2009), in a speech to Teachers College, Columbia University, challenged teacher education programs to make their mission to train teachers with qualifications to provide better outcomes for all students. The Secretary of Education posited: "... Education is no longer just a pathway to opportunity and success - it is a prerequisite to success" (Duncan, 2009). We believe teacher education programs are in a position to ensure that preservice teachers acquire the knowledge, dispositions, and performances required to succeed in educating all learners before they get to the classroom. Specifically, special education standards of the National Council for Accreditation of Teacher Education (NCATE) state that "professional education programs should prepare all school personnel to contribute to the education of exceptional learners" (cited in Connard, 1984, p. 1). This realization implies an urgent need to restructure teacher education programs to focus on teaching the common core of knowledge and skills that all teachers should possess to function effectively in inclusive schools. Thus, colleges of education need to begin to be more aggressive in redesigning their teacher education curricula to provide novice teachers with this common knowledge base and set of experiences.

One effective strategy to increase understanding and build confidence and skills in prospective teachers is to sensitize them to the disability culture and experience by having them observe what it is like to have a disability firsthand, from people in the disability community. By inviting well-placed persons who have a disability to share their experiences in an introductory course on exceptionalities, trainees' attitudes will gradually improve and their concerns minimized over time. This type of exposure will likely help everyone to keep the disability perspective in focus as they are assigned to inclusive classroom tasks.

In our own professional work, we have embedded into the curriculum reading of pertinent inclusive literature, use of media, among other course projects. Preservice teachers then engage

in discussions and analyses around plots and themes in the selected readings and media. This type of strategy is in line with the thinking of researchers. Safran (1998) posited that use of movies that portrayed disabilities can be particularly helpful for those who have had minimal or no contact with individuals with specific impairments. Winsor (1998) stated that the utilization of inclusion literature is a worthy topic for discussions among preservice and in-service teachers. Prater (2003) also advocated teacher educators seek out fictional portrayals of individuals with disabilities. Furthermore, she suggests several ways to utilize these books in different courses. These may include: having university students compare the characteristics portrayed in a juvenile fiction book with the characteristics learned in an introductory course on disabilities, or assigning students in an instructional methods course to write lesson plans involving the use of books to teach about other aspects of disabilities.

Because teachers in reality are responsible for making inclusion work, it follows that their training should develop in them the pedagogical knowledge and skills to deal with the significant challenges that confront practitioners of inclusion, and of creating a classroom culture where all children are valued. Through a structured process of infusing these miscellaneous ideas into the curriculum, we believe personnel preparation programs will be suitably positioned to perform their roles and responsibilities in actualizing inclusive education practices. Finally, we recommend that universities design introductory courses to special needs education which can be accessed also by students from other disciplines who may wish to enter the teaching profession. This approach will no doubt indirectly help to prepare all trainees to gain knowledge in relation to teaching children with special needs who may be enrolled in subject matter disciplines in K-12 settings. However, we caution that such courses must allow for critical examination of theories and practices of inclusion and pedagogical effectiveness, as well as collaborative team building and behavioral management techniques. More fundamentally, participants in such courses will need to be given structured opportunities to experience inclusive education in reality. It is our opinion that exposure to the methods of teaching children with disabilities in general classrooms is one of the essential components in the process of eliminating barriers and building positive attitudes.

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About the Authors

Paul M. Ajuwon, Ph.D. is the current Coordinator of the Blindness and Low Vision Program and the Orientation and Mobility Program at Missouri State University, Springfield, MO. Prior to his current position, Dr. Ajuwon was the Principal of the Idaho School for the Deaf and the Blind, Gooding, ID, and also worked as a Teacher/Consultant in the Cleveland Municipal School District of Ohio. His research interest include: Braille literacy, assistive technology, inclusive education, family quality of life, and international education and leadership studies.

Dr. Effie Laman is the current Special Education Director for Digital Arts Media Academy (DATA), Albuquerque, NM. Previously, Dr. Laman worked at Texas Tech University and New Mexico Highlands University in teacher preparation. Dr. Laman's teaching and research interests involve issues of diversity and inclusion of students with disabilities in general education and community settings. Other interests include the collaboration processes of special education and enhancing the effectiveness of those processes.

Dr. John Christopher (Chris) Earle is a professor in the Biology and Environmental Sciences Department of Concordia University College of Alberta, Edmonton, Alberta, Canada. He is a biostatistician with research interests in aquatic ecology. His current research involves use of genomic bioassays to evaluate water quality in freshwater ecosystems impacted by oil contamination. He is also a member of two international groups investigating educational issues related to wholistic schooling, including inclusive education.

Table 1: Comparison of mean differences in Sentiments, Attitudes and Concerns between the 8 Post-Secondary Institutions participating in this study, as reported for both pre-course and post-course phases of the study.

SACIE COMPONENTs	Probability of a Difference	Variance Explained by Component
<i>Pre-Course Sentiments</i>	0.006	8.8%
<i>Post-Course Sentiments</i>	0.047	6.4%
<i>Pre-Course Attitudes</i>	0.003	9.5%
<i>Post-Course Attitudes</i>	0.007	8.6%
<i>Pre-Course Concerns</i>	0.002	10.0%
<i>Post-Course Concerns</i>	0.002	9.9%

Table 2: Repeated measures ANOVA comparing pre-course and post-course paired subjects for preservice teacher's sentiments, attitudes and concerns about inclusive education. NS = Non-significant ($\alpha > 0.05$) comparison of means.

	Pre-Training	Post-Training	Effect Evaluation		
Inclusion Components	<i>Mean ± Std</i>	<i>Mean ± Std</i>	<i>F_s</i>	<i>Probability</i>	<i>% Variance</i>
<i>Sentiments</i>	2.735±0.49	2.894±0.54	15.04	<0.001	6.4
<i>Attitudes</i>	2.244±0.44	2.281±0.47	2.22	0.138 (NS)	1.0
<i>Concerns</i>	2.529±0.46	2.340±0.48	44.83	<0.0001	16.9

Mean responses range from one (strongly disagree), two (disagree), three (agree) and four (strongly agree).

Table 3: Influence of previous interactions with disabled persons on the sentiments, attitudes and concerns of preservice teachers both before (pre) and after (post) completing a course on special education.

Previous Interaction with Disabled Person(s)		MEAN ± STD	PROB.	VARIANCE EXPLAINED
Pre-Sentiments	Yes (n=142)	2.76±.51	NS	0.6%
	No (80)	2.79±.45	0.267	
Post-Sentiments	Yes (n=142)	2.89±.54	NS	3.0%
	No (80)	2.88±.54	0.863	
Pre-Attitudes	Yes (n=142)	2.35±.42	<0.001	10.6%
	No (80)	2.06±.38		
Post-Attitudes	Yes (n=142)	2.36±.48	<0.001	2.1%
	No (80)	2.13±.42		
Pre-Concerns	Yes (n=142)	2.41±.45	0.001	9.5%
	No (80)	2.71±.53		
Post-Concerns	Yes (n=142)	2.26±.50	0.001	5.1%
	No (80)	2.48±.39		

Mean responses range from one (strongly disagree), two (disagree), three (agree) and four, (strongly agree). NS = Non-significant ($\alpha > 0.05$) comparison of means.

Table 4: Influence of previous experience teaching disabled persons on the sentiments, attitudes and concerns of preservice teachers both before (pre) and after (post) completing a course on special education.

Previous Experience Teaching Disabled Persons		MEAN ± STD	PROB.	VARIANCE EXPLAINED
Pre-Sentiment	None (n=105)	2.70±.50	0.015	3.7%
	Some (77)	2.67±.50		
	High (41)	2.93±.39		
Post-Sentiment	None (n=105)	2.87±.55	NS 0.673	0.4%
	Some (77)	2.87±.53		
	High (41)	2.95±.53		
Pre-Attitude	None (n=105)	2.17±.42	0.001	7.4%
	Some (77)	2.22±.43		
	High (41)	2.49±.40		
Post-Attitude	None (n=105)	2.20±.47	0.029	3.2%
	Some (77)	2.31±.46		
	High (41)	2.42±.47		
Pre-Concern	None (n=105)	2.63±.43	0.001	8.5%
	Some (77)	2.53±.45		
	High (41)	2.25±.48		
Post-Concern	None (n=105)	2.41±.47	0.019	3.6%
	Some (77)	2.34±.45		
	High (41)	2.17±.40		

Mean responses range from one (strongly disagree), two (disagree), three (agree) and four, (strongly agree). Non-significant ($\alpha > 0.05$) comparison of means are indicated NS.

Table 5: Influence of previous special education training on the sentiments, attitudes and concerns of preservice teachers before (pre) and after (post) completing a special education course in inclusion. Non-significant ($\alpha > 0.05$) comparison of means are indicated NS.

Previous Training in Special Education		MEAN ± STD	PROB.	VARIANCE EXPLAINED
Pre-Sentiment	None (n=103)	2.72±.41	NS 0.885	0.1
	Some (n=92)	2.57±.55		
	High (n=28)	2.71±.50		
Post-Sentiment	None (n=103)	2.85±.55	0.019	3.6
	Some (n=92)	2.84±.51		
	High (n=28)	3.16±.53		
Pre-Attitude	None (n=103)	2.56±.08	0.001	9.6
	Some (n=92)	2.28±.04		
	High (n=28)	2.13±.04		
Post-Attitude	None (n=103)	2.21±.45	0.003	5.2
	Some (n=92)	2.28±.49		
	High (n=28)	2.56±.41		
Pre-Concern	None (n=103)	2.65±.42	0.001	10.5
	Some (n=92)	2.49±.44		
	High (n=28)	2.18±.55		
Post-Concern	None (n=103)	2.42±.45	0.003	5.2
	Some (n=92)	2.32±.49		
	High (n=28)	2.04±.40		

Table 6: Influence of perceived understanding of the legislation and policy dealing with inclusion on the sentiments, attitudes and concerns of preservice teachers before (pre) and after (post) completing a course in inclusion. NS = Non-significant ($\alpha>0.05$).

Knowledge of Existing Policy and Legislation		MEAN ± STD	PROB	VARIANCE EXPLAINED
Pre-Sentiment	None (n=33) Poor (n=92) Average (n=74) Good (n=19) Very Good (n=5)	2.53±.47 2.74±.50 2.79±.48 2.75±.53 2.88±.27	NS 0.126	3.2%
Post-Sentiment	None (n=33) Poor (92) Average (74) Good (n=19) Very Good (5)	2.82±.47 2.85±.52 2.91±.61 3.11±.42 2.68±.52	NS 0.282	2.2%
Pre-Attitude	None (n=33) Poor (92) Average (74) Good (n=19) Very Good (5)	2.05±.41 2.22±.44 2.30±.42 2.43±.39 2.52±.33	0.007	6.3%
Post-Attitude	None (n=33) Poor (92) Average (74) Good (n=19) Very Good (5)	2.15±.52 2.25±.46 2.32±.48 2.44±.40 2.52±.39	NS 0.139	3.1%
Pre-Concern	None (n=33) Poor (92) Average (74) Good (n=19) Very Good (5)	2.78±.42 2.58±.41 2.42±.49 2.28±.39 2.16±.71	<0.001	10.1%
Post-Concern	None (n=33) Poor (92) Average (74) Good (n=19) Very Good (5)	2.61±.46 2.38±.46 2.22±.48 2.22±.38 1.96±.38	<0.001	9.3%

Table 7: Influence of perceived confidence to teach in an inclusive classroom on the sentiments, attitudes and concerns of respondents before (pre) and after (post) completing a program course in inclusion. Non-significant ($\alpha>0.05$) comparison of means are indicated as NS.

Confidence to Teach in Inclusive Classroom		MEAN ± STD	PROB.	VARIANCE EXPLAINED
Pre-Sentiment	Very Low (n=16) Low (n=69) Average (n=88) Good (n=38) Very Good (n=11)	2.60±.48 2.71±.44 2.78±.49 2.75±.59 2.71±.49	0.745	0.9%
Post-Sentiment	Very Low (n=16) Low (69) Average (88) Good (n=38) Very Good (11)	2.93±.43 2.86±.53 2.85±.55 3.02±.57 2.80±.56	0.50	1.5%
Pre-Attitude	Very Low (n=16) Low (69) Average (88) Good (n=38) Very Good (11)	1.97±.44 2.16±.45 2.21±.37 2.54±.40 2.44±.40	<0.001	13.3%
Post-Attitude	Very Low (n=16) Low (69) Average (88) Good (n=38) Very Good (11)	2.06±.44 2.23±.51 2.23±.40 2.55±.49 2.42±.35	0.001	8.4%
Pre-Concern	Very Low (n=16) Low (69) Average (88) Good (n=38) Very Good (11)	2.89±.33 2.74±.44 2.48±.37 2.15±.46 2.20±.37	<0.001	25.4%
Post-Concern	Very Low (n=16) Low (69) Average (88) Good (n=38) Very Good (11)	2.56±.47 2.50±.49 2.29±.38 2.16±.52 2.01±.30	<0.001	11.4%

Table 8: The Influence of gender on the sentiments, attitudes and concerns of preservice teachers before (pre) and after (post) completing a course on special education dealing with inclusion. NS = Non-significant ($\alpha > 0.05$) comparison of means.

SACIE THEME	MEAN ± STD	PROB.	VARIANCE EXPLAINED
Pre-Program Sentiments	Male 2.80±.44 (n=44) Female 2.72±.51 (n=175)	NS 0.321	0.5%
Post-Program Sentiments	Male 2.83±.08 (n=44) Female 2.90±.04 (n=174)	NS 0.447	0.3%
Pre-Program Attitudes	Male: 2.08±.48 (n=44) Female: 2.24±.41 (n=175)	0.005	3.6%
Post-Program Attitudes	Male 2.13±.53 (n=44) Female 2.32±.46 (n=174)	0.020	2.5%
Pre-Program Concerns	Male 2.56±.51 (n=44) Female 2.52±.46 (n=175)	NS 0.652	0.1%
Post-Program Concerns	Male 2.44±.50 (n=44) Female 2.32±.47 (n=174)	NS 0.144	1.0%

Table 9: The influence that personal disability has on the sentiments, attitudes and concerns of preservice teachers both before (pre) and after (post) completing a course on special education dealing with inclusion. NS = Non-significant ($\alpha > 0.05$) comparison of means.

SACIE THEME	Disability	MEAN ± STD	PROB	VARIANCE EXPLAINED
Pre-Program Sentiment	Yes (n=16)	2.73±.53	NS	0.001%
	No (n=206)	2.74±.49	0.977	
Post-Program Sentiment	Yes (n=16)	2.84±.29	NS	0.1%
	No (n=206)	2.89±.55	0.722	
Pre-Program Attitude	Yes (n=16)	2.48±.41	0.026	2.2%
	No (n=206)	2.23±.43		
Post-Program Attitude	Yes (n=16)	2.52±.37	0.032	2.1%
	No (n=206)	2.26±.48		
Pre-Program Concern	Yes (n=16)	2.33±.51	NS	1.5%
	No (n=206)	2.54±.46	0.068	
Post-Program Concern	Yes (n=16)	2.26±.48	NS	0.2%
	No (n=206)	2.35±.48	0.502	

Table 10: Significant differences in preservice teachers' pre-program sentiments in relation to highest level of education completed. NS = Non-significant ($\alpha > 0.05$) comparison of means.

	Pre-Training			Main Effect
Level of Education	N	Mean	Std. Dev.	Probability (in comparison to Master's Degree)
Master's Degree	14	3.07	0.13	N/A
Bachelor's Degree	90	2.83	0.45	0.455 (NS)
AA Certificate	33	2.59	0.63	0.010
High School	92	2.64	0.05	0.012

Autism Spectrum Disorders and Implications for Teachers

Crystal Echaniz, M.A.
Harmony School of Innovation, El Paso, Texas.

Kathleen A. Cronin, Ph.D.
New Mexico State University

Abstract

This paper reviews characteristics of autism spectrum disorders (ASD), possible causes of ASD, current demographic information, the effects on the individual with ASD and the family, as well as diversity and multicultural issues related to autism. Additionally, the paper provides pertinent information about students with ASD for both general education and special education teachers including a review of special education laws, pedagogical strategies, the individual education plan (IEP), the use of behavior plans, accommodations and modifications appropriate for students on the autism spectrum, assistive technology, and professional development.

Definition of Autism

The modern concept of autism was first introduced as "autistic disturbances of affective contact" in 1943 by Leo Kanner (Kanner, 1943, p. 217). He suggested that children with autism live in a world of their own, cut off from normal social interactions due to a failure to develop motivation, rather than a regression of social interaction. Kanner discussed eleven children who were described as rigid, inflexible, reacting negatively to any change in environment or routine, and a lack of ability to psychologically perceive the social world and make it part of themselves. He also suggested that autism could be influenced and caused by inappropriate parenting (Kanner, 1943).

In 1944 Hans Asperger published a paper in Germany in which he described a syndrome he referred to as "autistic psychopathy" (Wing, 1981). He identified four boys who had lack of empathy, little ability to form friendships, clumsy movements, and one-sided conversations which were of specific interest to them. The boys had relatively advanced grammar and vocabulary, but there was something unusual about their ability to have a typical conversation. Asperger also suggested that the disorder is a life-long and stable personality type (Attwood, 2007).

Autism, also known as Pervasive Development Disorder (PDD) or autism spectrum disorder (ASD), is a complex developmental disability which typically affects a person's ability to communicate and interact with others. It is a spectrum disorder that affects each individual differently and can range from very mild to severe. Symptoms of ASD may include: not pointing at objects or showing interest, not being able to pretend play, avoiding eye contact or wanting to be alone, having delayed speech or language skills, repeating words or phrases over and over (echolalia), obsessive interests, getting upset by minor changes, having trouble understanding

others or own feelings, or stereotyped mannerisms including hand flapping, body rocking, or spinning in circles (Centers for Disease Control and Prevention (CDC), 2012a). Autism is a triad of impairments that typically emerge by the age of three and last throughout a person's life, although symptoms may improve over time with treatment. The triad consists of impairments in social relationships, social language and communication skills, and restrictive behaviors, interests, and activities (Witwer & Lecavalier, 2008).

Autism was considered a form of schizophrenia until the 1970's, when further research proved that children with autism suffer in many other areas of development, and their behavior is very different from the typical schizophrenic (Goldstein & Ozonoff, 2009). Currently, there are five different subgroups that fall under the umbrella of PDD or ASD. They are: autistic disorder, Rett's disorder, childhood disintegrative disorder, Pervasive Developmental Disorder- Not Otherwise Specified (PDD-NOS), and Asperger's disorder (Goldstein & Ozonoff, 2009). With the adoption of the Diagnostic and Statistical Manual 5 (2013), there will be one diagnosis of autism spectrum disorder and the five disorders currently under the ASD umbrella will not exist. There is no cure for autism, but with early detection and intervention you can greatly improve the quality of life of an individual with autism.

Diagnosis of Autism

Goldstein and Ozonoff (2009) paraphrase the DSM-IV-TR criteria for diagnosis of autistic disorder:

To qualify for the diagnosis, a child first must present at least six symptoms, with at least two from the first set of criteria and at least one from each of the second and third sets. The first set of criteria features qualitative impairment in social interaction, as manifested by (1) impairment of nonverbal behaviors, including eye contact, facial expression, body postures, and gestures of social interaction; (2) failure to develop peer relationships appropriate to the child's developmental level; (3) markedly impaired sharing of emotional states or interests with others; and/or (4) absence of social or emotional reciprocity. The second set of criteria refers to qualitative impairment in communication, as manifested by (1) a delay or complete absence of the development of spoken language, without efforts to compensate through gestures; (2) obvious impairment in the ability to initiate or sustain conversation, despite adequate speech; (3) repetitive or stereotyped use of language, or idiosyncratic language; and/or (4) lack of varied, spontaneous make-believe play or social imitative play appropriate for the child's developmental level. The third set of criteria involves repetitive and stereotypic patterns of behavior, interests, or activities, including (1) preoccupation with a certain pattern of behavior that is abnormal in focus or intensity; compulsive adherence to specific nonfunctional routines or rituals; repetitive motor mannerisms (self-stimulatory behavior); and/or persistent preoccupation with parts of objects" (p. 7).

A screening instrument is a tool used to identify infants and children who may be at risk of developmental delays compared to other children of the same age and cultural background. Most screening tools are designed to measure a broad range of developmental delays, but some are sensitive enough to identify a child who may have an autism spectrum disorder (Hall, 2009).

Different screening instruments include Checklist for Autism in Toddlers (CHAT), Social Communication Questionnaire (SCQ), Vineland Social-Emotional Early Childhood Scales (SEEC), and Temperament and Atypical Behavior Scale (TABS).

After screening tools identify children at risk, a parent or pediatrician will recommend that child for diagnostic assessment. Obtaining multiple sources, using multiple forms of measurement is considered best practice in the diagnostic process (Hall, 2009). The assessment process generally includes family interviews, observations of a child's behavior during structured and unstructured activities, and the clinical judgment of a psychologist or psychiatrist who is in charge of the diagnostic process. The instruments used in the diagnostic process may include: Childhood Autism Rating Scale (CARS), Gilliam Autism Rating Scale (GARS), Diagnostic Interview for Social and Communication Disorders (DISCO), Autism Diagnostic Interview-Revised (ADI-R), and Autism Diagnostic Observation Schedule (ADOS). There is still an urgent need for valid and reliable diagnostic instruments that diagnose other disorders under the ASD spectrum such as Asperger disorder and PDD-NOS, which may remain unresolved until there is a consensus on how to define these disorders (Hall, 2009).

Educators and related service providers such as speech/language pathologists have a number of different assessments they can choose from to plan educational and intervention strategies to help a child learn social, behavioral, communication, and educational aspects they will need to have a better quality of life. They include: Autism Screening Instrument for Educational Planning (ASIEP-2), Psychoeducational Profile (PEP), Adolescent and Adult Psychoeducational Profile (AAPEP), Functional Emotional Assessment Scale (FEAS), The McGill Action Planning System, Hawaii Early Learning Profile (HELP), Assessment, Evaluation, and Programming System (AEPS), Carolina Curriculum for Infants and Toddlers with Special Needs, Carolina Curriculum for Preschoolers with Special Needs, Creative curriculum, and Assessment of basic Language and Learning Skills (ABLLS). It is always important to continually monitor and assess children to make sure that the intervention and teaching techniques being used are working, and the student is continually making adequate progress.

Causes of Autism

There is no one single known cause of autism, but there are many likely causes for multiple types of ASD. Many people believe it is caused by genetics, others believe it is caused by environmental factors, and some think it is caused by a combination of the two. One cause that is generally accepted by most is atypical brain function or development (Autism Society, 2012a; Kaufmann & Silverman, 2010). Children with autism have abnormal timing in the growth of their brains. Studies have shown accelerated growth from birth to 12 months, from an average of 13% smaller at birth, to an average of 10% larger at one year of age, compared to a typically developing child (Vaccarino, Grigorenko, Smith, & Stevens, 2009). The cerebellum, in the lower back of the brain, which controls movements and motor function, and plays a role in actions of behavior, cognition, and emotion also tends to be enlarged (Kaufmann & Silverman, 2010).

Genetic mutations can also be associated with autism. In some cases spontaneous, or "de novo," mutations arise in a sperm, egg, or very early in embryonic development, possibly altering early brain development (Gilman et al., 2011; Levy et al., 2011; Sanders et al., 2011). Because it is a

mutation in the egg, sperm, or embryo, they are not present in the genetic makeup of either parent. Genetic mutations are known as copy number variants (CNVs), which can range from a small deletion in the genetic code to extra copies of a large DNA sequence. These non-inherited mutations affect genes or gene networks involved in brain development (Gilman et al., 2011; Levy et al., 2011; Sanders et al., 2011). Individuals with genetic and chromosomal disorders such as Fragile X syndrome, tuberous sclerosis, Prader-Willi syndrome, and Down's syndrome have a higher risk of developing an ASD, with around 10% of the ASD population identified with a genetic or chromosomal disorder (CDC, 2012a).

Many things can affect an embryo during the gestational period which may lead to risk factors for autism. A recent study by Schmidt and colleagues (2011) shows that mothers who took prenatal vitamins before, during, and after pregnancy were about half as likely to have a child with an ASD, in particular if the mother or child carries genes that increase susceptibility to autism, compared to women who did not. By analyzing the DNA of mothers and children, researchers found that women who had either one of two gene variants associated with folate regulations had five times the risk of having a child with autism if the mother did not take prenatal vitamins. Children who had one of the gene variants had seven times the normal risk of developing ASD if the mother did not take prenatal vitamins, compared to two times the normal risk if she did. This study is part of a larger project Childhood Autism Risks from Genetics and the Environment (CHARGE) which aims to increase understanding of the causes and contributing factors that lead to ASD (Schmidt et al., 2011).

The largest study to directly assess twins with autism revealed an autism concordance between identical twins at 70 percent, significantly lower than the 90 percent rate previously suggested, and around a 35 percent rate in fraternal twins, with previous studies showing little to no overlap (Hallmayer et al., 2011). This study suggests that environmental risk factors in the womb play a large role in the development of autism, but further research is needed to support that claim. Another study done by Ozonoff et al. (2011), the largest study of infants with one or older siblings with ASD found that the younger siblings have around a 20 percent chance of developing an ASD, with a higher rate of around 25 percent among baby brothers compared to 11 percent among baby sisters. These findings highlight a need for close monitoring and screening among infants with an older sibling with ASD.

The age of both mothers and fathers may also play a role in the development of risk factors associated with ASD. A study by Shelton, Tancredi, and Hertz-Picciotto (2010) shows that women over the age of 40 are 77 percent more likely than women under the age of 25 to have a child with autism, and 51 percent more likely than women aged 25-29. A study by Lundstrom et al. (2010) found that fathers under 25 and over 50 had around a 50 percent chance of having a child with ASD. Parner et al. (2012) found that for mothers under 35 the risk of having a child with ASD increased with the father's age increasing, and for fathers under 35 there was an increased risk with mother's increasing age.

Last, but not least, is the role that vaccines play in autism. Thimerisol, a mercury-containing preservative, was used in some pediatric vaccines from the 1930's until 2003, primarily in the DTP, HepB, and Hib vaccines. Oller and Oller (2010) show a direct correlation between the

rising use of these vaccines and the rising rate of autism in the United States. Some vaccines, such as influenza, and other vaccines for older children and adults still use trace amounts of Thimerisol, which the CDC claims is safe (CDC, 2012b). The measles, mumps, and rubella (MMR) vaccine has also been an area of controversy, especially after a study by Wakefield et al. (1998) claimed the MMR vaccine caused autism in nine out of twelve children involved. The article has since been retracted and Wakefield's license was revoked due to falsification of data. Further studies, including one by Uchiyama, Kurososawa, and Inaba (2007), have shown no significant link between the MMR vaccine and the cause of autism.

Demographics and Effects of Autism

Autism awareness has risen in the United States in the past decade through the hard work of parents, autism groups such as Autism Speaks and the Autism Society, celebrities, autism awareness month, autism events and fund raisers, and increased media attention. The Autism and Developmental Disabilities Monitoring (ADDM) Network is a surveillance system that looks at information obtained from eight year olds living within 14 ADDM sites in the United States, evaluates their records to determine the presence of ASD symptoms, and estimates the prevalence of ASD (CDC, 2012c). In 2012 the CDC estimated the prevalence of autism at 1 in 88, an increase of 23% when compared to the 2006 data, and 78% when compared to the 2002 data. They also estimated approximately one in 54 boys, and one in 252 girls has ASD.

Autism is a disorder which affects the lives of the family, as well as the individual who has it. In a world where most communication is done by listening and talking, deficits in verbal communication and auditory processing can cause an individual with an ASD to be disadvantaged in school, home, and work settings. Difficulties predicting what others are likely to do or think, and what might happen in a given situation, puts an individual with autism in a position where they constantly need direction and input from others (Aspy & Grossman, 2008). Difficulties with communication and social skills can also make it hard for a person with autism to obtain a job. Aspects such as job interviews, team work, social conventions such as personal space, and communicating and understanding of work related information all can pose a risk for obtaining and retaining employment (Attwood, 2007). The student's disability can cause them anxiety, stress, and depression, which can further hinder their social and communicative interactions with teachers, family members, service providers, and coworkers (Bevan-Brown, Carroll-Lind, Kearney, Sperl, & Sutherland, 2008; VanBergeijk, Klim, & Volkmar, 2008). It has been hypothesized by Groden and colleagues that "persons with autism may be even more vulnerable to the effects of stress because they may lack a repertoire of appropriate coping mechanisms" (as cited in Bevan-Brown et al., 2008, p. 23). This proves there is a great need to teach individuals with autism different ways to cope and handle their stress and anxiety.

Parents of children with autism also deal with high stress levels. In a study done by Pisula (2007) results showed that mothers worry about their children having to depend on others, the child's future and the permanency of autism, aggressive and challenging behaviors, lack of communication, and the lack of support for their children and themselves. Parents also feel frustration having to repeatedly explain their children's autism to others (Bevan-Brown, 2010). Bevan-Brown (2010) teamed up with parents to create a DVD to educate the public about children with autism and their families, and these were predominate messages parents want

others to know: ASD is not an illness that can be cured; children with ASD think and act differently, people need to accept and accommodate these differences, and include and treat children with ASD and their families with dignity and respect.

All parents want their children to be accepted by peers and to have friends to play with. Children with autism have a hard time forming friendships, and their parents know that behaviors their children have can scare off potential friends. Through education and a greater understanding of ASD, and the help of teachers and related personnel, it may be possible for children with autism to form friendships, and reduce the amount of stress on them and their family (Bevan-Brown, 2010).

Siblings of individual's with autism are also affected. There are conflicting studies as whether having a sibling with autism negatively or positively affects non-disabled siblings, with some reports showing a higher risk for poor adjustment, and others finding that siblings of children with autism being more likely to be well adjusted (as cited in Macks and Reeve, 2007). A study done by Macks and Reeve (2007) showed that siblings of children with autism have a more positive self-concept; they were more likely to have a positive view of their behavior, intelligence, scholastic performance, and anxiety; and a more positive view of their overall personal characteristics. This could be due to comparing themselves to the sibling with autism, or to a higher maturity level. The same study reported that mothers viewed siblings' social and emotional adjustment more negatively, perhaps due to the fact that because they encounter high stress levels, they assume their other children do as well, or the fact that they spend so much time attending to the needs of the child with autism that they do not have an accurate view of their other children's social and emotional functioning (Macks and Reeve, 2007).

Special Education Laws

School structures, classroom structures, and how teachers deliver education are all influenced and governed by law. The Education for All Handicapped Children Act (EAHCA), which allowed for federal regulation of free public education for all children with disabilities was introduced in 1975, amended in 1983 and 1986, renamed to the Individuals with Disabilities Education Act (IDEA) in 1990, and was again amended in 1992 and 1997 (McLeskey, Rosenberg, & Westling, 2010; Yen & Mao, 2011). IDEA was amended again in 2004 and renamed the Individuals with Disabilities Education Improvement Act (IDEIA). Court cases such as *Board of Education of Hendrick Henson School District v. Rowley (1982)*, *Burlington Sch. Committee v. Mass. Bd. of Ed. (1985)*, and *Honig v. Doe (1988)* have helped to improve the special education laws by leading to some of the updates and amendments which strengthened the role of parents, encouraged non legal resolution of disputes, and required students with disabilities to participate in the general education curriculum and state and district-wide assessments (McLeskey et al., 2010; Yen & Mao, 2011). Autism was added as a disability under IDEA in 1990 (Moores-Abdool, 2010).

Under IDEIA all students with disabilities must be provided with free and appropriate public education (FAPE) which provides appropriate education and related services at no cost to the student or their families, with a zero reject policy, occurring in the least restrictive environment (LRE) (McLeskey et al., 2010). In a LRE students with disabilities should receive services at a

location as close as possible to their home, in a classroom with nondisabled peers, with access to the general education curriculum and extracurricular activities, and removal from the general education classroom occurring only when the severity of the disability precludes the satisfactory delivery of education and related services (McLeskey et al., 2010). An individualized education program (IEP) is a document that sets the guidelines for the delivery of instruction and what related services the student is eligible for, and is also required by IDEIA. Parents or guardians have the opportunity to participate in IEP meetings and all decisions regarding assessment, identification, placement, and related services for their child. IDEIA requires the student's records to be confidential, with only those involved with the student knowing pertinent facts, and parental rights to inspect and review all information on their child (McLeskey et al., 2010).

The oldest law that protects the rights of individuals based on their disability is the Rehabilitation Act of 1973, which was renamed as the Americans with Disabilities Act (ADA) in 1990 (VanBergeijk et al., 2008; Yen & Mao, 2011). Section 504 of that act demands federally funded organizations and employers to treat disabled and non disabled persons equally. It gives access, without the threat of being denied, to rehabilitation and training for disabled individuals, and benefits a child with autism by providing special accommodations in school such as extra teacher assistance in class, or specific study areas (McLeskey et al., 2010; VanBergeijk et al., 2008; Yen & Mao, 2011).

The No Child Left Behind Act (NCLB) was introduced in 2001, and requires compliance to high standards and holds states and schools who do not meet the criteria accountable (McLeskey et al., 2010). Besides strong accountability for inadequate results, NCLB gives expanded flexibility and local control of schools, urges the use of teaching methods based on scientific research, options for parents to transfer students out of low-performing schools with occasional options for supplemental activities, and requirements for teachers to be highly qualified (McLeskey et al., 2010). With the combination of NCLB and IDEIA, general education teachers are required to adapt their instructional strategies to accommodate students with disabilities (Moores-Abdool, 2010).

Diversity in Individuals with Autism

Autism affects individuals from every walk of life, every part of the world, every language, and every culture. Culturally and linguistically diverse (CLD) children face many difficulties when it comes to the understanding and diagnosis of autism. According to Rodriguez (2009):

Special educators face a critical need to address and document issues related to family involvement, effective intervention, and personnel preparation, in order to ensure that all individuals with autism, including CLD students with autism, may gain an education and improve their quality of life (p. 313).

ADDM estimates that prevalence among non-Hispanic white children is higher than among non-Hispanic black children and Hispanic children (CDC, 2012c). CLD students may have a late age diagnosis, or no diagnosis at all due to different points of view regarding ASD symptomology, and what resources are available to them (Morrier, Hess, & Heflin, 2008; Ravindran & Myers, 2012).

The word autism, or a disability in general, has different meanings and implications across different cultures, and cultural beliefs about cause can influence decisions about what treatments to use and what outcomes to expect (Ravindran & Myers, 2012). Ravindran and Myers (2012) state that "for the best course of care, professionals need to understand and respect families' views on autism and work toward mutually agreeable treatments that may involve a combination of biomedical and cultural practices" (p. 311). An open teamwork, family-focused model which aims to acknowledge the culture of the child, considers the child's and family's strengths and limitations, and develops an appropriate, sustainable, and sensitive intervention is regarded as best practice, but may take some explanation and convincing of families from different cultures (Ravindran & Myers, 2012). Different cultures have different beliefs about autism; some think it is curable, some cultures try acupuncture, vitamin diets, or complementary and alternative medicines. Others believe that autism is caused by sins the mother or child have committed, or by a curse put on the family, and some believe the individual with autism is a teacher who is here to bring special messages, and they may choose not to treat the symptoms because that would interfere with the delivery of that message (Ravindran & Myers, 2012). Asking parents with different cultural backgrounds what they believe caused their child's autism could help in understanding their choice of treatments and what they believe the outcome will be.

Collaboration of School Teams

With the high demands for achievement and accountability measures that have been created by IDEIA and NCLB, along with the increasing diversity of students in schools, it is more important than ever to have effective collaboration between principals, teachers, parents, and other professionals that work with students with autism. McLeskey et al., (2010) define collaboration as "teachers and other professionals working together to achieve common goals" (p. 442). There are several forms of collaboration including collaborative teams, a team of professionals who work together to address a range of different types of issues and concerns; co-teaching, a general and special education teacher working together to share the responsibility for instructing a diverse group of students in a single classroom; and collaborative consultation, two or more professionals working together to seek solutions to a mutually agreed-upon problem or issue (McLeskey et al., 2010). Professionals working together need to be flexible and develop trust and respect.

A child with autism has many needs and several professionals are involved in meeting those needs including, but not limited to, general education teachers, special education teachers, speech-language pathologists (SLP), physical therapists (PT), occupational therapists (OT), psychologists, and of course the parents, who know the child best. All of these people need to work together to create successful learning opportunities and interventions to help the student learn, grow, and succeed. Lamont (2008) suggests for a collaborative team to be successful there should be an established equality between all team members; a shared language base for all discussions, so all team members understand what is being discussed; disciplined listening which involves no one team member immediately responding with suggestions on how to solve a problem, rather a discussion involving questions and suggestions from all team members, which allows a climate of trust and mutual respect; removing barriers to engagement; and creating a shared responsibility for problem solving.

Pedagogical Strategies

There are many different techniques an educator can use to effectively integrate and educate a student with PDD-NOS or another ASD. First and foremost it is important to get to know your student, and gain their trust and respect. Teachers will have a difficult time gaining trust and respect from their students and their families if they talk negatively about their students, whether in a public, private, or school setting, it is wrong to cross that ethical boundary. By getting to know students, an educator has a better understanding of their strengths and weaknesses, and will be able to better teach them (McLeskey et al., 2010).

Drama can be used as a learning medium in which a student can explore social and moral issues, and engage in investigative problem-solving (Peter, 2009). Drama can teach students with autism to use narrative form, and in a social context it provides a way to evaluate and engage with cultural meanings. Using narrative form can teach a child with autism a form of social play, or role play, which can provide a way to explore human experiences, different perspectives, motivations, and intentions and consequences (Peter, 2009).

Involving the whole class in rules, routines, lessons, and programs is good for everyone, but is especially beneficial for a student with autism (Bevan-Brown, 2010). The class as a whole can learn skills such as being a friend, being respectful, resilience, the basic give and take of communication, homework and study strategies, and organization strategies, all without the student with autism being singled out, and possibly looked down upon. These routines and structure, and the lessons themselves can help to make the class as a whole run more efficiently and organized.

Social narratives can also be used in the classroom to help students with an ASD acquire and use appropriate social skills. They are stories represented visually that describe social situations and appropriate behaviors, and responses to the situations (Autism Internet Modules [AIM], 2012a). Social narratives can be written by parents or educators, with or without the student, and are designed to promote social understanding. They should be written at the student's language and learning levels, and use visuals to promote understanding of the content. Social narratives must be taught through direct instruction, and can be used after a social error has occurred, before a transition or a new experience, and as an intervention to reduce existing, unwanted, recurring behaviors (AIM, 2012a). Social narratives can be used to teach students an appropriate way to complete assignments and keep track of materials.

Social narratives are considered an evidence-based practice (EBP) by The National Professional Development Center (NPDC) on ASD (2102a). To be considered an evidence-based practice for individuals with ASD, efficacy must be established through peer-reviewed research in scientific journals using:

- Randomized or quasi-experimental design studies. Two high quality experimental or quasi-experimental design studies
- Single-subject design studies. Three different investigators or research groups must have conducted five high quality single subject design studies, or
- Combination of evidence. One high quality randomized or quasi-experimental group design study and three high quality single subject designs studies conducted by at least

three different investigators or research groups (across the group and single subject design studies) (Retrieved from <http://autismpdc.fpg.unc.edu/content/evidence-based-practices>).

NPDC on ASD has used rigorous criteria to identify twenty-four EBPs, which include video modeling, discrete trial training, functional behavior assessment, peer-mediated instruction and intervention, social skills groups, pivotal response training, and picture exchange communication system (PECS) to name a few (NPDC on ASD, 2012a).

Peer-Mediated Instruction and Intervention (PMII) teaches typically developing peers strategies to interact with, and help individuals with an ASD gain desired social skills by increasing social opportunities within natural environments, using both teacher-directed and learner-initiated activities (NPDC on ASD, 2012b). PMII targeted social skills include responding to peers, understanding peers, reciprocity, and interacting with peers. A PMII could be used when students are transitioning to a new classroom or a different school to help peers in the new setting become familiar and comfortable with the student, and to get him/her familiar and comfortable with them, as well as teach appropriate social skills and techniques.

It is important for a student with autism to have structure and routines in lessons and learning environments. Educators can achieve this by preparing students for new content by sending home unit and lesson summaries before they start, using visual organizers, using nonverbal cues to prompt attention to important information, and step by step modeling of behaviors or activities such as completing assignments, just to name a few (McLeskey et al., 2010). Other strategies that are good to use with children with autism are: incorporating interests; providing breaks to avoid over stimulation; informing peers and supporting, encouraging, and fostering social relationships; preparing for transitions; focus on using strengths; and proactive crisis support planning (Bevan-Brown, 2010).

Behavior Intervention Plans

Behavior difficulties can have widespread impact for a student with autism, and can also negatively affect people who care for them including family and educational support members (Grossman and Aspy, 2011). A functional behavior assessment (FBA) is a careful analysis of the antecedents, the events before a specific behavior, the behavior itself, and the consequences or what happened as a result of the behavior (the ABCs), which all provide insight into the function or the purpose of the behavior. An operational definition of the behavior is the first step in an FBA; this is an agreed upon definition of the behavior in observable and measurable terms (Grossman and Aspy, 2011). Once you have an operational definition, information can be collected through observation and interviews, or other techniques to determine what is triggering the behavior, and what function it serves. Some functions of behavior could include: escape or avoidance, seeking attention, sensory stimulation, access to materials or rewards, or access to a preferred activity.

An FBA can provide a more precise road map for the design and implementation of a behavior intervention plan (BIP). McLeskey et al., (2010) characterize a successful BIP by: (1) the simultaneous strengthening and reducing of targeted behaviors through the application of

behavioral techniques, (2) direct teaching of social skills, (3) emphasis on self-management and self-control, and (4) goals of student independence (p. 368). Proactive interventions also address the underlying needs of a student, and not just the surface behaviors seen. Interventions can occur at all three points of the ABCs.

The Intervention Ziggurat (IZ) is a model which facilitates the development of an individualized comprehensive intervention plan to address specific behavioral needs and global interventions (Aspy and Grossman, 2008). The IZ incorporates five critical levels, structured in a hierarchy: Sensory Differences and Biological Needs (addresses basic internal factors that impact all functioning), Reinforcement address the motivational needs required for skill development; Structures and Visual/Tactile Supports, draws on the strength of visual processing and addresses the need for order and routine that is fundamental to individuals with autism; Task Demands, understanding expectations in light of the characteristics of individuals with autism; and Skills to Teach, which targets appropriate skills to develop. An intervention plan is considered to be comprehensive or complete when intervention occurs (a) on all of the five levels described above, (b) addresses underlying characteristics, and (c) includes antecedent, behavior, and consequence strategies (Aspy and Grossman, 2008).

Communication and Language

As stated in the DSM-IV-TR (2000) one of the core deficits in autism is impaired communication, both verbal and non verbal, with levels of severity varying considerably. This shows that children with an ASD may have difficulty in acquiring speech and language, as well as difficulty understanding and using nonverbal behavior in communication interactions. Language impairments can range from a failure to develop any type of functional speech, to having idiosyncratic and spontaneous speech and language (National Research Council (NRC), 2001). Joint attention and symbol use are two core communication deficits in individuals with autism.

Joint attention is more complex than two or more people looking at the same object; it includes synchronization and understanding between the participants by coordinating attention between an object and each other (Murray, Creaghead, Manning-Courtney, Shear, Bean, & Preneville, 2008). Joint attention typically emerges between 6 and 12 months of age, and is well established by 18 months. It starts by simple gestures such as gazing or pointing, and as the child grows and develops verbal skills, it transforms from gestures to a more verbal establishment of joint attention (Murray, et al., 2008). Individuals with autism have difficulties in joint attention and gaze following, following the head and eye direction of another, and being able to attend to both objects and human cues in the environment.

There is a relationship between the initiation of joint attention and both receptive and expressive language, and without the ability to realize the attention of focus is shared, there cannot be a realization that a communicative exchange is occurring (Murray et al., 2008). For the mapping of word meanings (matching a word to its meaning or concrete object), it is necessary for an individual to have joint attention and gaze monitoring, and the lack of these can have a negative impact on language development. A study conducted by Baron-Cohen, Baldwin, and Crowson (1997) shows that only 29.4% of the children with autism could correctly map a novel word to an

object. Joint attention is impaired early in the development of children with autism, which may have a direct link to language deficiencies.

Functional play skills (e.g., using objects for what they are meant to be used for) and symbolic or make-believe play skills (e.g., using pretend actions with objects) significantly correlate with receptive and expressive language, and children with autism often have a deficit in these play areas, which could lead to deficits in communication (NRC, 2001). Children with autism often perform at same level or above in nonsocial constructive play, combining objects to create a product, as typical developing children, but have lower levels of language comprehension and symbolic play.

For children with autism who develop more advanced language skills, and move past echolalia stages (imitation of speech), problems with the grammatical aspects of language, such as the social rules and the give and take of conversation, often arise. These children may also use challenging behaviors such as self injury and aggression to get attention, and need to be considered relative to the child's ability in verbal and nonverbal communication levels, and may reflect limitations in their symbolic capacity (NRC, 2001).

With deficits in language skills there may also be deficits in reading and writing. Children with ASDs often do well at spelling and decoding, but have difficulty with language and reading comprehension (Whalon, Otaiba, & Delano, 2009). NCLB and IDEIA mandate that all children, including children with ASD, be provided with evidence-based reading instruction that includes five essential components of reading: phonemic awareness, phonics, reading fluency, vocabulary, and comprehension strategies; very little research has been done on interventions focused on these components of reading (Whalon et al., 2009). The National Reading Panel, a national panel convened by congress to assess the effectiveness of different approaches used to teach children to read, suggests grouping these into two broader sets of skills: code-focused skills (phonological awareness, phonics, and fluency; required to accurately and fluently identify words) and meaning-focused skills (vocabulary and comprehension; required for comprehending language in oral and written form).

Social Impairments

One of the main impairments of autism is deficits in social skills. The DSM-IV-TR (American Psychiatric Association, 2000) sets the diagnostic criteria for social impairments as follows:

- 1) Qualitative impairment in social interaction, as manifested by at least two of the following:
 - a) Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
 - b) Failure to develop peer relationships appropriate to developmental level
 - c) A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by lack of showing, bringing, or pointing out objects of interest)
 - d) A lack of social or emotional reciprocity (p. 75)

Children with autism often do not have theory of mind (TOM), the ability to impute mental states to oneself and others, have poor executive functions (EF) which are higher order cognitive processes that guide purposeful, goal-directed behavior, such as planning, flexibility, and inhibition, and weak central coherence (CC) where the focus is on individual or local elements rather than the whole, which lead to social impairments (Pellicano, 2010a; Pellicano, 2010b; Yang, Zhou, Yaho, Su, & McWhinnie, 2009). Social narratives, social skills groups, pivotal response training, and video modeling are all good interventions to use to target development of social skills (NPDC on ASD, 2012c).

Accommodations and Modifications

Accommodations are used to help a student with autism facilitate learning, and to achieve and demonstrate the same standards required of their non-disabled peers (McLeskey et al., 2010). A visual support is a stimulus that can help a student comprehend information or demands, and can help children with difficulties in behaviors, attention, organization, sequencing, and auditory processing (Dettmer, Simpson, Myles & Ganz, 2000). Visual supports can be especially beneficial to students who need extra assistance with organization, communication, social interaction, behavior management, and academic skills, all of which are areas that students with autism have deficits in (Breitfelder, 2008). Visual schedules are accommodations that create positive routines; promote flexibility and adaptability to change; calmly, purposefully, and independently move students through physical spaces, from one activity to the next; provide predictability by clearly showing what activities will occur in what order; and can be individualized and designed to grow with the student (Breitfelder, 2008; Hume & Odom, 2007; Marcus & Schopler, 2007; Webber & Scheuermann, 2008).

A work system is another visual accommodation that can be used with children with autism. A work system is designed to give the student a systematic strategy to approach work that needs to be completed, as well as promotes independence, and enables a student to generalize skills into other environments (Breitfelder, 2008; Hume & Odom, 2007; Marcus & Schopler, 2007; Webber & Scheuermann, 2008). A good work system should answer four questions: How much am I to do? What (and in what order) am I to do? How will I know when I am finished? What happens when I am finished? (Webber & Scheuermann, 2008). The concept of the word "finished" is an organizer, and a key motivator to keep the student on task. Types of work systems include left to right, up/down, matching, and written, which can be manipulated by moving activities, matching symbols to activities, and reading a list of activities (Hume & Odom, 2007; Marcus & Schopler, 2007; Webber & Scheuermann, 2008).

Accommodations in instruction can include listening to audio books, using word processing software with spell checkers, learning and applying learning strategies, using laptops, scribes, or tape recorders for note taking, or having a copy of lecture notes in advance to review and use during class (McLeskey et al., 2010; VanBergeijk et al., 2008). Students with autism often times need help with organizational skills. This can be done by teaching the student to use color coded folders or binders, with each class having a different color, or by using subdivided folders and binders (VanBergeijk et al., 2008). With higher functioning students, organization can also be taught with written instructions paired with picture examples. When doing large assignments, a student with autism would benefit from having the assignment broken down in to smaller

assignments, with dates to remind the student to start sections, and dates when each smaller section is due (VanBergeijk et al, 2008). Testing accommodations can be used for class tests or end-of-class assessments, and can include someone reading the test aloud to the student, providing extra time to take the test, stereo headphones for the student to wear to block out noise distractions, or providing a separate quiet location, free from distractions (McLeskey, et al., 2010; VanBergeijk et al., 2008).

Even with educators providing accommodations it is not always reasonable to expect students with autism to master the same general curriculum objectives as other students, and modifications to the curriculum can be made on an individualized basis (McLeskey et al., 2010). In these cases participation in an alternate-assessment program may be written into a student's IEP, in which "the student will demonstrate skills parallel to those of same-grade peers but qualitatively different in nature" (McLeskey et al., 2010, p. 255). This can be done by linking or aligning the standards for students with autism to the general curriculum, with different requirements for performance that are still based on grade-level standards (McLeskey et al., 2010).

Assistive Technology

McLeskey and colleagues (2010) define assistive technology (AT) as "technology that helps individuals with disabilities function more like those without disabilities by helping to bridge the gap between what a person can do and what he or she may need to do" (p. 441). Under IDEA 2004 all students eligible for special education have a legal right to be considered for an AT device, which is defined as any item, piece of equipment, or product system, whether acquired commercially of the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability and related AT services that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device, if they will aid the child in reaching their IEP goals (IDEA 2004, Section 602; McLeskey et al., 2010).

There is a wide variety of AT devices that help students with almost anything they need. There are AT devices for specific educational subjects such as reading, writing, spelling, and math; devices to help with deficits in communication; personal digital assistants that help students with various routines such as appointment calendars, reading e-mails, or listening to digital books; devices to help students learn social skills such as appropriate greetings and recognizing emotions; and devices that can help with daily living needs such as wheelchairs for mobility, or adaptive eating utensils and toothbrushes (Ash, 2009; McLeskey et al., 2010).

A student with autism can benefit from additional classroom supports which may include sending a study guide home two weeks prior to each test, emailing assignments to the family or placing them on a teacher's web page, providing books on tape for the student to listen as he/she reads the book, or a daily communication log or calendar. Other assistive technology for students with ASD may include an electronic organizer for the teachers to record voice directions for assignments, as well as using multimedia or PowerPoint lectures to hold their attention during instruction.

The IEP

Once a student has been identified as having a disability an IEP is created to inform educators of that student's disability, strengths and weaknesses, and to guide the delivery of instruction and related services. McLeskey and colleagues (2010) states that according to IDEIA an IEP must include:

1. A statement of the student's present level of educational achievement and functional performance, 2. A statement of measurable annual goals and, for students evaluated through alternate assessments, benchmarks, or short-term objectives, 3. A statement of the special education and related services and supplementary aids and services that teachers will provide to the child, 4. An explanation of the extent, if any, to which the child will not participate with nondisabled children in the general education classroom and in other school activities, 5. A statement about the child's participation in state- or district-wide assessments of student achievement, 6. The projected dates for beginning services and modifications, and 7. A statement of how educators will measure the child's progress toward the annual goals described in item 2 and how the child's parents will be regularly informed (p. 249-250).

An IEP team should consist of the parents or guardians; a general education teacher; a special education teacher; a school district representative who knows about available service-delivery options, programs, the general education curriculum, and related-service availability; a specialist who can evaluate and interpret assessments and the instructional implications; other individuals who have knowledge or special expertise about the child including related service providers, lawyers, or advocates; and when appropriate, the student (McLeskey et al., 2010).

Current Issues in ASD

With the rising number of people being diagnosed with ASD, there is a vast amount of research being done to better understand the causes, and to find the best methods of treatment. Along with the increase in diagnosis, there is a demand for qualified teachers and therapists to work with students with autism, and a great push for early diagnosis and intervention. Groups such as the Autism Research Institute, Autism Society, and Autism Speaks are some of the largest donors for autism research, including environmental factors, genetic factors, biomedical advancement, and treatment (Autism Research Institute, 2012; Autism Society, 2012b; Autism Speaks, 2012a).

With advances being made in technology, there are a variety of technologies that can be used in therapy to obtain new skills, or to modify or eliminate behaviors. There are a huge number of people that have access to iPhones, iPads, iPods, and Android phones and tablets, and there are a growing number of apps being created to use on them. Autism Speaks (2012b) has compiled a list of autism apps; it has the name of the app, what device it works on, what category it covers (e.g., communication, language, or organization), and how much it costs.

Social media can also be used to raise autism awareness, and to help parents and families find resources in their area. Right now both Autism Speaks and the Autism Society are using outlets such as Facebook and Twitter to urge elected officials to address the rising prevalence of autism,

how they would support autism research, and include autism in the Affordable Care Act (Autism Society, 2012c; Autism Speaks, 2012c).

Professional Development

With the growing number of students being diagnosed with autism, and the vast amounts of research being done on autism and its causes, new interventions being developed, and current evidence based practices, it is imperative for professionals to keep up to date with all of the new information to successfully teach students with ASD in their classrooms. NCLB requires states to give educators high quality professional development which should be evaluated to ensure mastery of the content and whether it has a positive impact on teacher effectiveness; educators and professionals who lack the necessary training to work with students with autism may struggle to deliver effective instruction or effectively manage behaviors (Bellini, Henry, & Pratt, 2011; Borko, 2004). Successful inclusion requires an educator to prepare for a student with autism before the student enters their class, and many teachers feel that they were inadequately prepared to work with students who have special needs, especially students with autism, so it is even more important for these teachers to have additional professional development (Berger, 2011; Moores-Abdool, 2010). Professional development can come in the form of external workshops or in-service training, and can lead to improvement in instructional practices and student learning (Bellini et al., 2011; Borko, 2004).

Autism Internet Modules (2012b) is an internet site designed to provide professionals and parents up-to-date information needed to help individuals with ASD reach their highest potential. They offer a series of online learning modules that include information on assessment and identification of ASDs, recognizing and understanding of behaviors and characteristics, transition into adulthood, employment, and several evidence-based practices and interventions. All module content has been written by experts in the field of autism from across the United States, has been designed according to research on how adults learn, is presented at a universal reading level, and have interactive activities that reinforce knowledge and teaches how to make current research applicable to real life (AIM, 2012b). A few modules on the list include: antecedent-based interventions, discrete trial training, functional communication training, pivotal response training, structured teaching, and social narratives.

In conclusion, there are many aspects related to educating students with ASD in which professionals need additional knowledge and skills to effectively improve the quality of education they provide to all of their students with ASD. These techniques can also be used with typically developing students. This paper has provided some background information on ASD and instructional strategies that can be used with students with ASD.

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About the Authors

Crystal Echaniz teaches special education at Harmony School of Innovation in El Paso, Texas. She has a MA in Education with a concentration in special education and Autism Spectrum Disorders.

Dr. Kathleen Cronin is an Assistant Professor at New Mexico State University specializing in Autism Spectrum Disorders. She has spent over 30 years in the public education system as a special education and general education teacher, counselor, and site and district office administrator. She has developed, implemented, and supervised programs for children with autism. She has presented at regional and national conferences on programs for children with autism. Her current research interests are in reading skills and social skills of children with autism.

***Stop the Blame Game:
Teachers and Parents Working Together to Improve Outcomes for Students with Behavior
Disorders***

**Melissa Davis, Doctoral Student
Florida International University**

Abstract

Students with behavior disorders often require specific interventions to improve their behavioral outcomes. Common interventions to use with these students include teaching appropriate behaviors, focusing on positive behaviors, noting the start of behaviors and intervening early, and providing appropriate reinforcements. To enhance the effectiveness of these interventions, parent and teacher collaboration is necessary. These methods typically include the parent and teacher meeting to agree on a target behavior, discussion about what causes the inappropriate behaviors, and making an agreement on an intervention to use to change the behavior, with the purpose of improving the behavior at home and school. Communication should be maintained throughout the intervention process with follow-up meetings as necessary. In general, these interventions provide a new, promising avenue to improve the outcomes of students identified with behavior disorders.

***Stop the Blame Game:
Teachers and Parents Working Together to Improve Outcomes for Students with Behavior
Disorders***

When students are struggling in school, it is common for teachers and parents to blame each other. More times than I can recount, I have entered the teachers' lounge at school to hear teachers vent about the problems that could be resolved if parents would discipline and work with their children. Along these same lines, I have been told by parents that as a teacher, I am responsible for what their children do, and how they act, during school hours. While these anecdotes may be the extreme, finger pointing is all too common related to the difficulties students experience in school. Similar experiences have been reported in the literature. For example, Painter, Allen, and Perry (2011) reported that parents often felt blamed by teachers, physicians, friends, and family when their children were first identified with problem behaviors. Therefore, it stands to reason that student behavioral outcomes will be improved by the collaborative work of teachers and parents. As Sheridan and Gutkin (2000) note, the importance of parent involvement could not be more obvious.

One population of students where this issue requires particular attention is students labeled with behavior disorders. According to the U.S. Department of Education (2008), 0.7% of the total student population between the ages of 6-21 is identified with a behavior disorder; this percentage has remained stable since 1997. In addition, the data indicates that American Indian/Alaskan Native and Black students may be overrepresented in this category, encompassing 1.12 and 1.33% of each student population, respectively. In 2005-2006, only 43.4% of students identified with a behavior disorder graduated from high school; although this

percentage has been steadily increasing year to year, these students are at an increased risk of dropping out of school, with 44.9% dropping out that same school year (U.S. Department of Education, 2008). Students identified with behavior disorders are also at an increased risk of academic failure (DeShazo Barry, Lyman, & Klinger, 2002) and disciplinary actions (Kramer et al., 2004). These problems have been shown to continue as the students age (Dalsgaard, Mortensen, Frydenberg, & Thomsen, 2002). In addition, school policies (such as suspensions and expulsions) may only reinforce the negative behaviors exhibited by these students, leading to a vicious cycle (Shaughnessy, 2009).

Students with behavior disorders are entering inclusive settings more often, yet these numbers are still lower than other special education populations, indicating that more students with behavior disorders should try to be placed in inclusive settings. According to the U.S. Department of Education (2008), only 17.5% of students with behavior disorders attend school in an alternative environment, meaning some progress has been made. Currently, 35.1% of this student population spends at least 80% of the school day in a regular class. This number has increased over 10% in the last decade.

As students with behavior disorders enter the general education classroom, collaboration between teachers and parents may help create a smooth transition. Students with behavior disorders thrive on consistency, which can be best achieved with open communication and agreement about student interventions. Additionally, teachers and parents often experience many frustrations when interacting about students with behavior disorders.

Teacher and Parent Experiences

General and special education teachers who instruct students with behavior disorders often experience specific job stress related to the problem behaviors exhibited by the students. According to Landers, Alter, and Servillo (2008), these teachers may feel that they spend more time on classroom management than instruction. This perception may be accurate as Dinkes, Cataldi, Lin-Kelly, and Synder (2007) reported that instructional time is often taken away to deal with problem behavior. Landers et al. (2008) surveyed teachers in two school districts who were participating in a school-wide positive behavior support (PBS) system. These authors used a questionnaire to determine the teachers' job satisfaction and those problem behaviors they encountered that most affected them. Landers et al. found that teaching higher grades (such as high school level) and experiencing disrespectful behaviors were most likely to contribute to teachers' reduced job satisfaction. These results may indicate that teachers are able to manage most behaviors that do not feel like a personal attack on them.

While communication is expected on the part of teachers, one may wonder how willing parents will be to share some of the intimate information that may be relevant when students are identified with behavior disorders. To determine how parents felt about sharing information with service providers, including schools, Kramer et al. (2006) surveyed 73 parents. Survey results revealed that the parents believed schools (and therefore teachers) should know about mental health services (including medications) their child was receiving; these parents who responded positively to sharing information tended to be female and non-Caucasian. In addition, parents reported that communication with school personnel was important, including why treatments are

required, although they felt some therapy content should remain private. In general, Kramer et al. found that parents believed that schools should have adequate information about the needs/treatments of their child; however, they noted that personnel should respect the extent that parents want to share, with whom, and how they would prefer to communicate.

While examining the thoughts of parents on disclosing personnel information to schools, Kramer et al. (2006) also surveyed the students about how they felt about the information sharing. Findings showed that older students did not want schools to know about the medications they were taking and the counseling they receive.

A Framework for Teachers and Parents Working Together

As an elementary teacher in an inclusive setting, I have seen the power that teacher and parent collaboration can provide. For example, I had a student with a severe behavior disorder, which included harming himself and others. After meeting with the student's parent and identifying the most serious problem and when and why the behavior was likely to occur, the parent and I were able to develop interventions that would help the student display positive behaviors. When these interventions were put in place, the student had a noticeable improvement in behavior and any violence towards himself and others virtually vanished. As the teacher, the parent provided me with valuable input about the types of interventions to which the student would respond and working together to help the student created a positive partnership. The general framework we followed, and the one shown by research to be effective, is displayed in Figure 1. [See Figure 1 after References Section]

Interventions for Improving Behavior

Once parents and teachers work together to develop and implement a plan targeting students' problem behaviors, there are several common practices that become part of the intervention, regardless of the specific collaboration model used. For example, in an interview with Shaughnessy (2009), Machalicek noted that when ignoring students' negative behaviors (a form of time out), one must teach the students the appropriate behavior to use instead.

Many interventions focus on preventing behaviors from occurring in the first place, as this often leads to behavior escalation, a term which usually refers to a minor behavior issue that gains momentum due to the reinforcement provided (Shukla-Mehta & Albin, 2003). According to Shukla-Mehta and Albin some typical interventions (all research-based) that can be used to hinder inappropriate behaviors include: remain calm and focus on positive behaviors; know what triggers the behavior (how the student and those around him/her react); look for unusual behavior; remain calm when the student is upset; provide opportunities for the student to show positive behaviors; try to intervene as soon as negative behaviors appear, evaluate the strategies being used; understand why the behavior occurs; match consequences to behavior; remove any behavior triggers; teach students appropriate behavior; and focus on the student's academic success. These interventions could be applied by all the teachers the student has and the parents at home, assuming that the parents have agreed to the interventions as part of the plan devised together.

Shoen and Nolen (2004) conducted an action research study in which they used a four step plan to improve a sixth grade student's behavior. First, the student was observed and interviews were conducted with those familiar with the student and examined literature for theories that could be applied when developing an intervention, including social learning, humanistic, cognitive, and behavioral theories. The intervention used with the student included a peer model for positive behaviors, modified assignments so that they matched the student's interests, class input for rules and instruction, and the use of student checklists and positive reinforcement. The authors concluded that the behavior intervention was successful, noting the importance of developing specific expectations.

Shaughnessy (2009) states that when fading reinforcements, teachers should move from tangible, primary reinforcements to more verbal, secondary reinforcements, all the while teaching students to manage their own behavior. The author continues that teachers must determine (hopefully with parents) what should be used as reinforcements with a particular student.

Improving Student Outcomes

Traditional interventions for students with behavior disorders focus on three steps that rely on the teacher alone. These steps include: the identification of what triggers problem behaviors, the setting of clear classroom/school rules with appropriate consequences and awards, instruction on how to display appropriate behaviors, and a focus on reinforcing target behaviors (Landers et al., 2008). While these interventions may be successful, the input and support of parents can only increase its effectiveness. It has become more common for parents and teachers to collaborate to improve student outcomes, as is illustrated in the table reviewing the literature on collaboration between parents and school staff.

Table 1. Common Interventions that include Parent-Teacher Collaboration

Intervention Programs to Improve Student Outcomes		
The Program (and specific researchers)	What the program looks like	Results of the program
Systems of Care began in the mid-1980s (Stroul & Friedman, 1996; Painter et al., 2011)	Students and their families are given an equal voice when collaborating with professionals, such as school personnel.	Vance and Vance (1994) suggested that these programs should have services such as advocates, collaboration between service providers, schools, and families, and investigations to ensure appropriate measures are taken; proper training and parent involvement are essential.
Interagency Community-Based Model (Quinn & Cumblad, 1994)	Community service providers, school personnel, and family members/caregivers are included in interventions to handle problem behaviors.	In a survey of these programs in Illinois, Quinn and Cumblad (1994) found that service providers were committed to helping students,

		but ineffective programs remained in place. A lack of funding and clarity were issues although some effective elements existed. Future programs would build on these positive aspects.
Positive Behavior Support (PBS) (Buschbacher, Fox, & Clarke, 2004)	Typically, PBS is a school-wide plan to improve student behavior (Carr, Dunlap, Horner, Turnbull, & Sailor, 2002). A growing trend is to bring parents and home life into the PBS program so that problem behaviors improve across settings.	A case study of the parent involvement in PBS examined its use with a seven-year-old boy. The parents and teacher discussed the boy's behavior, possible causes for the behavior, and an intervention to target the behavioral issues. The intervention developed included long-term supports, ways to prevent problem behaviors, skills to teach the student, and consequences for all types of behavior. Buschbacher et al. (2004) found that this allowed the parents to have more positive interactions with the student and a general decrease in problem behaviors was found.
Wraparound (Bickman, Smith, Lambert, & Andrade, 2003; Quinn & Lee, 2007); Painter et al., 2011)	A team is developed that includes family, school, and community personnel, all of whom collaborate to develop, implement, and monitor a service plan that provides appropriate services and attempts to keep students within the community (Painter et al., 2011). Quinn and Lee (2007) state that the ten principles that should be applied in wraparound are: trustful and respectful partnerships, including formal and informal supports, including personal and community support, share	Results of the program are mixed: Bickman et al. (2003) conducted a longitudinal quasi-experimental study and found no significant student improvements, while Crusto et al. (2008) found that wraparound approaches reduced student trauma. A review of the wraparound process by Burchard, Bruns, and Burchard (2002) found positive results. Painter et al. (2011) surveyed families participating in wraparound programs. The families reported that they

	goal making, be community-based, respect the family/student's culture, create individualized interventions, acknowledge strengths, remain persistent, and gather data.	found collaboration important, and felt empowered, more knowledgeable, and were supported by the process. However, they felt unprepared for services to end and worried that this would lead to more behavioral issues.
Function-Based Interventions (Lane et al., 2007)	Often used when students with behavior disorders do not react to initial interventions. These interventions analyze why a problem behavior occurs, teach desirable replacement behavior, modify the environment to facilitate this, and provide appropriate consequences.	Two students were studied using function-based interventions. The first student, in first grade, exhibited nonparticipation, which the parent and teacher agreed stemmed from fear. The student was encouraged with verbal praise (gradually reduced over time) and the intervention increased the student's participation. The second student, an eighth grader, exhibited noncompliance, which parent and teacher (and student) determined was done to gain teacher attention. The student's environment was changed to allow the use of a checklist and gain attention for compliant behavior (with this also reduced over time). The student's compliance increased. Lane et al. (2007) concluded that this method is particularly useful in inclusive settings as they provide a simple and direct way for general educators to communicate with parents to improve behavior issues.
Functional Behavior Assessments (FBA)	FBAs are similar to function-based interventions and may be part of the wraparound	Scott et al. (2004) examined the FBA process with two different study teams: one

(Sasso, Reimers, Cooper, Wacker, & Berg, 1992; Scott, McIntyre, Liaupsin, Nelson, & Conroy, 2004; Shippen, Simpson, & Crites, 2003)	process. FBA's have been effective to clinical settings (Sasso et al., 1992), yet their applicability with school use and the input of those closest to the students (typically parents and teachers) is not fully understood. In the FBA process, teams come together to discuss the particular student/case, hypothesize behavior functions, and develop interventions based on these hypotheses.	with trained clinicians and the other with school personnel. It was found that the team more familiar with the student was better able to hypothesize behaviors, indicating that they bring background information to the process, which ultimately may hinder the validity of the process. The researchers suggest that parents and teachers are a necessary part of understanding student behavior, although a professional should be used to maintain fidelity. Shippen et al. (2003) conducted a case study of a 13-year-old boy in an inclusive setting with a teacher/parent/specialist team. The team decided to focus on three problem behaviors, observe them to develop baselines, allow input from the mother and student, and determine appropriate strategies and assessments to monitor the student's progress. While the details of the student's progress were not given, the authors reiterated the need for parental input and the ease with which an FBA can be used along with an IEP.
Conjoint Behavior Consultation (CBC) (Wilkinson, 2006; Sheridan, Kratochwill, & Elliot, 1990)	Parents and teachers work together to brainstorm solutions that will improve students' behavior issues, with a focus on what occurs at home and school. It specifically values parent input.	Historically, research on CBC has produced positive results (e.g. Sheridan et al., 1990). Wilkinson (2006) examined the CBC method through a case study of an 11-year-old student in an inclusive setting. During the intervention

		process, the teacher and parents met several times to discuss problem behaviors and observe target behaviors. An intervention was then developed that included self-monitoring, goal-setting, and home-school reinforcements. The student was responsible for monitoring his behavior, although the teacher continued observations. After the intervention, the parents and teacher confirmed that the student's behavior had positively improved.
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[See Figure 2 after References Section]

Technology may be the future of behavior interventions for teachers and parents to collaborate and keep close contact. Machalicek notes, in an interview with Shaughnessy (2009), that interventions may also integrate technology, particularly important with the need for behavior strategies to be consistent at home and school. In the interview, she notes that Teach Town, an applied behavior analysis program on the computer developed by Dr. Chris Whalen, supplements interventions by helping students learn appropriate behaviors, while also allowing teachers and parents to communicate about the student's progress.

Conclusions

Teacher and parent collaboration should be foundational when developing interventions for students with behavior disorders. From experience, I have seen that these students often thrive on routines, and when interventions are supported and maintained at home and school, the chances of their success is increased. Such collaboration also gives students a clear message about what behaviors are acceptable. Teachers and parents want students to succeed and this success is particularly important when students are identified with behavior disorders as these students are at a greater risk for future failure at an academic and societal level.

Teachers and parents should come together to help these students as soon as possible, determining what behaviors need to be improved/corrected and agreeing on what can be done to help can turn negative behaviors into positive ones. Teachers and parents must maintain communication throughout this process, determining if interventions are working and, if not, developing new interventions to try. The process may be time-intensive for parents and teachers alike, but the possible benefits can last a life-time.

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About the Author

Melissa Davis is currently a doctoral student at Florida International University. She is studying curriculum and instruction with a specialization in reading education and a cognate in special education. She also teaches primary students in an inclusive setting. Ms. Davis has previously published research in the *American Reading Forum Annual Yearbook*.

Figure 1: The Steps to Positive Teacher and Parent Collaboration

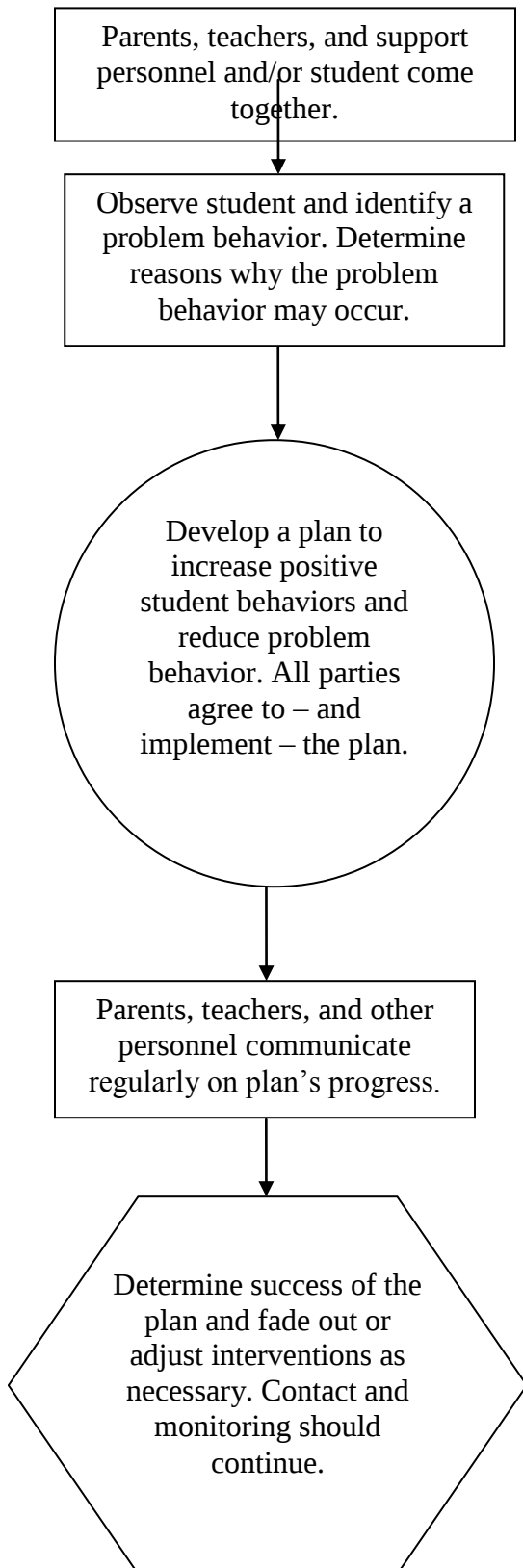
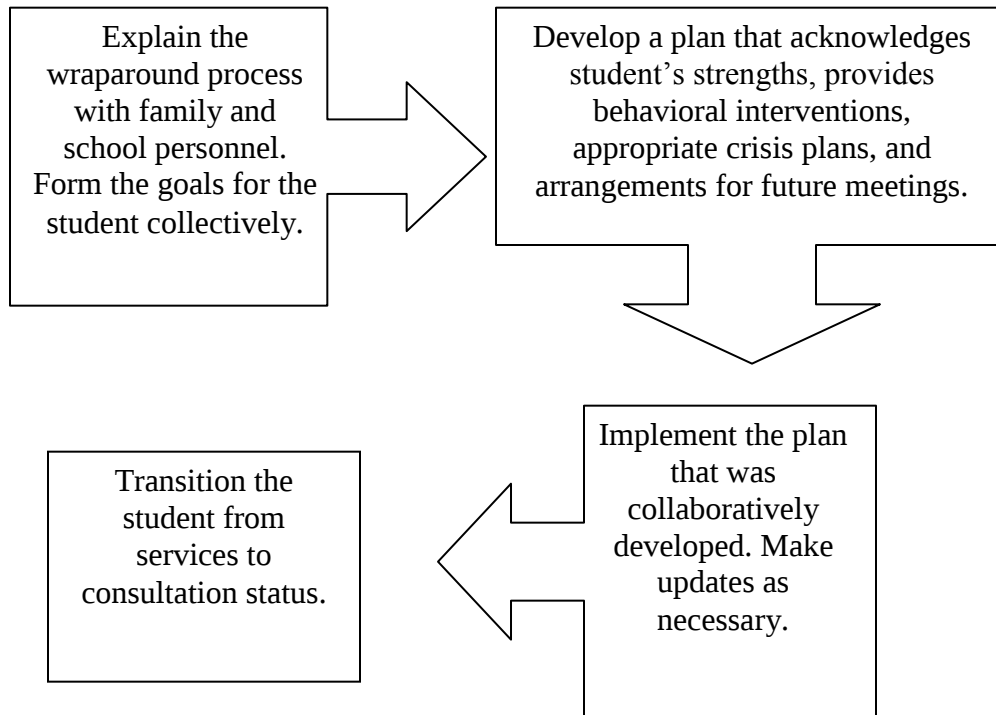


Figure 2: The Wraparound Process
(as stated in Quinn and Lee, 2007)



Positive and Negative Aspects of Inclusion Services

**Christye Hayes, M.Ed., Ed.S.
The University of Mississippi**

Abstract

The purpose of this research paper was to investigate the conceptions and misconceptions of an inclusive education. Inclusion was formulated upon three core inclusionary principles, these being: setting diverse suitable learning challenges, responding to needs of pupils, and overcoming potential barriers to learning and assessment for individuals and groups of children. As a result of No Child Left Behind (NCLB) and the even more recent mandates of the revised Individual with Disabilities Act (IDEA) of 2004, which defines “highly qualified” in new ways, it has become increasingly important for schools to utilize their resources using more effective and creative means.

Introduction

One of the major concerns of school administrators, teachers, and parents today is the achievement level of students with Specific Learning Disabilities (SLD) receiving an inclusive education. Research is constantly showing various teachers’ opinions of inclusion services in a general education classroom. Inclusion provides specific learning disabled students with extra support they need in order to be successful in an “ordinary” classroom (McLesky & Waldron, 2007). When students with specific learning disabilities receive inclusion services, they are provided with daily schedules and activities that are homogeneous with students who do not have special needs.

Statement of the Problem

The purpose of this study is to investigate the conceptions and misconceptions of an inclusive education. Inclusion was formulated upon three core inclusionary principles, these being: setting diverse suitable learning challenges, responding to needs of pupils, and overcoming potential barriers to learning and assessment for individuals and groups of children.

Review of Related Literature

The origins of inclusive education can be traced back to the early 1900’s and the welfare pioneers who believed in a non-segregated schooling system (Cesar, 2006). The emergence of inclusive education was first grounded during the World Conference on Special Education which took place in Spain, 1994. At the World Conference, 25% international organizations, and 92% governments developed a “bold and dynamic statement that called for inclusion to be- quite simply- the norm” (Clough, 1998). The statement which was formulated at the conference stated

that: Schools should assist them (children with special educational needs and disabilities) to become economically active and provide them with the skills needed in everyday life, offering training in skills which respond to the social and communication demands and expectations of adult life (Clough, 1998, 10).

The evolution of inclusive education within the English educational system began with the election of the New Labour party in 1997. It became quite clear, to observers, that the government had put inclusion firmly on the political agenda, as it stated:

We want to develop an education system in which special provision is seen as an integral part of overall provision aiming wherever possible to return children to the mainstream and to increase the skills and resources available to mainstream schools, and to ensure that the support services are used to support mainstream placements (Richards, 2007, 64-68).

The beginning of the 21st century witnessed the evolution of inclusive practices being supported by a raft of governmental policies, initiatives and legislation. The Special Education Needs and Disability Act revised section 316 of the Education Act 1996 and so strengthened the right of children with special educational needs to be educated in a regular education setting.

On a study done with newly qualified teachers, questionnaires that contained a number of items, including open-ended questions, allowed each teacher to express their feelings about including specific learning disabled students into their regular education classroom setting. At the beginning of the study, 100% beginning teachers believed that inclusion meant “education for all” (Hodkinson, 2006). At the end of their first year of teaching, only 40% of these participants changed their definition of inclusive education. There was also a decrease by 20% that teachers believed the individual need of the student could be considered. The teachers felt that not all students with special needs could be included into a general education setting, and that including these students was a disadvantage to students without special needs. Teachers believed that in order to ensure successful inclusion schools should: have a policy relating to inclusion, positive aspects of diversity should be emphasized in the classroom, more training for teachers should be considered, additional resources pertaining to inclusive education should be available, and more support from outside agencies (Hodkinson, 2006, 43-55).

Many teachers argue that the general education classroom is a separate and different setting for students with specific learning disabilities. A second study suggests that there is a great need to make differences normal as inclusive education is being evolved in various school systems. Researchers believe that educators can make an inclusive classroom normal for students with disabilities as well as those without disabilities (Keil, 2006, 168-172). There are four main issues that will ensure inclusive classrooms will be successful if they provide an ordinary environment for all students. These issues include creating inclusive classrooms, which are considered different, as ordinary as possible. A second issue is to gain more support and collaboration from personnel to make the inclusive classroom as natural as possible. The third issue focuses on keeping constancy and order throughout the day. The last issue suggests that all students must become part of the classroom and engage in all learning and social activities.

After observing several classrooms with specific learning disabled children in each, there were no classrooms that were equipped to accommodate all academic achievement and behaviors that exist in the school system. This observation shows that teachers need to be more flexible in making a different environment ordinary. The general education classroom should always be as natural and unobtrusive as possible. Both special education teachers and general education teachers should work with all students, not just those students that are considered special need students. Teachers must increase their tolerance level towards behavior problems and be provided with thorough support each day. General education teachers should collaborate with special education teachers often. Teachers should use co-teaching methods which enable the teacher to have more one-on-one time with each student, and these also help be decreasing student teacher ratio.

A good inclusive classroom sets daily schedules and activities for students with special needs that coincide with the daily activities for students without special needs. If the daily scheduled activities are not constant, students' routines could be affected tremendously. Disadvantages of interrupted schedules include: limited instructional time, difficulty for teachers to provide effective instruction, difficulty for students to learn appropriate behavior in different settings, and stereotyping students as odd because they leave the general education classroom during instructional time.

A study done on final year teacher trainees' knowledge and understanding of inclusion posed three main questions: (1). How do trainees define inclusive education? (2). What factors do they believe are inherent in its success? and (3.) Do they feel confident to support the development of inclusion educational practices (Hodkinson, 2005)? Eighty participants were given questionnaires after their first year of teaching. The research explored final –year initial teacher trainees' conceptions of inclusive education. The exploration seeks to ascertain how trainees conceptualize inclusive education and whether they have the requisite understanding to enable them to engage fully in the development of inclusion's important educational initiative. The data from the questionnaires indicate that 100% of the trainees define inclusive education as one where all children are included. Forty-two percent of trainees define inclusive education as having the student's individual needs considered. Twenty-one percent of trainees define inclusive education as being treated equally, and 18% of teachers believe that an inclusive education means that students are enabled to reach their full potential.

Data also showed that teachers believed that in order to ensure successful inclusion, educational practice depends upon: the adaptation of teaching style to correspond with the individual learning styles of pupils; having a policy relating to inclusion; positive aspects of diversity emphasized in the classroom; have appropriate materials; training for teachers; teamwork of staff; support from outside agencies; broad curriculum; careful assessment; mixed-ability teaching; strong links with the home environment; and non-discriminating teachers.

Only 46% of the teachers believe that all mainstream schools should be inclusive. These teachers believe that they needed more training in respect of special educational needs.

The findings of this small-scale study suggest that although, in theory, the trainees support the concept of inclusive education, they display a shallow understanding of how it may be delivered

in practice within the applied educational setting. The study also showed that the majority of trainees feel confident in their ability to deliver inclusive education successfully in their first year of teaching.

A third study was done on collaborative work contributions to more inclusive learning settings. The purpose of this study was to present findings of efforts made to use collaborative work as a mediation tool in order to achieve more inclusive learning settings. The study used a critical and ethnographic approach and thus peer interactions were implemented as a daily practice. This research addressed five main questions: (1) What are the contributions of collaborative work to the promotion of more inclusive learning settings? (2) How can inclusivity be seen in students' talk during peer interactions within mathematics classes? (3) How does collaborative work contribute to students' mathematical knowledge appropriation and to the development of higher mental functions? (4) What is the role of the new didactic contract in the promotion of knowledge appropriation? (5) Is there an impact of working collaboratively over several school years in students' identities and life projects? Data were collected through participant observation (audio and videotaped), questionnaires, tasks inspired in projective techniques, interviews, reports, and sets of materials gathered by the teachers.

After completing the study, researchers showed that students who were a part of an inclusive setting remained in their ways of thinking after the research was completed. This study includes an action-research level, in which 33 teachers/researchers and four psychologists study and implement collaborative work, namely peer interactions. The study focused specifically on the experience of one student categorized as having Special Education Needs (SEN), who is similar to many others studied within the project. The student categorized as having SEN worked in a group of ninth grade students. The students had been in the project since the eighth grade and only one student had failed a grade. Each class of students worked collaboratively for an entire year. During the first week of the project the teachers introduced the didactic contract to the students. The didactic contract is intended to promote collaborative work amongst and as well as teacher interactions. The students were also placed in dyads meaning they were placed in pairs. Students had to work collaboratively with their peers on all activities. After dyad or group work there would be a whole class discussion.

This study showed that one student, after completing a year in an inclusive setting, gained more confidence, positive academic self-esteem, and sense of responsibility. Students who experienced collaborative learning settings are able to maintain collaborative ways of acting, even in other complex and dynamic settings. The didactic contract contributed to the creation of a more inclusive learning setting. The students were able to explore new concepts and challenging tasks. The researchers and teachers decided to implement a ten-year follow up of some selected classes in order to study the impact of collaborative work on students.

A fourth study was done on how to make co-teaching work in front of students. As a result of No Child Left Behind (NCLB) and the even more recent mandates of the revised Individual with Disabilities Act (IDEA) of 2004, which defines "highly qualified" in new ways, it has become increasingly important for schools to utilize their resources using more effective and creative means. Research has shown that students pulled from general education classes and taught in a resource setting do not benefit from the instruction of content area teachers. Research also

shows that all general education teachers do not possess the expertise to meet the learning differences posed by students with disabilities. Co-teaching has become one of many collaborative strategies that schools are looking at in an effort to meet the needs of all students within this educational framework that we call school. Co-teaching teams have been forced into the general education classroom where veteran teachers feel insulted to have a special education teacher placed in the room with the expectation that they both teach content area critical concepts. The purpose of this study was to show that students do not benefit as much from instruction in a resource setting as they do in an inclusive general education classroom, but general education teachers do not possess the expertise to teach students with disabilities, effectively forcing a team-teaching situation. Results of a teacher survey given by the researcher indicated that the majority of co-teachers believe co-teaching influences student achievement. Research has showed mixed results on the effects of co-teaching. Studies have shown that students with disabilities showed larger gains in math and equal gains in reading when compared to students receiving pull out services and that consultation plus co-teaching was as effective as other service delivery models. The researcher conducted a study of the attitudes and concerns of secondary teachers from 15 urban and suburban districts in and around Seattle, Washington. Using a structured interview format, general and special education teachers were asked to reply to a series of open and closed ended questions. Participation was anonymous and interviews were conducted on a one to one basis. Teachers were asked to share their opinions as well as factual information about the effects of co-teaching. The majority of teacher surveys stated that they did not participate voluntarily to co-teaching and they had no prior planning before participating in the co-teaching process. According to 75% of the surveys teachers stated that co-teaching influenced student achievement. One hundred percent of the 77% stated that the impact was positive and that some students made academic gains. Only 10% of teachers stated that there was no influence on student achievement.

Statement of the Hypothesis

In conclusion, research shows that teachers' definition of inclusion meant education for all. The teachers in many of the studies believed that if they were given proper training such as workshops pertaining to inclusion services, more resources made available, and support from other staff and administrators, meaning that staff and administrators are working together and doing whatever it takes to help each student reach their full potential, inclusion services could be very successful. Many of the teachers believed that the administrators were concerned about students receiving inclusion services and being successful in their classes, but the teachers also believed that the administrators did not know how to properly implement inclusion services. Therefore it has been hypothesized that there will be a difference in the attitudes, related to inclusive education, from teachers who receive no staff support, administrative support, and no training prior to their first year of teaching compared to those who have received some training and support either during their first year of teaching or over many years as a teacher.

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About the Authors

Christye Hayes, M.Ed., Ed.S., holds a B.A. in Communicative Disorders, M.Ed. in Special Education, and an Ed.S. in Curriculum and Instruction with an emphasis in Special Education from The University of Mississippi. She is currently enrolled in the Ph.D. Special Education program at The University of Mississippi. She has worked as a Speech Therapist for five years and worked for The University of Southern Mississippi as a Technical Assistant Specialist where she provided high quality professional development opportunities to various school districts in the state of Mississippi in order to increase Mississippi's capacity to meet goals relevant to Positive Behavior Intervention and Support (PBIS) through program improvement. Christye Hayes is currently employed as a Pre-Kindergarten Special Education teacher.

***Teacher Perceptions of Response to Intervention Implementation
in Light of IDEA Goals***

**J. Kevin Jenkins, Ed.D
Mercer University**

**Dia Sekayi, Ph.D
Georgia Institute of Technology**

Abstract

Traditionally, school systems have identified students with specific learning disabilities (SLD) by a measured gap between achievement and ability in a specific area. Recent amendments to the IDEA allowed for the use of alternative methods of identifying students with a SLD. Some states have responded by using Response to Intervention (RTI). This new method represents a radical change in identification of SLD students. Consequently, policy makers need to know if RTI, as it is actually implemented, is serving the goals of the IDEA. Attempting to provide information on this subject, the authors conducted a modified Delphi study in a school system that requires RTI as the method of SLD identification. They analyzed the resultant data in light of the identified goals of IDEA. This article describes the research process employed, provides the aforementioned analysis, and draws conclusions and makes some initial recommendations for further research in this area.

Introduction

The Individuals with Disabilities Education Act (IDEA) (20 U.S.C. § 1401, *et seq*) requires, among many things, that school systems identify and provide special education services to students with a qualifying “specific learning disability” (SLD). (§ 1401(3)(a)(i)(ii)) Recent amendments to the IDEA allowed for a change in the way such students are identified by school systems. Prior to the amendments school systems relied on a measured gap between achievement and ability to identify students with SLDs. The new law allowed for the use of the Response to Intervention (RTI) model to identify these students. The adoption of the RTI model amounts to a sea change in the identification process of SLD students. Consequently, policy makers, school administrators, and teachers need to know if the RTI model is serving the goals of IDEA.

In an attempt to answer this question the researchers reviewed the literature concerning the development of special education in the United States for the purpose of identifying the goals of the IDEA and specifically, the SLD category. The researchers then conducted a modified Delphi study of RTI implementation in a school system. Through the Delphi method, expert opinion and experience data were gathered from classroom teachers responsible for implementing the RTI process. The researchers then analyzed these data in light of the goals of the IDEA in an attempt to determine whether the RTI process, as it is actually implemented, serves the purpose of

appropriate identification and provision of services to students with specific learning disabilities. In this article, the researchers describe this process, and provide the analysis of the resultant data and their conclusions. Finally, the authors provide recommendations for future research in this increasingly important area.

A Brief History of Students with Disabilities

Appeal for services

Compared to modern times, early systems of education in the British colonies that would become the United States were narrowly focused. From the colonial era into the early 1800s, two basic purposes existed for most formal schooling; either to teach students to read, write and do arithmetic sufficiently to manage their lives in a heavily religious, agrarian society, (Mass. The Old Deluder Act, 1647) or to prepare children of influential families to enter the professions such as law, medicine, the clergy, or politics. (Cooper, Fusarelli, & Randall, p.138) Given that the explosion of technology flowing from the industrial revolution was yet to come, the number and complexity of occupational options were relatively small. The notion of preparing any but the privileged few for the professions was anathema to the gentry, and an education dichotomy existed that perpetuated the existing class structure. (Cooper, et al., p.138) An exception to this attitudinal rule was Thomas Jefferson, whose Bill for a More General Diffusion of Knowledge (VA 1778, et seq.) proposed that the public pay for capable students to be rendered by liberal education worthy to receive, and able to guard the sacred deposit of the rights and liberties of their fellow citizens, and that they should be called to that charge without regard to wealth, birth or other accidental condition or circumstance¹ (Preamble to the bill). Despite common goals, and the occasional outlier like Jefferson, however, the near-total local community control of education led to a “wide open” diversity of schooling methods in the colonies. (Cooper, et al., p.139)

Following a diversity of schooling methods during the colonial period, whose only element that was almost universally shared was a focus on religion, schools gradually became more standardized from the 1800s to the modern era. Coinciding with a trend away from an agricultural economy to an industrial one, publicly funded education in the United States gained significant momentum in the early 20th century. As they were during the colonial period, schools were designed to educate students to a level at which they could function in society. Further, the impact of the industrial revolution on U.S. American society implicitly had an influence on both the goals and the methodology of public education systems. (Gorton, et al., p.26) Students were educated largely with the intent of preparing the masses to work in factories, and the schools themselves were often modeled along the principles of a factory. Such a model made little provision for differences in abilities, aptitudes or interests among students. Instead, in the nature of a factory, the philosophy of factory model education seemed to presume consistent inputs in terms of student raw materials. Combined with consistent treatment in terms of curriculum and instructional methods, a relatively consistent output in terms of student achievement was expected. (Katz, 2010, Problems with Standards section, ¶ 2) While such expectations were the predictable basis of factory model education, it is also predictable that such a system would

¹ It should be noted that, however forcefully Jefferson sometimes argued against the institution of slavery, it is unlikely he anticipated that his proposed Bill would apply to any but free children.

allow little to no room for variance in student input. Exceptional students, particularly those who would be identified as students with disabilities in modern America, were often marginalized in school, or categorically excluded from attending. (B.O.E. v. Rowley, 1982, p. 179) Consequently, untold human potential was denied the opportunity to develop through formal, publicly funded educational processes.

Development of Special Education in Response

As of mid-twentieth century, public education had been, more or less, centralized at the state level. State legislatures and education departments developed policies, which were then implemented through local school boards, typically at the county or city level. Education was almost entirely a function of the several states and neither the administrative branch of the federal government, nor federal constitutional or statutory law had much bearing on it. But with the U.S. Supreme Court's decision in *Brown v. Board of Education* (1954), a new era of federal intervention in public schools arose. Subsequent to *Brown*, "advocates for individuals with disabilities championed desegregated education for children with disabilities." (Dayton, 2008, p.331) Arguing that individuals with disabilities were being denied equal protection of the laws and due process rights under the federal constitution, plaintiffs began to win judgments mandating educational opportunity for such students. (*PARC v. Pennsylvania*, (E.D. Pa. 1972); *Mills v. B.O.E.* (D.C. 1972)) In contrast to the exclusivity and uniformity of the factory model of education and its underlying assumptions, courts began to recognize a legal responsibility to provide educational opportunity to all students.

In addition to federal judicial intervention, the legislative branch of the federal government also became involved in public education post-*Brown*. In 1970, in response to minimal or even nonexistent educational opportunities previously available to persons with disabilities, the U.S. Congress passed the Education for All Handicapped Act (Dayton, 2008, p.332). In 1975, Congress reauthorized and greatly expanded the statute under a new title, the Individuals with Disabilities Education Act (IDEA) (Public Law 94-142). Under the provisions of the statute, codified at 20 U.S.C. § 1401 *et seq.*, states receive federal money to be used to help educate children with specified disabilities. In exchange for the federal funding, states must agree to the "extensive goals and procedures" (B.O.E. v. Rowley, p. 179) of the statute. The stated intent of the IDEA was to ensure that "handicapped children [were granted] the right to a free appropriate public education." (20 U.S.C. § 1412(1)) Further, the statute requires that eligible children be educated with non-disabled peers "to the maximum extent appropriate." (20 U.S.C. § 1412(5)(a)) Concerning eligibility, § 1401(3)(a)(i)(ii) of the statute defines a "child with a disability" as one: with intellectual disabilities, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities; and who, by reason thereof, needs special education and related services.

Additionally, the statute places an affirmative duty, known as the "child find" (34 CFR §300.111) provisions, on recipient school systems to identify students who qualify for services under the statute. (20 U.S.C. § 1412(a)(3)(A)) Once a student is identified as having a qualifying disability, the school is responsible for designing and implementing an appropriate educational

program for the student. Section 1412 (a)(4) of the statute formalizes this requirement, and uses the term “Individualized Education Program” (IEP) to describe the plan.

While listing the qualifying categories of disabilities, IDEA does not provide specific descriptions of the categories. Instead, that decision is left up to the states to determine. For example, under § 1401 “specific learning disability” is identified as a category under which a student may qualify for services under IDEA. But neither the statute nor the implementing regulations instruct states on what constitutes a specific learning disability, or how that determination should be made. Consequently, individual states use varying definitions of specific learning disability. Despite differing standards, however, it can generally be said that until recently state definitions of the disability have emphasized a discrepancy between ability and achievement (Christ, Burns & Ysseldyke, 2005; Kavale, Spaulding, & Beam, 2009). Under this standard, a student whose academic performance as measured by standardized achievement tests was significantly below what that student’s I.Q. scores would predict was identified as having a specific learning disability.

Based on the discrepancy model of identifying students with specific learning disabilities, school systems have provided special education services to many students over the last three decades. But this model was not without its critics who cited, among other things, inadequacy of testing used, lack of consistent interpretation by teams, time to complete the process and lack of legal strength (Vaughn & Fuchs, 2007; Zirkel 2009). Researchers and politicians also argued that the discrepancy model was a system that waited for students to fail, instead of providing early intervention to minimize students falling behind (President’s Commission on Special Education, 2002.) In 2001 a learning disabilities summit was called by the Office of Special Education to examine how the specific learning disability category was diagnosed (Christ, Burns & Ysseldyke, 2005).

In response to criticisms of SLD identification, Congress allowed for a new identification method in the 2004 reauthorization of IDEA. Zirkel (2009) found that the reauthorization of IDEA in 2004 changed “the interpretive standards for the definition of “disability”” (p.52) as they apply to student in K-12 schools. Specifically, the 2004 reauthorization advocates the use of a problem solving model for early intervention and identification of students who are suspected of having a specific learning disability. Fuchs and Young (2006) note “the newly reauthorized law neither encourages nor discourages the continued use of IQ-achievement discrepancy but allows practitioners for the first time to use an alternate: RTI” (p. 9). “Response to intervention [RTI] integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems.” (National Center on Response to Intervention, 2007)

Identified Goals of IDEA

The IDEA legislation itself, along with case law interpreting the statute and scholarly commentary on the topic, indicate the following themes of the theoretical grounding of IDEA and the resultant goals of the statute: 1) the IDEA was enacted by Congress to provide educational opportunity to students who did not fit the mold of normality in public schools; “students with disabilities” in the language of the statute 2) school systems have a duty under

the statute to identify students eligible for services, and to identify which statutory category of the disability such students have 3) once identified, the student has a right to an individually tailored program of education designed to provide for the unique needs of that student; an “appropriate” education in the statutory language.

Considering the legislative mandate to identify students who qualify for services under IDEA, and to provide appropriate services for them, the effectiveness of the RTI process at meeting these goals is crucial. In this study the authors seek to determine whether RTI, as it is actually implemented by the population studied, is consistent with the intent of the IDEA, and whether it serves the goals and requirements of the statute. In an attempt to answer these questions the researchers collected expert opinion and experience data from classroom teachers responsible for implementing RTI, and analyzed the data in light of the goals of IDEA.

Methodology

This study employed a modified version of the Delphi method to seek consensus of professional opinion on the RTI model among those responsible for its implementation at the classroom level—teachers in regular education classrooms. The authors gathered data over two rounds. The population for the study consisted of regular education teachers responsible for implementing the RTI process, working in a state that was one of the first to mandate RTI as the model of identification for Specific Learning Disabilities (SLD). The Delphi method was selected because the understanding of this topic will be enhanced through collection of expert opinion and experience data. Furthermore, this topic is somewhat controversial and anonymity within a group discussion allows an open and honest dialogue without fear of reprisal (Downar and Howryluck, (2010), Murry and Hammons, (1995)).

The final Round 1 sample was 20 classroom teachers from one district in a southern state. Initially, 22 teachers responded. After reviewing the data, it was clear that two of the respondents were special education teachers, and therefore did not meet the criteria for participation. Consequently, their responses were not included in the analysis.

In the version of Delphi used in this study, the researchers planned and prepared participants for the possibility of three rounds. The first round was a brainstorming round based on a series of prompts. Panelists contributed to the brainstorming session by responding to the open-ended prompts. After the first round, the researchers coded and categorized the qualitative data and created a list of statements derived from the data. The statements were the basis for a structured questionnaire using a five point Likert scale. In the second round, the questionnaire was administered to the panelists.

Responses to the second round were challenging to obtain. The researchers sent three reminders and requests for continued participation and ultimately received 13 responses to the Round 2 survey. Respecting the fact that participation was voluntary, the researchers made the decision to conclude the study at the close of the second round. At this point, the researchers studied the data to determine the level of consensus on each of the statements. There is no universal agreement in the literature on the level at which consensus should be set. Suggestions range from a simple majority of 51% to 80% (Hasson, Kenney, & McKenna, 2000). In the instant study the authors

defined consensus as at least 75% of panelists strongly agreeing or agreeing, or disagreeing or strongly disagreeing with a statement. Logic suggests that there be an inverse relationship between panel size and consensus threshold percentage. Those statements on which there was consensus are reported as such in the findings section.

Participants were asked about their perceptions of the purposes of RTI and about its actual implementation. The researchers analyzed the resulting data to determine the extent to which classroom teachers' perceptions of the RTI process, as implemented, matches the goals and requirements of IDEA concerning students with specific learning disabilities.

Results

In this section, the statements that resulted from the open-ended Round 1 prompts are listed along with the results from the Round 2 survey. Following the presentation of the results, there is a discussion of those results within the context of the literature.

There were six Round 1 open-ended prompts. Teachers' narrative responses to these prompts were open-coded and axial coded (Strauss, 1987). That is, the responses were coded inductively by creating brief statements that represented the meaning of the response; then they were grouped with like responses and reworded to be inclusive of each aspect of each similar response. Every effort was made to maintain verbatim segments in each statement so the meaning of the response was not altered by the analysis.

Teachers' Understanding of the Purpose of RTI

The prompt to which teachers responded in this section was "Describe your understanding of the purpose of Response to Intervention (RTI)." The result of the coding process was 10 distinct declarative statements. The statements are listed in Table 1; those with 75% or greater consensus are indicated by bold italics.

Table 1

Statements generated from: Describe your understanding of the purpose of Response to Intervention (RTI)

<i>Statement</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>RTI can be used to address academic issues.</i>	<i>46%</i>	<i>31%</i>	<i>8%</i>	<i>0%</i>
<i>RTI can be used to address behavioral issues.</i>	<i>38%</i>	<i>31%</i>	<i>0%</i>	<i>0%</i>
<i>RTI provides extra support for struggling students.</i>	<i>46%</i>	<i>23%</i>	<i>0%</i>	<i>0%</i>
<i>RTI addresses reading and mathematics issues exclusively.</i>	<i>15%</i>	<i>0%</i>	<i>38%</i>	<i>38%</i>
<i>RTI should be the collective effort of teachers.</i>	<i>54%</i>	<i>23%</i>	<i>8%</i>	<i>0%</i>
<i>RTI is for identifying disabilities.</i>	<i>15%</i>	<i>15%</i>	<i>23%</i>	<i>8%</i>
<i>RTI is for providing and modifying interventions.</i>	<i>15%</i>	<i>62%</i>	<i>0%</i>	<i>0%</i>

<i>RTI gives all students the opportunity for success.</i>	23%	54%	0%	8%
<i>RTI is a tiered system.</i>	54%	31%	0%	0%
<i>RTI ensures high quality instruction.</i>	0%	23%	54%	0%

Teachers' Experiences Working with Students in Tier 1

The prompt to which teachers responded was “Describe your experience identifying, documenting, and working with students for whom Tier 1 interventions were determined to be appropriate and sufficient modifications.” The result of the coding process was 11 distinct declarative statements, eight of which had 75% or greater consensus. The statements are listed in Table 2. The statements with 75% or greater consensus are in bold italics.

Table 2

Statements generated from: Describe your experience identifying, documenting, and working with students for whom Tier 1 interventions were determined to be appropriate and sufficient modifications.

<i>Statement</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>Tier 1 is the instruction all students get in class.</i>	54%	31%	8%	0%
<i>Tier 1 instruction is differentiated.</i>	38%	38%	0%	0%
<i>Tier 1 students can be successful in a regular classroom.</i>	54%	23%	0%	0%
<i>Tier 1 includes formal and informal assessments.</i>	62%	15%	0%	0%
<i>Small group instruction is used to differentiate ability levels in Tier 1.</i>	23%	54%	8%	0%
<i>Tier 1 documentation is manageable.</i>	38%	38%	8%	0%
<i>My students respond well to Tier 1 interventions.</i>	23%	38%	0%	0%
<i>Students' lack of effort leads to the need for Tier 1 intervention.</i>	8%	31%	23%	23%
<i>Working with Tier 1 students is a normal part of teaching.</i>	54%	31%	0%	0%
<i>Most students are at Tier 1.</i>	38%	31%	15%	0%
<i>I have no experience with Tier 1 students.</i>	0%	0%	8%	69%

Teachers' Experiences Working with Tier 2 Students

The prompt to which teachers responded was “Describe your experience identifying, documenting, and working with students for whom Tier 2 interventions were determined to be appropriate and sufficient modifications.” Sixteen unique statements were generated from this

prompt and are listed in Table 3; three of which received 75% or greater consensus as indicated by bold italics.

Table 3

Statements generated from: Describe your experience identifying, documenting and working with students for whom Tier 2 interventions were determined to be appropriate and sufficient modifications.

<i>Statement</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>Not difficult to work with Tier 2 students if the right accommodation is implemented early.</i>	16%	62%	15%	0%
<i>Tier 2 students struggle with academics.</i>	0%	62%	0%	0%
<i>Tier 2 students struggle with behavior.</i>	0%	31%	23%	0%
<i>Tier 2 students need extra help to catch up with peers.</i>	8%	62%	0%	8%
<i>Tier 2 students need small group instruction to be successful.</i>	15%	23%	23%	0%
<i>Tier 2 students need one-on-one instruction to be successful.</i>	8%	23%	23%	8%
<i>Tier 2 students can return to Tier 1 with interventions/modifications.</i>	15%	62%	0%	0%
<i>Tier 2 students need extra time to be successful.</i>	0%	62%	8%	0%
<i>Tier 2 students need prompting to be successful.</i>	0%	62%	15%	0%
<i>Work with Tier 2 students takes extra time.</i>	8%	62%	0%	0%
<i>Gaps in Tier 2 student learning can be attributed to our curriculum.</i>	8%	23%	38%	8%
<i>Tier 2 students should be pulled out of class for instruction if necessary.</i>	8%	15%	15%	8%
<i>Tier 2 students can benefit from in school suspension in extreme cases.</i>	15%	15%	31%	23%
<i>Students who do not respond to Tier 2 interventions are moved to Tier 3.</i>	38%	38%	0%	0%
<i>Weekly progress monitoring should be used to identify Tier 2 students.</i>	8%	46%	23%	0%
<i>Tier 2 students have adopted an attitude of learned helplessness.</i>	31%	15%	15%	8%

Teachers' Experiences Working with Tier 3 Students

The prompt to which teachers responded was "Describe your experience identifying, documenting, and working with students for whom Tier 3 interventions were determined to be

appropriate and sufficient modifications.” Responses to this prompt produced the 17 unique statements listed in Table 4. Of these unique statements there was 75% or greater consensus on seven.

Table 4

Statements with 75% or Greater Agreement on: Describe your experience identifying, documenting, and working with students for whom Tier 3 interventions were determined to be appropriate and sufficient modifications.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
<i>Documentation requirements at Tier 3 are challenging.</i>	23%	62%	0%	0%
<i>Tier 3 students struggle after the Tier 2 intervention.</i>	31%	54%	0%	0%
<i>Tier 3 interventions are more intensive than Tier 2 interventions.</i>	46%	38%	0%	0%
<i>Tier 3 students are monitored by the grade level Student Support Team.</i>	8%	46%	6%	8%
<i>Learning gaps have hampered the progress of Tier 3 students.</i>	31%	38%	0%	0%
<i>The Tier 3 process is inundated with paperwork and puts needs of students on hold.</i>	31%	15%	15%	0%
<i>The students in Tier 3 are very far behind their peers.</i>	15%	23%	23%	0%
<i>Remediation for Tier 3 students focuses on critical areas.</i>	23%	62%	0%	0%
<i>The Tier 3 step requires Student Support Team Paperwork.</i>	8%	46%	8%	8%
<i>Tier 3 includes one-on-one interventions.</i>	31%	46%	0%	0%
<i>Tier 3 includes small group interventions.</i>	31%	46%	0%	0%
<i>Tier 3 includes extended time for interventions.</i>	38%	46%	0%	0%
<i>Special education help is possible for students unsuccessful with Tier 3 interventions.</i>	38%	31%	0%	0%
<i>My experience with Tier 3 students is limited.</i>	8%	23%	23%	8%
<i>Tier 3 students have previously received extensive intervention.</i>	0%	38%	15%	0%
<i>I have no experience with Tier 3 students.</i>	0%	8%	15%	46%
<i>I am able to keep a positive attitude when working with Tier 3 students.</i>	31%	38%	15%	0%

Teachers’ Experiences Working with Students who Qualify for Services Under IDEA through the RTI Process

The prompt to which teachers responded was “Describe your experience identifying, documenting, and working with students who were identified as qualifying for services under IDEA through the RTI process.” This prompt resulted in 20 unique statements that are documented in Table 5. Of the 20 statements, only one had 75% or greater level of consensus.

Table 5

Statements with 75% or Greater Agreement on: Describe your experience identifying, documenting, and working with students who were identified as qualifying for services under IDEA through the RTI process.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
<i>I am unsure of the meaning of IDEA.</i>	23%	8%	8%	46%
<i>These students are assigned case managers.</i>	31%	15%	0%	8%
<i>These students’ goals are monitored daily.</i>	8%	23%	23%	8%
<i>Regular and special education teachers work together with these students.</i>	31%	38%	0%	0%
<i>Students’ goals are revised as they progress.</i>	23%	46%	0%	0%
<i>Students are able to progress through school because of IDEA services.</i>	31%	31%	0%	0%
<i>The multiplicity of services is overwhelming for students.</i>	23%	0%	31%	0%
<i>These students are unable to think in the abstract.</i>	15%	0%	15%	23%
<i>These students are unable to apply new knowledge.</i>	0%	15%	15%	15%
<i>Teaching these students is like “trying to fill a bucket that has a hole in the bottom”.</i>	8%	15%	0%	38%
<i>Paperwork is heavy at this stage.</i>	38%	23%	0%	0%
<i>Work samples are collected from students and the special education director takes it from there.</i>	0%	15%	23%	15%
<i>Identification of students at this stage requires monitoring and research.</i>	15%	62%	0%	0%
<i>Using test results is better than assuming student weaknesses.</i>	23%	31%	0%	8%
<i>I have no experience working with students at this stage.</i>	8%	15%	23%	31%
<i>The students at this stage exhibit learned helplessness.</i>	15%	8%	31%	0%
<i>The students at this stage won’t think for themselves.</i>	8%	8%	46%	8%
<i>The students at this stage look for excuses.</i>	15%	23%	23%	0%
<i>The students cheat to satisfy requirements.</i>	8%	8%	8%	31%
<i>It is easier and fairer to determine who is eligible for IDEA services since the process</i>	0%	15%	15%	0%

has been streamlined.

Teachers' Assessment of Response to Intervention Implementation at Their Respective Schools

The prompt to which teachers responded was: "Tell us your thoughts about how RTI has been implemented in your school." This prompt resulted in 18 unique statements with four at a 75% or greater consensus level.

Table 6

Statements generated from: Tell us your thoughts about how RTI has been implemented in your school.

<i>Statement</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
<i>There has been improvement in the implementation of RTI.</i>	0%	46%	31%	8%
<i>The RTI process is slow.</i>	31%	46%	8%	0%
<i>Teachers struggle with the documentation of written goals.</i>	15%	69%	0%	0%
<i>Lots of time is spent on monitoring and documentation.</i>	8%	38%	8%	0%
<i>This process is working for students.</i>	0%	46%	31%	0%
<i>RTI can be effective when properly implemented.</i>	23%	54%	0%	0%
<i>Heavy paperwork results in teachers just "going through the motions".</i>	15%	46%	23%	0%
<i>One individual must be responsible for RTI to ensure effective implementation</i>	8%	31%	23%	8%
<i>I always use the RTI process.</i>	0%	23%	31%	0%
<i>I am comfortable using the RTI process.</i>	8%	23%	8%	8%
<i>RTI works best when individuals are held accountable.</i>	15%	38%	15%	0%
<i>RTI can be a useful, system-wide tool.</i>	15%	62%	0%	0%
<i>There is little accountability for this process.</i>	31%	0%	38%	0%
<i>RTI should be mastered first at lower grade levels.</i>	8%	54%	15%	0%
<i>RTI is currently unsuccessful at my school.</i>	0%	15%	46%	0%
<i>Students are resistant to help provided through the RTI process.</i>	0%	15%	23%	8%
<i>Tier meetings would be helpful.</i>	0%	62%	15%	0%
<i>RTI currently works well at my school.</i>	0%	31%	23%	8%

Goal-by Goal Analysis

The statutory text of the Individuals with Disabilities Education Act (IDEA), as well as the scholarly literature related to special education, reveal several basic goals of the statute. Further, the literature related to the Response to Intervention (RTI) process reveal several theoretical justifications for how RTI might serve the goals of IDEA. In order to investigate whether RTI serves the goals of the IDEA in practice, the authors gathered expert opinion via a modified Delphi method. Below, the authors will apply the collected data related to RTI implementation to the goals of IDEA, and analyze whether theory has been born out in practice in the studied system.

The three primary goals of IDEA relevant to this study, and identified above, are: 1) the IDEA was enacted by Congress to provide educational opportunity to students who did not fit the mold of normality in public schools; “students with disabilities” in the language of the statute 2) school systems have a duty under the statute to identify students eligible for services, and to identify which statutory category of the disability such students have 3) once identified, the student has a right to an individually tailored program of education designed to provide for the unique needs of that student; an “appropriate” education in the statutory language. These goals are analyzed in light of the data below.

Analysis of Goal #1

Regarding goal #1, there is some support from the data to suggest that RTI is serving to provide educational opportunity to students with disabilities. For example, experts expressed consensus about the following statements:

- RTI can be used to address academic issues
- RTI is for providing and modifying interventions
- RTI gives all students the opportunity for success
- RTI is a tiered system
- Tier 1 instruction is differentiated
- Tier 1 students can be successful in a regular classroom
- Tier 1 includes formal and informal assessments
- Small group instruction is used to differentiate ability levels in Tier 1
- Working with Tier 1 students is a normal part of teaching
- Not difficult to work with Tier 2 students if the right accommodation is implemented early
- Tier 2 students can return to Tier 1 with interventions/modifications
- Students who do not respond to Tier 2 interventions are moved to Tier 3
- Tier 3 students struggle after the Tier 2 intervention
- Tier 3 interventions are more intensive than Tier 2 interventions
- Remediation for Tier 3 students focuses on critical areas
- Tier 3 includes one-on-one interventions
- Tier 3 includes small group interventions
- Tier 3 includes extended time for interventions

These statements can usefully be categorized into two types: belief statements, and descriptive statements about the technicalities of how RTI is implemented. Summarized, the belief statements that gained consensus indicated a belief on the teachers' part that RTI gives all students the opportunity for success, that RTI can be used to address academic issues (read deficiencies, or problems), and that working with Tier 1 students is a normal part of teaching, and working with Tier 2 students is not difficult if accommodations are implemented early. Also summarized, the descriptive statements that gained consensus describe a tiered system designed to accommodate exceptionalities in a proactive manner, with the implied intent of helping students overcome deficiencies and succeed in the normal classroom setting. Moreover, the descriptive statements indicate the use of specific strategies of remediation commonly used in supporting students with disabilities, i.e., small-group and one-on-one instruction. In contrast to the consensus statements in the preceding paragraph, the failure of some statements to gain consensus suggests that RTI does not support the IDEA goal of providing educational opportunity to students with disabilities.² For example, the following statements failed to reach consensus:

- RTI provides extra support for struggling students
- Tier 2 students need extra help to catch up with peers
- Tier 3 students are monitored by the grade level Student Support Team
- Special education help is possible for students unsuccessful with Tier 3 interventions
- I am able to keep a positive attitude when working with Tier 3 students
- I am unsure of the meaning of IDEA(no consensus of disagreement)
- Students' goals are revised as they progress
- Students are able to progress through school because of IDEA services
- This process is working for students; RTI currently works well at my school

These statements may also be categorized into belief statements and descriptive statements about the technicalities of RTI implementation. Summarized, the belief statements that failed to gain consensus indicated a lack of belief on the teachers' part that RTI is actually working in the studied system. To highlight this point, one of the rejected statements was "RTI currently works well at my school." Only 31% of teachers agreed with this statement, and none strongly agreed. In contrast 23% disagreed, and 8% strongly disagreed. Thus, as many teachers in the studied system believe RTI is not working well as believe it is working well. Belief statements that failed to gain consensus also indicate that teachers in the studied system do not believe that IDEA helps students progress through school, do not believe that RTI provides extra support for struggling students, or that struggling students need extra help. Further, they do not believe that special education help is available for students who are unsuccessful after working through all three tiers of the RTI process, and they are unable to keep a positive attitude when working with Tier 3 students. Only 31% of teachers indicated any surety of the meaning of IDEA. The failure of some descriptive technical statements to gain consensus also tend to negate the proposition that

² The reader will recall that all statements were generated independently by the experts who took part in the study, and were then presented to all participants to gauge the level of consensus. The statements that failed to gain consensus may indicate a lack of clarity in policy understanding and/or a lack of consistency in implementation.

RTI supports IDEA's goal #1. Such statements indicate lack of consensus that students in the RTI process are monitored by appropriate parties.

Analysis of Goal #2

Regarding goal #2, there is some support from the data to suggest that RTI serves to identify students with disabilities, and to help place them in the appropriate category as listed in §1401(3)(a)(i)(ii) of the IDEA. For example, experts expressed consensus about the following statements:

- RTI gives all students the opportunity for success
- RTI is a tiered system
- Tier 1 instruction is differentiated
- Tier 1 includes formal and informal assessments
- Small group instruction is used to differentiate ability levels in Tier 1
- Tier 1 documentation is manageable
- Working with Tier 1 students is a normal part of teaching
- I have no experience with Tier 1 students(77% disagree)
- Not difficult to work with Tier 2 students if the right accommodation is implemented early
- Tier 2 students can return to Tier 1 with interventions/modifications
- Students who do not respond to Tier 2 interventions are moved to Tier 3
- Tier 3 interventions are more intensive than Tier 2 interventions
- Remediation for Tier 3 students focuses on critical areas
- Tier 3 includes one-on-one interventions
- Tier 3 includes small group interventions
- Tier 3 includes extended time for interventions
- Identification of students at this stage requires monitoring and research
- RTI can be effective when properly implemented
- RTI can be a useful, system-wide tool

As with the analysis of goal #1, the data related to goal #2 can be divided into belief statements and technical descriptive statements for the purpose of analysis. Summarized, the belief statements indicate that the teachers in the studied system view RTI as a process that can provide opportunity for success for all students. In the context of this study, one can infer that "all" means that students with disabilities can be identified and appropriate remediation implemented through RTI. Further, the data indicate a belief that RTI is a progressive system designed around the use of monitoring and research for the purposes of identification and remediation. The studied teachers also believe that working with Tier 1 students is a normal part of teaching, and that as students progress through the tiers, more expertise and time is required. Finally, teachers expressed the belief that early intervention is important when working with RTI students, and that RTI is a useful system-wide tool that can be effective when implemented properly.

The technical descriptive statements related to goal #2 also provide some evidence that RTI in the studied system supports this goal. The descriptive statements that gained consensus describe

a system that is wide at the base and narrow at the top: that is, at Tier 1, all students are monitored both informally and formally, and are provided with both group and individualized instruction or remediation as appropriate so that students can be successful in the regular classroom and curriculum. At the top of the pyramid are students identified as eligible for IDEA services through the RTI process. Through the tiers, monitoring and documentation become more intensive, as does teacher time dedicated to working with the relevant students and doing required paperwork. Further, teachers find different levels of accommodation through the tiers that allow some students to be successful without the provision of IDEA services. Notably, students who are successful in Tier 2 can return to Tier 1 over time. This is consistent with goal #2. It not only helps identify those students eligible for services, but, by inference, prevents some students from being misidentified as having a disability by allowing them to be successful in the regular classroom.³

In contrast to the above analysis, there is also support from the data that negates the proposition that RTI supports goal #2 of IDEA. This support comes in the form of one statement that did achieve consensus, and from several other statements that failed to achieve consensus. The relevant statement that did achieve consensus was “Teachers struggle with the documentation of written goals.” The writing and monitoring of student progress toward goals are integral aspects of the RTI process, as well as of IDEA. It is problematic that teachers are struggling with these aspects of the process. Alone, however, this does not mean that teachers are not doing a good job of it. Professionals often have to work hard at a process to be good at it. This consensus statement is too vague to lead to conclusions by itself. However, the following statements that failed to achieve consensus are illustrative:

- RTI provides extra support for struggling students
- My students respond well to Tier 1 interventions
- RTI is for identifying disabilities
- Most students are at Tier 1
- Tier 2 students struggle with academics
- Tier 2 students need extra help to catch up with peers
- Tier 2 students need small group instruction to be successful
- Tier 2 students need one-on-one instruction to be successful
- Tier 2 students need extra time to be successful
- Weekly progress monitoring should be used to identify Tier 2 students
- Tier 3 students are monitored by the grade level Student Support Team
- Learning gaps have hampered the progress of Tier 3 students
- The Tier 3 step requires Student Support Team Paperwork
- Special education help is possible for students unsuccessful with Tier 3 interventions
- Tier 3 students have previously received extensive intervention
- Regular and special education teachers work together with these students
- Using test results is better than assuming student weaknesses

³ This is a particularly important feature as qualifying for IDEA services involves a two part test: one must have a qualifying disability and one must need services as a result. If a student can function with less-than-IDEA level remediation in the classroom, then he or she does not need services under the statute.

- It is easier and fairer to determine who is eligible for IDEA services since the process has been streamlined (only 15% agreed, none strongly; 15% disagreed, none strongly.)
- There has been improvement in the implementation of RTI
- Lots of time is spent on monitoring and documentation
- This process is working for students
- I always use the RTI process
- I am comfortable using the RTI process
- RTI is currently unsuccessful at my school
- RTI currently works well at my school

Summarized, the statements that failed to gain consensus listed above do not paint a picture of successful RTI implementation supportive of IDEA goal #2. The belief statements seem to indicate a lack of widespread understanding of the RTI process. Teachers did not agree, for example, that RTI provides extra support for struggling students, or that students respond well to Tier 1 interventions. They did not agree that the purpose of RTI is to identify disabilities, that students in Tier 2 need extra time and help to be successful, or that Tier 3 students have been hampered by a learning gap. They did not agree that using test results (to identify student weaknesses) was better than merely assuming them, or that RTI has made identification for IDEA eligibility “easier and fairer.”⁴ There was no consensus of teachers who felt comfortable with the RTI process, or who always use it, or who believe that RTI “works well at my school.”

There were several technical descriptive statements relevant to goal #2 that failed to gain consensus. Viewed together, they indicate a lack of agreement about how the RTI process works in the studied system. For example, teachers do not agree about when during the process the grade level student support team becomes involved, or what type of paperwork is required at the Tier 3 level. They do not agree about which students are served by Tier 1, about the level of progress monitoring appropriate for Tier 2 students, nor about the level of intervention that Tier 3 students have already received.

Analysis of Goal #3

Regarding goal #3, there is some evidence in the data that the use of RTI in the studied system could lead to an “appropriate” education for students who are ultimately identified as eligible for IDEA services. However, almost none of the expert-generated statements directly address the issue of providing an appropriate education pursuant to IDEA. Instead, one has to infer the likelihood of such from the RTI process as described by the experts, which takes place before development of the Individualized Education Plan prescribed by the IDEA. In the sections analyzing goals #2 & #3 above, the authors listed data from this study that support the idea of individual goals for student improvement and remediation designed to help students succeed in the regular classroom. If these data are correctly interpreted to provide for such improvement and remediation, then RTI should prove useful in the development of an appropriate IEP. For a teacher to work through the RTI process with a student should take weeks at least, and possibly

⁴ The compound nature of this statement makes evaluation less certain. It is possible for something to be fair without being easy, or to be easy without being fair. However, based on the context of the full response, the authors think it more likely that the teachers responding to this statement inferred “easier or fairer.”

months. During this time, working through the process described by some of the technical descriptive statements that received consensus, classroom teachers should compile a significant list of strategies that have or have not worked with an individual student. Additionally, some of the belief statements that achieved consensus suggest that teachers' efforts through RTI should lead to better IEP development. Specifically, expressions that RTI is for providing and modifying interventions, and that RTI provides opportunity for success for all students, are consistent with goal #3.

In contrast, some of the data suggest that RTI, as it is actually implemented in the studied system, may not lead to better IEP development. Data that negate the possibility that goal #3 will be supported takes the form of belief statements and technical descriptive statements that did not achieve consensus. For example, there is no consensus among teachers about the meaning of the term IDEA, and no consensus (indeed, only 15% support) for the proposition that identification of students is fairer and easier through RTI than it was prior to RTI implementation. Further, the data indicated confusion about the technicalities of the RTI process in this system, including paperwork required and involvement of professionals from outside the regular classroom.

Holistic Analysis

The data from this study were applied to the identified goals of IDEA one goal at a time above. The advantage of this approach was that it allowed for application of the data to the goals in detail. In this section the researchers will look holistically at the data in an attempt to answer the central questions of this research: whether RTI, as it is actually implemented, supports the legislative mandate to identify students who qualify for services under IDEA, and to provide appropriate services for them. In answer to that central question, there is some support from the data that RTI is effective in serving the goals of IDEA, and there is some support that it is not effective, or at least no more effective than the prior method of identification of a gap between achievement and ability. In order to reach supportable conclusions, these data must be weighed against one another.

In the analytical sections above, the researchers identified data that support RTI as a valid means of supporting IDEA goals. Specifically, consensus statements in the form of both belief statements and technical descriptive statements were included in this regard. But careful analysis of the belief statements reveals the relative weakness of those data as evidence in support of RTI. The reader will note the fact that almost all of the belief statements in support of RTI are conditional or passive in nature, using the words "can" and "should." Examples include: "RTI *can* be used to address academic issues," "RTI *should* be the collective effort of teachers," "RTI *can* be effective when properly implemented," and "RTI *can* be a useful, system-wide tool." In contrast, the teachers in the studied system generated and gained consensus on only one affirmative belief statement that RTI is effective in supporting IDEA's goals: "RTI *gives* all students the opportunity for success." If RTI were in fact serving IDEA's goals, the researchers would expect more affirmative consensus statements, as opposed to conditional ones. When one weighs one affirmative statement against four conditional statements, it is logical to perceive a lack of confidence among the experts in RTI as a system of identification and provision of IDEA services. Instead, the consensus belief statements seem to indicate wishful thinking, or perhaps support for the ideal of RTI, as opposed to how it is actually working.

Further evidence for the idea that RTI is not working properly in the studied system exists in the form of statements that did not gain consensus. In the aggregate, these failed consensus statements can be used to argue forcefully that RTI is not serving the goals of IDEA. For example, there is no consensus that “[s]pecial education help is possible for students unsuccessful with Tier 3 interventions,” or that, “[i]t is easier and fairer to determine who is eligible for IDEA services since the process has been streamlined.” In fact, only 15% of the teachers agreed with the second statement. When 85% of experts in a field do not express agreement with a proposition of that nature, one can reasonably conclude that the process is not working as it was designed to work. Just as explicitly, only 31% of teachers agreed with the statement “RTI currently works well at my school,” none strongly agreed, and 31% either disagreed or strongly disagreed. Similar numbers were produced in response to the statement “RTI is for identifying disabilities.” Moreover, 61% of teachers either agreed or strongly agreed with the statement “Heavy paperwork results in teachers just ‘going through the motions’.” While the teachers did not reach consensus about this statement, the researchers still consider it to be a powerful indictment of the implementation of RTI in the studied system. Consider that more than half of the professionals responsible for implementing RTI expressed that they are essentially pretending to implement RTI, rather than actually implementing it as designed. The reader familiar with bureaucracy will recognize compliance focusing on the production of paperwork, as opposed to good faith efforts to carry out the substantive goals of the program.

Technical descriptive statements of RTI implementation also lead to the conclusion that it is not supporting IDEA goals. One consensus statement, “The RTI process is slow” is suggestive, but not conclusive by itself. Slow could imply careful and deliberative. But read in context, it is logical to read it to mean slow compared to what one would expect for the process. Again, the professional familiar with bureaucracy might be inclined to infer unnecessary delays inherent in the process.

Failed technical descriptive statements that are suggestive include ones indicating that Tier 2 students don’t need extra time or help to be successful, and that Tier 3 students have been hampered by a learning gap. These statements suggest a significant misunderstanding of RTI and/or students with disabilities. Tier 2 students need extra time and help by definition, and Tier 3 students necessarily have experienced learning gaps that are hampering by their nature. Otherwise, they would not have progressed to Tiers 2 & 3. Rather, Tier 1 interventions would have been sufficient to allow the student to be successful in the regular classroom.

Conclusions

Based upon the above analysis the authors must conclude that significant problems exist with the RTI process as it is actually implemented in the studied system. It appears that teachers do not have much faith in RTI, do not use it consistently, and often just “go through the motions” of implementing it. Further, they are not particularly well-versed in the technicalities of RTI implementation, are not well-informed about RTI’s connection to the IDEA, and RTI is not a well-coordinated approach in the studied system.

These conclusions inevitably lead to some important questions for further research. The obvious question is whether the studied system is anomalous, or whether RTI implementation is problematic in other systems as well. Replication of this study in other school systems is recommended to answer this question. If RTI implementation were shown to be problematic elsewhere, that would be suggestive. It is possible that teachers in the studied system had insufficient training to implement RTI effectively, but it is also possible that systemic flaws exist that make RTI unsuitable for its intended purpose. One might speculate, for example, that regular classroom teachers have insufficient time to carry out all the procedures associated with RTI implementation while at the same time performing their regular teaching duties. If the goals of IDEA are to be furthered in an effective, conscientious manner, further study of this issue is needed in order to answer these questions.

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About the Authors

Dr. J. Kevin Jenkins earned his Ed.D in Educational Administration & Supervision (with a focus on education law, 1999), Ed.S (1997) and M.Ed (1996) from the University of Georgia, and his B.A. in Spanish (1989) from Mercer University. Dr. Jenkins spent several years teaching Spanish and serving as a local school administrator at both the middle and high school levels. He is currently a tenured Associate Professor of Educational Leadership at Mercer University, where he teaches primarily education law at the Ed.S and doctoral levels, as well as directing doctoral dissertations. Dr. Jenkins has presented scholarly papers at local, state, national and international conferences and published multiple articles in peer-reviewed journals. His publications have focused on equal protection law, but have also dealt with various other aspects of education law including religious and gender discrimination, zero tolerance policies, and student self-defense law. His scholarship has been cited in numerous prestigious legal publications, and in amicus briefs to the U.S. Supreme Court.

Dr. Sekayi earned her Ph.D. in Education (1996), Ed.M. in Education (1991), and B.S. in Business Administration (1989) from the State University of New York at Buffalo. Dr. Sekayi began her career in education in the elementary classroom where she taught mathematics and science. She subsequently held various positions at the university level including: Assistant Professor, Faculty Chair for Research, Associate Director of the Center for Research Support, co-Director of Doctoral Studies and currently, tenured Associate Professor of Research. She has made local, state, national, and international conference presentations and published articles, book chapters, and books in the areas of qualitative research, program evaluation, and the social foundations of education. Her most recent edited volume, *Urban teacher education and teaching: Innovative practices in diversity and social justice*, won the American Education

Studies Association Critics Choice Award for 2007. Her areas of specialization are qualitative research, urban education, and resistance theory in education. Dr. Sekayi regularly teaches courses in qualitative and quantitative research, and higher education leadership.

***Supporting Preschool Children with Autism Spectrum Disorders
(ASD) and Their Families***

**Dr. Jin-ah Kim
Dr. Nancy Cavaretta
&
Krystle Fertig, MA**

Roosevelt University

Abstract

The increased prevalence of children with Autism Spectrum Disorder (ASD) calls for improvement in implementing early interventions, which are critical in improving long-term outcomes. This includes providing better and appropriate education and services for children with ASD, as well as providing supports for their parents and families. The importance of this comes from the understanding that raising a child with ASD affects the entire family. Without the support, parents and families are at a heightened risk of mental health problems, such as stress and depression. Experienced in working with general and special education children, specifically children with ASD, we sought three suggestions that may help parents with a child with ASD. We can aid parents of children with ASD by providing services that help understand the IEP process, finding an appropriate future placement, providing structured teaching during home visits, and helping them become an advocate for their child.

***Supporting Preschool Children with Autism Spectrum Disorders
(ASD) and Their Families***

While once considered a rare childhood disorders about 30 years ago, it is now estimated that one in every 88 children in the United States is diagnosed on the autism spectrum (“Autism Spectrum Disorders,” 2010). In other words, over one and a half million children in the United States are affected by ASD (Willis, 2009). This change is visible through the growing population of children with ASD attending the public schools, with five times as many children and youth diagnosed being served under the Individuals with Disabilities Education Act (IDEA) in 2006-2007 – a significant increase from 10 years prior (Chandler-Olcott & Kluth, 2009). The greater rate of diagnoses preludes to the growing concern of implementing effective early interventions critical in improving long-term outcomes. This includes providing better and appropriate education and services for children with ASD in addition to supports for their parents and families, which may improve the quality of life for the whole family (Myles, Grossman, Aspy & Henry, 2009).

Autism Spectrum Disorders (ASD) and Lifelong Challenges

Autism Spectrum Disorders (ASD) is the umbrella term for all neurodevelopmental disorders such as the Pervasive Developmental Disorders of Autism, Asperger's Syndrome, and Rett's Syndrome and Pervasive Developmental Disorders-Not Otherwise Specified (PDD-NOS) (Chandler-Olcott & Kluth, 2009; Myles et al., 2009; Roberts, Keane, & Clark, 2008). The severity and combination of any of these impairments vary. Almost all children with ASD will express multiple social and communication impairments; restrictive interests and repetitive behaviors are the most variable across children ("Autism Spectrum Disorders," 2010). Repetitive behaviors include "flapping one or both hands, pulling or tapping the ears, rocking back and forth or from side to side, sniffing the air, or sucking on the upper lip" (Willis, p. 3, 2009).

Additionally, even high-functioning individuals with ASD still face significant lifelong challenges (Newschaffer, Fallin, & Lee, 2002). Lifelong challenges include: (a) a lack of social-emotional reciprocity, a limitation in imitative and/or imaginative play, failure to seek shared enjoyment, and/or poor use of nonverbal communication; (b) a delay in language development, difficulties initiating or keeping conversation, and/or a usage of stereotyped speech or delayed echolalia ("Autism Spectrum Disorders," 2010; Ingersoll & Lalonde, 2010; Papageorgiou & Kalyva, 2010; Roberts et al., 2008; Simpson, de Boer-Ott, & Myles, 2003); (c) difficulty in successfully following and mastering an unmodified school curriculum, and/or exhibiting irregular patterns of cognitive and educational strengths and difficulties, including splinter skills and discontinuous abilities ("Autism Spectrum Disorders; Roberts et al.; Simpson et al.); and (d) an unusual preoccupation or obsessive insistence on restricted and repetitive interests and behaviors, repetitive finger, hand, or whole body movements, and/or compulsive behaviors and rituals, including self-stimulating responses ("Autism Spectrum Disorders; Papageorgiou & Kalyva; Pituch, Green, Didden, Lang, O'Reilly, Lancioni, & Sigafos, 2011; Roberts et al.; Simpson et al.).

Difficulties with Raising Children with ASD

Parents and families raising children with ASD share their child's lifelong challenges in addition to their own, such as finding appropriate care. Several studies uncovered that dealing with such challenges places parents at a higher risk for mental health problems, such as stress and depression (Ingersoll & Hambrick, 2011; Mandell & Salzer, 2007; Meirsschaut, Roeyers, & Warreyn., 2010), more than parents of typically developing children or children with other types of developmental disorders (Papageorgiou & Kalyva, 2010). An examination of mothers' perceptions of the impact of autism on the family and their personal lives found that mothers of children with ASD reported elevated stress levels and were at an increased risk for depression (Meirsschaut et al., 2010). More so, the study acknowledged that having a child with ASD does not only affect the parents, but that the well-being of the family in its entirety can be threatened, potentially leading to impairments in family functioning. Some of these perceived impairments are described as having to give up normal family activities and outings, a lack of spontaneity or flexibility in family life, a lack of outside or personal social activities, marital strain, and difficulties maintaining employment (Miersschaut et al.).

Ingersoll and Hambrick (2011) found that parents of children with ASD reported less social support, either not provided or perceived to not be available to them, thus adding to the increased

risk of mental health problems. In agreement with the Meirsschaut et al. (2010) study, Ingersoll and Hambrick suggested that it would be wise to screen parents for mental health problems and make appropriate referrals so that the entire family may have a better quality of life. Papageorgiou and Kalyva (2010) considered that the stress that parents experienced from raising a child with ASD was affected by the resources available to them. Parents who received adequate social support had a greater chance of adapting to the challenges brought about when raising a child with ASD and those who participated in support groups experienced less child-related stress. Implications of these findings would help decrease parents' mental health risks. By knowing parents' needs and concerns for their child, we can strengthen resources and intervention by empowering parents with the necessary tools and support. Once diagnostic assessments are made, families of children with ASD can seek out professional assistance to help them discuss early intervention as well as educational and social services systems ("Autism Spectrum Disorders," 2010).

Strategies for Supporting Families with a Preschool Child with ASD

As educators working directly with typical children and children with ASD, the following section suggests possible supports based on our experiences, conversations, and interactions with parents (families) raising preschoolers with ASD.

Educate Parents on the Individualized Education Program (IEP) Process

In order to help parents of children on the autism spectrum, teachers can help parents understand the components of the IEP process. For most parents who are experiencing an initial eligibility conference, the IEP process can be frightening. It is often unintentionally intimidating for parents to meet an interdisciplinary group of professionals who come to the table to discuss atypical developmental aspects of their child. Often parents of children with ASD understand the comprehensive process of assessment and diagnosis that precedes the IEP. However, the IEP process that addresses needs, subsequent placement, and delivery of services may be difficult for parents to grasp with a possible misunderstanding of the actual components included in the document.

We found that there exists a lack of understanding of the following specific IEP components:

- A) How and/or why goals are developed
- B) How the location and type of placement is determined
- C) The roles of providers and how services are delivered
- D) If and/or how their child gains access to the general curriculum
- E) How to read the service grid and timesheet that indicates the amount of services provided in minutes per week
- F) How the paraprofessional staff provides support
- G) How accommodations and modifications are provided when their child joins the general education classroom for large group instruction

Many parents have expressed that they want to be able to act as advocates for their child in order to ensure that the services they agreed upon are properly delivered. In many cases, parents are put off by the formalized nature of the IEP document. By providing a parent education program,

teachers can help address the aforementioned parental concerns. For example, mini seminars may be held to rigorously explain the IEP process as well as provide a thorough factual understanding of each section of the IEP document. This service affords parents the opportunity to monitor their child's services in an informed manner, enabling them to act as a working team partner with their child's service providers. Parents' desires to function as advocates for their child becomes a powerful reality when they are well-educated on the process in formulating the IEP, provided with detailed knowledge of the discrete components of the IEP, and granted a voice through accessible IEP language and terminology.

The original documentation of the IEP process under IDEA-97 calls for parents to be members of the IEP team, a statement that assumes equal access and participation in the process. Until parents are given the tools needed to function as an equal member, true and honest access to the process is not clearly granted. Hence, teachers can guide parents to becoming an equal member and true advocate for their child, by taking on the very important role of informing and helping parents understand the components and process of IEP.

Finding an Appropriate Future Placement

As autism awareness continues to grow in the United States, many children are being diagnosed within the birth to three age range. A young child with ASD and his/her family goes through several steps to receive help.

- A) An Individual Family Service Plan (IFSP) is developed by the assessment team and services are determined by meeting the individual needs and parental goals for the child.
- B) Children will receive Early Intervention services from a variety of services providers, such as speech and language pathologists, occupational therapists, applied behavior analysis (ABA) therapists, and developmental therapists. Many of these services take place in the context of the child's home in which therapists can assess the natural, physical home environment and work side-by-side with parents to demonstrate interventions. This close relationship between parents and providers working together in the home context changes when the child turns three years of age and ages out of early intervention.
- C) The next phase – the IEP phase – ushers in a formal multidisciplinary evaluation done by the family's local school district where a subsequent placement is made and where services are delivered in the context of a public school.

Depending on the level of severity, or more commonly referred to as the level of need, the child's placement will fall either within a blended program (inclusion in regular preschool and kindergarten with relevant special education supports), or in a self-contained or instructional classroom. The goal in every special education placement is to seize opportunities for children to be included in the Least Restrictive Environment (LRE) with same-age peers without disabilities as their developmental readiness across all domains allows.

Structured Teaching, Home Visits, and Advocacy

Structured Teaching

Once a child with ASD is placed in a subsequent placement, the implementation of *structured teaching* can be used. As Willis (2009) confirmed, children with ASD are taught best in a structured environment with a predictable routine. Teachers may adapt the structured teaching intervention method developed by the University of North Carolina Division TEACCH (Treatment and Education of Autistic and related Communication Handicapped Children). Included in its approach to teaching children with ASD, the system outlines how to organize the environment, develop appropriate activities, and help explain student expectations (Stokes, 2001). Structured teaching has a clear delineation of physical space not found in a regular education classroom. Walls or partitions mark specific areas for work, play, one-on-one instruction, group activities, and gross motor/sensory activity. Willis stated, “Many children with autism respond better to real pictures than to line drawings” (p. 4). Accordingly, the classroom environment is loaded with visual communication boards and devices in an effort to support and expand communication, in turn fostering social interactions and reducing frustrations. Visual schedules are also used by the children to provide a visual representation that supports a predictable routine and as a result reduces the anxiety of what is coming next.

Home Environment and Visits

Parents need to be invited into the setting for an instructional “tour” of their child’s new environment with the targeted purpose of learning. Teachers can encourage parents how to incorporate and transfer structured teaching methods into the home environment so that their child with ASD understand what is coming next even at home through visits from the school. Teachers can discuss the effectiveness of home models of structured teaching that parents can implement and design the environment for their child.

Advocacy

Some children with ASD who are placed in self-contained settings may become ready to move into less restrictive environments and are able to join general education for portions of the day. The targeted area where the child may join general education should be based upon a clear strength. This is a decision that can be discussed with all team members and most strongly discussed with the parent. It is particularly important for the parent to grasp an accurate level of expectation for the child’s performance in general education.

In addition, it is crucial to the inclusion process to engage in ongoing conversations between teachers and parents. Regular and ongoing communication between the parties concerning the child’s strengths and progress will help answer the many possible questions parents may have:

- A) What are the areas of inclusion?
- B) How many minutes of inclusion per week will take place?
- C) What type of placement will their child receive when he/she ages out of the early childhood instructional program?

Teachers in early childhood classrooms should educate parents of the type of setting that will be most beneficial for their child when their child needs to move up to a different program or a school. This means informing and communicating with the parents if their child will be better served in a self-contained setting so that parents can visit prospective placements to monitor the necessary supports. Likewise, teachers need to let parents know if their child will be better-served in a blended or inclusive setting so that parents understand how the accommodations and modifications stated in their child's IEP should be translated into the inclusive setting in order to provide the necessary supports. Teachers and parents need to collaborate in utilizing this information as advocates for their child's future placement.

Concluding Thoughts

In spite of significant findings on ASD and its growing prevalence of concern, the amount of available related research remains in its infancy. As we continue to find supports for children with ASD, it is also important to address concerns about the child's family. Raising a child with ASD is a challenging feat that has been known to put a strain on parents' capabilities in parenting, placing them at a higher risk for mental health problems, such as stress and depression. Therefore, we may seek to find what these parents' needs are in terms of caring for their child and what specific supports they request or are available to them, and recognize that their parenting of a child with ASD impacts whole family dynamics. All children can learn no matter what abilities they have. We can aid parents of children with ASD by providing services that help understand the IEP process, finding an appropriate future placement, providing structured teaching during home visits, and helping them become advocates for their child.

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About the Authors

Dr. Jin-ah Kim is an assistant professor of Early Childhood Education in the College of Education at Roosevelt University. She has various experiences working with young children (0 – 8 years old). She was a classroom teacher and curriculum director at a preschool. Currently, she teaches early childhood method courses, supervises both undergraduate and graduate students at Roosevelt University and works with children and teachers at early childhood centers and elementary schools. The focuses of her research are Service-Learning, parental involvement, children's writing and math self-efficacy, as well as supporting and working with children with Autism Spectrum Disorders (ASD).

Dr. Nancy Cavaretta is a clinical professor of special education at Roosevelt University, Chicago. She has also developed specialized programs for Chicago Public Schools that reflect best practices in special education. These programs are used as learning sites for Roosevelt University teacher candidates and for CPS professional development. Her programs have included High School Prep, focusing on students, ages 13-15, with severe Learning Disabilities and Emotional Disorders. Her current program addresses the needs of Early Childhood students on the Autism Spectrum. Other research interests include the connection between literacy development and expressive language among early childhood students on the autism spectrum, and mentoring of the first year special education teacher.

Krystle Fertig is a former Roosevelt University graduate student. She received a Master of Arts in Early Childhood Education in 2012, adding to her Bachelor of Arts in Psychology earned from the University of Illinois at Chicago. She is currently a guest (substitute) teacher for the Chicago Public Schools and several other Chicagoland school districts. One day she hopes to teach the primary grades in a classroom of her own.

Adolescence: A Period of Transition

**Leena Jo Landmark
Texas A&M University**

**Trina Geye
Tarleton State University**

Abstract

Because of the important role secondary special educators have in the transition to adulthood of adolescents with disabilities, it behooves educators to have an understanding of human development. The lifespan perspective on human development is particularly relevant to transition planning. Individuals with a lifespan perspective believe development to be lifelong, multidimensional, multidirectional, and plastic (Baltes, Reese, & Lipsitt, 1980). By viewing transition planning through a lifespan developmental lens, educators are able to enhance the transition process and more comprehensively prepare their students with disabilities for adulthood. This article describes how the lifespan perspective impacts transition planning and provides an illustration of how a special education teacher can use this framework to develop a student's transition portions of the Individualized Education Program.

Adolescence: A Period of Transition

Adolescence is the period of human development during which a child transitions into an adult. Ontogenetically second only to the prenatal and infancy periods of development, adolescence encompasses the time from puberty to sexual maturation (Berk, 2007). Typically during adolescence, students leave smaller elementary schools to attend larger secondary schools with a different teacher for every content area. Increased independence, peer pressure, and raging hormones can lead to challenging students who are more interested in impressing their peers than academic pursuits. No wonder educators of adolescents have their hands full!

Secondary teachers will admit their jobs are trying at times, but they are quick to relay the joys of working with adolescents. Adolescents can be silly one minute and conscientious the next. They are trying to figure out who they are and who they want to become. The influence of the teacher may have seemed to wane, but in truth the adolescent still desires the attention and support of adults who care. The effect a teacher can have on adolescent outcomes is enormous (Murray & Pianta, 2007; Toland & Carrigan, 2011).

Hence, secondary educators have a responsibility to help students prepare for postsecondary life. In addition to designing and implementing Individualized Education Programs (IEPs) for adolescents with disabilities, educators need to collaboratively engage in transition planning with adolescents and their parents. Transition planning, from an educator's viewpoint, may just seem like additional paperwork to be completed. In actuality, transition planning is an important process that should guide the development of the student's entire IEP (deFur, 2003). Educators

with a lifespan perspective on human development are able to use this framework to enhance the transition process, thus comprehensively preparing their students for the transition to adulthood.

Lifespan Developmental Psychology

Lifespan developmental psychology is a field of study interested in describing, explaining, and optimizing the development of an individual from conception until death (Baltes, Reese, & Lipsitt, 1980). Individuals with a lifespan perspective believe that human development is lifelong because individuals change physically, cognitively, emotionally, and socially throughout their lives. Additionally, development is believed to be multidimensional, multidirectional, and plastic (Baltes, Reese, & Lipsitt, 1980). Figure 1 briefly presents some of the most known lifespan theories.

Psychoanalytic

Psychosocial Theory

Erik Erikson felt that development was caused by the interplay of biology and social interactions with the environment. Therefore, development could only be understood in relation to the individual's culture. The psychosocial stages of development as posited by Erikson include the basic trust versus mistrust stage, the autonomy versus shame and doubt stage, the initiative versus guilt stage, the industry versus inferiority stage, the identity versus role confusion stage, the intimacy versus isolation stage, the generativity versus stagnation stage, and the ego integrity versus despair stage. Each stage consists of a type of conflict that needs to be resolved. If a conflict is not sufficiently resolved during its corresponding stage, the conflict can be resolved during a future stage. The identity versus role confusion stage coincides with the period of adolescence. During this stage, the main task for the adolescent is to determine who they are, what they believe in, and what they want to become as adults.

Behavioral

Classical Conditioning Theory

Classical conditioning theory is based on Ivan Pavlov's studies of animal learning in which he noticed that a stimulus (e.g., seeing the individual who fed the dogs) would elicit a response or behavior (e.g., salivation). The psychologist, John Watson, applied this theory to human development, asserting that adults could mold children's behavior by controlling stimulus and response associations. Watson did not believe that thoughts, feelings, and emotions were useful in explaining or controlling behavior.

Operant Conditioning Theory

B. F. Skinner extended Watson's ideas about human development by developing the operant conditioning theory which states that the frequency of behavior can be increased or decreased depending on subsequent reinforcers. In other words, what happens following a response will determine if the individual completes the response again in the future.

Social Learning Theory

Albert Bandura emphasized modeling as a source of human development in his social learning theory. He felt that individuals acquire behaviors by watching others model the behaviors and then determining whether or not they are capable of executing the behaviors. Thus, Bandura stressed the importance of cognition when determining which behaviors an individual will imitate.

Cognitive Developmental

Cognitive Developmental Theory

Jean Piaget's cognitive developmental theory states that children actively construct knowledge as they manipulate and explore the world. As the child's brain develops and the child acquires more experiences, the child progresses through four stages: sensorimotor stage, preoperational stage, concrete operational stage, and formal operational stage. Each stage is marked by different types of thinking. The last stage, i.e., the formal operational stage, is the stage that corresponds with adolescence and is the stage during which a child develops abstract and systematic thinking.

Information Processing Theory

The information processing theory asserts that individuals are actively involved in their own cognitive development by processing information like a computer. Informational input is coded, transformed, and organized before a behavioral response is output. The information processing theory does not divide development into stages; rather, development is considered to be one of continuous change through the development of short-term memory capacity, long-term knowledge, and strategies for acquiring knowledge. During adolescence, the three types of strategies (i.e., rehearsal, elaboration, and organization) are more fully developed so that adolescents are more easily able to use the strategies to acquire long-term knowledge.

Contextual

Ethological Theory

Ethology (i.e., the study of animal behavioral patterns that have evolutionary explanations), is the foundation of the ethological theory of development. This theory suggests that there are critical, or sensitive, periods during which humans are biologically primed to acquire specific behaviors. However, these behaviors are only acquired if the environment is conducive to stimulating the acquisition of the behavior. In other words, certain cognitive or behavioral skills are best learned during certain time periods and under specific environmental conditions (e.g., window of opportunity).

Sociocultural Theory

Lev Vygotsky's sociocultural theory asserts culture is passed from generation to generation and that development must be considered within the context of the culture. He posited the Zone of Proximal Development (ZPD) which states older, more experienced individuals help younger, less experienced learn to complete tasks by gradually providing hints, prompts, and

assistance as needed. Cognitive development is dependent on the support that adults provide children as they attempt to master new tasks, and individuals in different cultures develop different strengths due to the different contexts in which they develop.

Ecological Systems Theory

Urie Bronfenbrenner's ecological systems theory views development as occurring within a complex system of relationships that are affected by multiple levels of the environment. Alternatively stated, individuals are products and producers of their environments. Bronfenbrenner viewed the entire environment as consisting of layers of multiple environments (i.e., microsystem, mesosystem, exosystem, and macrosystem). The environments include both physical structures as well as human components, and are fluid throughout one's lifetime.

Figure 1. Theories of Human Development with a Lifespan Perspective. Adapted from Development Through the Lifespan, 4th Ed. by L. E. Berk, L. E., 2007, Boston: Allyn and Bacon and Child and Adolescent Development for Educators by M. Pressley and C. B. McCormick, 2007, New York: Guilford Press.

Development is multidimensional because there are multiple, interacting forces on development such as age-graded influences, history-graded influences, and non-normative influences. Age-graded influences are those that can be predicted based on one's period of development, such as adolescence. History-graded influences are those that are unique to a historical time period and affect everyone within a cohort. A natural disaster is an example of a history-graded influence. Non-normative influences are those that are unique to a small number of individuals. Typically, these types of influences occur haphazardly and can have either positive or negative influences on development. An example of a non-normative influence is the presence of a disability.

Development is multidirectional because individuals can experience progressive and regressive developmental growth simultaneously. As individuals age some developmental areas may experience gains while other developmental areas may experience declines. For example, as a person ages, his or her cognitive abilities may increase while his or her creativity decreases.

Finally, development is considered to be plastic. Plasticity has to do with the extent to which individuals are able to change physically, behaviorally, and societally based on events that occur throughout a lifetime (Baltes, Lindenberger, & Staudinger, 2006). Special education teachers may be familiar with the concept of plasticity in regards to the brain. Children who have experienced a brain injury are more likely to adapt and recover from the injury than adults with the same injury because of the ability of the young brain to rewire its neural connections (National Institute of Neurological Disorders and Stroke, 2012).

Transition and IEP Planning through a Lifespan Development Lens

Secondary educators are in the business of adolescent development, and adopting a lifespan developmental perspective can help educators comprehensively plan student's education and post-secondary future. Transition planning for a student who does not have a disability involves

determining the high school course of study that will allow the student to achieve his or her post-school goals. Guidance and advice is provided to the student in a general manner, and more specialized advice is provided only when requested. This approach is usually sufficient for typically developing adolescents.

However, when an adolescent has a non-normative characteristic such as a disability, more formal transition planning is necessary. This is because adolescents with disabilities need more supports in order to achieve their post-school transition outcomes (Field, Hoffman, & Posch, 1997). Most adolescents without disabilities only plan for postsecondary education and employment. For adolescents with disabilities, a more direct transition plan that targets postsecondary outcomes such as future education and training, employment, independent living, and community participation is necessary because adults with disabilities are not achieving commensurate outcomes in these areas as are adults without disabilities (Wagner, Newman, Cameto, Garza, & Levine, 2005).

The Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 requires transition services be in effect by the time the student with a disability is 16 years old and must assist the student in reaching his or her “appropriate measurable postsecondary goals [that are] based upon age appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills” (20 U.S.C. 1401(34)). Transition services may include instruction, related services, community experiences, postsecondary employment and other adult living objectives. Additionally, the student’s IEP must include at least one measurable annual goal that will assist the student in achieving his or her postsecondary education/training, employment, and, if applicable, independent living goals.

Figure 2 graphically shows a lifespan developmental perspective of transition planning for a student with a disability. During adolescence age-graded influences, history-graded influences, and non-normative influences interact with each other to contribute to transition planning practices. The transition planning practices influence the interrelated postsecondary outcomes. Thus, the age-graded, history-graded, and non-normative factors indirectly influence the postsecondary transition outcomes. The following case study shows how a teacher uses knowledge of lifespan development to plan the transition of a student with a disability.

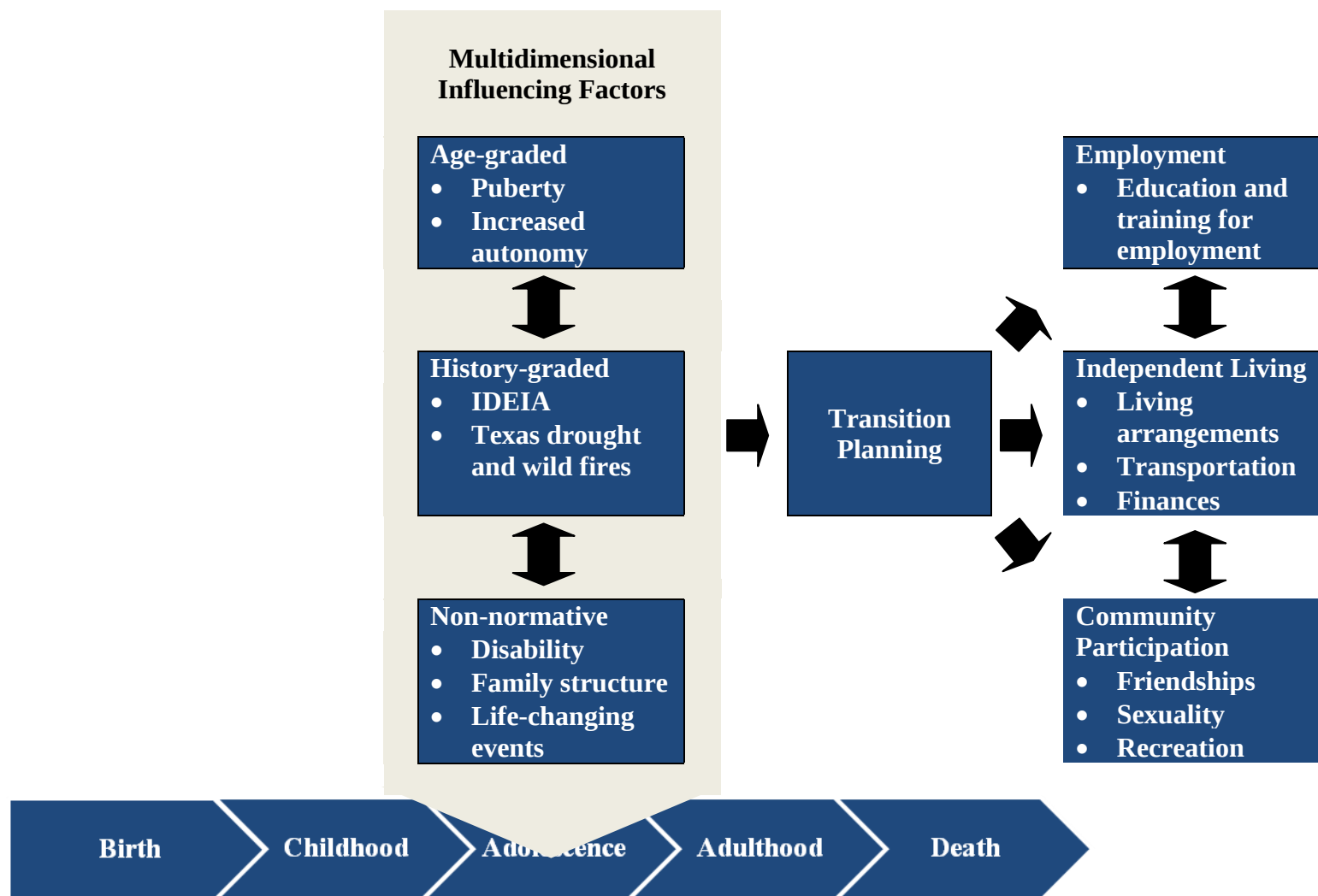


Figure 2. A lifespan developmental perspective of transition planning.

Case Study

Anastasia is a friendly 15 year old freshman. Her parents emigrated from Mexico three months before she was born, and at Anastasia's birth they were surprised to learn she had spina bifida and a clubfoot. Her early childhood was spent in and out of the hospital due to medical complications. She has shunted hydrocephalus, takes medication for attention deficit hyperactivity disorder, and self-catheterizes. She is able to walk unassisted, although her gait is slow and uneven. Anastasia also has a learning disability which affects her math functioning.

Ms. Podolak, Anastasia's special education teacher and case manager, decides to use a lifespan developmental perspective to assist her in comprehensively planning the transition components of Anastasia's IEP. Ms. Podolak holds a meeting with Anastasia and her parents to brainstorm the age-graded, history-graded, and non-normative factors that could influence Anastasia's transition planning and development into adulthood (Figure 3 presents Anastasia's influencing factors). Next, Ms. Podolak considers how Anastasia's influencing factors impact each step of the transition planning process. Figure 4 shows the parts of Anastasia's IEP that Ms. Podolak drafted after each of the transition planning steps were completed.

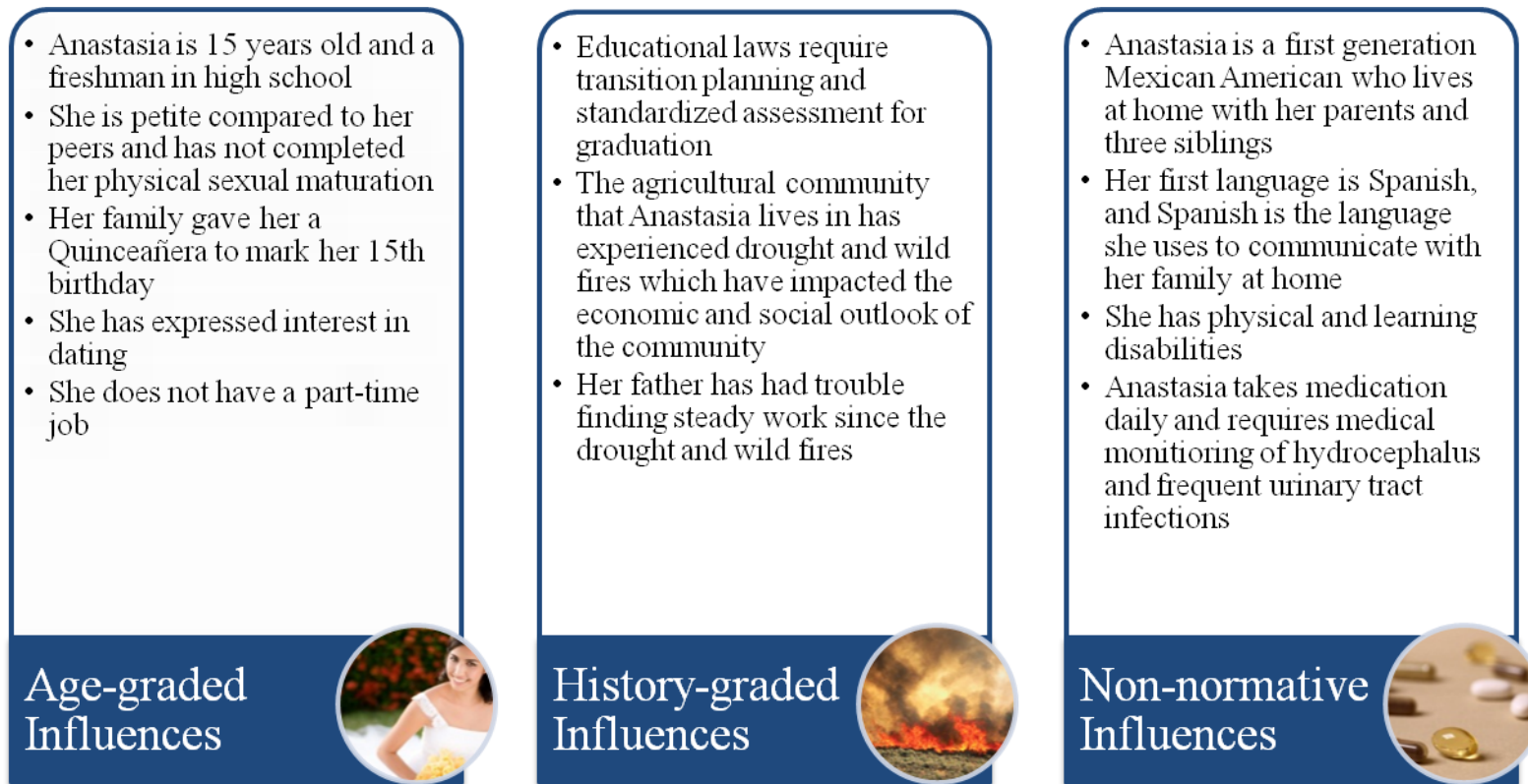


Figure 3. Anastasia's age-graded, history-graded, and non-normative influencing factors

Step 1: Conduct age-appropriate transition assessments related to education/training, employment, and independent living skills, when appropriate. Because IDEIA is a history-graded influence that affects all students with disabilities under the age of 22 years, Ms. Podolak must assess adhere to IDEIA's requirements for developing and implementing transition services for Anastasia. The first thing she must do is conduct transition assessments to determine Anastasia's needs, strengths, preferences, and interests in the areas of education/training, employment, and independent living. Transition assessment is the "ongoing process of collecting data on the individual's needs, preferences, and interests as they relate to the demand of current and future working, educational, living, and personal and social environments" (Sitlington, Neubert, & Leconte, 1997, p. 70-71).

Ms. Podolak reviews Anastasia's state standardized tests to compare Anastasia to other adolescents of the same age/grade level and to determine her academic needs and skills related to postsecondary education and training. She also considers Anastasia's unique (i.e., non-normative) characteristics when choosing additional formal and informal assessments, collecting data, and determining Anastasia's present levels of academic and functional performance.

Ms. Podolak interviews Anastasia and her parents using the school district's transition interview forms. Because of the language and possible cultural differences between Ms. Podolak and Anastasia's family, Ms. Podolak strives to communicate with the family in a culturally responsive manner (e.g., she views the parents in high esteem, seeks to understand their desires regarding Anastasia, and attends to the family's use of high context communication) and uses the services of a trained Spanish-language interpreter. She asks Anastasia and her parents to complete their parts of the Transition Planning Inventory, ensuring that Anastasia's parents receive a Spanish version of the Transition Planning Inventory home form. Finally, Ms. Podolak has Anastasia take the O*Net Computerized Interest Profiler.

Step 2: Develop measurable postsecondary goals in education/training, employment, and independent living skills, when appropriate. IDEIA requires that a student's postsecondary goals be measurable and based on the student's strengths, preferences, and interests. Measurable postsecondary goals are outcome statements that specify what the student will do, when, and to

what extent (O’Leary, 2008). Using data from Anastasia’s transition assessments, Ms. Podolak drafts education/training, employment, and independent living goals for Anastasia that are achievable and harmonious with her culture. Because adolescents Anastasia’s age frequently change their minds about their futures, Ms. Podolak will draft progressively more specific postsecondary goals each year for Anastasia.

Step 3: Identify transition services including the course of study, instruction, related services, community experiences, employment and other post-school adult living objectives, and when needed, acquisition of daily living skills and functional vocational evaluation. Using Anastasia’s postsecondary goals as the beacon, Ms. Podolak drafts the transition services. Whether needed or not, IDEIA requires that all areas of transition services be considered. The transition services support achievement of Anastasia’s postsecondary goals and are considerate of her culture and unique characteristics. In addition to considering the transition services Anastasia needs, the IEP team determines who will be responsible for each aspect of the coordinated set of activities which encompass the transition services.

Step 4: Develop at least one measurable annual IEP goal that will enable the student to meet the postsecondary goals for education/training, employment, and independent living, when appropriate. IDEIA requires that every postsecondary goal must have at least one measurable annual goal to facilitate the student’s achievement of the postsecondary goal. The same criteria for determining measurability are applied to the annual goals; i.e., goals are outcome statements specifying what the student will do, when, and to what extent (O’Leary, 2008). In collaboration with Anastasia and her parents, Ms. Podolak drafts annual goals that support Anastasia’s postsecondary goals and transition services.

Step 5: Develop a summary of performance if the student is exiting high school. In addition to providing recommendations for accommodations, assistive services, and compensatory strategies for postsecondary education, employment, independent living, and community participation; a summary of performance must address the student’s academic achievement and functional performance. Because Anastasia is not exiting high school during the next year, this step is not yet applicable to her. However, Ms. Podolak is already thinking about the accommodations, assistive services, and compensatory strategies Anastasia may need.

Figure 4. Transition planning steps and the transition components of Anastasia's IEP.

Transition Planning Steps

Anastasia's Transition Component of IEP

Step 1:

Conduct age-appropriate transition assessments

List the age-appropriate transition assessments, dates, and results:

- ~State Standardized Tests 4/2011
- ~O*Net Interest Profiler 11/2011
- ~Transition Planning Inventory 1/2012
- ~ISD Student & Parent Interviews 1/2012

Anastasia passed all of her state standardized tests (with accommodations), except for math. Based on the O*Net Interest Profiler, her top interest areas are artistic & enterprising. She is interested in being a TV news reporter or working in a resort. Anastasia's parents do not want her to have a career that requires travel; they prefer she lives with them as an adult. Anastasia helps her mother by babysitting her younger siblings. However, it's difficult for Anastasia to complete some household tasks because of fatigue from walking. She takes her medication daily (but she doesn't remember the names of the meds or why she takes them) & self-catheterizes. Her mother monitors her health because of frequent urinary tract infections. Anastasia had a Quinceanera when she turned 15, but she seldom socializes with friends outside of school.

Step 2:

Develop measurable post-secondary goals

List the measurable postsecondary goals that are based upon the age-appropriate transition assessments:

Education/training goal(s)

After high school, Anastasia will attend a local community college.

Employment goal(s)

After high school, Anastasia will work part-time in the journalism field.

Independent living goal(s), if appropriate

After high school, Anastasia will live independently with her family.

Step 3:

Identify transition services

Describe the student's needed transition services, the person(s) responsible for implementation, and the timeline(s) for completion

Services and Activities	Person Responsible	Due Dates
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Instruction a. self-determination instruction b. Study skills instruction (special education teacher)	a. sped & gen. ed. teachers b. gen. ed. teacher	a. 5/31/2015 b. 5/31/2013
Related services a. Maintain walking endurance and increase standing endurance (Anastasia, PT) b. Contact Independent Living Center for benefits counseling (Anastasia, parents, ILC) c. Contact vocational rehabilitation services to learn about assistance with college tuition (Anastasia, parents, VR) d. Contact disability services office in order to determine necessary steps to request accommodations	a. PT b. Anastasia & parents c. Anastasia & parents d. Anastasia & parents	a. 5/31/2015 b. 4/30/2013 c. 3/31/2014 d. 5/31/2014
Community experiences a. Increase recreational activities with friends outside of school environment (Anastasia, parents)	a. Anastasia & parents	a. 4/30/2013
Development of employment and other post-school adult living objectives a. Obtain job experience outside of the home b. Shadow local journalists and hospitality workers	a. Anastasia, parents, & sped teacher b. Sped teacher	a. 5/31/2014 b. 5/31/2015
Acquisition of daily living skills a. Make more responsibility for her health care needs	a. Anastasia, parents, & sped teacher	a. 5/31/2013
Functional vocational evaluation Anastasia has completed the O*Net interest		

profiler; no further vocational evaluation is needed at this time		
Linkages with adult services <i>a.</i> Provide benefits counseling <i>b.</i> Provide information about college tuition assistance	<i>a.</i> Independent Living Center <i>b.</i> VR	<i>a.</i> 5/31/2013 <i>b.</i> 5/31/2015

Review and update the course of study

Courses	Grade 9	Grade 10	Grade 11	Grade 12 +
English	English I	English II	English III	English IV
Math	Algebra I Co-Teach	Geometry Co-Teach	Algebra II Co-Teach	Math Models Co-Teach
Science	Biology I	Integrated Physics & Chemistry Co-Teach	Chemistry I Co-Teach	Environ-mental Systems Co-Teach
Social	World Geography	United States History	World History	Government / Economics
Speech & Health		Speech / Health		
PE / Athletics	Adaptive Personal Fitness			
Fine Arts				Art I
Foreign Language				
Electives	Journalism I / Teen Leadership Principles of Ag	Student Leadership Principles of Hospitality & Tourism	Yearbook I Principles of Floral Design Travel & Tourism Mgmt. / Lifetime Nutrition & Wellness	Hotel Mgmt. Beginning Photo-journalism

Step 4:

Develop at least 1 measurable annual IEP goal for each postsecondary goal

List at least one measurable annual IEP goal that will enable the student to meet the postsecondary goals

Education/training

Using a planner, Anastasia's organizational skills will improve from needing teacher prompting to record due dates 90% of the time to 0% of the time, as measured by teacher and self-monitoring reports.

Employment

Using the internet, Anastasia's job search skills will improve from not knowing how to locate and complete job applications to locating and completing a job application with 100% accuracy and no prompts, as measured by teacher review of the application.

Independent living

Using a planner, Anastasia's ability to monitor her health care will improve from needing parent to monitor 95% of the time to 10% of time, as measured by self-monitoring reports.

Step 5:

Develop a summary of performance

Develop the summary of performance

Not applicable at this time

Discussion

The first task Ms. Podolak engaged in was to meet with Anastasia and her parents to brainstorm the age-graded, history-graded, and non-normative factors that could impact Anastasia's development and transition into adulthood. By recognizing the multidimensional influences on Anastasia's development, Ms. Podolak was able to honor Anastasia and her family's unique characteristics while being responsive to Anastasia's individual needs. For example, Anastasia had a desire attend college, but her family was concerned about paying for tuition especially because of the reduction in their income due to the wildfires. Ms. Podolak suggested Anastasia attend a local community college before transferring to a more expensive university and told the family about the tuition assistance vocational rehabilitation services provides. She also referred Anastasia to the community college's disability services office in order to determine necessary steps to request accommodations and explained the increased need for her to become her own advocate as she transitions to post-secondary education.

Because development can be multidirectional, Ms. Podolak will annually re-assess Anastasia's needs, strengths, preferences, and interests in the areas of education/training, employment, and independent living. Ms. Podolak also understands there may be some mastered IEP goals that will need to be re-visited in the future due to regression. Regarding IEP goals which are vital for Anastasia's safety in living independently after high school, Ms. Podolak knows she must provide Anastasia with continued opportunities for maintenance of these important goals.

Anastasia will grow and change continuously because human development is lifelong and plastic. Therefore, Ms. Podolak will be sure to make adjustments to Anastasia's transition plan as Anastasia matures. Ms. Podolak feels confident Anastasia will be able to achieve her postsecondary goals with the implementation of her transition plan and the support of her family.

Conclusion

By using the lifespan developmental perspective to enhance the transition planning process, special educators are able to better prepare their students for the transition to adulthood. A lifespan perspective of human development provides educators with a framework in which to develop a coordinated set of activities individually designed for each student. Taking a moment to ponder the implications of age-graded, history-graded, and non-normative influencing factors on an adolescent's development can result in a comprehensive, coordinated set of activities that we know as transition services.

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About the Authors

Leena Jo Landmark, Ph.D., is an Assistant Research Scientist at Texas A&M University. Prior to working in higher education, she was a secondary special education teacher for 7 1/2 years. Her research interests include special education transition, multicultural special education, universal design, and family involvement in special education processes.

Trina Geye, M.S., is the Director of Student Disability Services and Student Assessment Services and an Instructor of Psychology at Tarleton State University. Prior to her career in higher education, she worked with at risk youth and their families in a community setting. Her research interests include college student development, effective practices for working with at risk students, universal design, and faculty development.

Students with Attention Deficit Hyperactivity Disorder Participating in Recess

Matthew D. Lucas, Ed.D

Michael J. Justice, Student, Physical & Health Education Teacher Education

Kelly M. Rosko, Student, Physical & Health Education Teacher Education

Longwood University

Abstract

The participation of a student with Attention Deficit Hyperactivity Disorder (ADHD) in recess can often be both challenging and rewarding for the student and teacher. This paper will address common characteristics of children with ADHD and present basic solutions to improve the experience of these children in the recess setting. Initially, the definition, symptoms, and prevalence of ADHD will be presented. The paper will then address benefits of recess, followed by recommendations for children with ADHD participating in recess. Lastly, the paper will describe a common activity played at recess, and possible modifications to the activity for children with ADHD.

Definition, Symptoms, and Prevalence of Attention Deficit Hyperactivity Disorder

Attention deficit hyperactivity disorder (ADHD) is a “disorder in which a person is unable to control behavior due to difficulty in processing neural stimuli, accompanied by an extremely high level of motor activity” (Medicine.net, 2012, p.1). ADHD can also be described as “a neurobehavioral developmental disorder primarily characterized by the co-existence of inattention, hyperactivity, and impulsivity” (Smith, 2012, p.1). Inattention symptoms may include the following: the child not paying attention to details, making careless mistakes, having trouble staying focused, appearing not to listen when spoken to, having difficulty remembering things and following instructions, having trouble staying organized, planning ahead and finishing projects, getting bored with a task before it is completed, and frequently losing or misplacing homework, books, toys, or other items. Symptoms of hyperactivity in children consist of the child constantly fidgeting and squirming, the child often leaving his or her seat in situations where sitting quietly is expected, moving around constantly, talking excessively, having difficulty playing quietly or relaxing, and possibly having a quick temper. Impulsivity in children can be recognized by the following: the child acting without thinking, blurting out answers in class without waiting to be called on or hearing the whole question, failing to wait for his or her turn in line or in games, saying the wrong thing at the wrong time, often interrupting others, intruding on other people’s conversations or games, having an inability to keep powerful emotions in check, and guessing rather than taking time to solve a problem (Smith, 2012).

The American Academy of Child Adolescent Psychiatry stated that certain characteristics must be present in order to diagnose a child with ADHD. The behaviors must appear before the child is 7 years old and the symptoms must continue for at least 6 months. In addition, the symptoms must create a real disorder in at least two of the following areas of the child's life: in the classroom, on the playground, at home, in the community, or in social settings (Frank-Briggs, 2011). According to Angela Frank-Briggs, from the Department of Pediatrics and Child Health at the University of Port Harcourt Teaching Hospital, ADHD affects about 3 to 5% of all children. Symptoms often start before 7 years of age and continue into adulthood in about 50% of cases. A specific cause of ADHD is not yet known; however, genetics, diet, and social and environmental factors may be a contribution (Frank-Briggs, 2011).

Benefits of the Recess Setting for Children with ADHD

Simply stated, the benefits of participating in recess are high for all children. Included in these benefits are both physical and cognitive benefits. In terms of physical benefits, recess has been shown to lead to:

- 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 and endurance levels for children (Kids Exercise, 2009)
- Helping students to become more active in the fight against childhood obesity
- Increasing student appetite, if held before class, therefore making students consume more good and essential nutrients
- Helping students become and maintain physically fit and less prone to colds and viruses (Mulrine, Prater, and Jenkins, 2008)

Recent research in neuroscience has indicated that there are positive benefits in relationship to physical activity, such as recess, and improved cognition among children diagnosed with ADHD. These benefits include:

- Children are less fidgety and more on-task
- Children are less likely to cause disruptions or have behavioral problems
- Children's brains are allowed to re-group causing improved memory function and increased learning capacity (Mulrine, Prater, and Jenkins, 2008)

Recess Recommendations for Children with ADHD

In terms of recommendations for children with ADHD in the recess setting, there are a variety of items that should be remembered. These items include those related to modifications for instruction and equipment. More specifically, the following specific items should be remembered:

- Maintain eye contact when giving directions
- Make directions clear and concise

- Simplify complex directions and avoid multiple commands
- Assign student a helper or a buddy
- Provide encouraging and immediate feedback
- “Catch” the students being good
- Make sure child is not excluded
- Reinforce positive interactions
- Establish consistent routines
- Reduce the possibility of accidents
- Use softer balls for safety reasons
- Providing proper size equipment to help maintain success – such as throwing or shooting from a distance that allows for success

After noting these possible modifications, one should note how they apply to a specific activity. Modifications for kickball are now noted.

Kickball vs. Alaskan Kickball

Kickball is a very common activity played during recess. It is active and fun for some children; others stand in the outfield or in line waiting to kick the majority of the time. It is easy to see why these kinds of activities are not beneficial for individuals with ADHD because of the large amount of waiting time. One variation of Kickball to get children more active and eliminate some waiting time is Alaskan Kickball. This game is played by splitting the students into two groups. Then, the teacher should create a large circle out of poly spots starting with a red spot where the kicker will stand. Each person on the offense will stand in line on a poly spot behind the kicker. The pitcher will roll the ball to the kicker to kick with the defense spread out in the field. Once the kicker kicks the ball, he/she will run around the poly spot circle as quickly as possible with the rest of the offense following. Once the kicker passes the red poly spot again, they will yell “1!”. Everyone behind he/she will keep counting out loud as they pass the red poly spot (essentially scoring each time a team member passes the red spot). The defense is in charge of getting the ball. Everyone on the defense must run to wherever the ball was kicked to and get in a single file line. The first person in line will begin to pass the ball over their head down the line. When the last person in line gets the ball, they will yell “STOP!” signaling the offense to stop running around the circle. Offense and defense may be switched after a couple rounds (Panhandle Education Consortium, 2012).

Conclusion

The participation of a student with ADHD in recess can often be challenging and rewarding for both the student and teacher. The rewards can manifest themselves in the ability of the teacher to guarantee the safety of all students in an instructionally sound environment. This paper has hopefully addressed some basic concerns and solutions to improve the recess setting of students with ADHD.

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About the Authors

Dr. Matthew D. Lucas earned his Ed.D. (2007) in adapted physical education with minors in special education and social foundations from the University of Virginia. He also received his M.Ed. (1996) in adapted physical education from the University of Virginia and B.S. (1994) from Longwood College (now Longwood University). Dr. Lucas spent ten years teaching adapted/general physical education in Fairfax County (VA) Schools after the completion of his M.Ed. He is currently a tenured Associate Professor of Health and Physical Education at Longwood University. Dr. Lucas has conducted a variety of presentations and published multiple articles in peer-reviewed journals. His publications have focused on modifying activities for children with disabilities in the recess and physical education setting.

Michael J. Justice is an undergraduate health and physical education major at Longwood University in Farmville, VA. He is studying to become certified to teach K-12 and is scheduled to graduate in 2014. He is an active participant in student-based groups in his major.

Kelly M. Rosko is an undergraduate health and physical education major at Longwood University in Farmville, VA. She is studying to become certified to teach K-12 and is scheduled to graduate in 2014. She is an active participant in student-based groups in her major.

***Issues and Concerns of Assessment for English Language
Learners with Learning Disabilities***

Blanca Pichardo

Abstract

Limited research has been accomplished within the past few years regarding issues and concerns of assessment for English Language Learners (ELL) with Learning Disabilities (LD). The increasing number of this unique population throughout schools has raised many concerns for professionals in education. English Language Learners with Learning Disabilities is a major topic that brings many issues and concerns of assessment for this particular population. How and by whom the students are being assessed is an immense concentration in the concerns of the topic. Assessment reliability and test fairness implies the issues educators have. Teacher readiness and student instructional history are two fundamental matters impacting special education outcomes of English Language Learners with LD.

***Issues and Concerns of Assessment for English Language
Learners with Learning Disabilities***

ELL is the acronym for English Language Learners. Throughout the years the population of ELL students has increased significantly throughout schools. Not only has the population of ELL students increased throughout the years, so has the number of ELL students in special education. Specifically, learning disabilities is the most recent addition to the categories of special education. Since the category's inclusion it has grown to include the largest groups of students receiving special services. In some states, more than half the students enrolled in special education are classified as learning disabilities.

LD is a disorder in one or more the basic psychological processes involved in understanding or in using language, spoke or written, which may manifest itself in an imperfect ability to listen, think, read, write, spell or do mathematical calculations. There is a substantial knowledge base about the identification, assessment, and intervention of learning disabilities in native English-speaking students (Huang, 2011). Therefore, it is important to explore how we can build upon this knowledge to inform future work with ELL students. We must consider what methodologies can be used to determine the best ways of distinguishing between learning disabilities and language differences that appear as these students are learning English. Researchers must delineate the critical steps needed to accomplish these goals (Uribe & Nathenson-Mejía, 2009).

Identifying students who truly have both a learning disability along with limited English proficiency also has become difficult for educators to distinguish. If an ELL has a real learning disability, early identification and intervention are essential (Rinaldi & Samson, 2008). In most cases, the younger the student is when they receive remediation, the more effective it is in the long run. However, if an ELL truly has a learning difficulty and does

not receive services for a number of years because teachers are waiting for him or her to learn the language, serious consequences could result (Rinaldi & Samson, 2008).

Even though many ELLs have been misidentified, some ELLs struggle academically for reasons beyond second language status, sociocultural backgrounds, and educational history, even when compared to their ELL peers. It is this group of learners that is our focus here because interventions typically implemented in general, ESL, and special education instruction fail to adequately account for all their learning needs. According to IDEA (2004), a specific learning disability is:

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.

Assessment is a major component of the determinations of special services. The assessments used are directed for Native English speakers. Tests can be translated but it is too difficult to properly translate without changing sentences structure and proper use of terms. A related challenge when assessing ELLs concerns the language skills needed by the school psychologist studied the acceptability of various methods used to assess ELLs and found that using a bilingual school psychologist was the most acceptable practice (Huang, 2011). Using a bilingual school psychologist who is well trained to perform assessments with ELLs has long been considered to be best practice. Yet there is a severe shortage of bilingual school psychologists in the United States as they make up approximately 10.8% of all school psychologists. A further complication is the large number of second languages that ELLs speak and the need to match the second language between the practitioner and the student. Conventional wisdom also suggests that bilingual school psychologists need to be fluent in both languages, but there is debate about what constitutes “fluency.”

When an ELL is referred, finding a bilingual practitioner who is fluent and is matched to the second language of the student with the skills needed to establish the ELL’s language proficiency as well as conduct the remainder of the assessment can be difficult (Huang, 2012). The training received by bilingual school psychologists in the use of their second language in professional contexts is also an issue (Ysseldyke, Algozzine & Thurlow, 2000). Few school psychology programs offer training specifically aimed at preparing practitioners to deliver services to bilingual students. Only a handful of states have bilingual certification requirements that must be met to deliver services to ELLs. In addition, 80% or more of the school psychologists practicing in the eight states in the United States with the greatest concentration of Latino ELLs reported that their training in second language acquisition, methods to conduct bilingual assessments, and how to interpret their results was less than adequate.

Preparation for performing bilingual assessments can have many components, including relevant coursework, applied training, supervision by a bilingual supervisor and participation in relevant continuing education, and can occur during and/or after graduate

preparation (Herrell & Jordan, 2012). Although advancements in training have likely occurred since the study by Ochoa and colleagues was published, little is presently known about bilingual practitioners' preparation. Currently, best practices concentrate on learning the preservice and continuing education experiences of bilingual school psychologists concerning the assessment of ELLs to see if they predict use of best practice methods when assessing ELLs. Performing psychoeducational assessments is selecting measures appropriate for use with ELLs (Fernandez, Boccaccini, & Noland, 2007). It is often difficult to find instruments with norms representative of an ELL examinee. Certain assessment tools may be inappropriate if the student has not had adequate test-taking experience, which may be the case for those who have recently entered American schools. Using instruments not designed Psychology in the Schools for use with ELLs raises issues surrounding the construct equivalence, functional equivalence, and translation equivalence of the test (Huang, 2012).

Assessment of ELLs who may also have learning disabilities is the assessment validity and fairness. Each ELL has had a different set of experiences and ranges of educational exposure. Rinaldi and Samson (2008) discuss the implications of this diversity in instructional history as having a major impact on students' performance on assessments. For example, students may be able to speak fluently in their native language, but this does not mean that they are able to read and write. Some students may not have had any practice with reading and writing and this could negatively affect their assessment scores, even if the assessment is given in their native language (Fairbairn & Jones-Vo, 2010). Testing materials that are translated from English into a student's native language often are not equivalent. The student may not have the background knowledge necessary to answer the questions that an English speaking student would have. Therefore, the assessment results would not be valid and fair indicators of a learning disability but simply a lack of experience

Test items can easily be bias against ELLs leading to assessment fairness. ELLs with LD are at a disadvantage in taking assessments due to language deficiencies. Most cases translations into native language are necessary. It is very difficult to appropriately translate into native language without changing the test items. There is a lack of qualified and properly trained translators who can work with ELLs with LD resulting in decreased assessment validity, and assessment fairness.

Another challenge that school psychologists face when assessing ELLs concerns the use of interpreters. Given the wide array of second languages spoken, bilingual school psychologists may seek out interpreters when students speak a second language they do not speak. Although interpreters may be needed when language matches are not possible, their use raises several issues. First, interpreters may delete or add information that the examiner did not wish to convey. Second, interpreters may not be able to translate concepts that lack equivalence in the examinee's language. Third, the difficulty level of words may not translate to the same difficulty level in another language. Fourth, to maintain objectivity, the interpreter must not have a prior personal relationship with the examinee, which may prove difficult in communities where few people speak a language. Fifth, interpreters may not be adequately familiar with standardization procedures for

instruments and with the assessment process in general. In addition, it is ELL students undergo assessments. Reliability and measurement error are complementary ways of speaking about the same assessment phenomenon.

The concept of reliability focuses on the consistency of assessment results; the concept of measurement error focuses on their inconsistencies (Fairbairn & Jones-Vo, 2010). Assessments for students should be conducted in their native language should also be used in order to determine language proficiency. It is a major part involved in determining a student's eligibility for receiving special services. The majority of the assessments are based on standards of the English-speaking culture. As a result, there are very little chances that the scores obtained are appropriate, meaningful, or useless

Numerous concerns and issues focusing on assessment for English Language Learners with Learning Disabilities, questions ELLs who are referred to special education and their academic progress and outcomes. Research has been and continues to seek answers and solutions for concerns based on reliability of assessments and fairness. Teachers and educators are encouraged to seek professional development in order to be better prepared for this unique population of English Language Learners with learning disabilities.

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***Maximizing the Potential of Our Youth with Intellectual Disabilities:
Rethinking Functional Curriculum***

Denise A. Rich-Gross, Ph.D.

The University of Akron

Abstract

There exists a need to examine the practice of pushing functional curriculum to the bottom of the list to teach students with intellectual disabilities (ID). This article discusses how students with these disabilities could better transition into society if they are instructed appropriately. The author further investigates the current practices in other countries. The federally controlled education systems in Germany best demonstrates the need to offer more years of functional curriculum, job training and life skills early in the education of students with ID. Assessments for students with intellectual disabilities needs changed, the United States has a one size fits all approach to accountability and testing. German students trained in a vocational area would be assessed on the areas of study. Early assessments appropriately address how our students learn best. The different types of learners and their areas of interest need to be recognized for successful transition into the community.

***Maximizing the Potential of Our Youth with Intellectual Disabilities:
Rethinking Functional Curriculum***

Students with intellectual disabilities need functional skills more than any other population of students. Many of these students will need to know how to read maps, run a cash register, and operate a calculator. Teachers were once able to teach students real life skills but those days are gone. They must cover the academic standards required by the state in a timely manner so to allow them to be appropriately prepared for their state achievement test. When teachers concentrate upon academic standards, our functional curriculum is short changed.

Current Practices

Today's special educators are short-changing our students with a great deal of test preparation and not enough of the skills useful in our real world. When given the opportunity to introduce life skills, such as how to read a city street guide, students can gain the skills necessary for successful employment. They also need to identify the jobs that are available in their community. Students should experience the process of applying and interviewing for positions. With the opportunity to experience real life skills, students can feel an investment in their future.

Dunn, Chambers, and Rabren (2004) affirmed that students were more likely to continue in school if the coursework was preparing them for the future, supporting the need for

keeping functional curriculum, job acquisition, and retention skills. In the study student participants answered the following questions:

- Was there one class that prepared you to work and live in the community?
- Was there a class or activity that you were not able to take that would have helped you work and live in the community?
- Was there one person at your school who was most helpful in preparing you to live and work in the community?
- Did school prepare you for what you wanted to do after leaving school?
- Did school prepare you to get a job?
- Did you have a paying job at the time you left high school (Dunn et al., 2004, p. 314).

The major findings indicate the relationship between dropout status and the following four factors: disability status, the identification of a helpful class, the identification of a helpful person, and the belief that school was preparing them for the future (Dunn et al., 2004). This validates the need for coursework that students view as useful to their future.

Students feel vested in their future if their coursework is useful to their future, and teachers of students with intellectual disabilities want to prepare students to have some opportunity for normalcy in their lives. However, many schools do not offer students with intellectual disabilities a community-based functional curriculum to make it possible. Intervention specialists want to get their students prepared, but within the constraints of the current system pushing for standards-based curriculum, this has failed to take place.

Investigations related to transition of students with disabilities have provided beneficial information especially related to parent and student input, as well as early transition training. Garey (2003) recognized essential transition issues in a study involving students with hearing impairments. The study investigated perceptions of students with hearing impairments to identify key services and experiences that enabled their successful transition from secondary and postsecondary education into adult life and employment. The study was conducted through online and face-to-face interviews involving 69 students. The analysis of the information from the study indicated that student participation is crucial; teachers must involve families in the transition process; teachers need to be aware of the feelings of parents; transition planning should start in middle school; transition planning must be sensitive to cultural factors; and transition planning must be comprehensive.

Without the proper training many of our students remain unemployed in the years following the completion of school. Although some students are offered services through the county boards of developmental disabilities, and some students are also served through Goodwill Enterprises and Vocational Guidance Services in the state of Ohio, only a small percentage of the people with intellectual disabilities (ID) are helped through these agencies (Baer, Daviso, McMahan Queen, 2011). According to the Annual State

Report on the Ohio Longitudinal Transition Study, 13% of students were receiving adult services one year after graduation (Baer et al., 2011).

According to Quinn, Rutherford, Leone, Osher, and Poirer (2005), the findings from surveys to all state correctional systems of every juvenile under age 22 indicated the population of youth in juvenile corrections served under IDEA to be 33.4% of the total population ($n = 8,613$). The percentages of these youths in facilities are grouped under the following IDEA categories which include: Emotional Disturbance 47.7%, Specific Learning Disabilities 38.6%, Mental Retardation 9.7%, Other Health Impairments 2.9%, and Multiple Disabilities 0.8% (Quinn et al., 2005). These findings demonstrate that students need a great deal of support to properly prepare for life after high school to prevent incarceration.

Historical Perspective

In the years following the No Child Left Behind Act (NCLB; 2004) schools have been looking for higher test scores for our students with ID. Even though a student may not pass the test, the state keeps track of their learning progress under their disability category. The state allows a very small percentage of 1% of the student population to take the alternative assessment and 2% to take the alternative assessment based on modified academic achievement standards. Roach, Beddow, Kurz, Kettler, and Elliot (2010) discussed the development of the modified achievement standard assessment and the percentage of students who take this test, as well as describing it. The modified achievement standard assessment is to be less difficult than a grade level achievement standard but not more challenging than a state's alternative assessment (Roach et al., 2010). The United States Department of Education (ED) revised regulations of the No Child Left Behind Act of 2001 (NCLB) to allow for flexibility for students whose disability will not allow them to be proficient at grade-level. The ED capped this population taking the MAS at 2% from the revision; and the AA at 1% from the NCLB guidelines. The harsh reality is that these scores equate to educational funding. Schools are also required to keep large percentages of students in general curriculum. The Individuals with Disabilities Education Improvement Act (IDEIA; 2004) further pushed the mainstreaming of students into the least restrictive environment (LRE). Unfortunately, this is our norm in the United States; however, there are different models from other countries that might be instructive for training and testing students with intellectual disabilities.

Feretti and Eisenman (2010) discussed federal policies' purpose which is to promote educational equality through state accommodation methods. They further recognized that states have increased efforts toward positive outcomes for students with disabilities by focusing their concentration upon the outcomes for students with disabilities. All efforts should be on removing the achievement gap. The authors argued that local cultures on teaching practices and decision making have the first impact on learning experiences and in order to improve the outcomes of students with disabilities we need to examine the cultural and social issues and the way policy is interpreted as to local practices.

World Perspective

In Japan, parents participate in the education of their children with disabilities (Kasahara & Turnbull, 2005). Japanese parents who suspect their child of having a disability consult child guidance centers to advise the appropriate placement of their child (Abe, 1998). The prefectural/municipal placement guidance committees assess the child and suggest placement in special schools or special classes. Japan's special education curriculum is divided into five categories: moral education, special activities, protective care and training, and their academic subjects. Abe (1998) maintained that education for the students with intellectual disabilities is focused on providing them with the skills necessary for their future lives. The optimal situation involves vocational training and life skills instruction to be emphasized in instructional programs.

Florian, Dee, Byers, and Maudslay (2000) discussed the findings of a three-part national survey in the United Kingdom regarding transition for pupils with profound and complex learning difficulties. Their report recognized that the students who are diagnosed with profound and complex learning difficulties often are held in the public school setting until age 19. They further state that students with such difficulties have few opportunities to participate in community life as adults despite the overlapping legal responsibilities of multiple agencies. The authors further concurred that students remain in the same setting often in school, interacting with the same people year after year with little opportunity for change (Florian et al., 2000).

From the National Association of Instruction of Technology Teacher Education (NAITTE) in 1994, Theuerkauf and Weiner discussed how the federal system of education in Germany offers students a different sequence of schooling. They stated that vocational and community training is incorporated into the program for education of students with disabilities. Furthermore, they pointed out that vocational training is to qualify students for a trade or a specific profession. Their system starts with kindergarten, then the elementary school, at which point the students are sent on to the general secondary school, the secondary modern school, or the high school. After the student completes the first level of the secondary education, they then are able to attend a second level of secondary education. At the time they receive their "Abitur" or school leaving certificate, they can enter vocational training or academic studies. It is at this stage where the students receive more training than the students in the United States. This allows the student with disabilities to learn valuable skills to be able to integrate into community employment and life.

Grünke (2006) investigated a supported employment program implemented with 172 students with severe learning difficulties between 14 and 18 years of age in their last year of school. In the project, 60 university students were trained as job coaches and taught skills essential to gaining employment. The students with learning difficulties received training to foster inductive reasoning or training to enhance job-related self efficacy. The project's success was demonstrated by a percentage of the young people who were able to start an apprenticeship in the open labor market compared to the usual success rate of vocational integration (Grünke 2006).

Grünke (2006) further recognized that the following five conditions need to be met to have students with learning difficulties achieve employment: continuous and individual support, early introduction to the world of employment, individual fostering of intellectual abilities, individual fostering of emotional stability, and continuous monitoring of all endeavors. In order to maintain accountability and to successfully integrate students into society as well as the workplace, assessments need to take place to evaluate the preparedness of our youth with disabilities.

Phelps (2006) discussed the European and Asian process of testing students upon completion of their various educational programs. Differentiation starts in the lower secondary (middle school) and exists in almost all schools in the upper-secondary level. He stated the testing is a reflection of their educational program. Students are differentiated by curricular emphasis and ability level and so are their tests. The author further discussed that students attend schools with vastly different occupational orientations: advanced academic schools to prepare for university, general schools for the working world, or direct entry into a skilled trade (2006).

Transition Services in the United States

Garey (2003) recognized essential transition issues in a study involving deaf students. The study investigated perceptions of students with hearing impairments to identify key services and experiences that enabled their successful transition from secondary and postsecondary education into adult life and employment. The study was conducted through online and face-to-face interviews involving 69 students. The analysis of the information from the study indicated that student participation is critical; teachers must involve families in the transition process; teachers need to be aware of the feelings of parents; and transition planning should start in middle school, must be sensitive to cultural factors, and must be comprehensive.

Grandin (2006) recognized the importance of electives in schools when addressing students with autism. She stated that it is a concern when music, woodshop, auto mechanics, and electives aren't offered in schools. With these courses students with uneven skills would do well and become employable in the community. Grandin (2006) examined the method a high school uses to measure its students' success through outcomes. Students who do have post school goals focused on college attendance; an alternative post school goal would be gaining and maintaining employment that will provide a comfortable standard of living.

Wolk (2004) acknowledged that we need to address the individual's strengths and that we should think outside the box. He stated that there are important questions we should ask and they are: How do we guide our kids through their very challenging formative years so that they emerge as responsible young adults with the skills and attitudes they need to function and thrive in a rapidly changing world? What do we want every child to achieve?

Wolk (2004) related a story of a 16-year-old named Jesse, who was bored in school and intent on dropping out. His principal knew that Jesse liked to work so he made him a deal to attend classes in the mornings and work as a janitor for \$5 an hour in the afternoons. Jesse worked hard and improved the appearance of the school grounds doing landscaping. This young man's future is more promising because his principal was flexible and allowed Jesse to work. He did not drop out and learned a sense of self-worth and pride in one's work. With recognizing the individual strengths and needs of our students with special needs the thinking types approach helps guide educators. Grandin (2006) postulates three thinking types of students with autism:

1. Visual Thinkers—good with hands-on work and think in pictures.
2. Pattern Thinkers—good at music and math. They think in patterns and relationships between numbers instead of pictures and they are often good at chess. They think in patterns instead of specific photographic images.
3. Word Specialists—usually poor at visual thinking but will know every sport or weather statistic. Their favorite subjects in school are often history and foreign language.

These three types of thinkers have so much to offer the community workplace. If we could identify the thinking style of the student, we could then identify work environments and activities. Another assessment to assist in the transition process has been developed to help youth build upon their talents.

The Clifton Youth Strengths Explorer, developed by the Gallup Organization, is a measurement that is being used to help youth build upon their talents. The Clifton Youth Strength Explorer goals are:

- Help youths identify their positive characteristics
- Help youths improve their understanding of self
- Help youths develop from their areas of greatest talent
- Improve parents'/instructors' understanding of their children/students
- Provide an opportunity for an important kind of communication between parents and their children (i.e., discussion of one's unique nature, the positive characteristics/gifts that one has, and how those can be developed).
- Provide the theme-based language that youths and parents/instructors could use to discover and describe positive characteristics (Gallup Organization 2006, pp. 183-189).

The instrument provides measures of talent in presence, confidence, competing, relating, achieving, future thinker, caring, discoverer, organizer, and dependability. With the talent-based approach educators can help youth achieve their maximum potential. The Gallup Organization (2006) recognizes that addressing deficits and challenges is not sufficient to help youth become healthy, fully functioning individuals. They feel in order to have healthier outcomes that educators must develop a positive psychological focus on the identified talents and build upon them (Gallup Organization 2006). They have provided a sound measurement to identify and capitalize on the talents of our youth.

Preparation for Employment

Scanlon and Mellard (2002) interviewed 270 young adults with and without Learning Disabilities/Emotional Behavior Disorders (LD/EBD) inquiring about their post-dropout experiences. Those students who were interviewed said that they were not satisfied with their own preparation for independence. Many students lacked self-confidence in work or academic skills, control of their lives, or self-esteem (Scanlon & Mellard, 2002).

Wolk (2004) stated that we should have parallel schools and that they should offer curricula that are personalized by advisors, parents, and students. He stated that the students could participate in apprenticeships and internships with adult mentors in businesses, hospitals, government agencies and other employers to experience the need for punctuality, teamwork, and attention to detail. Wolk suggested that students be able to do service learning in hospitals and other human service positions to see democratic processes and politics at work. Hogansen, Powers, Geenen, Gil-Kashiwabara, and Powers (2008) suggested when addressing the sources of support and impediments to a successful transition to adulthood, female students with disabilities stated that employment chances would increase if given more exposure to job training opportunities and paid work experience in their areas of interest.

Xin, Grasso, Dipipi-Hoy, and Jitendra (2005) examined the effects of purchasing skill instruction on individuals with intellectual disabilities. They found that purchasing skills were necessary for the transition of students into life in the community; however, they felt that these skills should be taught in the elementary grades to increase functional competence in the later years. The current trend is increasing placements in inclusionary general academic settings for students with intellectual disabilities (Xin et al., 2005). With that in consideration the authors further concluded that functional life skills are important and can be built upon basic academic skills.

Johnson, Stodden, Emanuel, Luecking, and Mack (2002) addressed the current challenges facing secondary education and transition services. Based upon the research they have identified key issues influencing implementation of the federal transition requirements of the IDEA Amendments of 1997. Their findings suggested that students should be allowed to have access to general education curriculum but also to develop essential adult-life skills. They further reflected that the students should not only have general education curriculum but that they should have community-based work experience, vocational education, dropout prevention and reentry programs, and independent living skills programs.

While making an investment in our future, we should explore all of our options. In the process we can appropriately serve our citizens with intellectual disabilities. With success in the community workplace, students with intellectual disabilities will gain autonomy, independence, and self-sufficiency. It is through this that the individual becomes a stakeholder in their future. In the role of stakeholder they take responsibility and have ownership to their life situations. If intervention specialists are to prepare the students with intellectual disabilities, they need to work with the abilities of each student and help

to guide them to a position where their gifts will be useful. Students with intellectual disabilities need a transition process where opportunities exist to afford a way to function in society. The current special education laws need to work to keep their outcomes as a priority.

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About the Author

Denise Rich-Gross, Ph.D., is an Intervention Specialist currently teaching grades 6-8 in the Warren City Schools. Her research interests include Transition Planning for Students with Disabilities Exiting High School, Professional Development, and Literacy Strategies for Achievement Testing, along with Intervention Strategies in Inclusion Settings. Her 17+ years of service in the helping professions have included teaching grades 6-8 special education, teaching multi-handicapped students and adult vocational habilitation work within community and shelter based settings.

Trust and Communication: Perspectives of Mothers of Children with Disabilities on the Role and Importance of Communication in Trusting Relationships with Teachers

Julia B. Stoner Ed.D., CCC-SLP

Maureen E. Angell, Ph.D.

Illinois State University

Abstract

Trust is imperative to effective relationships between teachers and parents of children with disabilities. Communication is the foundation on which trust is established and maintained. This study employed a qualitative research design to investigate the perspectives of 16 mothers of children with varying disabilities, of varying ages, and from varying geographical regions regarding the role of communication in establishing and maintaining trust with their children's teachers. Analysis of the interview data revealed that (a) the mothers used two primary communication strategies, dialogic and problem-focused, when interacting with their children's teachers, and (b) the perceived teacher responses had a significant effect on either facilitating or inhibiting trust in mother-teacher relationships. Discussion of the findings addresses recommendations for education professionals as they forge effective and trusting home-school partnerships with parents of children with disabilities.

The Importance of Trust in Family-Professional Relationships

Parents and education professionals should strive to form effective family-school partnerships for various reasons, including: (a) legal mandates, (b) increased parental involvement, and (c) increased student achievement. The Individuals with Disabilities Education Improvement Act (IDEIA) (2004) and the No Child Left Behind (NCLB) Act (2002) encourage parental involvement and require education professionals to regard and treat parents as full members of Individualized Education Plan (IEP) teams. IDEIA and NCLB both stipulate that parents must be invited to participate in IEP team activities of evaluating, goal setting, and choosing service delivery (Office of Special Education and Rehabilitation Services [OSERS], 2004). More recently the use of Response to Intervention (RtI), which requires general education teachers to use increasingly, intensive interventions to assist children with learning disabilities (LD) prior to referring a child for special education, has added an additional impetus to establishing effective communication with parents of children with disabilities. Increased parental involvement is facilitated by effective family-school partnerships, and the resulting benefits in the education of all children, regardless of their disability label or lack thereof, are well documented (e.g., Dunlap, 1999; Kayama, 2010; Lambie, 2000; Mahoney & Kaiser,

1999; Turnbull, Turnbull, Erwin, & Soodak, 2006). Indeed, many see parental involvement as a basic tenet of the special education system (e.g., Turnbull et al., 2006; U.S. Department of Education, National Center for Learning Disabilities, 2005).

Several studies have focused on strategies for increasing and maintaining effective family-professional partnerships (Edwards & DaFonte, 2010; Matuszyny, Banda, & Coleman, 2007; Montgomery, 2005; Shirvani, 2007; Singh, 2003). Yet, effective family-school partnerships require more than strategies; there must be a foundation upon which to build. That critical foundation is trust. Attempts to define trust abound in various disciplines, including sociology, psychology, business, and education. Hoy and Tschannen-Moran (1999) defined trust in relation to schools as “an individual’s or group’s willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open” (p. 189). Dunst, Johanson, Rounds, Trivette, and Hamby (1992) found trust to be one of the most frequently mentioned characteristics of positive parent-professional partnerships by both education professionals and parents; 55% of the practitioners and 45% of the parents they surveyed identified trust as integral and necessary to family-professional relationships. Soodak and Erwin (2000) interviewed parents of young children with significant disabilities in inclusive settings and found that the presence of trust positively influenced parental participation and perceptions.

According to Bryck and Schneider (2003), “...trust is the connective tissue that binds individuals together to advance the welfare and education of students” (p. 44). Both parents and professionals have clearly identified trust as an essential component for effective collaboration and as a vital component of effective family-school relationships (Dunst et al., 1992). There is little doubt that trust is vital to building and maintaining effective family-school relationships for all children (Adams & Christenson, 2000). The establishment and maintenance of trust is as (and perhaps *more*) important to families of children with disabilities since there may be a perceived heightened level of risk due to their children’s disabilities (Stoner et al., 2005; Stoner & Angell, 2006).

Communication: The Key to the Establishment of Trust

So, how is trust established between families of children with disabilities and education professionals when that relationship is complex, with a variety of factors, such as disability, age, setting, and history affecting each relationship differently (Angell, Stoner, & Shelden, 2009)? Some researchers theorize that trust is built incrementally and progresses through distinct stages. For example, Rempel, Holmes, and Zanna (1985) hypothesized that trust consists of three progressing levels arranged in a hierarchical order: (a) predictability, (b) dependability, and (c) faith. Holmes and Rempel (1989) referred to this developmental progression as “uncertainty reduction” (p. 190). This concept can be applied to the relationships families of children with disabilities have with education professionals, since the anxiety associated with trusting others to care for their children with disabilities at school often dissipates as trust develops (Angell et al.; Stoner & Angell, 2006). Additionally, Holmes and Rempel asserted that caring and responsiveness of others positively influence levels of trust in relationships. However,

they identified limited amounts of contact or communication between families and professionals as an inhibitor to establishing trust.

Communication is a pivotal requisite for establishing and maintaining trust. Adams and Christenson (2000) identified communication as one of the key processes involved with establishing trust, and Margolis and Brannigan (1986) saw trust as “an interactive process, involving the sharing of information, ideas, and feelings” (p. 71). Furthermore, Bronfenbrenner (1979) held that “the communication of ideas, information, and skills builds positive attitudes toward ‘educating’ children by both parents and professionals” (as cited in Dunst et al., 1992, p. 197). Parents of children with disabilities have indicated that effective communication with teachers gives them an opportunity to assess authentic caring, which they identify as a prime contributor to the establishment and maintenance of trust (Stoner et al., 2005; Stoner & Angell, 2006).

Trust can deteriorate rapidly when communication is absent or ineffective. In a study that investigated parent-school conflict, Lake and Billingsley (2000) identified limited and/or lack of communication as a factor in parent-school conflict. Additionally, if communication was perceived as untrue or deceitful by parents, conflict was escalated and trust was severely damaged. Communication can enhance or diminish trust, yet our understanding of the perspectives of parents of children with disabilities regarding communication with education professionals is limited. Reedy and McGrath (2010) contend that “effectively communicating with parents is one of the greatest challenges of the twenty-first century facing early childhood caregivers and special educators” (p. 347). Consequently, there is a need to comprehensively understand parent perspectives so that education professionals may contribute to building trust and effective communication to establish vital family-school partnerships.

The current study emerged from a broader study of the perspectives of mothers of children with disabilities on trust in educational professionals (Angell et al., 2009). Communication with all education professionals was important, but it was the communication between mothers and teachers, both general and special education teachers, that was mentioned most frequently during interviews with mothers and was most significant during initial data analysis. Therefore, we chose to re-examine our data to address the following research questions:

1. What are the perspectives of mothers of children with disabilities on the role of communication in establishing and maintaining trust with their children’s teachers?
2. How do mothers of children with disabilities describe their communication with their children’s teachers?

Method

Research Design

We employed qualitative research methodology to gain insight into the relationship between communication and trust of mothers of children with disabilities in teachers. We

followed the advice of Strauss and Corbin (1998) who explained that “qualitative methods can be used to obtain the intricate details about phenomena such as feelings, thought processes, and emotions that are difficult to extract or learn about through more conventional methods” (p. 11). Trust was the central phenomenon we examined for further understanding (Creswell, 2002). We used a collective case study approach to examine the similar stories of our participants, mothers of children with disabilities (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005). The use of collective case study methodology also gave us reassurance that events in individual cases were not “wholly idiosyncratic” (Miles & Huberman, 1994; Stake, 2000).

Participants

We used a purposive sampling technique that included snowballing methods to recruit a heterogeneous group of mothers of school-age children with disabilities as participants in this study. Our rationale for our maternal focus was based on research that indicates that mothers have more contact with education professionals than fathers (e.g., David, 1998; Nord, Brimhall, & West, 1997; Thomson, McLanahan, & Curtin, 1992; U.S. Department of Education, National Center for Education Statistics, 2001). We purposefully included mothers who had children of various ages, with various disabilities, and from several different school districts in different settings (i.e., rural, suburban, and urban). We utilized this sampling methodology to facilitate maximum opportunities for comparable analysis (Strauss & Corbin, 1998).

We used three techniques to recruit participants: (a) district-level administrators’ distribution of recruitment materials, (b) individual school professional’s distribution of recruitment materials, and (c) a participant referral snowballing technique whereby participants distributed recruitment materials to other mothers. This sampling method facilitated our recruitment of mothers who reflected as much variation as possible within our sample (Patton, 1980). In our initial recruitment phase, we mailed explanatory and invitational letters to several school district administrators in a Midwestern state. We asked these administrators to distribute the invitational materials to mothers from the schools in their districts if they approved of our interviewing mothers in their schools. Mothers were asked, through the invitational letter, to return permission-to-contact forms if they were interested in participating in the study or learning more about it. This method of recruitment proved to be minimally effective, yielding only 2 participants. We tentatively attributed administrators’ or mothers’ reluctance to participate to the nature of the study (i.e., the investigation of trust) and subsequently shifted from working with district level administrators for recruitment to working with school principals and various school personnel (e.g., therapists and special education teachers).

The second phase of recruitment involved school professionals sending invitational letters and permission-to-contact forms to potential participants with whom they had regular contact. Upon receipt of this approval, we scheduled 1:1 face-to-face interviews with the mothers, explained the study, and obtained informed consent. We had more success recruiting in this phase and tentatively attributed the success to the personal contact or to the nature of the relationships participants had with the education

professionals who contacted them. Personal contact from familiar individuals within their schools or districts may have influenced the mothers' willingness to participate. Additionally, we had a third recruitment phase, using a snowballing technique (Brantlinger et al., 2005) by which we asked participants to contact and provide recruitment information to other mothers of children with disabilities.

Our second and third recruitment phases yielded an additional 14 participants. Our final participant pool consisted of 16 mothers of children with various disabilities. The mothers ranged in age from 18 to approximately 55. Twelve mothers were Caucasian, one was African American, and three were Hispanic. One of the Hispanic mothers had limited English proficiency, so a Spanish-speaking interpreter assisted during her interview. These mothers and their children represented eight school districts, varying grade levels, and a range of geographical areas (i.e., rural, suburban, and urban). See Table 1 for participant demographics.

[See Table 1 after References Section
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Interviews

Qualitative data were collected via 1:1 semi-structured interviews which Fontana and Frey (2000) described as "one of the most powerful ways in which we try to understand our fellow human beings" (p. 645). Interviews were conducted face-to-face in locations designated by the mothers. Most of the interviews occurred in the mothers' homes and other interviews occurred in public locations identified by and convenient for the mothers. The interviews ranged in length from 60 to 90 minutes. Each interview was audio-taped and transcribed verbatim to facilitate data analysis.

Each author conducted some of the 16 single-participant interviews. The interviews consisted of broad, open-ended questions designed to elicit mothers' perspectives on their trust in education professionals. Semi-structured interviews permitted us to address the issue of trust while maintaining a feeling of openness (Kvale, 1996). While we used a semi-structured interview protocol, interviews varied in that we probed for further information, elaboration, or clarification based on mothers' responses.

Data Analysis

The findings related to communication and mothers' trust in teachers emerged as one of several categories or themes we identified as we analyzed our interview data. We reported findings related to overall maternal trust in education professionals (Angell, Stoner, & Shelden, 2009), but we decided that several themes warranted more in-depth analysis than was possible in the initial overview. Once we had analyzed all the interview data, we focused more closely on specific themes and developed concept maps that guided our reports. This study represents our more in-depth analysis of the role of communication in establishing and maintaining trust between mothers of children with disabilities and teachers.

We conducted cross-case analysis as described by Miles and Huberman (1994) to study each mother (i.e., case) as a whole entity, using line-by-line coding of each mother's interview responses. We followed the analysis of the individual cases with a comparative analysis of all 16 cases. Each researcher independently line-by-line coded each interview and all codes were entered in NVivo7™ software (Richards, 2002). Next, we met consistently as a team to discuss the codes, identify emergent themes, and reach concordance on the development of a concept map (shown in Figure 1) that represents the study's findings.

We used a flexible standard of variables or categories as we analyzed each case in depth (Coffey & Atkinson, 1992). We used a constant comparative method (Charmaz, 2000) to compare cases and to refine, expand, or delete categories as needed. This type of coding procedure helped us stay in tune with the mothers' views as we continually studied our interview data (Charmaz, 2000). We returned to the verbatim data when we discovered inconsistencies regarding codes or emerging categories. This allowed us to examine the inconsistencies and compare them directly to the mothers' input. We continued this process of continually returning to the data until we reached concordance on all categories. This process of cross-checking coding of the major categories provided "thoroughness for interrogating the data" (Barbour, 2001, p. 1116) and allowed for in-depth discussion that facilitated the development of the major categories.

Confirmability

We used methods of respondent validation (Creswell, 2002) and member checking (Janesick, 2000) to confirm our findings. Securing respondent validation involved presenting a summary of our findings to the interviewees by telephone or e-mail. We asked them if they concurred with any or all of the emergent perspectives, that is, if they saw their personal perspectives represented in any or all of the reported findings. We conducted member checks as a means of confirming the findings by asking participants to comment on the accuracy of their individual verbatim quotes, and we obtained approval to use their direct personal quotes in written or verbal reports of the study. All 16 participants confirmed that the summary of findings adequately and accurately represented their perspectives on the role of communication in establishing and maintaining trust in teachers, and all the mothers whose direct quotes appear in the report gave permission to cite them.

Findings

The relationship between mothers and teachers has many dimensions and facets; it is complex, dynamic, and recursive in nature, and it has the potential to change with each interaction, each education professional, and each success and challenge faced by children. Analysis of the data revealed that effective communication was the catalyst for trusting relationships, and ineffective communication or the absence of communication could either erode or completely destroy trust. The effect of communication on trust was

of paramount importance to our participants. When asked what affected trust the most, one mother, Carole, responded, “Communication is everything.”

This study’s findings are organized to provide (a) an overall description of the communication that occurred between our participating mothers and their children’s teachers and (b) results of our data analysis which led to the identification of parental communication strategies, mothers’ perceived teacher responses, and the consequential impact of communication and trust within family-school relationships. Figure 1 contains a graphic representation of parental communication strategies, which were integral to and had the potential to enhance or erode trust within the complex and dynamic relationship between mothers of children with disabilities and their children’s teachers.

[See Figure 1 after References Section]

Communication: The Road to Establishing Trust

Participants described their interactions with education professionals and all participants reported interacting primarily with their children’s special education teachers, regardless of whether or not their children received special education within general education settings. This is not to indicate that the mothers in our study didn’t communicate with general education teachers, but their primary contact people were special education teachers. Several participants desired one contact person, especially if their children were in high school and had many general education teachers. Pat summed up this perspective: “His classroom teachers, I don’t have a whole lot of interaction with. I just feel like it is easier to go through her [special educator] than to go to them [general educators] directly.”

The frequency of mother-teacher communication varied greatly and was affected primarily by children’s ages and the presence or absence of issues of concern. There was more communication between the mothers and teachers when the children were younger. This may be typical for all students as they become older, and may be preferred by the children themselves, as they desire more independence. DeDe spoke of her deaf son: “In all the early years, I was always up there. I was in and out so I knew all his teachers. But now that he’s in the hearing classes, I don’t really go up there because he’s getting older. He’s getting to be—like—‘Mom...!’” However, regardless of their children’s ages, if the mothers had a concern, the frequency of communication increased dramatically.

Types of communication varied across participants and included notebooks, notes, phone calls, and e-mail messages. Participants were aware that a particular mode of communication might work better with an individual teacher or with a particular content.

For example, Carole spoke of the benefit of communicating with phone calls:

I have found, too, that if a teacher lets you call them directly, it’s a lot better than writing notes and waiting for a response. It’s a lot better because you can get immediate answers, and so when you have a problem you can get immediate help. It’s just better than writing notes.

Two participants identified e-mail messages as a form of documentation; however, both participants had experienced difficulties in the past with their children's education and had learned to document and save all communication between themselves and their children's teachers. One of them expressed caution when communicating through e-mail: "Yeah, e-mail can be good, but I'm always careful on e-mail because that is documentation." Neither of these parents was thinking of e-mail as documentation prior to encountering problems during her child's education. This illustrates that prior history with teachers and all education professionals, whether positive or negative, can affect parental perspectives and actions.

The majority of the mother-school communication content was child-focused. Occasionally, if there was a personal situation, such as a death in the family of either the teacher or the parent, communication became personal. Usually, though, the mothers and teachers focused their communication on the children. Two primary content areas were consistently identified: (a) 'everyday' content and (b) content that addressed concerns. Everyday content was usually focused on the school day, any minor issues that arose at home or at school, or any daily progress the children had accomplished. Olivia described everyday content with her daughter's teacher as "She [the teacher] is willing to come to me very readily and just chat, or make a conversation, or say 'this little thing happened.' I like to know little things about Emily's day; it doesn't have to be big things." Since our participants had children in different school settings and with different disabilities, the actual topics of everyday content were diverse. For example, Olivia, whose child was in preschool, desired and received communication about her daughter's nap schedule, while Pat, whose son was in high school, desired and received information about her son's progress with classroom assignments.

Another content area of communication focused on problems or concerns. The problem could be perceived by the participants as major, minor, or one that starts off minor and escalates to a major problem due to ineffective communication. Major problems focused on lack of accommodations, failure on or difficulty with assignments, or concerns regarding the social behavior of either their children or classmates. These were "hot topics" for the participants and when they initiated communication on these topics, they wanted immediate attention and/or action. Unfortunately, many times responses from their children's teachers were not congruent with the mothers' desire for action.

The communication abilities of the children of the participants varied. Some children had few or no communication difficulties while other children communicated non-symbolically, due to their disability. If their children's communication skills were limited, the mothers repeatedly emphasized the need to know about their children's school days. The mothers reported a strong need to somehow compensate for their children's lack of or limited communication. They emphasized that when their children were not able to communicate events of the school day or convey difficulties that might have arisen during the day, they needed the special education teacher to compensate through frequent communication. The mothers said they acknowledged and appreciated

their children's teachers' attempts to meet these needs. Nicole exemplified this when she explained,

She just wanted to let me know that [he wasn't feeling well], because a lot of times he won't. He didn't—when I picked him up, he didn't say anything. And once we were at home for a while he didn't say anything. So it was good to know that, in case, later on during the night something happened, that I knew that he wasn't feeling well. So yeah, she's, she's wonderful.

Mothers appeared to perceive that their children were vulnerable, especially when their children's communication was impaired. Vickie said, "I can remember when he started school and they were going to put him on a bus. And I said, 'He doesn't talk; you are going to lose him.' And I sat there bawling. 'You know, somewhere at that school, you are going to lose him. He does not talk and if you lose him he is not going to be able to tell you who he is.'" It was this perceived vulnerability that was the root of desiring additional, prompt, and comprehensive information from teachers when concerns arose.

The majority of participants reported they were the ones who initiated communication between themselves and their children's teachers when content focused on problems. Pat, whose son was in high school, spoke of this: "What I find interesting, is that in the teacher's position there is very little communication. I am the one that prompts the communication." It was also evident that if conflict arose, parents increased their communication efforts. Noreen illustrated this when discussing difficulties she had with her son's school: "And now, we are into first grade. Struggle, Struggle, Struggle. Always up there talking to the teacher. 'He's having problems with this. What can we do?' Always working very, very hard to try and get him through first grade."

If teachers' responses were ineffective or problems persisted, the mothers continued to communicate, and actually increased their efforts. Regardless of who initiated communication, how frequent communication was, or what type of communication mode was used, each communication interaction became an opportunity for teachers to enhance or erode trust through their responses.

Teacher Response to Communication: Freeway or Potholes

Once communication was initiated, the prime determinant of whether or not it was successful, as perceived by the participants, was the teacher's response. The important features of teachers' responses that facilitated trust were immediacy, active listening with an acknowledgement of the mothers' perspectives, and evidence of a disposition of authentic caring. Many participants spoke of effective communication with their children's teachers, and many gave specific examples of communicating effectively during some years and ineffectively during others. When communication was effective it had a profound impact on mother-teacher relationships. Lisa related the following when speaking of the sadness of leaving her son's current teacher, with whom she communicated effectively and whom she trusted implicitly:

It is going to be hard saying goodbye to her. My husband and I talked last night about, like I said, 'What a great IEP meeting this was.' And he said, 'You know,

we just, we just are so grateful to her for all the things, over the 3 years, that she has done to help him grow.' And he says, 'At the end of the year we're really going to have to do something nice for her.' And in my mind I'm thinking, you know, we could get her a gift certificate so her and her husband could go out to dinner or something. And my husband says, 'We need to go in on that last day and give her a big hug.' [Laughter] That's what he said! I said, 'Well, I was kind of thinking about a gift certificate,' and he said, 'Oh, well, that, too.'

De-De illustrated the effect of having her concerns acknowledged and knowing her sons' teachers authentically cared for her child.

I can't even tell you how many times I have met with these people over the past 7 or 8 years. At least maybe, I think twice a year at the beginning of the year and at the end of the year, and if it happens to be the year that we do a re-eval or 3-year re-eval it can even be more. I do not feel at all intimidated by any of the individuals. They don't make me feel my questions or concerns are stupid. I have complete confidence [in them].

It should be stressed that in this study effective teacher responses did not necessarily equate with teachers' agreement with the mothers. Many mothers reported that teachers would disagree with them and the trust within the relationship was intact or at times enhanced. For example, Teresa reported these perspectives even in the face of conflict:

"I think they would kind of like talk to you, help you through it [conflict]. And if I don't feel comfortable with it, I think they would try to get to a point to make a solution. I think they will work it out and I think if you voice your opinion, they voice theirs...everybody's not gonna agree on everything."

Mothers in this study described ineffective communication as latent and/or absent. Latency was particularly frustrating for the mothers, especially if they received late communication about difficulties with assignments or grades. Valerie spoke of her frustrations related to learning of her son's difficulties with math *after* he had failed. "My thing is, he should have never gotten there. I should have been contacted before that, about the problem. And that's where I have problems." These mothers were aware, concerned, and willing to monitor and assist with their children's academic work, but if they were not informed of failing grades or poor performance on assignments quickly, they were frustrated by missing opportunities to assist their children. Many of the mothers reported simply an absence of communication by their children's teachers.

Mothers' Communication Strategies

The 16 mothers in our study had interacted with numerous teachers, and the scope of this study did not allow us to interview teachers to examine their perspectives on communication with the mothers. However, even without the teachers' viewpoints, it was the mothers' *perspectives* on communication that was of prime importance. Data analysis revealed that these mothers engaged in particular strategies which we have identified as either dialogic or problem-focused communication strategies. They also

offered the observation that teachers engaged in these same strategies and one additional one, which we have categorized as inaction.

Dialogic communication strategies. Dialogic communication strategies were relaxed, focused on everyday content, and directed toward establishing and maintaining positive relationships with teachers. Participants spoke of several approaches they used when implementing dialogic communication strategies. These included frequent and persistent communication, sharing knowledge about their children, and/or asking directly for assistance with an issue before it became a major problem.

The strategy of communicating frequently and persistently with their children's teachers was exemplified by Dolorita, a Hispanic mother with limited English proficiency. She stated, "More, more. You have to communicate with them all the time." Similarly, Monica spoke of the benefit of frequent communication, "I'm a frequent caller and she's a frequent caller to me. So, I think we have a good relationship." Frequent communication when using dialogic communication strategies was an opportunity for mothers and teachers to get to know each other, and it was a strategy that both employed.

The prime focus of the mothers was their children, and all reported striving toward the objective of increasing teachers' knowledge of their children. To achieve this, mothers used dialogic communication strategies to share knowledge of their children's characteristics, needs, and any other pertinent information. For example, Olivia provided an in-service session for the staff at her daughter's daycare and reported on its benefit: "So that really helped the trust when everyone seemed to understand the issue, and understand my child." Conversely, the mothers did not hesitate to call on their children's teachers if they needed information. Carole described her strategy of calling her son's teacher: "I mean, I am one that—I'm going to call. And they know I'm going to call. And if Sam comes home with a note then his teacher knows that I am going to be calling her at 3:30. And when the phone rings she says, 'I just knew it was you.'" Sharing knowledge required an attitude, in both mothers and teachers, of valuing and accepting what each had to offer the other.

Mothers also used dialogic communication strategies to directly ask for assistance. Pat spoke of informing her son's teacher of her apprehension about the effect of her older son's deployment to Iraq on her younger child:

You know, I think he [younger son] is really slipping, and he is not turning in his work, and I have asked him, 'What is happening?' And I said [to the teacher], 'If you see something, tell me.' Mike went through a very emotional time when his brother left for Iraq.

This gave both the teacher and the mother the opportunity to interact without an intense, specified agenda to ward off any anticipated problems. Interactions such as this fostered trust, instilled a comfort level in parents, and had the benefit of cushioning the effect of any future difficulties.

Dialogic communication strategies appeared to set the stage for the establishment and maintenance of trust between mothers and teachers. All participants employed this strategy, valued and desired it, and recognized the resulting increased comfort level of interaction with teachers. When dialogic communication was established, participants reported feeling more comfortable communicating their concerns. Nicole said, “If there’s a problem, personal or academically, that you can be comfortable going to them and they can be there; they can fix it. And I think, because I’ve always felt that way, I’ve always gone to them that way. And I think that they’ve appreciated that.”

Mothers’ problem-focused communication strategies. Another communication strategy employed by the mothers in this study was one we have termed *problem-focused*. This strategy was used when mothers were concerned about academic failure and/or lack of accommodations for their children. This strategy was more intense than dialogic communication strategies. While dialogic communication strategies typically resulted in an increase in trust, problem-focused communication strategies had mixed effects on trust, depending on perceived teacher responses. Problem-focused communication strategies clearly indicated a need for immediate action, and if action was forthcoming, the effect was an increase of trust. However, mothers reported many instances of teachers’ latent responses. If mothers perceived latency of teacher responses, they *increased* the intensity of their communication. Pat described a situation in which she did not think the school had implemented the accommodations stipulated in her son’s IEP: “I was more in their face. ‘Look, look you said you were going to do this.’ And I am calling them, ‘Is it done, is it done?’ And I was e-mailing, ‘When am I going to see this?’ I am not saying they wouldn’t have been reliable but I know I had to make them reliable.”

Several mothers indicated that there was no response from teachers even when they employed problem-focused communication strategies. When this occurred, conflict was guaranteed, communication became ineffective, and, perhaps most detrimental, trust was destroyed. *Persistent* inaction on the part of the teachers was infrequent and mentioned by only three mothers during the interviews. However, the result of the perceived inaction in all three cases was the mothers’ employment of outside advocates and, in one case, filing a complaint with the state board of education (which cited the school district for breach of confidentiality). All 3 mothers indicated that if the school district had listened to them, acknowledged their points of view, and responded respectfully, the matter could have been resolved. Once again, we do not have the teachers’ or school administrators’ perspectives in any of these cases. However, the mothers’ collective perspective was that these incidents escalated due to perceived ineffective communication strategies on the part of the teachers. The long-term effect was an absence of trust, an increased monitoring of their children’s education, and a relationship with future teachers that was unlikely to become trusting.

Discussion

Effect of Communication on Trust: Stalling or Reaching the Destination

Participants reported that communication had direct effects on the trust between themselves and their children's teachers. This trust varied from year to year, with each new teacher. Our participants reported desiring frequent communication, especially regarding issues they felt were problems. This is consistent with findings by Singh (2003) that 75% of mothers of children with disabilities wanted daily communication with their children's teachers. Additionally, Singh identified written logs as the preferred mode of communication. In our study, one mother desired phone communication to resolve a problem since resolution might be attained during the conversation. However, most of our mothers communicated through email; which may improve efficiency but does not always improve quality of communication (Thompson, 2008). Regardless of the mode of communication, the response time was especially important during problem-focused communication.

Teacher responses to the participants' communication strategies had the potential to develop, maintain, enhance, reduce, or even destroy trust. There are numerous papers and reports that focus on effective communication with parents regarding certain issues, such as communicating with parents of children with attention deficit disorder (Mathur & Smith, 2003; Montgomery, 2005) or communicating with parents regarding homework issues (e.g., Munk et al., 2001). However, perspectives of mothers of children with disabilities regarding the importance of communication on trust have not been investigated. This study underscores the power that effective communication has in building trust.

Participants reported that they adopted particular communication strategies based on the content of that communication. When the content was about everyday topics, mothers employed a dialogic communication strategy and the communication itself was more relaxed. If a problem arose, the mothers used a problem-focused communication strategy and they expected an immediate teacher response. Teacher responses did not have to be in agreement with the mothers' desires, but they did need to be respectful, demonstrate authentic caring for students, and acknowledge the mothers' perspectives on problems. Communication that was not respectful, had no aspect of authentic caring, or was dismissive of the mothers' concerns was detrimental to trust. If mothers perceived inaction by teachers, the mothers' trust was reduced or destroyed. This perspective is consistent with research that has focuses on conflict between parents of children with disabilities and education professionals (Lake & Billingsley, 2000).

Communication with parents of children with disabilities must be perceived as important, must be cultivated early in the school year in a positive and proactive manner, and, when parents communicate with teachers, appropriate responses should be forthcoming. Trust is built incrementally over time and, unfortunately, can be destroyed much faster. Numerous researchers have found a positive relationship between parental involvement

and communication by teachers (Ames, De Stefano, Watkins, & Sheldon, 1995; Epstein, 1990; Shirvani, 2007). The current study found that mothers reported more trust in teachers who valued communication and engaged in communication frequently and in a timely manner.

Special education teachers know their students require individual services and accommodations. Those same considerations need to extend to the entire family. Since trust is the foundation for establishing effective parent-professional relationships, teachers should recognize and meet the parental need behind the communication. Within this framework, based on our professional experiences, and based on the lived experiences of our participants, we offer the following recommendations to assist special education teachers in choosing and implementing appropriate communication strategies to facilitate trusting relationships with parents of children with disabilities.

Recommendations

1. Establish communication before any difficulties arise. Ensure that this communication is dialogic, is based on mutual respect, conveys authentic caring for the student, and lays the foundation for trust.
2. When parents initiate communication, decide whether this communication is dialogic or problem-focused. Respond to parents, regardless of the type of communication you receive from them.
3. If a parent's communication is dialogic, respond in a manner designed to establish a relationship. This is an opportunity to build trust, get to know the parent, address any minor issues, and open the door for future communication.
4. If a parent's communication is problem focused, respond immediately. Even if you don't perceive the issue to be problematic, the parent may, and an immediate response can do much to defuse the situation.
5. If the communication is problem-focused, acknowledge the parent's concern; don't dismiss it. Acknowledgement does not equate with agreement; however, it does demonstrate respect for the parent's point of view.
6. Demonstrate a willingness to develop a strategy to solve a problem a parent identifies. This may be done easily if the problem is minor or may require a face-to-face meeting if the problem is more complex. Involve the parent in the problem-solving process.
7. Set up a time to review the adopted communication strategy. This is very important but easily overlooked. Contact the communicating parent to get his or her input on how things are going relative to the problem and provide your own input.

8. Return to Number 1. Continue to establish a routine of ongoing communication, and trust will continue to grow. When problems arise they will be dealt with more easily by both parents and professionals who authentically care for students with disabilities.

Limitations and Directions for Future Research

Qualitative research was used in this study to elicit participants' perspectives and caution should be applied in generalizing these findings to a larger group of mothers of children with disabilities. Although our sample size was large and we made every attempt to include a diverse sample regarding socioeconomic status, minority status, geographic status, and disability status the findings should not be generalized to the overall population of mothers of children with disabilities.

While we used accepted qualitative research methods for this study, we recognize that the validity of the findings may be affected by certain limitations. The first limitation of this study is that we did not initially plan explicitly to gather data on mothers' perspectives on the role of communication in establishing and maintaining trustworthy parent-professional relationships. Rather, these data emerged from the data gathered to address broader research questions about mothers' trust in education professionals. The use of a semi-structured interview protocol allowed us to probe further when participants discussed the importance of communication in trustworthy relationships.

The second limitation of this study is that we did not establish extended relationships with the participants. We interviewed each mother once. Multiple interviews would have been ideal. However, we determined that the initial data and our analysis of them provide a strong foundation for more in-depth examinations of the role of communication on trust between mothers of children with disabilities and their children's teachers. We also recognize that the generalizability of the findings may be limited by the nature of our participants. However, although these findings are based on the perceptions of only 16 mothers from one state, these participants reflected ethnic, racial, and economic diversity and were mothers of children of various ages and disabilities. The recruitment of participants through school professionals may also limit the generalizability of the findings in that the professionals may have identified mothers with whom they felt they had positive, established relationships with education professionals.

Future research on the effect of communication on trust and parent- teacher partnerships could explore fathers' and teachers' perspectives, since both of these groups are important members of home-school partnerships. Future research that focuses on perspectives of fathers and teachers may add valuable insights into the nature of trust and communication in family-professional relationships. Additionally, research that surveys a broader sample of parents would be beneficial to substantiate this study's findings.

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About the Authors

Julia B. Stoner, Ed.D., CCC-SLP is a professor in the Department of Special Education at Illinois State University. Dr. Stoner is a certified speech and language pathologist and

has published numerous articles related to family and professional issues, augmentative and alternative communication, assistive technology, trust and parental advocacy issues, and social-pragmatic communication interventions with young children.

Maureen E. Angell, Ph.D., Professor Emerita at Illinois State University, engages in single-case and qualitative research focusing on social-pragmatic communication and literacy skills, dysphagia management, differentiated instruction, systematic instructional strategies, trust and parental advocacy issues, and self-determination in individuals with disabilities.

Table 1

Participant's Name	Ethnicity	Child's Name	Disability/Diagnosis	Grade Level	Instructional Setting	School Location
Mary	Caucasian	Alex	ASD	Preschool	Self-contained	Rural
Olivia	Caucasian	Emily	Sensory Integration Dysfunction	Preschool	Inclusive	Suburban
Terri	Hispanic	Frankie	Developmental Delay	Preschool	Inclusive	Urban
Vickie	Caucasian	Larry	Mental Retardation	Elementary	Self-contained	Rural
Yvonne	Caucasian	George	ASD	Elementary	Inclusive	Suburban
Noreen	Caucasian	Roger	Other Health Impaired	Elementary	Inclusive with pull-out services	Urban
Nicole	Caucasian	Oscar	ADD	Elementary	Inclusive with pull-out services	Urban
Monica	Caucasian	Tommy	ADD	Elementary	Inclusive with pull-out services	Urban
Lisa	Caucasian	Hank	Learning Disability	Elementary	Inclusive	Urban
DeDe	African American	Victor	Deaf	Middle	Inclusive	Urban
Teresa	Hispanic	Selena	Deaf	Middle	Self-contained	Urban
Dolorita	Hispanic*	Josefina	Deaf	Middle	Self-contained	Urban
Ursula	Caucasian	Charlie	ADHD	Middle	Inclusive	Suburban

Valerie	Caucasian	Tad	Non-verbal Learning Disability	High	Inclusive	Suburban
Carole	Caucasian	Sam	Cerebral Palsy	High	Inclusive	Suburban
Pat	Caucasian	Mike	Learning Disability	High	Inclusive	Suburban

* used an English/Spanish interpreter during her interview

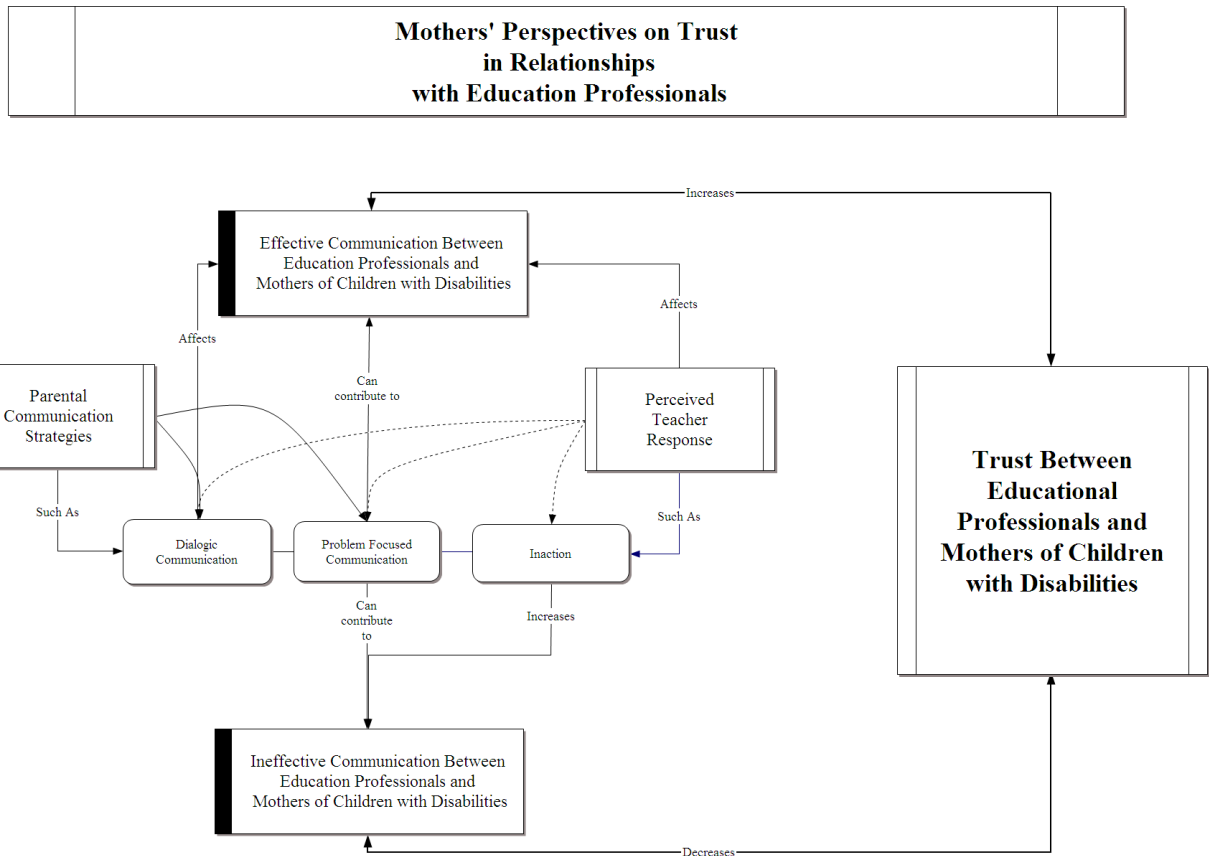


Figure 1. Mothers' perspectives on trust in relationships with education professionals.

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