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**PRAXIS ARTICLE**

## Note from the Editor

It is with excitement that I welcome you to the 2013 edition of the JIASE. The journal continues to attract quality work from both new and established authors around the world. We are always delighted to provide support and encouragement to new authors and to provide an avenue for established authors to share their research with the journal's international audience. This edition features a variety of manuscripts on different issues related to inclusion, autism, under-achievement of gifted students, reading difficulties, placement of students with disabilities in private schools, and students with visual impairment. Also featuring in this edition is a *PRAXIS* article on how to use an Instructional Product Resource File (*i-File)* to organize information about instructional resources.

Let me express my thanks to Lawrence Ametepee who served as the managing editor since the 2010 edition. This edition would be Lawrence's last edition as managing editor. This edition is also the last edition supported in part by the Department of Educational Psychology and Special Education at Southern Illinois University Carbondale. I appreciate the support I received from that department to make this publication possible. This edition is the first edition supported in part by the Department of Counseling, Psychology and Special Education at Duquesne University; I therefore thank Duquesne University for the support.

I would also like to acknowledge the work of Bernadeta Szczupal who has completed a review of the 2012 issue of the JIASE in Polish; thanks Bernadeta. The following is the reference for the journal review: Szczupal, B. (2013). The Journal of the International Association of Special Education: Spring 2012, Volume 13, number 1. Czlowiek-Niepelnosprawnosc-Spoleczenstwo (In Press).

To the authors, I say thank you for your quality work and for choosing the JIASE. Finally, this publication would not have been possible without the outstanding work of a very dedicated editorial team; kudos to the associate editors and all the consulting editors for your outstanding contribution to the journal.

I look forward to seeing you all in Vancouver and while there please join Dr. Greg Prater and myself in our presentation about the journal.

Sincerely,

Morgan Chitiyo, Editor

# Special Education Legislation and Policy in Canada

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**Abstract**

*This article reviews the historical context in which Canadian legislation and policy for children with special needs has evolved. The potential for the rights of students with special needs in light of the Canadian Charter of Rights and Freedoms is outlined. The role of the Federal and Provincial governments in legislation and policy vis-à-vis special education is reviewed along with a chronology of some significant Provincial efforts to implement policy and legislation both before and after the Charter provisions came into effect. Centrality of individual planning, and current efforts to determine the extent to which policies have been implemented, and their impact, are reviewed. Finally, some landmark pieces of litigation regarding the education of students with special needs are identified, and key outstanding questions from an educational perspective are presented.*

## Background

Legislation and policy with regard to the education of students with special needs in Canada is closely tied to the history of the country's relationship with Great Britain. Canada was a signatory to the Universal Declaration of Human Rights in 1948 in one of the early moves to incorporate these rights into Canadian law. However, it took some time for these intentions to move into law.

Historically, under the British North America Act, education was the responsibility of the Provinces (just as it is the responsibility of the states in the US constitution) However, in Canada, there was and is reluctance on the part of the Federal government (regardless of political allegiance) to become involved in Kindergarten to Grade 12 education in any way. In the absence of a repatriated constitution, there was no clearly established set of rights for students with special needs, or indeed for other disadvantaged groups. This changed with repatriation in 1982 and the coming into effect of the Canadian Charter of Rights and Freedoms. Before that time, there was no constitutional basis on which advocates for children with special needs could argue their right to a publicly-funded education, let alone an appropriate education or an individualized program. Some provinces argued that under their Education legislation those rights already existed, but they had never been tested in the courts.

Essentially, the issues fall into the following themes:

- Right to an education
- Right to an appropriate education
- Right to an appropriate education in the most enabling environment

## Provincial Efforts

Despite the absence of a constitutional mandate, several provinces, influenced by advocacy organizations and professional groups such as what was then known as the National Institute on Mental Retardation (NIMR) and the Council for Exceptional Children in Canada (CECC) throughout the 1970's began to examine what was happening in the U.S.A. and to develop their own policy and guidelines which began to address the issues of education in the most enabling environment and the role of the Individual Education Plan (IEP) process in developing appropriate programs.

Nova Scotia was the first Province to initiate mandatory legislation for the education of students with special needs in 1969 (revised 1984) followed by Saskatchewan in 1971 (revised 1979) and Ontario with Bill 82 in 1984. Over the course of the next decade, other provinces followed suit in various ways. Some have argued that it is unwise to mandate educational programs if the capacity is not there to deliver them. For example, in Saskatchewan, although legislation was enacted, the teacher training programs did not have the capacity at that time to prepare teachers with the level of training necessary to deliver the programs, and there was subsequently a major effort to enhance capacity in that regard.

A general pattern in several other Provinces was to issue guidelines accompanied by grants to encourage the development of programs for students with special needs through financial incentives, and to give local jurisdictions the authority to develop them. Ultimately, guidelines for practice became policies which outlined

the basic requirements which school jurisdictions were expected to follow.

### Impact of the Canadian Charter of Rights and Freedoms

A major impetus for change occurred following the Canadian Charter of Rights and Freedoms which came into force in April, 1982. Section 15 of the Charter (equality rights) came into effect three years later, in April 1985. This time period gave the Provinces time to review their legislation and bring it into line with this section of the Charter. Section 15 of the Charter of Rights and Freedoms guarantees equality rights and forms the basis of protection under the law. It states:

> 15(1) Every individual is equal before and under the law and has the right to equal protection and equal benefit of the law without discrimination and in particular without discrimination based on race, national or ethnic origin, color, religion, sex, age or mental or physical disability.
> (15(2) Subsection (1) does not preclude any law, program or activity that has as its objective the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, color, religion, sex, age or mental or physical disability.

The first case to be tested under the Charter was the Elwood case in Nova Scotia in 1987 (Elwood vs. Halifax County-Bedford SD Board). It was settled by consent decree and provided for an Individual Education Plan, parental consent for program and placement, access to records, regular review of placement at least every 12 months, right of parents to challenge a decision of the Board (which would be referred to arbitration by a neutral board), obligation to notify parents of meetings regarding their child, and an obligation on the part of the school district to provide resources and support. The case opened up some significant questions which Provinces subsequently needed to consider as they reviewed their legislation.

Under the constitution, education is the responsibility of the Provinces. Each jurisdiction is responsible for its own Education/School Act, although all must be consistent with the Section 15 of the Charter unless a Province opts out (which to date has not happened).

Once Provincial legislation was in place in various jurisdictions, that legislation gave force to the special education policies which had been slowly developing in various ways in the various provinces. In effect, what the Charter did was to provide the impetus for legislation to ensure equality of access to public education for all children of school age and to encourage the further development of provincial legislation, policies and guidelines to actualize the process.

### Federal/Provincial Responsibilities for Education

The Federal government has been careful not to tread on Provincial authority in this regard and there is no national office of education. However, a Council of Ministers of Education (CMEC) meets from time to time (generally once or twice a year, but possibly more often if deemed necessary) to discuss matters of mutual interest and/or concern. Special Education has not generally been high on the agenda.

The usual pattern in Canada is that each Education/School Act outlines the powers of the Minister to issue orders which have the force of law. Generally, legislation includes the authority of the Minister to make regulations and policy. Under these authorities, all jurisdictions in Canada either require or recommend that an individual program be designed and implemented for students identified as having special needs. Each Province/Territory has developed its own legislation, policies, standards and guidelines, but the essentials are very similar. In general, policies and guidelines define students with special needs, establish some benchmarks for key program components, and establish some basic standards for the training of teachers to deliver the programs.

### Centrality of Individual Program Planning

All jurisdictions, in some form, require individualized planning and programming for students with special needs. In this regard, the commonalities in the policies across jurisdictions are:

- A process for the identification and assessment of a student's special needs
- Establishment of a team of professionals to plan the individualized program
- Involvement of the child's parents/guardians in the team
- Inclusion of the student as part of the IEP team as appropriate
- Requirement for the plan to be in writing
- Need to establish longer-term goals and short-term objectives in the plan.
- Establishment of the student's current level of performance with regard to each goal and objective

- Requirement that the goals and objectives be measurable
- Strategies to be used in attaining the goals which are matched to the student's current level of functioning.
- Identification of resources required to implement the plan
- Evidence of performance monitoring
- Identification of any accommodations required to enable participation in instruction and assessment of learning
- Use of the individual plan in the reporting process
- Assignment of responsibility for implementation of different aspects of the plan
- Timelines for review and revision of the plan

Most policies also include the need for transition planning between schools or into the world of work.

The basic purposes behind these requirements are to:

- Outline the educational program goals for a child with special needs where that program differs from the prescribed curriculum in content and/or pacing
- Determine the services which are needed and will be provided to the child to enable meaningful participation in the educational program and to attain the goals set
- Engage parents/caregivers and professionals from other agencies in the planning of the child's educational program.
- Assign responsibility to various members of the team where more than one individual is responsible for delivering the program.
- Provide a basis for reporting the child's progress in areas where the program differs from the prescribed curriculum.
- Serve as an accountability mechanism.

Although terminology varies from one jurisdiction to another, the most commonly used term is Individual Education Plan (I.E.P.).

In Canada, there are generally two approaches to planning for behavioral change in individual students: The first is to include behavioral objectives in an individual student plan, and the second is to address school-wide behavioral issues as part of a school improvement plan such as those described by Sugai and Horner (1999) supplemented with a special focus on the group of students whose behavioral difficulties are most intense.

## Are Programs Being Implemented in Accordance with Legislation/Policy/Guidelines?

What is clear at this point is that there exists a good set of legislation, policies, standards and guidelines for special education across Canadian jurisdictions. What is less clear is the degree to which these are implemented, and the degree to which the practices are having the desired effect.

Little has been done on a systematic basis in Canada to examine whether or not IEP's are being implemented in accordance with policies and guidelines. In a literature search and through personal contact with Directors responsible for Special Education in various Provincial/Territorial jurisdictions in 2012, this author located only one study, which was carried out in British Columbia. In that study, Brown-Campbell et al (2009) examined a stratified random sample of IEP's which had been developed for students with Learning Disabilities. They reported that many of the structural elements in the IEP were either not stated, or were stated in a way that was not useful or measurable. Further, a majority of instructional strategies were not explicitly matched to the students' levels of instruction, thus making the strategies less useful for instructional planning. They also noted that at the secondary level, many of the goals and objectives were behavioral rather than instructional.

## Measuring Outcomes

A promising development over the last decade or more in Canada has been the move in various Ministries/Departments of Education toward student-level data collection systems. Provided the appropriate fields are included in these electronic systems, the potential exists to track students through personalized numbers and to determine their progress through the system.

British Columbia appears to have been the earliest province to adopt a student-level data system and to use the data to begin to track outcomes for students with special needs (British Columbia Ministry of Education, 2006). While other Canadian jurisdictions have moved to student-level data collection systems, there do not appear at this stage to be systems in place to correlate data in ways that allow for measurement of the outcomes for students with special needs who have IEP's, although Ontario has begun to report some outcome information (Ontario Ministry of Education - personal communication).

Because the designation of a special need in the Ministry/Department systems implies that an IEP is in place, there is some suggestion that the process may

have benefited the students, but it does not allow for a comparison of those who have IEP's and those who do not. The Saskatchewan Ministry of Education (2008) has developed student outcome rubrics intended to assist teachers in evaluating the outcomes of students' personal program plans, and the personal plans are available in electronic format, but there does not appear to have been any compilation of results as yet.

## A Role for the Courts

In historical terms, legislation for students with special needs is relatively recent. Canadians tend to be less litigious than their American neighbors, and legislation in this country is relatively recent in historical terms. Consequently, there is very little case law which has tested legislation at this point, but some precedents are slowly emerging.

Aside from the Elwood case discussed earlier, a recent ruling by the Supreme Court of Canada (2012) in the Moore case, after a 15-year legal battle involving the North Vancouver School Board in which the complainants alleged discrimination against a student with Dyslexia when it cut services essential to his learning when the child was in Grade 3. The parents subsequently enrolled him in a private school. The court decision provided compensation to the parents for private school fees, and $10,000 in damaged to the student (now an adult) (Steffenhagan, 2012).

While case law is slow to emerge the country does have the legal basis on which cases can proceed. The costs of a legal battle, the emotional toll on parents and families, and the time delays in court proceedings have all been cited as barriers. An analysis of these and of the implications of various court decisions is best left to legal experts.

From an educational perspective, there are several important questions that remain, among them: (1) Is there difficulty accessing an educational program appropriate to the child's needs? (2) Are the processes for planning and implementation being followed? (3) Are the planned outcomes being achieved?

## Summary

Canadian legislation and policy for special education has historically developed in different ways in different Provinces/Territories. In the early stages, development was influenced by advocacy organizations and to some degree by legislation which was evolving in the United States. A major step forward was the repatriation of the Constitution and the subsequent Canadian Charter of Rights and Freedoms, which influenced education legislation across the country.

Individual program planning is a fundamental process to ensure appropriate educational programs for students with special needs, and provision now exists in policy in some form in all Canadian jurisdictions. Although there are practical barriers to bring forward test cases to the courts, case law is slowly beginning to emerge. Discussion of these is best left to legal experts. From an educational perspective, the major challenge now is to determine the degree to which policies are being implemented, and to determine their effect on the education of students with special needs.

## References


Brown-Campbell, K. A., McKee, W., Husain, S. & Miller, E. (2009). *Elements of effective IEP's for students with learning disabilities*. Poster session presented at the National Association of School Psychologists (NASP) 2009 annual meeting.

Department of Education and Early Childhood Development, New Brunswick (2010). *Accommodations for instruction and assessment. Retrieved from http://www.gnb.ca/0000/publications/ss/AccommodationsForInstructionAndAssessment.pdf*

Department of Education and Early Childhood Development, New Brunswick (2002). *Guidelines and standards: Educational planning for students with exceptionalities*. http://www.gnb.ca/0000/publications/ss/sep.pdf

Department of Education, Newfoundland and Labrador (2012). Individual education plan: Questions and answers. Author. Retrieved from *http://www.ed.gov.nl.ca/edu/k12/studentsupportservices/IEP.pdf*

Department of Education, Newfoundland and Labrador (2008). *Programming for individual needs: Pathway five functional curriculum guide.* Author. Retrieved from http://www.ed.gov.nl.ca/edu/k12/studentsupportservices/publications/FunctionalCurriculumGuide.pdf

Government of Manitoba - Regulation 155 (2005). Appropriate educational programming regulation. Retrieved from http://web2.gov.mb.ca/laws/regs/pdf/p250-155.05.pdf

Government of Newfoundland and Labrador (1997) An Act to Revise the Law Respecting the Operation of School in the Province. Assented to Dec. 19, 1997. Queen's Printer, St. John's.

Government of Ontario (2012). *Education Act.* Retrieved from http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90e02_e.htm#BK12

Government of Prince Edward Island (2005). Individualized Educational Planning (IEP) standards and guidelines: A handbook for educators. Charlottetown, PEI. Retrieved from http://www.gov.pe.ca/photos/original/ed_ieplanning.pdf

Ontario Ministry of Education (2000). *Individual Education Plans: Standards for development, program planning and implementation.* Retrieved from http://www.edu.gov.on.ca/eng/general/elemsec/speced/iep/iep.pdf

Ontario Ministry of Education (2004). The Individual Education Plan: A resource guide. Retrieved from http://www.edu.gov.on.ca/eng/general/elemsec/speced/guide/resource/iepresguid.pdf

Ontario Ministry of Education (2011). Learning for All: A guide to effective assessment and instruction for all students, kindergarten to Grade 12. Retrieved from http://www.edu.gov.on.ca/eng/general/elemsec/speced/LearningforAll2011.pdf

Ontario Ministry of Education (2012). *Provincial Elementary School Report 2012,* Education Quality and Accountability Office. Author.

Saskatchewan Learning (2006). Assessment for Learning: Measuring outcomes for students on personal program plans 2004-05 Regina SK. Author.

Saskatchewan Ministry of Education (2009). Personal program plan guidelines, Regina. http://www.education.gov.sk.ca/ELCC/pppguidelines accessed Sept. 26, 2012 (Note: This is a living document)

Saskatchewan Ministry of Education (2006). Policy, guidelines, and Procedures for functional integrated programs. Author.

Steffenhagen, J. (2012) Parents win fight for Learning-disabled son. Vancouver: *The Vancouver Sun*, November 10, 2012, page A6.

Sugai, G., & Horner, R. (1999). Discipline and behavioral support: Practices, pitfalls and promises. *Effective School Practices, 17*(4), 10-22.

# Examination of Disproportionality of Autism in School-Aged Populations in the U.S.

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**Abstract**

*The purpose of this article is to examine the disproportionality among racial/ethnic groups and states for the disability category of "Autism" as reported to the U.S. Department of Education's Office of Special Education Programs (OSEP). Over the past decade, a variety of sources indicated a dramatic increase in the number of students receiving special education services under this category. In this article, statewide variations amongst each of the racial/ethnic groups are explored along with a discussion of possible reasons for these variations.*

Autism has become the subject of much discussion internationally, with increased media and public attention raising a series of questions in the USA and around the world. There has been an increase in prevalence of children being diagnosed with Autism, along with an increase in students enrolled in public schools receiving special education services under the Autism category. Recent estimates indicate prevalence rates ranging from 1 in 74 and 1 in 554 ("The Johnson Center for Child Health and Development," 2012). Yet, these prevalence rates in the USA vary by race/ethnicity, and questions regarding the low prevalence rates amongst Hispanic populations have been raised (Palmer, Walker, Mandell, Bayles, & Miller, 2010). Underlying these questions is whether Autism has assumed a rather *privileged* position, since unlike the disability category of Emotional Disturbance or Intellectual Disability where a low prevalence is viewed as positive, a low prevalence for Autism could be viewed as negative, and a source for concern if certain resource benefits are connected to having a diagnosis of Autism. Durkin et al. (2010) completed an analysis of data from the Autism and Developmental Disabilities Monitoring Network, and found that socio-economic status (SES) was a significant factor associated with higher prevalence rates of Autism diagnosis, leading them to speculate whether "socioeconomic inequality" resulted in disparities with access to services. These questions gave rise to the current examination of trends in prevalence of Autism amongst the various race/ethnic groups in the USA. The question of rising prevalence as a result of shifting diagnostic categories (e.g., National Research Council, 2001) and disproportional assignment of students to an Autism label on the basis of race/ethnicity (Mandell et al., 2009) have also been raised.

Autism is recognizable and a diagnosis of Autism is based on the characteristics listed in the *DSM-IV-TR* and upcoming *DSM-V* (American Psychiatric Association, 2000). Recent advances in diagnostic tools have resulted in a variety of special diagnostic tools to more accurately identify children with this condition.

Historically, Autism was considered a heart-breaking childhood disorder and was referred to as "childhood schizophrenia" and "autistic psychopathy" (Feinstein, 2010). When Bruno Bettleheim (1967) coined the phrase "Refrigerator Mothers," he perpetuated the psychodynamic theory that Autism was caused by parenting practices of upper middle class mothers who lacked nurturing qualities. Kanner (as cited in Feinstein, 2010) noted that parents of children with autism tended to be "strongly preoccupied with abstractions of scientific, literary, or artistic nature, and limited in genuine interest in people" (p. 250). This view of Autism began a period of time in which treatment for children diagnosed with Autism consisted of removing them from their mothers and assisting them with overcoming the negative effects of poor parenting.

Significant research attention has been focused on understanding the causes of Autism. It is now well-accepted that Autism is not caused by poor parenting. It is now understood that Autism is a complex neurodevelopmental disorder for which there are many causes (National Research Council, 2001). Although, theories regarding the cause of Autism continue to be a source of debate, there is a general consensus that Autism is likely caused by a combination of both genetic and environmental factors.

Although questions regarding causation will continue as we attempt to gain a greater understanding of Autism, there is an increasing interest in understanding specific questions regarding the increased prevalence and what could be contributing to the variations in prevalence

across geographic and demographic groups. The National Research Council's (2001) report found that:

> Studies reporting much higher rates were from relatively small samples or from state surveys, in which an educational label of Autism was associated with provision of intensive services and thus highlight the need for further, well-designed investigations. For example, the [U.S.] Department of Education's Office of Special Education Programs (OSEP) could support a research study examining the prevalence and incidence of Autism, using OSEP data gathered for school-age children since the Autism category was recognized in 1991. (p. 25)

### *Research Questions*

The purpose of this research was to examine publicly available data in the USA to see whether disproportionality for Autism is substantiated and to explore possible factors that may contribute to it. The questions guiding our data analysis were:

1. To what extent is there disproportionality of Autism across states in the USA? How has this changed over the years?
2. For which racial/ethnic groups is disproportionality of Autism the greatest (either over- or under-represented)? How has this changed over the years?
3. What are the features of the states in which there is greater disproportionality of Autism?

## Method

In order to examine statewide variations in the number of students receiving special education services under the category of Autism, we examined data available on the U.S. Department of Education website (Data Accountability Center, 2008). This website includes data by disability category since 1998, and at the time of this report, the most recent data available was for 2008. The data sets for students ages 6 to 21 years were used for our analysis, since many states classify children below this age under the Developmental Delay category. We also examined Ahearn's 2010 National Association for State Directors of Special Education (NASDSE) report on funding for special education, (Ahearn, 2010). This report includes funding formulas for allocating resources to fund special education services in each state and whether there were explicit funding criteria for Autism. We determined a state had a funding incentive to label students with Autism if a student in that state received additional funding, such as additional weighting factors as multipliers to the base per pupil funding. Lastly, we examined the Easter Seals reports on statewide initiatives on Autism, ("State Autism Profiles," 2012). We read the descriptions of activities in each state to determine if a state was pursuing any initiatives related to Autism, such as statewide conferences, university centers, or other activities. For all data sets, we did not include Puerto Rico, District of Columbia, or Bureau of Indian Education (BIE) schools.

### *The "Risk Ratio"*

We conducted an analysis of risk ratios for each race/ethnic group under the Autism category for all years between 1998 and 2008. The risk ratio developed by Westat is a common method used by most states to determine disproportionality (Bollmer, Bethel, Garrison-Mogren, & Brauen, 2007). Essentially, the risk ratio is calculated by dividing the percentage of students from a certain ethnic/racial group within a specific category by the percentage of students who are within that ethnic/racial group in the general population. For example, to calculate the risk ratio for Asian students who have the label of Autism, one would divide the percentage of students who are Asian within the category of Autism by the percentage of Asian students in the general population. This ratio indicates whether the percentage of Asians in the category of Autism is higher than would be expected. A score of "1" would actually mean that there is no risk, hence no overrepresentation, and the higher the number, the higher the risk or the higher the amount of overrepresentation. As the risk ratio approaches "0", a low risk is indicated, meaning underrepresentation.

## Results

In this section, we report on the results based on organizing the various data sources. The data and analyses are organized to first address the question of the extent of disproportionality across states; disproportionality of Autism based on race/ethnicity; and finally an examination of disproportionality within states that had greater disproportionality.

### *Trends in Disproportionality*

Table 1 lists the U.S. Department of Education's 1998 and 2008 reported prevalence of students by race/ethnicity who received special education services under the category of Autism. In total, there has been an increase from 53,874 students in 1998 to 273,975 students in 2008 (an increase of 220,101 students,

Table 1

*Changes in Prevalence of Students Receiving Special Education Services under the Autism Category, Ages 6-21, by Race/Ethnicity (1998, 2008)*

| | American Indian / Alaska Native | Asian / Pacific Islander | Black (not Hispanic) | Hispanic | White (not Hispanic) | U.S. Average |
|---|---|---|---|---|---|---|
| 1998 Prevalence (Per 10,000) | 5 | 10 | 11 | 5.2 | 8.4 | |
| 2008 Prevalence (Per 10,000) | 35 | 54 | 39 | 29 | 45 | |
| Percentage Increase | 604% | 598% | 345% | 741% | 520% | 509% |

or 509%). However, the amount of increase varied across race/ethnicity. The largest increase was amongst Hispanic and American Indian/Alaska Native groups (741% and 604%), and the smallest increase was amongst Black students (345%).

Interestingly, in 1998, Autism prevalence was highest amongst Asian/Pacific Islander (1 in 986) and Black (1 in 830) and lowest amongst American Indian/Alaska Native (1 in 1,872) and Hispanic (1 in 1,879). In 2008, prevalence rates were highest amongst Asian/Pacific Islander (1 in 186) and White (1 in 221) and lowest amongst Hispanic (1 in 342). Furthermore, in 2008 prevalence rates amongst White, Black, and American Indian/Alaska Native groups were somewhat similar (1 in 221, 255, and 288, respectively).

Table 2 lists the calculated risk ratio for each race/ethnic group by state, along with the overall prevalence rates per 10,000 individuals, the percentage of special education students who received Individual with Disabilities Education Act (IDEA) services under the Autism category, and whether or not a funding incentive existed for an educational label of Autism in that state. Risk ratios indicating an over-representation (a score higher than 1.5) is indicated with a double asterisk; risk ratios indicating under-representation (a score lower than .5) is indicated with a single asterisk. As can be seen, percentages of students receiving IDEA services under the Autism category vary from as low as 1% (Iowa) to as high as 10% (Minnesota). The average for the U.S. in 2008 was 5%.

Table 3 lists the number of states in which the risk ratio for each race/ethnic group was low (less than .5, indicating underrepresentation) and the number of states in which the risk ratio was high (greater than 1.5) for 2004 and 2008 (note: 2004 is the earliest year in which data is available to calculate risk ratios using OSEP data). As can be seen in Table 3, none of the states' risk ratios indicated overrepresentation for Hispanic students in either 2004 or 2008. However, for both years, there were a number of states in which there was under-representation of Hispanic students (22 and 13 states, respectively). For both years, the highest number of states that indicated over-representation (risk ratio over 1.5) was amongst Asian/Pacific Islander (7 and 10 states, respectively) and White students (13 and 7 states, respectively). The fewest number of states for which there was under-representation was for Asian/Pacific Islander (1 and 0, respectively) and Black students (0 and 1, respectively); and no state had under-representation for White students for either year. For U.S. totals, there was neither over nor under-representation amongst any ethnic/race group.

### *State Features*

Based on the U.S. average prevalence of 6 per 10,000 individuals in 2008, we grouped states according to high, average, and low prevalence states based on the following criteria: a) high prevalence states would be those that had 8 or more students per 10,000; b) average prevalence states would be those with 4 to 7 individuals10,000; and c) low prevalence states would be those with 3 individuals or less per 10,000. Upon examining the data presented in Table 2, and using the criteria for high and low prevalence, the following five states were considered to be high prevalence states:

Table 2

*Risk Ratios, Prevalence, Percentage of IDEA students in Autism category, and Presence of funding Incentives for Autism by Race/Ethnicity and State (Fall 2008)*

| State | American Indian/ Alaska Native | Asian/ Pacific Islander | Black (not Hispanic) | Hispanic | White (not Hispanic) | Prevalence (per 10,000) | % Students receiving IDEA services under Autism category | Funding Incentive for Autism? |
|---|---|---|---|---|---|---|---|---|
| Alabama | 1.53** | 1.08 | 0.99 | 0.54 | 1.06 | 4 | 4% | No |
| Alaska | -- | -- | -- | -- | -- | 4 | -- | No |
| Arizona | 0.49* | 1.61** | 1.36 | 0.48* | 1.90** | 6 | 5% | Yes |
| Arkansas | 1.07 | 1.39 | 0.65 | 0.52 | 1.63** | 5 | 4% | No |
| California | 1.10 | 1.45 | 1.23 | 0.52 | 1.49 | 7 | 7% | No |
| Colorado | 0.98 | 1.18 | 1.10 | 0.42* | 1.85** | 3 | 3% | Yes |
| Connecticut | 1.30 | 1.14 | 1.07 | 0.64 | 1.20 | 9 | 7% | No |
| Delaware | -- | 1.57** | 1.08 | -- | 1.11 | 4 | 4% | No |
| Florida | 0.65 | 1.33 | 0.81 | 1.13 | 1.02 | 5 | 4% | No |
| Georgia | 0.52 | 1.36 | 1.01 | 0.57 | 1.12 | 6 | 5% | No |
| Hawaii | 1.67** | 1.62** | 0.48* | 0.25* | 1.00 | 4 | 6% | No |
| Idaho | 0.87 | 1.83** | 0.98 | 0.42* | 1.77** | 5 | 6% | No |
| Illinois | 1.14 | 1.26 | 0.92 | 0.56 | 1.40 | 6 | 4% | No |
| Indiana | 0.57 | 0.84 | 0.77 | 0.42* | 1.61** | 9 | 6% | Yes |
| Iowa | -- | -- | 2.71** | 1.13 | 0.62 | 2 | 1% | No |
| Kansas | 1.36 | 1.62** | 1.31 | 0.57 | 1.07 | 4 | 3% | No |
| Kentucky | -- | 1.26 | 1.11 | -- | 1.06 | 4 | 3% | Yes |
| Louisiana | 0.33* | 1.27 | 1.03 | 0.49* | 1.05 | 3 | 3% | No |
| Maine | 1.09 | 0.73 | 0.88 | 0.58 | 1.31 | 13 | 6% | No |
| Maryland | 0.88 | 1.28 | 1.03 | 0.67 | 1.02 | 8 | 7% | No |
| Massachusetts | -- | -- | -- | -- | -- | 8 | -- | No |

(Continued)

Table 2 (Continued)

| *State* | American Indian/ Alaska Native | Asian/ Pacific Islander | Black (not Hispanic) | Hispanic | White (not Hispanic) | Prevalence (per 10,000) | % Students receiving IDEA services under Autism category | Funding Incentive for Autism? |
|---|---|---|---|---|---|---|---|---|
| Michigan | 1.26 | 0.91 | 0.78 | 0.44* | 1.44 | 7 | 6% | No |
| Minnesota | 0.92 | 0.91 | 1.11 | 0.58 | 1.17 | 14 | 10% | No |
| Mississippi | 0.70 | 1.24 | 1.01 | 0.57 | 1.04 | 3 | 2% | No |
| Missouri | 1.05 | 1.68** | 1.05 | 0.48* | 1.04 | 6 | 5% | No |
| Montana | 0.74 | 1.99** | -- | -- | 1.48 | 3 | 3% | No |
| Nebraska | 0.57 | 1.39 | 1.03 | 0.58 | 1.31 | 4 | 4% | No |
| Nevada | 1.20 | 1.70** | 1.17 | 0.50 | 1.41 | 7 | 6% | No |
| New Hampshire | 1.57** | 0.85 | 0.71 | 0.47* | 1.55** | 7 | 4% | No |
| New Jersey | -- | -- | -- | -- | -- | 8 | -- | No |
| New Mexico | 0.52 | 1.87** | 1.03 | 0.48* | 2.49** | 3 | 2% | No |
| New York | 1.49 | 0.75 | 1.02 | 0.72 | 1.26 | 6 | 4% | No |
| North Carolina | 0.38* | 1.13 | 1.14 | 0.47* | 1.12 | 7 | 5% | No |
| North Dakota | 0.43* | 1.59** | 2.20** | 0.71 | 1.33 | 3 | 4% | No |
| Ohio | 1.12 | 1.00 | 0.82 | 0.47* | 1.32 | 6 | 5% | Yes |
| Oklahoma | 1.26 | 1.26 | 0.88 | 0.41* | 1.22 | 5 | 3% | Yes |
| Oregon | 1.63** | 1.14 | 1.10 | 0.50 | 1.41 | 13 | 9% | No |
| Pennsylvania | 1.17 | 0.96 | 0.93 | 0.69 | 1.19 | 8 | 5% | No |
| Rhode Island | 0.80 | 1.00 | 1.00 | 1.00 | 1.00 | 9 | 5% | No |
| South Carolina | -- | -- | 1.00 | 1.00 | 1.00 | 5 | 3% | Yes |
| South Dakota | 0.67 | 1.00 | 1.00 | 1.00 | 1.00 | 5 | 4% | Yes |
| Tennessee | -- | -- | 1.00 | 1.00 | 1.00 | 4 | 4% | No |

(continued)

Table 2 (continued)

| State | American Indian/ Alaska Native | Asian/ Pacific Islander | Black (not Hispanic) | Hispanic | White (not Hispanic) | Prevalence (per 10,000) | % Students receiving IDEA services under Autism category | Funding Incentive for Autism? |
|---|---|---|---|---|---|---|---|---|
| Texas | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 5 | 5% | No |
| Utah | 0.57 | 1.00 | 1.00 | 1.00 | 1.00 | 5 | 5% | No |
| Vermont | -- | -- | -- | -- | -- | -- | -- | No |
| Virginia | 0.90 | 1.00 | 1.00 | 1.00 | 1.00 | 7 | 5% | No |
| Washington | 0.91 | 1.00 | 1.00 | 1.00 | 1.00 | 6 | 6% | No |
| West Virginia | 0.00* | 1.00 | 1.00 | 1.00 | 1.00 | 5 | 3% | No |
| Wisconsin | 1.32 | 1.00 | 1.00 | 1.00 | 1.00 | 8 | 6% | No |
| Wyoming | 0.60 | 1.01 | 1.00 | 1.00 | 1.00 | 6 | 4% | No |
| U.S. | 0.84 | 1.00 | 1.00 | 1.00 | 1.00 | 6 | 5% | N/A |

**Indicates Risk Ratio > 1.50 (over-representation)
*Indicates Risk Ratio < .50 (under-representation)
--Indicates missing data

Connecticut, Indiana, Maine, Minnesota, Oregon, and Rhode Island. The following seven states were considered to be low prevalence states: Iowa, Colorado, Louisiana, Mississippi, Montana, New Mexico, and North Dakota. Looking at Table 2, we also identified states that had high percentages of IDEA-served students with autism based on 2008 OSEP data. Minnesota had the highest at 10%, Oregon had the second highest at 9%, and the following states had 7%: California, Connecticut, and Maryland. The following states had the lowest percentages: Iowa had 1%, Mississippi had 2%, and New Mexico had 2%. Characteristics for each of these states are listed in Table 4.

As can be seen in Table 4, Indiana was the only high prevalence state that showed under-representation for Hispanic and over-representation for White students. Oregon had a high prevalence rate and showed over-representation for American Indian/Alaska Native students (one of only four states that showed over-representation for this group). Of the four states with high prevalence of Autism, only one (Indiana) had a funding incentive (defined here as increased per pupil expenditure) for an Autism diagnosis.

Among the seven states in which there was a low prevalence of Autism (3 or fewer individuals per 10,000), all except one (Mississippi) showed risk ratios that indicated either over- or under-representation for at least one race/ethnic group. Three out of the seven states (New Mexico, Colorado, and Louisiana) showed under-representation amongst Hispanic students; two states (Louisiana and North Dakota) showed under-representation for Native American/Alaska Native; three (Montana, New Mexico, and North Dakota) showed over-representation for Asian/Pacific Islander; and two states (Colorado and New Mexico) showed over-representation amongst White students. In fact, New Mexico's risk ratio score for White (not Hispanic) students was the highest amongst the states at 2.49. Among these low prevalence states, Colorado was the only state that had a funding incentive for Autism. Interestingly, Colorado (like Indiana) also showed high disproportionality amongst White and low disproportionality amongst Hispanic students.

The only two states in which there was over-representation of Autism amongst Black students were the states in which prevalence rates for Autism were extremely low (Iowa and North Dakota). None of the high prevalence states showed under-representation for any ethnic/race group except for Indiana, which showed under-representation amongst Hispanics. Amongst low prevalence states, the disproportionality amongst groups was mixed.

States with average prevalence rates (4 to 7 individuals per 10,000) were among the most likely to have funding incentives for Autism. Six out of eight states with funding incentives fell within this group (Arizona, Kentucky, Ohio, Oklahoma, South Carolina, and South Dakota). These states also showed a mixed picture in terms of disproportionality, ranging from none (South Carolina and South Dakota) to over-representation amongst three or more race/ethnic groups (Arizona, Hawaii, and Idaho).

*Examination of Disproportionality within Specific States*

For this section, we chose to more closely examine individual statewide initiatives and policies that could potentially have a bearing on the degree of disproportionality amongst race/ethnicity. We examined states to see which states showed disproportionality among the most number of race/ethnic groups and those that showed no disproportionality. After studying Table 2, one can see that 23 states had no categories in which there was over- or under-representation. Amongst these states several had very low disproportionality scores of +/- 0.1 from 1: South Carolina, Tennessee, Texas, Virginia, and Washington. Six states had three or more categories of over-representation: Arizona, Hawaii, Idaho, New Hampshire, New Mexico, and North Dakota. We decided to take a closer look at four of the states that had varying risk-ratios to examine features of these states which might have contributed to their differing risk-ratios. We chose Texas and Virginia, because these two states had no disproportionality and had data reported for all five race/ethnic groups; and we chose Arizona and Hawaii because these two states showed disproportionality amongst four out of the five race/ethnic groups.

*Texas.* Texas (a state with no disproportionality) is a large population state similar to national averages (within +/- ten percentage points), although there were over twice as many Hispanics residing in Texas than the national average (US Census Bureau, 2010). Texas also had a moderate prevalence of Autism (5 individuals per 10,000) and 5% of students receiving IDEA services received services under the Autism category.

To determine the impact of funding on Autism services, we examined special education state funding formulas. Texas used a weighted pupil formula to determine distribution of student funding, with a multiplier used to determine allotment (Heflin & Alaimo, 2007). The multiplier is determined by type (e.g. speech therapy) and location of services (e.g. residential care). As a result, there appeared to be no incentive in terms of funding for students to receive services under the Autism category. We also examined statewide programs to determine if they may influence Autism services and disproportionality. We found that

Table 3

*Number of States in Which IDEA-served Students Ages 6 Through 21 Are Over- or Under-Represented in the Autism Category (2004, 2008)*

| | American Indian/ Alaska Native | | Asian/ Pacific Islander | | Black (not Hispanic) | | Hispanic | | White (not Hispanic) | |
|---|---|---|---|---|---|---|---|---|---|---|
| YEAR | 2004 | 2008 | 2004 | 2008 | 2004 | 2008 | 2004 | 2008 | 2004 | 2008 |
| Risk Ratio > 1.5 (over-represented) | 2 | 4 | 7 | 10 | 5 | 2 | 0 | 0 | 13 | 7 |
| Risk Ratio < .5 (under-represented) | 5 | 5 | 1 | 0 | 0 | 1 | 22 | 13 | 0 | 0 |
| Total States with Disproportionality | 7 | 9 | 8 | 10 | 5 | 3 | 22 | 13 | 13 | 7 |

there was a statewide initiative on Autism in Texas (the Texas Council on Autism and Pervasive Developmental Disorders), which was involved with the regulation and administration of services for individuals with Autism. The Council issues a report every two years to identify and address the needs of individuals with Autism ("State Autism Profiles," 2012). Further, the Texas Education Agency (TEA) had twenty regional Autism centers coordinated by the Texas Statewide Leadership for Autism organization to provide training, technical assistance, support, and resources for educators as well as a website that could be accessed by families. There was also an annual Texas State Conference on Autism that was open to parents, educators and professionals. Texas also had a website dedicated to providing families with information and strategies. Texas is home to the Ziggurat Group (Henry & Myles, 2007) developers of the Ziggurat Model which is a well-known text for designing interventions for students with Autism, providing resources, conferences, and assessment materials related to Autism.

Lastly, we examined teacher licensure related to Autism. The state of Texas had a multi-categorical special education credential, with no special requirements for teachers of students with Autism. University programs focusing on Autism existed at the University of Texas at Austin (the Autism Project) which aimed to provide a center of excellence for services, knowledge, and best practices related to living, and working with children with Autism spectrum disorders. A number of universities in Texas offer Graduate Certificates in Autism.

*Virginia.* Virginia (a state with no disproportionality) is an average population state with demographics similar to national averages (within +/- ten percentage points) for all racial groups (US Census Bureau, 2010). We found that like Texas, there was no clear funding incentive for an Autism diagnosis in Virginia. Overall prevalence was moderate (7 individuals per 10,000) and 5% of IDEA students receive services under the Autism category. Virginia used a resource-based funding mechanism, so that funds were distributed based upon the projected cost of employing instructional personnel. The number of required positions was projected for each school division by applying the maximum caseload allowed for each disability category to the number of children served as reported on the December special education child count (Ahearn, 2010). At the time of the 2008 Easter Seals report, Virginia did not have an active statewide Autism initiative. However, the state had completed a 2006 initiative that evaluated and sought to improve education and treatment for individuals with Autism Spectrum Disorders, and there was another Autism study to evaluate services and training programs underway ("State Autism Profiles," 2012). Additionally, the Virginia Department of Education had an Autism Priority Project that provided training and technical support to educators of students with Autism via eight regional centers across the state. Virginia had a multi-categorical special education endorsement as part of its teaching licensure, with no special requirements for teachers of students with Autism. However, the Virginia Commonwealth University (VCU) offered a post-baccalaureate Graduate Certificate in Autism Spectrum Disorders to prepare personnel to support individuals with Autism Spectrum Disorders in educational settings from early intervention through adult services. Additionally, VCU housed the Autism Center of

Table 4

*Characteristics of High and Low Prevalence States*

| State | Autism prevalence | IDEA % Autism | Number of race/ethnic groups indicating disproportionality | Funding incentive? |
|---|---|---|---|---|
| Iowa | Low | 1 | 1 (Over-Black) | No |
| Colorado | Low | 3 | 2 (Under-Hispanic; Over-White) | Yes |
| Louisiana | Low | 3 | 2 (Under-Native American & Black | No |
| Mississippi | Low | 2 | 0 | No |
| Montana | Low | 3 | 1 (Over-Asian) | No |
| New Mexico | Low | 2 | 3 (Under-Black; Over-Asian & White) | No |
| North Dakota | Low | 4 | 3 (Under-Native American; Over-Asian & Black) | No |
| Connecticut | High | 7 | 0 | No |
| Indiana | High | 6 | 2 (Under-Hispanic; Over-White) | Yes |
| Maine | High | 6 | 0 | No |
| Minnesota | High | 10 | 0 | No |
| Oregon | High | 9 | 1 (Over-Native American) | No |
| Rhode Island | High | 5 | 0 | No |

Virginia that provided services, trainings, and research in Autism.

*Arizona*. Arizona (a state with four categories of disproportionality) is an average population state with demographics similar to the US population, although Arizona has nearly twice as many Hispanics than the national average. Arizona had a moderate prevalence of Autism and 5% of IDEA students received services under the Autism category. Arizona used a weighted formula for distributing special education funding. Students with Autism receive a weight approximately 6 times higher than students not receiving special education services; thus, there is a clear funding incentive for an Autism diagnosis in Arizona (Ahearn, 2010). In 2008, Arizona did not have any statewide initiatives or task forces related to Autism. Arizona offered both cross-categorical and categorical special education teaching certificates in the following areas: "cross-categorical," "early childhood," "hearing impaired," "severely and profoundly disabled," "specialized" (e.g. "mental retardation"), and "visually impaired." It should be noted that these are categories used by the state of Arizona, and do not reflect current best practices in labeling disability. There were neither special requirements nor certifications to teach students with Autism. However, there was a Graduate Certificate in Autism available through a tri-University partnership between the University of Arizona, Arizona State University, and Northern Arizona University. There were no other university programs specifically focused on Autism.

*Hawaii*. Hawaii (a state with four categories of disproportionality) is a small population state with similar demographics to the US population, although there were more Asian/Pacific Islanders than the US average. Hawaii had a moderate to low prevalence of Autism (4 individuals per 10,000) and 6% of IDEA students received services under the Autism category. Hawaii is unique in that it is one of only a few states with no separate special education funding. Instead, the State Department of Education provides the legislature with a biennial school budget based on demonstrated and

expressed need, and the legislature then negotiates funding (Ahearn, 2010). Thus, there is no funding incentive for an educational label of Autism in Hawaii. In 2008, Hawaii convened a temporary (one-year) task force to review benefits and coverage for Autism Spectrum Disorders ("State Autism Profiles," 2012). Hawaii offered a multi-categorical special education teaching credential, as well as certificates in the following areas: "blind/visually impaired," "deaf/hard of hearing," "mild/moderate," "orientation and mobility," "orthopedically handicapped," and "severe/profound." Again, these are terms used by the state of Hawaii and are not reflective of current best practice). There were no special requirements to teach students with Autism, but the University of Hawaii offered a post-baccalaureate certificate in severe disabilities/Autism. There were no other university programs specifically focused on Autism.

*Prevalence Trends Amongst Disability Categories by Ethnicity/Race*

In order to determine how increased prevalence rates might have been affected by overall special education enrollment, we analyzed changes from 1998-2008 for the prevalence of disability categories and race/ethnicity. An analysis of prevalence trends for total number of students receiving special education services by race/ethnicity showed that there was an increase amongst American Indian/Alaska Native, Asian/Pacific Islander, and Hispanic groups; whereas, there was a slight decrease amongst Black and White groups (see Figure 1). Figure 1 illustrates the disability categories (as defined by IDEA 2004) that increased in prevalence and those that decreased in prevalence for each race/ethnic group. As can be seen, all disability categories increased for the American Indian/Alaska Native group and for all race/ethnic groups, except for Hispanic, the Mental Retardation (MR) category showed a decrease. Interestingly, for all race/ethnic groups, there was a substantial prevalence increase in the categories of "Other Health Impairments" and "Autism."

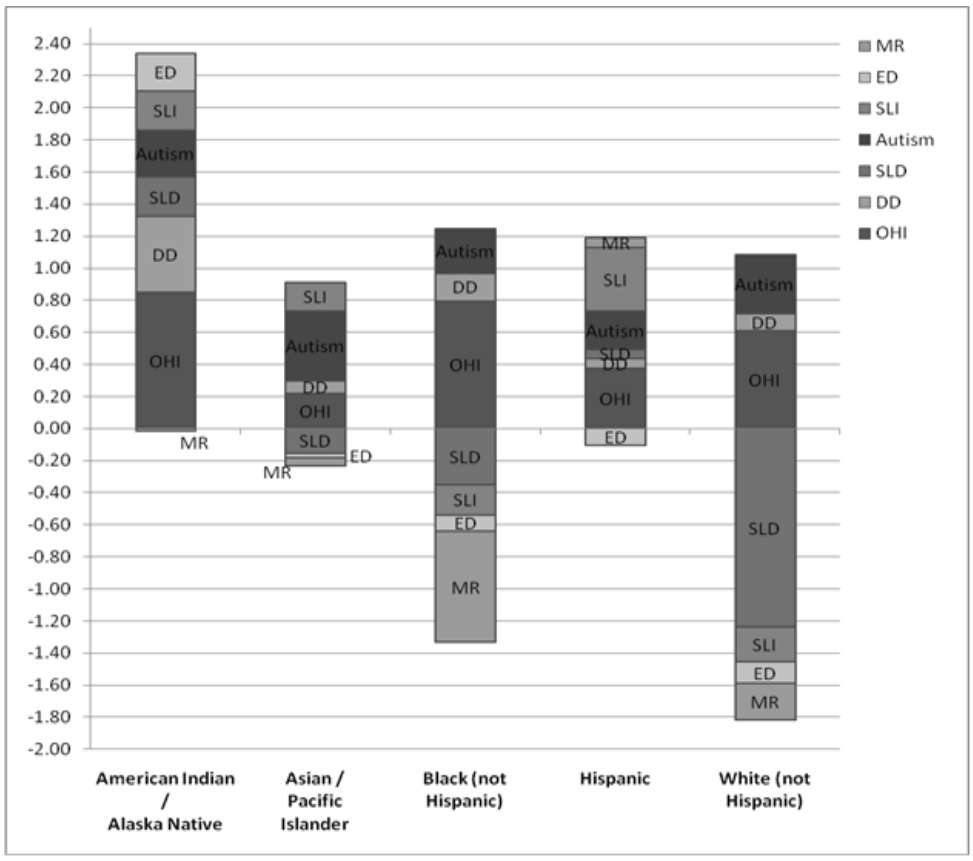
## Limitations

Before discussing the results of our analysis, it is important to note several limitations. An important limitation is that the data reported in this article was gathered through examination of what was available online and the data that was reported to the U.S. Department of Education's Office of Special Education Programs. We did not conduct follow-up interviews to evaluate whether the reported data was accurate. Therefore, our discussion of the data presented must be interpreted with caution. Many states over the past several years have initiated statewide initiatives to meet the ever-increasing numbers of students with an Autism diagnosis. Furthermore, a more detailed look within a selection of states, which was beyond the scope of our analysis, would have allowed for a further examination of the potential reasons for disproportionality amongst various race/ethnic groups. It must also be noted that within-state variations are also very likely and closer examination of these variations would certainly provide useful information. In other words, just because a state's data does not indicate disproportionality, does not necessarily mean that disproportionality does not exist within certain schools and/or districts. Furthermore, we were unable to determine how states, school districts, or schools determine Autism diagnoses. Specifically, the diagnostic tools used by various states, districts, and schools are unknown. It is possible that variation in diagnostic procedures and tools could contribute to disproportionality. Again, this type of detailed analysis was beyond the scope of our analysis but does warrant further investigation.

## Discussion

Results from our examination of the IDEA data, the NASDSE report, and Easter Seals report, confirms what others have also found: prevalence of Autism has increased, prevalence rates vary by race/ethnicity, and there is great variability across geographic regions. A review of disproportionality based on race/ethnicity reveals that generally, White and Asian/Pacific Islander students tend to be over-represented in the Autism category, whereas Black, Hispanic, and American Indian/Alaska Native students tend to be under-represented in the Autism category. A number of speculations have been presented to explain these differences in Autism diagnosis amongst race/ethnic groups, including differences in populations, the effects of geography, access to health care, cultural effects, and parent age.

One potential factor contributing to greater disproportionality amongst race/ethnicity is overall prevalence of Autism. We speculate that the higher the prevalence rate, the less disproportionality there is, since there would likely be statewide efforts resulting in greater awareness of Autism; hence, a higher overall prevalence along with less disproportionality based on race/ethnicity. Our examination of high and low prevalence states appeared to confirm this. High prevalence states tended to have lower disproportionality and low prevalence states tended to have greater disproportionality. In addition, higher prevalence rates could be associated with characteristics of the local




Note. OHI=Other Health Impairment; DD=Developmental Delay; ED=Emotional Disturbance; SLI=Speech/Language Impairment; SLD=Specific Learning Disability; MR=Mental Retardation. Prevalence rate is calculated by dividing the total number of children served in each race/ethnicity by the total resident population in each race/ethnicity multiplied by 100.
Source: U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB #1820-0043: "Children with Disabilities Receiving Special Education Under Part B of the Individuals with Disabilities Education Act," 2008.

*Figure 1.* Changes in Prevalence of Students Ages 6-21 Receiving Special Education Services Under Selected Disability Categories by Race/Ethnicity (between 1998 and 2008)

community. For example, a University of California, Davis MIND Institute study found that "clusters" of Autism were associated with higher income, parental education, and proximity to Autism treatment centers ("Autism Clusters Identified in California," 2010). These findings suggest that individuals who reside in areas with greater access to services, and likely have greater access to health care, may have a better chance of obtaining an Autism diagnosis than those who live in more rural areas or have less access to health care. Our analysis suggests that the more rural states tended to have overall lower prevalence of Autism, which might explain the greater disproportionality associated with low prevalence states.

Along with the increasing prevalence of Autism across the five race/ethnicity groups, we found continued presence of disproportionality across states. The data suggest some minimal improvements with reduction of over- or under-representation of students with autism in specific race/ethnicity categories across states between 2004 and 2008.

A number of factors have been suggested in the literature to increase the chances of an Autism diagnosis which could result in either disproportionality and/or higher prevalence rates. A few of these factors include higher per-pupil expenditures (Goldstein, Johnson, & Minshew, 2001), membership in a majority racial/ethnic group (Begeer, El Bouk, Boussaid, Terwogt, & Koot, 2009), proximity to other children with Autism (Liu, King, & Bearman, 2010), and parental education and proximity to Autism treatment centers ("Autism Clusters Identified in California," 2010).

## *Implications for Policy and Practice*

Autism is a diagnosis that is based on observable behaviors as described in the *DSM-IV-TR*. Therefore, it is not surprising that there is wide variability with which Autism is diagnosed, resulting in the wide variability in prevalence across states. While variability in the prevalence of autism is likely to result from a variety of factors, we believe that the effects of this variability, and resulting disproportionality, need to be examined and understood. First, the under-representation of specific race/ethnic groups suggests that certain children are not receiving an Autism diagnosis although they may in fact have Autism is an area of concern. The presence of an Autism diagnosis affords children access to services and treatments necessary for positive outcomes. In fact, access to these services is highly sought after amongst parents from higher SES backgrounds. Early intervention services are especially sought after, because early comprehensive intervention services are critical to future skill improvement. Second, presence of over-representation of Autism might suggest that factors other than meeting diagnostic criteria are determining diagnoses for Autism, including urbanicity (e.g. Rosenberg, 2009) , and the effects of language and culture (e.g. Jegatheesan, 2009).

An interesting note is that although we did not examine all statewide activities or certification requirements, amongst the four that we did examine, none had a specific state requirement for teachers working with students with Autism. However, each state did have universities that offered graduate certificate programs specific to Autism. This could imply that certification requirements specific for teaching children with Autism may not be important. However, this requires further investigation.

In conclusion, a major question of policymakers and educators is whether disproportionality of Autism based on race/ethnicity is an important issue to address. We believe it is, if a diagnosis of Autism is associated with specialized services and/or access to greater resources. In addition, it would be of great interest to explore the possibility of this trend occurring in countries worldwide.

## References


Ahearn, E. (2010). Financing special education: State funding formulas *inForum*. Alexandria, VA: Project Forum: National Association of State Directors of Special Education.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision ed.). Washington, DC: Author.

Bettelheim, B. (1967). *The empty fortress: Infantile autism and the birth of the self*. N.Y.: Free Press.

Bollmer, J., Bethel, J., Garrison-Mogren, R., & Brauen, M. (2007). Using the risk ratio to assess racial/ethnic disproportionality in special education at the school-district level. *Journal of Special Education, 41*(3), 186-198.

Data Accountability Center. (2008). Data Tables for OSEP State Reported Data, July 2012, from http://www.ideadata.org

Durkin, M. S., Maenner, M. J., Meaney, F. J., Levy, S. E., Diguiseppi, C., Nicholas, J. S., . . . Schieve, L. A. (2010). Socioeconomic inequality in the prevalence of autism spectrum disorder: Evidence from a U.S. cross-sectional study. *Plos One, 5*(7), e11551-e11551.

Feinstein, A. (2010). *A history of autism: Conversations with the pioneers*. Chichester, West Sussex: Wiley-Blackwell.

Goldstein, G., Johnson, C. R., & Minshew, N. J. (2001). Attentional processes in autism. *Journal of Autism and Developmental Disorders, 31*(4), 433-440.

Heflin, L. J., & Alaimo, D. F. (2007). *Students with autism spectrum disorders: Effective instructional practices*. Upper Saddle River, NJ: Pearson.

Henry, S., & Myles, B. (2007). *The Ziggurat Model: Designing comprehensive interventions for individuals with high-functioning Autism and Asperger Syndrome (Textbook Edition).* . Shawnee Mission, KS: Autism Asperger Publishing Company.

Individuals with Disabilities Education Improvement Act, H.R. 1350, Pub. L. No. P.L. 108-446 (2004).

Jegatheesan, B. (2009). Cross-cultural issues in parent-professional interactions: A qualitative student of perceptions of Asian American mothers of children with developmental disabilities. *Research & Practice for Persons with Severe Disabilities, 34*(1), 123-136.

Liu, K., King, M., & Bearman, P. (2010). Social influence and the autism epidemic. *American Journal of Science, 115*(5), 1387-1434.

MacKay, G., & Shaw, A. (2004). A comparative study of figurative language in children with autistic spectrum disorders. *Child Langauge Teaching and Therapy, 20*(1), 13-32.

Mandell, D. S., Wiggins, L. D., Daniels, J., DiGuiseppi, C., Durkin, M. S., Morrier, M. J., . . . Kirby, R. S. (2009). Racial/ethnic disparities in the identification of children with autism spectrum disorders. *American Journal of Public Health, 99*(3), 493-498.

N.A. (n.d.-a). The Johnson Center for Child Health and Development. Retrieved from http://www.thoughtfulhouse.org

N.A. (n.d.-b). State Autism profiles. Retrieved from http://www.easterseals.com

National Research Council (Ed.). (2001). *Educating children with autism*. Washington, DC: National Academy Press.

Palmer, R. F., Walker, T., Mandell, D., Bayles, B., & Miller, C. S. (2010). Explaining low rates of autism among hispanic schoolchildren in Texas. *American Journal of Public Health, 100*(2), 270-272.

Rosenberg, R. E., Daniels, A. M., Kiley, J., Law, P. A., & Kaufman, W. E. (2009). Trends in Autism Spectrum Disorder diagnoses: 1994-2007. *Journal of Autism and Other Developmental Disorders, 39*, 1099-1111.

University of California - Davis - Health System. (2010, Jan.5). Autism clusters identified in California: Associated with areas of greater parental education. *ScienceDaily*. Retrieved from http://www.sciencedaily.com/releases/2010/01/100105112117.htm

Census Bureau. (2010). US Census Bureau quick facts. Retrieved March 22, 2012, from http://quickfacts.census.gov/

# Implementation Strategies of Inclusive Education in Cypriot Classrooms

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**Abstract**

*This research examined the implementation strategies used by the participant teachers in order to practice inclusion in their classrooms. To this end, we investigated the participant teachers' perceptions of their roles and the barriers faced in the implementation of inclusion. Interviews and observations were carried out with four teachers in Cyprus over a period of one year. The current study provides mounting evidence that the implementation of educational strategies promoting inclusion is not an easy affair. On the contrary, it is a difficult and complex procedure beset with obstacles. Our data analysis illustrated that specific factors contributed to the four teachers' efforts to provide inclusion, including teachers' perceptions regarding the ways in which learning is achieved; the ways these perceptions were implemented in practice; and the use of multiple resources for supporting teaching and learning. In parallel, specific factors acted as barriers in the teachers' efforts to provide inclusion, including the school cultures and the policies of the Ministry of Education as mediated by the school inspectors. We concluded that teaching in informal learning environments, social learning, and active parental involvement may promote all students' active participation and inclusion.*

## Introduction

The political issue of inclusion features very highly on the educational agendas of most European countries. Yet, there are diverse meanings and discourses of inclusion in different educational settings. This diversity of meanings sparks an intense debate about the development of educational policies aiming towards inclusion, while inhibiting the practice of inclusion in education, which remains at a very initial stage (Organization for Economic Co-operation and Development - OECD, 2001). Moving from ideology to policy, the political issue of inclusion often pertains to human rights policies arguing for equal participation in society and schooling. Such initiatives were reinforced by international organizations such as the United Nations (UN), UNESCO and the Organization for Economic Co-operation and Development (OECD), which launched the Declaration of the United Nations for the Rights of Children (UN, 1989), 'Education for All' (UNESCO, 1994) and 'No More Failures: Ten Steps to Inclusion in Education' (OECD, 2007), respectively.

In the aforementioned context, the UN (1989) addresses the issue of the development of educational policies by conceptualizing inclusion as interwoven with active participation and 'education for all'. In the same way, OECD (2007) argues that education policy should provide not only 'education for all' but also 'fairness', which ensures that personal and social circumstances are not an obstacle in achieving educational potential and therefore, in sustaining inclusion in education. To this end, operating in diverse classrooms implies the need to identify and include those individuals who, for different reasons, are marginalized or even excluded. Therefore, educational policies should focus their efforts on promoting all students' success, while at the same time reducing the achievement gap between the advantaged and disadvantaged students (e.g., students coming from low socioeconomic backgrounds and/or other-language-speaking students etc.). Despite efforts introducing policy amendments in policies for inclusion, students from low socio-economic backgrounds still under-achieve in school, eliminating their opportunities as adults (see for example, Ainscow, Dyson, Goldrick, Kerr & Miles, 2008).

The provision of inclusion in education urges the removal of barriers that prevent all children's active participation in the learning activity, regardless of their race, gender, social background, sexuality, disability or attainment in schools (Ainscow, Booth & Dyson, 2006). Beyond a structural barriers approach, Booth and Ainscow (2002) argue for the development of cultures, policies and practices in educational systems, as well as in educational institutions, in addressing the diversity of their students. Furthermore, the effort to sustain inclusion in education relates to the curriculum and the ways in which learning can be organized. The curriculum should be tailor-made to all children's needs and abilities (but also to each one separately) in order to promote their active participation in teaching and learning (Tomlinson, 1999).

In the Cyprus context, the administration of primary school system is highly centralized. The Ministry of Education and Culture (MEC) has control over the national policy, curriculum and textbooks. The Director of Primary Education is responsible for the organization, management, and supervision of the operation of primary schools and their supervisory and teaching personnel. Local school boards, which are funded by the Ministry, exist but their role is restricted to the construction, maintenance, and equipment of school buildings. Schools are directly controlled by the Ministry via the Inspectorate. The Inspectorate is responsible for the enforcement of educational laws and regulations by inspecting primary schools, while also cooperating with head-teachers for educational management issues. School-inspectors have a two-tiered role of providing guidance to teachers and simultaneously evaluating their teaching abilities by marking the quality of their teaching.

In 1997, the UNESCO appraisal study concluded that the Cypriot education system lagged behind European standards (UNESCO, 1997). Additionally, in 2006, the last ECRI report on Cyprus sharply criticized educational policies addressing diversity as referring to general goals rather than specific policy measures (ECRI, 2006). Although the government seems to under-fund education in relation to other services, the Ministry began a campaign to address the above issues by launching an educational reform (including a curricular reform). The slogan 'Democratic education in a Euro-Cyprian society' was adopted to describe the MEC's efforts to steer the national education system towards the provision of inclusion in Cypriot schools (Committee for Educational Reform, 2004). Nevertheless, there is still a climate of mistrust among educationalists regarding the implementation of inclusion in Cypriot schools (see Petrou, Angelides & Leigh, 2009). They argue that despite the Ministry's attempts to deploy a variety of policies for inclusion, and despite the improvements already achieved, the phenomenon of marginalization still persists in schooling. They criticize that the curriculum is overloaded and inflexible, while it promotes students' streaming. As it addresses the needs of only a limited number of students (the high-achievers of urban schools), it causes inequities in the educational system by ignoring a significant portion of other children.

In conducting this research, we aimed to analyze and explore the implementation strategies adopted by four teachers working within two Cypriot schools in order to provide for inclusion and active participation to all students. Nonetheless, such an examination entails a daunting task which lies on the complexity that is endemic in the effort to sustain inclusion in education. Our research focus raised a number of related research questions, which will be addressed in the course of this article. We thus set out to discuss our research questions within the conceptual context of this study. We then describe our methodology, the educational context of Cyprus and the schools within which we carried our data collection. Thereafter, we present our analysis, which draws upon teachers' implementation practices that were indicative of the ways to provide inclusion and active participation in education, while also we discuss the barriers that prevented the provision of inclusion.

### *Conceptualizing Inclusion in Education*

The most beneficial situation brought about by inclusion is the effort that begins with school transformation and ends in social reconstruction in order to meet everyone's needs (Grant & Sleeter, 2005). Inclusion does not restrict its focus to school transformation, it also seeks to restructure the cultural and political contexts of schooling (Armstrong, Armstrong & Spandagou, 2011). It is not exclusively oriented towards marginalized students' academic success but has a much broader impact on society through a human-relations approach. Therefore, inclusion becomes a wider spectrum of socially driven and social-activist school policies. Such policies include an anti-bias educational agenda, recruitment of minority teachers for mainstream schools, and collaborative school cultures. They aim to apply critical-thinking and decision-making skills in order "to prepare students to become socially active citizens" (Burnett, 1998, p. 4).

Clay and George (2000) suggest that we should optimize the use of school units to meet the challenge of diversity. School transformation entails the development of school cultures of inclusion, which reinforce all students' active participation. Booth and Ainscow (2002) identified the need to create a secure, accepting, collaborating, stimulating community, in which everyone is valued as the foundation for the highest achievements of all students. The creation of school cultures of inclusion implies the development of inclusion values shared by teaching staff, students, and parents. Inclusion values should guide decisions about school policies and classroom practices. Giangreco (1997) identified the following features of inclusive school cultures: collaborative work; family involvement; educator ownership; meaningful individual educational plans; and procedures for evaluating effectiveness.

In Giangreco's (1997) terms, collaborative teamwork between the classroom teacher, school personnel, students, and parents entails the definition of shared goals. Shared objectives coordinate school activities so that they are directed towards common goals. Families

should be part of the collaborative team and the school should interact with them in individualized ways. Additionally, the teaching personnel of the school ought to regard themselves as primarily responsible for educating all students, who are enrolled in their school. Teams should collaborate in order to develop individualized educational plans for their students, which "represent the highest learning priorities for the student from a family-centered perspective" (Giangreco, 1997, p. 199). Lastly, Giangreco argues that innovative forms of school testing and evaluation may provide information for evaluating school policies for inclusion.

The necessity to develop inclusive school cultures is substantiated by the findings of empirical research. Hidalgo, Siu and Epstein's (2004) research on family-school-community suggests that the philosophies and practices of families and communities should be incorporated in school structures. In keeping with this approach, Bell and Stevenson (2006) in their study of policy development in multi-ethnic schools argue that successful multi-ethnic schools operate as collaborative communities that mobilize the community, cooperate with students' families, and nurture and develop teaching personnel. Therefore, students are equally valued, whilst differential approaches for different groups and individuals may be required to ensure inclusion in terms of all students' active participation. This argument is lent weight by Opfer's (2006) policy research arguing that the shift towards school cultures is accompanied by definitions of inclusion rooted in active participation rather than access.

To this extent inclusion goes beyond access, and criticizes *politics of equal dignity* which is grounded in all students' equal treatment, in terms of non-differentiated treatment (Clay & George, 2000). Inclusion proposes that *politics of recognition* should inform such policies (Clay & George, 2000). If policy stakeholders were to recognize diversity as Modood (2007) suggests, they would challenge power relations and promote social change. *Politics of recognition* is reminiscent of Stone's (1997) concept of *vertical inclusion* which indicates the "unequal treatment of people in different ranks" (p. 44) in order to achieve all students' active participation. Definitions of inclusion should "extend beyond issues of access and opportunity" and are defined in terms of active participation (Bell & Stevenson, 2006, p. 63). Opfer (2006) suggests that the normative definitions of inclusion should be rooted in active participation rather than the distribution of access.

Accordingly, in understanding inclusive practices in education, we should explore school actors' beliefs on inclusion and their consistency with the prevailing political culture. Teachers may play various roles in order to promote practices of inclusion that aim towards the active participation of all students (Ainscow, Crow, Dyson, Goldrick, Kerr, Lennie, Miles, Muijs & Skyrme, 2007). Teachers' collaboration with other stakeholders, their colleagues, students and parents can play an important role in implementing inclusion. Moreover, the methods and strategies used by teachers (Mastropieri & Scruggs, 2006) and the way they express leadership (Marshall & Oliva, 2006) influence the implementation of inclusion.

Drawing upon our conceptual framework, we will address the following questions in this study:

1. How do Cypriot primary-school teachers practice inclusion in their classrooms?
2. How do Cypriot primary-school teachers perceive their roles in the implementation of inclusion in their classrooms?
3. How do Cypriot primary-school teachers develop and implement practices of inclusion in their classrooms?
4. How do Cypriot primary-school teachers perceive the key problems faced in the implementation of inclusion in their classrooms?

In order to set our research questions in context we briefly examine the Cypriot setting. Thereafter, we outline the methodology adopted in order to address the research questions.

## Method

Our research design constructed a qualitative study that spans two research sites (Miles & Huberman, 1994; Lincoln & Guba, 1985; Patton, 2002). This piece of research was focused on four skilled teachers whose practice we observed for a period of one academic year. These teachers were in two schools. The teachers were selected using three criteria: (1) they had to have more than 10 years experience, (2) they needed to have experience with other projects related to the provision of inclusive education, and (3) they had to have previously implemented programs of inclusion in their classes. The previous year we had visited different schools for the purpose of selecting teachers on the basis of the above criteria. Initially, we selected five teachers, who agreed to participate, but at the beginning of the year, one of them changed schools and moved to another district which meant that this teacher had to be excluded from the study.

Before proceeding further, however, it would be perhaps interesting to see our orientation towards qualitative research. Both authors were elementary school teachers, with doctoral studies in inclusive/intercultural education, who moved into academia. As teachers they had many experiences with the policy and practice of inclusive education in Cyprus

and they also were involved in different collaborative action research programs. Therefore, their stance as qualitative researchers is towards collaborative inquiry (Reason & Brudbury, 2008). Data collection was primarily driven by participant observation over the period of one academic year. We visited each school twice a month in order to observe each teacher for three 40-minute teaching periods. The total number of our observations summed up to 50 teaching periods for each teacher. Observations were carried according to an observation protocol, which related to inclusion, inclusive practices, classroom dynamics, students' behavior, teachers' cognitions and characteristics, and teaching styles and strategies. Furthermore, we carried out four interviews with each teacher. We conducted the first and the last rounds of interviews in the beginning and in the end of the school year, respectively. The interview questions drew upon our participant observations and focused on teachers' experiences and the ways in which they promoted inclusion within their classrooms in order to include all (and particularly marginalized) children. In addition, we collected and analyzed various teacher-derived documents including handouts, worksheets, tests, and teaching plans. Moreover, we interviewed the head-teachers and five other teachers working within each school in order to triangulate our findings.

Our data analysis ascribed to both the inductive and deductive stages suggested by Erickson (1986). Each participant became the unit of coding by examining, analyzing and categorizing our different data sources (field notes, interviews, documents) on the basis of each participant. In our interview data, we looked for themes that dominated and appeared repeatedly (Miles & Huberman, 1994). We also examined our field notes in order to detect relationships between teachers' practices in their classrooms and the opinions they articulated during the interviews. Finally, we aggregated similar codes into wider categories across the various data sources. In trying to establish the trustworthiness of the data, we examined and triangulated our data from different perspectives, continually looking for alternative explanations, trying to develop a richer understanding of them (Lincoln & Guba, 1985).

### *The Two Schools*

In the following section we briefly present the two schools, which we selected for the purpose of the current research. The names given to both schools, meaning Kamari and Lefkadi primary schools, are pseudonyms. In addition, the names given to the participants of this study were pseudonyms. There are six grades in primary schools in Cyprus, which serve students from six to 12 years old.

*Kamari Primary School.* Kamari primary school was housed in a 1960's building, which was located in a medium to low socio-economic area in the suburbs of Nicosia. The school population numbered 16 teachers and 196 students. The school numbered seven students registered as having special needs and 112 students, who immigrated to Cyprus or whose parents were immigrants. Within the immigrant body, 37 students were Bulgarian, 33 Romanian, 15 Russian, 14 Polish, 10 from other European countries, while three from Asian countries. The families of these students had the status of legal immigrants in Cyprus. Most of the immigrant students of the school were first generation immigrants ranging from 0 to 9 years of residency in Cyprus. The enrolment of a considerable number of immigrant students from diverse ethnic backgrounds was due to the placement of a large number of immigrant workers in the area.

Mrs. Salomi and Mrs Katia consented to become our participants in the Kamari primary school. Mrs. Salomi had 12 years of experience and she taught a fifth grade class of the school. As she had a Master's degree in Inclusive Education, she was particularly interested in the field. We also collaborated with Mrs. Katia, who had eleven years experience, and taught a first grade class. Mrs. Katia had a Master's degree in Science Education.

*Lefkadi Primary School.* Lefkadi primary school was housed in a traditional building from the 1920's, which was located at the center of Nicosia. It numbered 13 teachers and 147 students on its roll. Three of the teachers were visiting personnel, who were only coming to school twice a week. The school numbered four students registered as having special needs and 59 students, who immigrated to Cyprus or whose parents are immigrants. Within the immigrant body, 24 students were Bulgarian, 15 Romanian, nine Polish, seven from other European countries, and four from Asian countries. The families of these students had the status of legal immigrants in Cyprus. Most of the immigrant students of the school were first generation immigrants ranging from 0 to 7 years of residency in Cyprus. The enrolment of a considerable number of immigrant students from diverse ethnic backgrounds was due to the placement of a large number of immigrant workers in the area.

Lefkadi's longstanding tradition of high standards made it a well-known school of the capital. In recent years, however, Lefkadi lost the glamour of the past. The enrolment of large numbers of immigrant students, whom the majority did not speak the Greek language and came from low socio-economic backgrounds, had reinforced a perception of the school as marginalized and highly problematic. The school promulgated its

intention to address the current situation under the aegis of the Ministry of Education. Nonetheless, a majority of teachers expressed their disappointment with the situation and thus quit any efforts towards improvement. They felt that the situation was out of control and that the support provided by the Ministry of Education was minimal, if non-existent. However, some teachers were challenged by the current situation of their school, and individually or in collaboration with others attempted to address any perceived problems.

In this school, we collaborated with Mrs. Marina, who had 19 years experience, taught in the second grade. Mrs. Marina had a Master's degree in Primary Education. We also collaborated with Mrs. Eleana, who had 14 years experience and taught in the fourth grade. Mrs. Eleana had a master's degree in Intercultural Education.

## Results

### *Strategies for Active Participation and Provision of Inclusion*

Our data analysis indicated that specific strategies underlay the practice of the four participant teachers. Such strategies guided their teaching and directed them towards the provision of inclusion to all students. The adopted strategies drew upon teachers' perceptions of the different ways in which learning is achieved: the implementation of these diverse learning routes in practice and the use of multiple resources to support teaching and learning. Nonetheless, teachers' efforts to sustain inclusion were inhibited by specific factors, which acted as barriers to the implementation of active-participation strategies in their classrooms. The barriers related to the school culture and the educational policy developed by the Ministry of Education as being expressed by the school inspectors. In the following sections we present the emergent themes. In real-life situations these themes overlapped and were always tentative, interrelated and difficult to separate. Therefore, by drawing a distinction between them, we seek to help the reader better understand the findings and the conclusions of our research.

### *Putting Perceptions of the Different Ways in Which Learning is Achieved in Practice*

The first strategy adopted by the participant teachers to promote active participation and inclusion in their classrooms related to their perceptions regarding the ways that learning is achieved. Teachers moved a step further to put these perceptions into practice. Interview data indicated that all the teachers shared similar views regarding the ways in which learning is achieved. More specifically, they believed that learning is not a function which is exclusively operated by and within schools. On the other hand, learning may take place in the different contexts within which students interact in their everyday life. For example, Mrs. Marina explained:

> From my experience, the perception that prevails in our schools is that knowledge lies within schools and within school textbooks. The educational system promotes this perception. This is wrong in my opinion.

Similarly, Mrs. Salomi commented upon this issue by providing an example on the basis of her experience:

> In our schools there is a widespread perception that learning is exclusively the role of schools. Many teachers and senior officers working within the Ministry of Education do not allow anybody to question this 'exclusivity'. A few years ago, I conducted a project on the water contamination with my class… most of our lessons took place outside the classroom setting, next to a small river outside the village. I believed that I had covered the topic with the various activities we carried out. However, I neither followed strictly the directives provided by the science teacher's book, nor did I ask the students to complete the book exercises within their textbooks. When the inspector of Science Education visited our school, he criticized me sharply because I had ignored the book exercises, saying that those exercises should be done first and not anything else. He also questioned the knowledge acquired by my students on the topic, pointing out that the fundamental criteria for assessing learning are the book exercises.

Mrs. Eleana pointed out that:

> Many teachers, inspectors and parents underestimate whatever children learn outside schools in comparison to what they learn within schools. My philosophy is different. Learning cannot only be achieved within school settings. Of course, schools have an important role to play, as learning within schools takes a systematic form. I believe though that learning can be achieved outside schools; in our everyday lives. We should remember that children spend most of their time outside schools. As teachers, we should elaborate on this observation. We should create learning environments outside schools;

reinforce out-of-school learning and connecting it with school occurrences.

The comments made by the four teachers showed their intentions to diversify their teaching styles from the 'traditional' ones pertaining to the ways that the senior Ministry officers believed that children learn best. Such intentions seemed to direct them towards active-participation strategies and practices that provided inclusion to all students.

In addition, all four teachers appeared to believe that learning is influenced by their students' wider socio-economic and historic backgrounds. Thus, they argued that active participation in learning occurs better when teaching draws upon local cultures and practices. Mrs. Katia made the following comments regarding the above issue:

> Many of our students come from different contexts and from different backgrounds. There are students who come from poor families or who come from other countries and are not familiar with the language of instruction. Therefore, they face difficulties in schools because of the existing structures … The schools do not always have appropriate infrastructures; teachers are not always well trained … Thus, if we are concerned that all students should learn equally, then we should take into account all these issues.

Mrs. Eleana went a step further and pointed out that:

> If we want all our students to learn by promoting inclusion, then, given the diversity of our students, we should take seriously into account the local cultures of each community, of every group and of every school.

Furthermore, Mrs. Marina argued that:

> Most of our students come from specific social groups with different cultural backgrounds, ethnic identities and a lower economic status to those of the teachers and the students of the dominant culture. All these factors impact upon their learning outcomes.

Students are often socialized within communities that have different cultural characteristics from those of the school. Thus, the assumption that learning styles are universal rather than founded upon culture is questionable (Banks & McGee Banks, 2009). Furthermore, the assumption that "all students can learn equally well from teaching materials that reflect only the cultural experiences of the majority group is also questionable" (Banks, 1988, p. 121). Teaching should reflect cultural diversity by stressing multidimensional and culturally diverse content instead of an ethnocentric one.

It is noteworthy that we observed the four teachers implementing their views in practice. They grounded their teaching strategies and practices upon their perceptions of the ways in which learning is achieved. More specifically, we observed all teachers using informal methods of teaching via which all students appeared to be included by actively participating in their learning. We also observed the teachers deviating from the 'traditional' directives they received by the Ministry of Education.

In particular, all four teachers developed projects around which they constructed their teaching and learning strategies. These projects took a form that involved students in informal learning environments (Dierking, Falk, Rennie, Anderson, & Ellenborgen, 2003; Rennie, Feher, Dierking, & Falk, 2003) and allowed each student to actively participate in the teaching and learning process.

Specifically, we observed Mrs. Salomi developing a project on environmental pollution. The project included a series of field trips for the class. Mrs. Salomi and her students visited the school yard, the area surrounding the school including streets and empty building plots. They observed cars and factories and discussed pollutants of the environment. They also visited forests, lakes, brooks, and dump sites in order to explore possible ways to reduce pollution.

Similarly, we observed Mrs. Eleana structuring most of her lessons on the basis of site visits that she conducted with her students (e.g., to museums, churches, a fire station, a local market, etc.). At the same time, she developed learning activities that her students had to carry out at home (e.g., interviews with their grand-parents regarding the lifestyles in former times, visits to museums or churches in the company of their parents, etc.). We could possibly argue that such an approach might jeopardize the participation of children from homes where parents might not be able to conduct site visits with their children. However, the teacher ensured that all children had something to present during the classes. Moreover, we observed Mrs. Katia organizing visits to the work places of her students' parents in collaboration with the parents themselves. Mrs. Katia and her students visited a printing house belonging to typographers who was one of the parents. Mrs. Katia's students also visited a university where one of the parents worked as a lecturer. Moreover, the students had the opportunity to visit the airspace control center of the Cyprus National Airport where a third parent was

working. In addition, the class visited a police station, a high school, a bank, a house under construction, and a clothing store.

On the basis of our aforementioned observations, the participant teachers came up with activities to question normative practices that promoted marginalization in order to promote all students' active participation and to provide inclusion. Moreover, they cooperated with student families to facilitate children's participation in the school environment and thus to sustain inclusion. Arguably, their perceptions about the ways in which learning is achieved and the implementation of those perceptions resulted in the provision of inclusion to all students.

### *Use of Multiple Resources to Support Teaching and Learning*

The second theme that emerged from our data was the use of multiple resources by the four teachers to support their teaching and learning in order to promote all students' active participation in their classrooms and thus to provide inclusion. All four teachers explained that students' personal and cognitive development might be enhanced by the use of multiple resources supporting their learning. The teachers seemed to understand that learning is not bound by school time and space, but rather that it is a lifelong procedure. Therefore, they moved away from transmitting knowledge to their students towards teaching them how to learn. Mrs. Salomi, for example, said:

> I want my students to learn how to discover knowledge and not to receive it ready on a plate.

Similar were Mrs. Eleana's comments:

> It is very important that children will become able to think critically, open a book and search the internet in order to discover what they want.

Mrs. Katia also explained:

> I never ask my students to memorize information … I expect them to become citizens who think critically.

The activities observed in the four teachers' classes confirmed the teachers' previously mentioned claims. Class activities indicated that teachers' emphasis was not placed upon the strict memorization of knowledge but on the development of specific abilities that would enable students to discover knowledge by themselves. For example, all four teachers combined the collaborative method of teaching with problem-solving strategies. Most of the time, students worked in groups in order to solve problems provided by their teachers. In these classes, the four teachers avoided the use of direct expository mode in order to teach the class as a whole. Moreover, they limited the use of the single standard textbook provided by the Ministry of Education. Instead, they provided additional materials in order to address the diverse needs of their students. We observed the four teachers encountering difference by creating groups or networks of students who worked with a wide range of others on tasks for which they are mutually responsible. Peer groups established forums for discussion and problem-solving by the students themselves. In one case, Mrs. Eleana encouraged her students to investigate particular themes from different sources (e.g., historical problems in ancient Greece, the life of Nicos Kazantzakis etc.) within their working groups.

In addition, as we have already explained, all four teachers strongly believed that active participation in learning does not take place only in schools, but it occurs in many other sites to where children conducted visits with their parents. Drawing upon this argument, they attempted to involve parents and the community in the school activities. In Lefkadi primary school, Mrs. Marina and Mrs. Eleana collaborated to create a group of parents, who would be responsible for monitoring the improvements of the school. Mrs. Marina explained the rationale underlying this decision:

> In the educational system of Cyprus, teachers and head-teachers are appointed to other schools very often … educational reform takes time and you cannot achieve it in one year … thus, you need some people who are more permanent in the school in order to observe developments and improvements … that was the logic underlying the decision to create a group of parents who, among other things, are responsible for observing the continuation of the various reforms from one year to the next.

Furthermore, in both schools the four teachers engaged parents and the community in determining the school needs and objectives. Despite their efforts, there was no consensus with school administration and the other teachers of the school. Nonetheless, the four teachers went on to develop collaborations with parents in order to gain an understanding of the parents' expectations for their children and to discuss with them the modes in which they could fulfill these expectations. Mrs. Eleana explained that:

> My students' parents are rather poor people. I

> know that they don't have the necessary resources in order to work with their children at home… I talked with each parent separately and I know what they can do at home with their children and what kinds of help they can offer to them. Thus, I may ask some children who have got internet at home to study a particular topic from the internet, while I will ask those who do not have it to carry out this kind of activities in the class.

Mrs. Katia was also keen on creating collaborations with her students' parents:

> Organizing these activities, we aimed to bring immigrant parents closer to our school; to associate schooling with pleasant experiences both for our students and their parents; and also draw upon the individual characteristics of each culture in order to promote cultural knowledge.

It is noteworthy that knowledge of immigrant students' cultures may contribute to their academic success, as teachers get to 'know' their students better and thus, comprehend more coherently their behaviors (Banks & McGee Banks, 2009). All four teachers benefited from parents' active participation in the school life as they deployed interesting ideas emerging from parents' suggestions. They regularly communicated memorandums to parents in order to keep them posted about the activities organized in their school and informed about their children's progress. All memorandums were translated in the English language, which enhanced the participation of parents coming from diverse linguistic and cultural backgrounds in the school activities and promoted their involvement in the education of their children. International research emphasizes that parents' active involvement in the development of educational initiatives opens up the way towards inclusion (King, 2001; Johnson, 2002). Giangreco (1997) indicates that the development of schools providing for inclusion requires collaborative work and particularly family involvement.

*Barriers to Active Participation and Inclusion*

Our data analysis in relation to the third research question indicated that certain factors acted as barriers, which negatively influenced the teachers' efforts to implement active participation practices in their classrooms and for inclusion to their students. These barriers related to the school culture and the educational policy developed by the Ministry of Education, which was mediated to schools by their school inspectors.

*School Culture*

The first factor that appeared to act as a barrier to the teachers' efforts to promote all students' active participation and inclusion was the culture that prevailed in their schools. The values and beliefs, as well as the norms that determined the practice of their schools and in some cases, the other teachers of the school acted as barriers to the participants' efforts to provide inclusion. This theme began to arise during our first observations in the classrooms of the four teachers, the initial interviews, and the unofficial talks we had with other teachers in the staffroom.

Our initial interviews with the four teachers indicated that the implementation of active participation practices was not straightforward since both the head teachers of the two schools as well as a number of the other teachers held contrasting views. For example, Mrs. Salomi asked her head teacher to take her students on a field trip outside the school for a second day in succession for the purposes of her lesson. The head-teacher refused saying 'stay a little bit in the school and do some teaching and stop thinking constantly about school trips'. In a similar case, the head teacher of Lefkadi primary school made a comment during a staff meeting that some teachers (Mrs. Marina and Mrs. Eleana) conducted many out-of-school visits and were not following the curriculum properly. The head teacher also pointed out that she had received complaints from other teachers. She thus suggested that all teachers should go on an equal number of field trips, implying that those who went for many visits ought not to go again.

To a relevant question, the head teacher of Kamari primary school replied that:

> It is good for students to visit different sites outside the school but in moderation … not twice a week … if they go very often it means that the teachers have taken the easy option because they do not want to be in the classroom … and besides, leaving school so often does not comply with the directives we have from the Ministry of Education.

Similar were the head-teacher of Lefkadi primary school's comments:

> Educational visits should be done once a month, maximum … and then students should analyze in the classroom what they learned during these visits … I do not forbid to a teacher to go out of school more often but we should not overdo it because we may have complaints from the parents

> … when we are not in the classroom parents think that we do not teach.

A teacher from Kamari primary school with over 25 years of experience stressed that:

> I am older and what I know is that in this school there is a tradition for having discipline and offering good teaching … some younger teachers do not know this history and they do not keep to the tradition … if instead of teaching in the classroom - where we actually do our job - we go to parks, museums, factories and I do not know where else, then we ruin the positive image of the school we have built up to now.

In the above quotes it appears that the four teachers attempted to differentiate their modes and methods of teaching (i.e., walk in the town, use of cameras etc.). They argued that out-of-school activities contribute to maintaining the students' interest in the lesson, while increasing their participation. They thus asserted that learning may occur better in out-of-school settings and particularly for other-language-speaking students. Nonetheless, from the above incidents it seemed obvious that the four teachers faced obstacles in their efforts to provide inclusion to all students. Their ideas sometimes clashed with the culture of the schools, suggesting that the big number of activities outside the classroom pointed to the teacher's effort to avoid teaching in the traditional way.

Many studies of the school improvement literature reinforce the above finding. Deal and Kennedy (1982) argue that "when culture is against you it is almost impossible to achieve anything" (p. 4). Furthermore, Fuller and Clarke (1994) claim that it is almost impossible to bring about innovation and change to an organization if you do not take seriously into consideration its culture. It is therefore essential to acknowledge the school culture in any effort to provide inclusion.

### *Educational Policy*

The second factor that appeared to act as a barrier to the provision of inclusion by the four teachers was the educational policy developed by the Ministry of Education and mediated by the school inspectors. As we have already discussed, the four teachers had attempted to 'escape' from the traditional policies developed by the Ministry of Education. Although the official educational policy promulgated by the Ministry of Education referred to the provision of inclusion (Ministry of Education and Culture, 2001), educational practice seemed to differ. In a previous section, we discussed Mrs. Salomi's experience with the Science Education inspector regarding the project she conducted. In addition, the four teachers, in their interview accounts, very often criticized the policy developed by the Ministry of Education, the inspectors' commentary on their work, and the need to adhere to the Ministry line. On the other hand, the head teachers of the two schools often drew upon the official policy while they adopted the directions provided by the Ministry of Education to develop their school policies. Commenting upon educational policy, Mrs. Eleana argued that:

> The Ministry of Education forces the teachers to cover the syllabus as prescribed in the national curriculum; to complete teaching the books regardless of whether students have learnt and acquired or not, the desirable knowledge and other goals… Last week, our inspector visited the school and his comment to me was 'are you still teaching the first book (of Greek language)? You should immediately move on to the second one. Yesterday, I visited a school that they had already covered half of the second book'. This critique does not surprise me. It is what we hear every day.

Mrs. Katia's comments were very similar:

> Because of my philosophy and the way I work, I often come up against the policies of the Ministry of Education … I do not faithfully follow the directives of my superiors. For example, I like extending my teaching activities outside the school and sometimes even beyond the curriculum. For these reasons, I have been criticized many times.

Mrs. Marina talked about an experience she had a few years back when she was a teacher in a small village:

> My students lacked fundamental knowledge and I did not want them to go to the next grade with basic weaknesses. Thus, I provided interesting and creative activities to the students giving them the opportunity to be actively involved in their learning … However, I did not manage to complete teaching the textbooks of Greek language and Mathematics … In the end of the school year, the inspector came to the school and strongly criticized me saying that instead of teaching the set materials, I was a law unto myself.

These comments indicated that the educational policy as expressed by the senior officers of the Ministry of Education, and also by the head teachers of the schools, seemed to act as a barrier to the teachers' efforts to provide inclusion in teaching and learning. The educational policy seemed to maintain the existing inequalities that prevail in schools. A similar finding has been presented by Angelides (2004) who concluded that the most serious barrier to inclusion, in Cyprus, was the Ministry of Education and its educational policy. Levin (2003), who discussed the issue of educational policy in relation to inclusion at an international level, concurred.

## Conclusion

The current study provided mounting evidence that the implementation of educational strategies promoting inclusion is not an easy affair. On the contrary, it is a procedure that is difficult, complex and beset-with-obstacles. Our data analysis illustrates that specific factors contributed to the four teachers' efforts to provide inclusion. As we have already discussed, such factors related to the teachers' perceptions regarding the ways in which learning is achieved; to the ways these perceptions were implemented in practice; and to the use of multiple resources for supporting teaching and learning. In parallel, specific factors acted as barriers to the teachers' efforts to provide inclusion, including the school cultures and the policies of the Ministry of Education as mediated by the school inspectors.

An important implication arising from this research relates to the implementation of strategies promoting all students' active participation, which were deployed by the participant teachers. In particular, teachers organized their teaching in informal learning environments, a fact that appeared to assist all students' participation. Dierking et al. (2003) argues that learning derives from various experiences, while it is an organic, dynamic, continuous, holistic process of constructing personal meaning. Therefore, we may argue that teaching in environments outside schools can offer opportunities for students to get involved in activities where learning will be directed by their own interests and needs within real-life situations (Rennie et al., 2003).

Teaching in informal learning environments seemed to function as a directional power in promoting all students' active participation and inclusion. To this end, we may suggest that the traditional school, as it functions today, should change radically in order to respond inclusively to all students. Furthermore, teaching in informal learning environments can contribute to the effort to provide inclusion (Banks et al., 2007). Ainscow et al. (2008) goes a step further to argue that schools cannot provide inclusion by themselves. Marginalization is mainly rooted in settings outside the schools. Thus, efforts for school improvement should be bound to a wider strategy, which aims to address the wider socio-economic inequities.

Despite the above conclusion, further research is necessary in order to examine the factors that influence the provision of inclusion to specific groups of students in greater depth. This is especially the case for those who tend to be marginalized in traditional learning environments or who do not have further access to learning when it occurs in informal learning environments.

The four teachers deployed multiple resources in order to support their teaching and learning, a strategy which seemed to contribute significantly in their effort to provide inclusion in education. Arguably, if we are interested in providing greater inclusion, teaching should not only occur in informal learning environments, but it should also encompass multiple resources. Moreover, promoting parental involvement plays a crucial role in sustaining inclusion. Parents' engagement to their children's learning and their collaboration with teachers may contribute to learning outside school. Furthermore, teachers should encourage their students to discover knowledge, think critically, and collaborate with their classmates for this purpose.

Observing the ways in which the four teachers worked, we could argue that active participation strategies drew upon social learning (on the part of students), which in turn promoted inclusion. We may conclude that the participant teachers deployed activities which provided their students the opportunity to interact not only with each other, but also with their environment and with other groups of people, according to the subject matter included in each lesson. As a result, students understood the collective responsibility in working groups, meaning that all students have responsibilities and obligations, while all of them have something to contribute if they collaborate with their classmates and other stakeholders in order to achieve the best possible results.

Drawing upon this argument, we can go a step further and examine its interconnection to the barriers preventing teachers' efforts to provide inclusion. Drawing upon our examination of such constraints related to the school cultures and the specific educational policies, we could claim that the teachers, the head teachers, and the inspectors who expressed the policy of the Ministry of Education did not have the necessary social learning required to promote inclusion in education. By conceptualizing 'social learning' we mean the learning that comes through the interaction of the different stakeholders within the framework of a community of learning where all collaborate with the

purpose of providing inclusion. To overcome the obstacle of educational policy for the purpose of promoting greater inclusion, Ainscow et al. (2007) argue that we should move towards "the development of national policy frameworks which allow the freedom for local level decision making guided by: principles of shared accountability, local networking, and inclusion informed target setting" (p.14).

**References**


Ainscow, M., Dyson, A., Goldrick, S., Kerr, K., Miles, S. (2008). *Inclusion in education: Responding to context* (3rd annual report). Manchester: Centre for Inclusion in Education, The University of Manchester.

Ainscow, M., Crow, M., Dyson, A., Goldrick, S., Kerr, K., Lennie, C., Miles, S., Muijs, D. & Skyrme, J. (2007). *Inclusion in education: New directions* (2nd annual report). Manchester: Centre for Inclusion in Education, The University of Manchester.

Ainscow, M., Booth, T. & Dyson, A. (2006). *Improving schools, developing inclusion*. London: Routledge

Angelides, P. (2004). Moving towards inclusive education in Cyprus (?). *International Journal of Inclusive Education, 8* (4), 407-422.

Armstrong, D., Armstrong, A. & Spandagou, I. (2011). Inclusion: By choice or by chance. *International Journal of Inclusive Education, 15*(1), 29-39.

Banks, J. A. (1988). *Multiethnic education. Theory and practice. (2nd Edition)*. Newton, MA: Allyn and Bacon.

Banks, J. A., & McGee Banks, C. A. (eds.) (2009). *Multicultural education: issues and perspectives*. Needham Heights, USA: Wiley.

Bell, L. & Stevenson, H. (2006). *Education policy. Process, themes and impact*. Oxon: Routledge.

Booth, T. & Ainscow, M. (2002). *The index for inclusion* (2nd edition). Bristol: ICIE.

Burnett, G. (1998). *Varieties of multicultural education: An introduction. ERIC Digest 98.* http://ericdigests.org/1995-1/multicultural.htm

Clay, J., & George, R. (2000). Intercultural education: a code of practice for the twenty-first century. *European Journal of Teacher Education*, *23*(2), 203-210.

Committee for Educational Reform, (2004). *Democratic and humanistic education in the Euro-Cyprian Society. Prospects for modernization. Manifesto of educational reform. Overview of philosophy and recommendations*. Nicosia: Ministry of Education and Culture.

Deal, E. T., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of corporate rights.* New York: Perseus Books Publishing, L. L. C.

Dierking, L. D., Falk, J. H., Rennie, L., Anderson, D., & Ellenbogen, K. (2003). Policy statement of the 'informal science education' ad hoc committee. *Journal of Research in Science Teaching, 40*(2), 108-111.

ECRI- European Commission against Racism and Intolerance. (2006). *Third report on Cyprus.* ECRI.

Erickson, F. (1986). Qualitative methods in research on teaching, in: M. C. Wittrock (Ed.), *Handbook of research on teaching* (pp. 119-161). New York, NY, Macmillan.

Giangreco, M. F. (1997). Key lessons learned about inclusive education: Summary of the 1996 Schonell memorial lecture. *International Journal of Disability*, *44*(3), 193–206.

Grant, C. A. & Sleeter, C. E. (2005). Race, class, gender, and disability in the classroom. In: J. A. Banks & C. A. Banks (Eds) *Multicultural education. Issues and perspectives*. Boston: Allyn & Bacon.

Hidalgo, N. M., Siu S. & Epstein, J. L. (2004). Research on families, schools, and communities. A multicultural perspective. In: J. A. Banks & C. A. McGee Banks (Eds) *Handbook of research on multicultural education. 2nd Edition*. San Francisco: John Wiley & Sons, Inc.

Johnson, L. (2002). 'My eyes have been opened': White teachers and racial awareness. *Journal of Teacher Education*, *53*, 153-167.

King, K. L. (2001). From numerical to comprehensive inclusion: Utilizing experiences in the USA and South Africa to conceptualize a multicultural environment. *International Journal of Inclusive Education*, *5*(1), 67-84.

Levin, B. (2003). *Approaches to inclusion in policy for lifelong learning*. A paper commissioned by the Education and Training Policy Division, OECD, for the Inclusion in Education Thematic Review.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage.

Marshall, C., & Oliva, M. (2006). *Leadership for social justice: Making revolutions in education.* New York: Pearson.

Mastropieri, M. A. & Scruggs, T. E. (2006). *The inclusive classroom: Strategies for effective instruction*. Upper Saddle River, NJ: Pearson.

Miles, M. B. & Huberman, M. A. (1994). *Qualitative data analysis.* Thousand Oaks, CA: Sage.

Ministry of Education and Culture (2001). *The development of education national report of Cyprus.* Nicosia: Government Printer.

Modood, T. (2007). *Multiculturalism. A civic idea*. Cambridge: Polity Press.

Organization for Economic Co-operation and Development (2001). *Education policy analysis*. Paris: OECD.

Organization for Economic Co-operation and Development (2007). *No more failures: ten steps to inclusion in education*. Paris: OECD. Opfer, V. D. (2006). Evaluating inclusion: A framework for understanding action and inaction on social justice issues. *Educational Policy*, *20*(1), 271-290.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

Petrou, A., Angelides, P. & Leigh, J. (2009). Beyond the difference: from the margins to inclusion. *International Journal of Inclusive Education*, *13*(5), 439-448.

Reason, P., & Bradbury, H. (Eds.). (2008). *Handbook of action research: Participative inquiry and practice* (2nd ed.). London: Sage Publications.

Rennie, L. J., Feher, E., Dierking, L. D., & Falk, J. H. (2003). Toward an agenda for the advancing research on science learning in out-of-school settings. *Journal of Research in Science Teaching, 40*(2), 112-120.

Stone, D. (1997). *Policy paradox. The art of political decision making*. London: W. W. Norton & Company Ltd.

Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: ASCD

United Nations, (1989). *The UN convention on the rights of the child*. New York: United Nations.

United Nations Scientific and Cultural Organization, (1994). *The Salamanca statement and framework for action on special needs education.* Paris: UNESCO.

United Nations Scientific and Cultural Organization (1997). *Appraisal study on the Cyprus education system*. IIEP/Prg. GC/97.2, Paris: UNESCO.

# Special Education Teachers' Attitudes Towards Inclusion of Students with Autism in Jordan

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**Abstract**

*This study investigated the attitudes of special education teachers in the city of Amman, Jordan, toward the inclusion of students with autism in public schools and what the teachers believed to be the most important prerequisite skills for successful inclusion. Ninety two special education teachers were selected to complete the survey. The researchers explored whether variable demographic characteristics such as age, gender, education levels, years of teaching experience, center type, and specialized training on autism correlated with the attitudes of teachers towards inclusion of students with autism in public schools. The analyses revealed that the variables that correlated with teachers' attitudes towards inclusion were age, education levels, years of teaching experience, and center type. The themes behind the teachers' attitudes for inclusion are discussed as well. The teachers believed that the following prerequisite skills, in that order, are needed for successful inclusion: independent skills, imitation skills, behavioral skills, playing skills, social skills, routine skills, attention skills, language skills, and pre-academic and academic skills.*

## Background

Autism Spectrum Disorder (ASD) is a developmental condition broadly characterized by impaired communication skills and social interaction, as well as limited interests and repetitive behaviors (National Institute of Mental Health, 2009). ASD has become the fastest growing disability in the United States, with current prevalence rates estimated at as many as 1 in 88 children (Centers for Disease Control and Prevention, 2012). Autism is a diverse and complex developmental disorder that has been found throughout the world in all racial, ethnic and social groups (Perko & McLaughlin, 2002). This increase in the number of students identified with ASD has significant implications for public schools and special education centers or schools.

This clear increase highlights the need to explore the attitudes of special education teachers in order to identify 'best practice' in the education of children and young people on the autism spectrum in inclusive education. Teacher attitude is one of the most important variables in the education of children with disabilities (Smith, 2000). Attitudes toward disabilities reflect beliefs about people with disabilities and as such guide behavior toward individuals with disabilities (Roberts & Smith, 1999). Many studies have emphasized the importance of positive attitudes of educators toward inclusion (e.g., Avramidis, Bayliss, & Burden, 2000; Daane, Beirne-Smith, & Latham, 2000; Smith & Smith, 2000). Attitudes are a factor in one's daily living and therefore play an important role in an educator's daily interactions with students with ASD.

Inclusion can be broadly defined as the process of identifying, understanding and breaking down barriers to participation and belonging, and therefore goes beyond education to cover the total experience of a child or young person on the autism spectrum, as well as his or her family (Halvorsen & Neary, 2001; Jones et al., 2008). Many professionals and families feel that inclusion of students with ASD in general education settings is the best approach to promote educational and overall progress in children with ASD (Starr, Foy, & Cramer, 2001). Others, however, harbor concerns about whether the inclusion model can meet the social and educational needs of children with ASD (Leyser & Kirk, 2004).

Inclusion is a policy that promotes the integration of children with disabilities into mainstream educational settings (Baker, Wang, & Walberg, 1994; Buysee & Bayley, 1993; Eaves & Ho, 1997; Siegel, 1996). In the United States, the landmark *1975 Education for All Handicapped Children Act* mandated free and appropriate public education for all students with disabilities in the least restrictive and most integrated environment possible. This policy gives children with disabilities, including children with ASD, the right to be educated with their peers without disabilities. In Jordan, we have the *"Law on the Rights for Persons with Disabilities" for the year of 2007*. This law stated in Article four, Section (B) that: "The Ministries of Education and Higher Education are adopting inclusive education programs between students with disabilities and non-disabled counterparts and implementing these programs within the framework of educational

institutions" (The Higher Council for the Affairs of Persons with Disabilities, 2007, p.4).

Although special schools or centers are still a more popular option for the education of all children with ASD in Jordan (Al-Rossan, 2012) the movement toward including children with disabilities in general education schools and classrooms has commenced. This in turn, changes the roles of special education teachers so that they need to help prepare students with ASD for inclusion and propose what is needed in order to create inclusive learning environments for these children. The idea of preconditions for developing inclusive practice puts an emphasis on the processes that need to be in place to help overcome learning barriers for these children.

Identifying these specific needs is not an easy task. Jordan (2005) argues that children with ASD have specific group needs that arise both directly and indirectly from their developmental disabilities. Students with ASD struggle with varying degrees of qualitative impairments in social interaction and communication, stereotypic repetitive interests or behaviors, and delays in social interaction, communicative language or play (American Psychiatric Association, 2000). Students with ASD also often have comorbid conditions such as intellectual disability, and they have wide-ranging skill development needs along with skill generalization requirements (Simpson, 2004).

In addition, children with ASD face unique challenges when transitioning into the school system. Unfortunately, the social deficits associated with ASD (e.g., children with ASD do not imitate peers, have atypical communication, do not initiate play and their play skills are often inappropriate for their developmental level) make it difficult for them to interact with and learn from their peers. Consequently, children with ASD must be taught how to interact with peers, appropriate social responses, and play skills so that the potential benefits inherent in inclusion may be realized (Cole, Mills, Dale, & Jenkins, 1991; Hundert, Mahoney, Mundy, & Vernon, 1998). In addition, language delay is a critical problem in most students with ASD (Wetherby & Prizant, 2001).

Although many people believe that students with ASD should be included in public schools, there is scant research on the feasibility and practical implementation of this. This study used qualitative analysis of the perceptions of special education teachers in terms of the inclusion of students with ASD in Jordan. Despite an increase in research on the communicative characteristics and effective interventions for this disorder in Jordan, very little research has been carried out to investigate how to include children with the disorder in public schools (Al-Zyoudi, 2006).

The purposes of this study were to explore the attitudes of special education teachers toward inclusion of students with ASD in public schools and to examine the teachers' perceptions of the most important prerequisite skills for successful inclusion of students with ASD.

This study addressed the following questions:

1. To what extent do special education teachers favor inclusion in comparison those who do not?
2. To what extent have special education teachers received training on inclusion?
3. How do demographic variables such as (age, gender, level of education, years of teaching experience, center type, and specialized training on autism correlate with the attitudes of teachers toward inclusion of students with autism in public schools?
4. What are the factors that relate to teachers' positive or negative attitudes toward inclusion?
5. What are the most important prerequisite skills for the successful inclusion of students with ASD from special education teachers' perspectives?

## Method

This investigation was conducted using a survey. Descriptive statistics and chi-squared tests were performed to answer the research questions.

### *Participants*

Seven special education centers or schools that specialized in teaching students with ASD were targeted in this study. A total number of 97 special education teachers who worked in special education centers that provided focused teaching for low-functioning students with various forms of ASD in the city of Amman, Jordan were asked to be the participants of the study. Of this total population, 92 teachers responded and returned the survey material. The second author met the teachers individually in their school and encouraged them to be part of the study which increased the response rate.

### *Procedure*

The Higher Council for the Affairs of Persons with Disabilities in Jordan provided the researchers with all descriptive information for special education centers that provided services for students with ASD in Amman. Permission was sought from the centers principals then special education teachers were approached. The teachers were approached individually and the aim of the survey was explained to them. Teachers were assured that the study was for scientific purposes only and that

their responses were confidential and anonymous. They were urged to respond to all items to the best of their knowledge.

A cover letter explaining the purpose of the survey, the term of inclusion, and the estimated time for filling out the survey was presented in the beginning of the study. Inclusive education was defined as "students with ASD who are supported in chronologically age-appropriate general education classes in their home schools and receive the specialized instruction delineated by their individualized education programs (IEP's) within the context of the core curriculum and general class activities" (Halvorsen & Neary, 2001, p. 43). The teachers completed a hard copy of the survey and returned it to the researchers within three days after receiving it. All data was collected during the month of May of 2011.

### *Instrument*

The survey instrument had two main sections. The first section requested descriptive information about the participants' gender, age, education levels, years of teaching experience, type of center, specialized training in teaching students with ASD and in inclusive practices, inclusion preference, and an open ended question to indicate their willingness for inclusion.

The second section requested information about the necessary skills for including students with ASD in public school. The survey included 36 items that were distributed randomly to mitigate order effects and selection bias. The 36 items of the instrument were formulated based on a review of relevant literature and reports (Hamilton Wentworth District School Board, 2006; Handleman, Harris, Arnold, Cohen, & Gordon, 2006; Healthy Child Manitoba, 2002; Janus, Lefort, Cameron, & Kopechanski, 2007; Lerman, Vorndran, Addison & Kuhn, 2004; McGregor & Campbell, 2001). These items dealt with nine categories of prerequisite skills for inclusion: behavioral skills, attention skills, imitation skills, language skills, social skills, playing skills, independent skills, routines skills, and pre-academic and academic skills. The responses on the 36 items were in Likert form and designated as follows: 4 – very important; 3 – important; 2 – moderately important; 1– of little importance; and 0 – unimportant'.

### *Validity*

To assess the face validity of the instrument, an initial version of the survey was given to university instructors and teachers in the field. These referees were asked to judge the content of the survey and provide feedback. They made comments on a few items and suggested merging some items due to similarity of their meanings, and re-phrasing some for more clarity; these suggested changes were taken into consideration when making the final version of the survey. In addition, internal consistency was calculated using Cronbach's alpha for the prerequisite skills for including students with ASD in public school. Cronbach's alpha measures how well a set of variables measures a single unidimensional latent construct (Field, 2009). The instrument had a high coefficient (.95) of reliability or consistency.

### *Data Analyses*

In order to respond to the research questions, the following data analyses were undertaken. First, the information from the close-ended items in the questionnaire was entered into the statistical package for the social sciences (SPSS Inc., Chicago IL, 2008). In addition, an interpretational approach was applied to identify categories and subcategories in the answers and comments given to the open-ended items in the questionnaire, thus enabling entry of this information into SPSS as well. Secondly, an exploratory analysis approach was applied to all data, providing frequency distributions as well as graphical displays of data. To investigate whether the demographic variables correlated with the attitudes of teachers toward inclusion of students with ASD, chi-squared tests were conducted. Finally, to rank the prerequisite skills for including students with ASD in public schools according to the teachers' beliefs, the Likert-type items were combined into a single composite score or variable during the data analysis process.

## Results

Although just 19.5% (n=18) of the total number of participants (N=92) have been trained on inclusion, 79.3% (n=73) were of the opinion that students with ASD should have a chance to attend public schools, while 20.7% (n=19) were against the idea. A closer inspection of the data indicated that several factors were associated with the participants' opinions towards inclusion.

### *Factors Correlated with the Participants' Opinions Towards Inclusion*

*Age Group Differences.* Of the total number of participants, 78.3% (n=72) were between the ages of 20 and 30 and 21.7% (n=20) were between the ages of 31 and 40 years. A 2× 2 chi-square test indicated that the relationship between age and acceptance of inclusion for

special education teachers was significant $\chi 2$ (1) = 17.09, $p < .001$. A higher percentage of teachers (79%) between the ages of 20 and 30 accepted inclusion versus the teachers between the ages of 31 and 40 (21%).

*Gender.* Of the total number of participants, 81.5% (n=75) were female and 18.5% (n=17) were male. A 2× 2 chi-square test conducted to check whether there was a statistically significant difference between males and females in terms of their acceptance of inclusion yielded a non-significant difference $\chi 2$ (1) = .11, $p = .75$.

*Level of Education.* Of the total number of participants, 41.3 % (n=38) participants had an education level of community college, and 58.7% (n=54) had a bachelor's degree. A 2× 2 chi-square test indicated that the relationship between level of education and acceptance of inclusion for special education teachers was significant $\chi 2$ (1) = 6.65, $p < .05$. A higher percentage of teachers who had a bachelor's degree had positive attitudes regarding inclusion (78.3%) versus the teachers who had a community college degree (21.7%).

*Years of Teaching Experience.* Of the total number of participants, 26.1% (n=24) had less than one year of experience; 31.5% (n=29) had between 1.1–2 years of experience; 20.7% (n=19) had 2.1–5 years of experience; and 21.7% (n=20) had 5.1 years of experience or more. A 2× 4 chi-square test indicated that the relationship between years of teaching experience and acceptance of inclusion for special education teachers was significant $\chi 2$ (3) = 16.17, $p < .05$.

*Governmental or Private Special Education Centers or Schools.* Of the total number of teachers, 20.7% (n=19) were from governmental centers and 79.3% (n=73) from private centers. A 2× 2 chi-square test indicated that the relationship between center type and acceptance of inclusion was significant $\chi 2$ (1) = 19.38, $p < .05$. A higher percentage of teachers from private sector indicated positive attitudes regarding inclusion (93.4%) versus the governmental centers (6.6%).

*Specialized Training on Teaching Students with ASD.* Of the total number of participants, 54.3% (n=50) were trained on teaching students with ASD and 45.7% (n=42) did not get specialized training. A 2× 2 chi-square test indicated that the relationship between getting specialized training and acceptance of inclusion was not significant $\chi 2$ (1) = 3.74, $p = .06$.

### *What are the Factors that Relate to Teachers' Positive or Negative Attitudes Towards Inclusion?*

The qualitative responses to the open-ended question that asked participants to justify their willingness for inclusion of students with and those without ASD were coded. These were then read and re-read and themes were developed to reflect the nature of the responses. The main themes for teachers who were in favor of inclusion were, inclusive education: (1) builds confidence and good self-esteem for students with ASD; (2) presents an opportunity for all children to interact with and learn from each other; and (3) prepares children with ASD for an inclusive life. On the other hand, the main themes for teachers who were against inclusion were: (1) inclusion adds frustration to students with ASD because they may feel they are competing with the general education students; (2) general education teachers often lack the training, resources, and necessary supplies to adequately teach students with ASD within their classrooms; and (3) students with ASD do not have the same support in a general education classroom as compared to a self-contained classroom.

### *The Necessary Skills for Including Students with ASD in Public School*

Only special education teachers who showed support for inclusion of students with ASD (n=73) were asked to fill out the second section of the survey. Table 1 presents the means and standard deviations of teachers' responses to the necessary skills for inclusion ranked in a descending order. In this table Likert-type items are

Table 1

*Teachers' Responses to the Necessary Skills for Including Students with ASD in Public School*

| Number | Category | Mean | Standard Deviation |
|---|---|---|---|
| 1 | Independent Skills | 3.16 | .88 |
| 2 | Imitation Skills | 2.97 | .83 |
| 3 | Behavioral Skills | 2.94 | .88 |
| 4 | Playing Skills | 2.93 | .89 |
| 5 | Social Skills | 2.89 | .91 |
| 6 | Routine Skills | 2.83 | 1.01 |
| 7 | Paying Attention Skills | 2.82 | .91 |
| 8 | Language Skills | 2.80 | 1.00 |
| 9 | Pre-academic and Academic Skills | 2.78 | .92 |

combined into a single composite score or variable. Although all means are close, the lowest mean of responses was obtained for the pre-academic and academic skills, while the highest mean of responses was obtained for the independent skills.

## Discussion

The purpose of this study was to explore the attitudes of special education teachers towards inclusion of students with ASD in public schools in Amman, Jordan. The relationships between demographic variables and teachers' attitudes and willingness were also considered. In addition, this article has focused on examining the most important prerequisite skills for successful inclusion of students with ASD from the special education teachers' perspectives. This discussion contains three sections. The first section discusses the findings of the study and provides a discussion of the special education teachers' attitudes towards inclusion of students with ASD. The second section addresses the importance of prerequisite skills for successful inclusion of ASD. The final section discusses implications and recommendations for future research.

### *Special Education Teachers' Attitudes Towards Inclusion of Students with ASD*

The results indicated that special education teachers were varied in their attitudes toward inclusion. Teachers who perceived inclusion positively outnumbered those who perceived it negatively. On the other hand, the majority of the special education teachers stated that they had little knowledge or no training on preparing students with ASD for inclusive education. Although a majority of special education teachers showed positive attitudes for inclusion, concerns stated within the survey sample illustrate possible reasons for hesitation in implementing inclusive education practices. Many special education teachers were aware of their limited skills and knowledge regarding inclusion, and even regarding the very nature of the disability. This appeared to make many special education teachers fearful of change and hesitant in accepting the new educational agenda of inclusion.

The current study examined how demographic characteristics such as age, gender, education levels, years of teaching experience, centers' type, and specialized training on autism correlated with the attitudes of teachers towards inclusion of students with ASD in public schools. The analyses revealed that the variables that positively correlated with teachers' attitudes towards inclusion were age, education levels, years of teaching experience, and centers' type, whereas non-significant differences were found for gender and specializing training on autism.

The finding that younger teachers who had a bachelor's degree in special education had more positive attitudes and a greater willingness to include students with ASD in public school may be a result of the philosophy of inclusion being promoted in pre-service teacher education programs in Jordan. Surprisingly, more experienced teachers had more positive attitudes for inclusion of students with ASD. This confirmed the relationship between experience in teaching and the recognition of the need for students to have differing and inclusive experiences in their programs. Both the accreditation standards and younger teachers who work in the private sector may explain the positive attitudes of these special education teachers. Finally, getting specialized training on autism was not a significant factor in accepting inclusion. Importantly, this study suggests that special education teachers would benefit from further training on both ASD and inclusive education. Inclusion of students with ASD in inclusive schooling is still a relatively new practice in Jordan and there is need for additional research on this topic.

The finding that special education teachers are varied in their attitudes toward inclusion supports previous work in this field. Previous studies of attitudes towards inclusion have yielded contradictory results. While some researchers reported uncertain and even negative attitudes of teachers towards inclusion (Hammond & Ingalls, 2003; Leyser & Kirk, 2004), most reports (e.g., Avramidis et al., 2000; Daane et al., 2000; Starr et al., 2001; Smith & Smith, 2000) indicated positive attitudes, accompanied by a belief in the fundamental value of inclusion. The main themes for special education teachers who were in favor of inclusion were that inclusive education: builds confidence and self-esteem for students with autism; presents an opportunity for all children to interact with and learn from each other; and prepares children who have a disability for an inclusive life. Indeed, many concerns were expressed in the qualitative comments of special education teachers in the current study. The main themes for teachers who were against inclusion were: inclusion adds frustration to students with autism because they may feel they are competing with the general education students; general education teachers often lack the training, resources, and necessary supplies to adequately teach students with disabilities within their classrooms; and students do not have the same support in a general education classroom as compared to a self-contained classroom. These types of concerns should be addressed in special education pre-service and in-service teacher training programs.

*Prerequisite Skills for Successful Inclusion of Students with ASD*

Children with ASD need direct teaching. They need to be taught the necessary skills that will enable them to negotiate the social environment, communicate their needs, and understand the communication of other people. They also need to be taught strategies that can help them learn with and through peers. Results of this study indicated that teachers recommended the following skills: independent skills, imitation skills, behavioral skills, playing skills, social skills, routine skills, attention skills, language skills, and pre-academic and academic skills, in that order, as being prerequisite to the successful inclusion of students with ASD in a general education curriculum. Similar findings were reported in previous research (Cole et al., 1991; Hundert et al., 1998; Wetherby & Prizant, 200). Certain characteristics of this study's sample can be used to explain these findings. Special education teachers in this study were teaching low-functioning groups of students with various forms of ASD. According to the special education teachers' perspective, these students needed to be trained on independent skills more than pre-academic and academic skills.

*Limitations, Implications and Future Research*

Certain characteristics of this study's sample limit the generalizability of these findings. Special education teachers were teaching low-functioning students with various forms of ASD. Although there is relatively little empirical information on this population, caution should be taken in generalizing these findings to represent the perspectives of special education teachers teaching higher functioning individuals. Generalization of the results is limited to special education teachers who share similar demographic variables and educational culture. Another limitation of this study is that it is focused only on the attitudes of special education teachers. In order for collaboration and inclusion to be successful, the attitudes and problems of general education teachers regarding the implementation of inclusion with ASD should also be investigated.

Future research should explore the perspectives and experiences of general education teachers at different educational levels (e.g., elementary school, middle school and high school) to determine if the experience is different from special education teachers. Future research should also explore the perspectives of other stakeholders in the inclusion process, including (a) general education students, (b) students with ASD, and (c) parents of students with ASD.

A study on a larger scale could be carried out to assess teacher's perceptions of whether children with ASD should be included in Jordanian school settings. This could also look at the extent curriculum and environment need to be modified to serve students with ASD and whether it is feasible to do so. In light of these findings, it is necessary to pay more attention to the creation and implementation of a national plan for inclusion in Jordan.

**References**


Al-Rossan, F. (2012). *Introduction to special education*. Dar Al-fker, Amman, Jordan.

Al-Zyoudi, M. (2006). Teachers' attitudes towards inclusive education in Jordanian schools. *International Journal of Special Education, 21*(2), 55-62.

American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. Text Revision). Washington, DC: American Psychiatric Association.

Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school one local education authority. *Educational Psychology, 20*(2), 191-211.

Baker, E. T., Wang, M. C., & Walberg, H. J. (1994). The effects of inclusion on learning. *Educational Leader, 52*, 3–35.

Buysee, V. & Bayley, D. B. (1993). Behavioral and developmental outcomes in young children with disabilities in integrated and segregated settings: A review of comparative studies. *Journal of Special Education, 26*, 434–461.

Centers for Disease Control and Prevention. (2012). Prevalence of autism spectrum disorders—Autism and Developmental Disabilities Monitoring Network, United States, 2008. *MMWR Surveill Summ* 2012; 61 (No.SS-3).

Cole, K. N., Mills, P. E., Dale, P. S., & Jenkins, J. R. (1991). Effects of preschool integration for children with disabilities. *Exceptional Children, 58*, 1-7.

Daane, C., Beirne-Smith, M., & Latham, D. (2000). Administrations' and teachers' perceptions of the collaborative efforts of inclusion in the elementary grades. *Education, 121*, 331-338.

Eaves, L. C. & Ho, H. H. (1997). School placement and academic achievement in children with autistic spectrum disorders. *Journal of Developmental & Physical Disabilities*, *9*, 277–291.

Education for All Handicapped Children Act. (1975). 20 U.S.C. § 1401 *et seq.*

Field, A. P. (2009). *Discovering statistics using SPSS*. (3rd ed.). London: Sage Publications.

Halvorsen, A. T., & Neary, T. (2001). *Building inclusive schools: Tools and strategies for success.* Needham Heights, MA: Allyn & Bacon.

Hamilton Wentworth District School Board. (2006). *Planning entry to school: A resource guide* [online]. Hamilton, Ontario Retrieved from http://www.edu.gov.on.ca/eng/parents/planningentry.pdf

Hammond, H., & Ingalls, L. (2003). Teachers' attitudes towards inclusion: Survey results from elementary school teachers in three south-western rural school districts. *Rural and Special Education Quarterly, 22*, 24-30.

Handleman, J. S., Harris, S. L., Arnold, M.S., Cohen, M., & Gordon, R. (2006). The Douglass Development Disabilities Center. In J.S. Handleman & S.L. Harris (Eds.), *School-age education programs for children with autism* (pp. 93-94). Austin, TX: Pro-ed.

Healthy Child Manitoba. (2002). *Guideline for early childhood transition to school for children with special needs* [online]. Winnipeg, MB. Retrieved from http://www.gov.mb.ca/fs/childcare/transition_protocol.pdf

Hundert, J., Mahoney, B., Mundy, F., & Vernon, M. L. (1998). A descriptive analysis of developmental and social gains of children with severe disabilities in segregated and inclusive preschools in Southern Ontario. *Early Childhood Research Quarterly, 13*, 49-65.

Janus, M., Lefort, J., Cameron, R., Kopechanski, L. (2007). Starting kindergarten: Transition issues for children with special needs. *Canadian Journal of Education, 30*, 628-648.

Jones, G., English, A., Guldberg, K., Jordan, R., Richardson, P. & Waltz, M. (2008). *Educational provision for children and young people with autism spectrum disorders living in England: A review of current practice, issues and challenges*. Autism Education Trust.

*Jordan, R. (2005). Autistic spectrum disorders. In A. Lewis, & B. Norwich (Eds.),* Special teaching for special children? *(pp. 110–122). Buckingham: Open University Press.*

*Lerman, D.C., Vorndran, C.M., Addison, L. & Kuhn, S.C. (2004). Preparing teachers in evidence based practices for young children with autism.* School Psychology Review Bethesda, 33*(4), 510-526.*

*Leyser, Y., & Kirk, R. (2004). Evaluating inclusion: An examination of parent views and factors influencing their perspectives.* International Journal of Disability, Development, and Education, 51*, 271–285.*

*McGregor, E., & Campbell, E. (2001). The attitudes of teachers in Scotland to the integration of children with autism into mainstream schools.* Autism: The International Journal of Research and Practice, 5 *(2), 189-207.*

*National Institute of Mental Health. (2009).* What are the autism spectrum disorders? *Retrieved from http://www.nimh.nih.gov/health/publications/autism/what-are-the-autism-spectrum-disorders.shtml.*

*Perko, S., & McLaughlin, T, F. (2002). Autism: Characteristics, causes and some educational interventions.* International Journal of Special Education, 17*(2), 59-68.*

# Inclusive Education for Learners with Special Educational Needs in Botswana: Voices of Special Educators

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**Abstract**

*The purpose of this study was to describe the roles and responsibilities of the special education teachers, and challenges they encounter in supporting the inclusion of learners with special educational needs (SEN) in regular primary schools of the south central regions of Botswana. Thirty-eight Senior Teacher Advisors Learning Disabilities (STALDs) were selected using purposive sampling and data were collected through in-depth interviews. Results revealed that most of the STALDs in primary schools in Botswana were not trained in the area of special education and the roles and responsibilities of STALDs were not clearly defined. At the same time, STALDs were concerned about training, planning time, and lack of resources as the predominant barriers for meeting the needs of all students and implementation of inclusive education in Botswana primary schools. The article concludes with a discussion of the implications of this research for continuous professional development and future practice of inclusive education in Botswana.*

## Introduction

During the past decade, inclusive education emerged as a major contentious topic in the educational discourses. Inclusive education is based on the principles of social justice, equity and diversity; it is also focused on enhancing quality education for all learners (Ainscow, Booth, & Dyson, 2006a). However, there are multiple interpretations of the concept of inclusive education. Ainscow, Booth, and Dyson, (2006b) developed a typology of six ways of thinking about inclusive education. They are:

> (a) inclusion as a concern with students with disabilities and others categorized as 'having special education needs', (b) inclusion as a response to disciplinary exclusion, (c) inclusion in relation to all groups seen as being vulnerable to exclusion, (d) inclusion as developing the school for all, (e) inclusion as education for all, and (f) inclusion as a principled approach to education and society. (p.15)

Policy-makers in developing countries have embraced the concept of inclusive education as a strategy to realize Education for All (EFA) and Millennium Development Goals (MDGs) agendas in a cost-effective manner (Peters, 2007). Although, inclusive education is a global policy aspiration, its' implementation is context specific. The focus of this paper is on the education system of Botswana.

### *The Education System in Botswana*

Located in the center of southern Africa, Botswana is a large landlocked country with a sparse population of just over 2 million people. Botswana, a former British colony, attained its political independence on September 30, 1966. Like most of its fellow commonwealth countries, the country also inherited the British education system which did not promote education for all, but only for those who could afford. This scenario however, changed with the discovery of diamond mines in the 1970s.

At the time of its independence Botswana only had 251 primary schools, 1,624 teachers and only 20% of school age children were enrolled in primary school (Government of Botswana, 2006). Botswana's healthy economy, careful governance and substantial allocation of the annual budget (one fifth) to the education sector increased the number of schools and enhanced the enrolment rate for primary schools. In 2006, there were 770 primary schools with an enrolment of 330,417 students and 13,012 trained teachers. Compared to other developing countries, primary schools in Botswana are relatively well supplied in terms of resources (Dart, Nthobatsang, Korwa & Chizwe, 2010). As a result, in the years 2007-2009 the net enrolment ratio for learners in primary school increased. Currently, the literacy rate for males is 94% and 97% for males and females (Unicef, 2009).

The first National Policy on Education (NPE) was developed in 1977. The focus of this policy was on enhancing access to education (Government of Botswana, 1977) and to produce skilled labor to support industry and various government institutions. The Revised National Policy on Education (RNPE) of 1994

emphasized ten years of basic education (Government of Botswana, 1994) which comprised of seven years of primary education followed by a three year junior certificate program. Although Botswana made tremendous progress in education, education for learners with disabilities did not receive adequate attention.

*Educational Provision for Learners with Disabilities*

Like many developing countries, initially the education of learners with SENs was in the hands of missionaries and it was mostly institution based. Although the Government of Botswana was aware of the need for education of learners with SENs very little was done to enforce it (Government of Botswana, 1993). This issue was addressed in the Revised National Policy on Education (RNPE) (Government of Botswana, 1994). The policy specifically highlighted the educational provisions for all children and young people including those with disabilities (Government of Botswana, 1994). The RNPE recommended equal educational opportunities for learners with SENs in integrated settings and simultaneously recommended a post of responsibility to help learners with SENs in every primary school; therefore, the position of STALDs was created.

Botswana, being a signatory to various international conventions, is committed to achieving education for all and MDG. Therefore, the country identified inclusive education as a strategy to realize these agendas in a cost-effective manner (Government of Botswana, 2008; McBride, 2010). In 2011, the government of Botswana developed a comprehensive policy on inclusive education (Government of Botswana, 2011) which is currently being implemented. The goals of the policy are:

- All learners will complete their basic education and progress, where possible, to senior secondary or tertiary education or to vocational training.
- Teachers will have the skills and resources to enable children of different abilities to learn effectively.
- Out of school education programs will be further developed and strengthened to ensure the inclusion in education and skills development of those children, young people, and adults whose needs cannot be met in the formal system.
- Schools will be supportive and have humane establishments which embrace and support all their learners and value their achievements, so that children will attend school regularly and work hard at their studies.
- All relevant Governmental, Non-governmental, and private organizations will work in harmony to develop and maintain an inclusive education system in Botswana. (Government of Botswana, 2011, p. 4)

This policy initiative is going to influence the inclusion of learners with SENs in Botswana's education system. It is expected that more learners with SENs will be included in regular primary schools. Therefore, STALDs have to play a major role in the inclusion of these learners into mainstream schools as the classrooms are going to be more diverse than before. As such, general and special education teachers need to collaborate and provide instruction for students with SENs in the regular classrooms. However, the roles and responsibilities of STALDs are not clearly defined. Therefore, this study was initiated to understand the current roles and responsibilities of STALDs and the challenges they encounter in supporting inclusion of learners with SEN in regular primary schools in the south central region of Botswana.

*Roles and Responsibilities of Special Educators in Inclusive Education*

Special educators play a critical role in the successful inclusion of learners with SENs in the general curriculum. General educators and special educators need to collaborate to cater to the needs of learners with diverse learning needs (Eisenman, Pleet, Wandry, & McGinley, 2011). Giangreco, Cater, Doyle and Suter (2010) noted that irrespective of settings, special educators are responsible for 'assessment, collaboration with team members, case management, service coordination, instruction, data collection, communication and working with families, positive behavior supports, and transition planning' (p. 252). Therefore, special educators are encouraged to apply differentiated instruction, specialized skills, and strategies to facilitate the teaching and learning process so that learners with and without SENs can learn together (Jorgensen, Shuh, & Nisbet, 2006; Thousand, Villa, & Nevin, 2007). Unfortunately, most special educators currently working in inclusive classrooms may not have adequate knowledge and skills to function effectively in the inclusive environment (Mukhopadhyay, 2009). Based on an extensive review of literature, Giangreco et al. (2010) recommended various roles or responsibilities of special education for the successful implementation of inclusive education.

They are:

- Special educators should apply creative problem-solving principles to support class-teachers, learners and their families' collaborative efforts
- Work with classroom teachers to adapt and modify curriculum and instruction in ways that facilitate participation of students with disabilities in typical class activities.
- Support inclusive classrooms by providing instruction in a variety of formats such as co-teaching with the classroom teacher, teaching small mixed-ability groups, or individual tutoring.
- Facilitate interactions between peers with and without disabilities. This occurs through the combined efforts to teach students with disabilities pro-social behaviours, apply positive behaviour supports, and teach students without disabilities how to interact with their classmates who have learning differences,
- Co-directing the work of teacher assistants along with classroom teachers and supervise the work of teacher assistants. (Giangreco et al., 2010, pp. 25-253)

The roles of special educators in inclusive classrooms will continue to evolve and enhance both access and quality of education for learners with SENs in inclusive learning environments. The aim of this study was to gain in-depth understanding of the experiences of STALDs in including learners with SENs in their schools and their roles and responsibilities in Botswana primary schools.

## Method

### *Research Design*

This qualitative study was conducted within the phenomenological-constructive paradigm which captures multiple realities to understand a phenomenon (Guba & Lincoln, 2005). Qualitative methodology was selected for this investigation because of its unique suitability in meeting the purpose of this research, i.e., to hear the voices of STALDs. Miles and Huberman (1994) identified the strengths of qualitative research as: (a) it occurs in natural settings, (b) allows for holistic, rich, and complex findings, and (c) focuses on the living experiences of participants. By employing qualitative methodology, the researcher was able to gain an insight about the complexity and underlying issues of practice of inclusion of learners with disabilities in Botswana primary schools.

### *Participants*

Thirty-eight STALDs from 165 primary schools in the South Central region of Botswana were selected using purposive sampling. These participants were selected because at the time of the study, all the participants were responsible in supporting learners with disabilities in mainstream educational settings. Table 1 displays the demographic information of the participants.

Table 1

*Participants' Demographics*

| Participants | Number (%) |
|---|---|
| Gender | |
| Female | 33 (87%) |
| Male | 5 (13%) |
| Age Range | |
| 26-30 | 2 (5%) |
| 31-35 | 2 (5%) |
| 36-40 | 19 (50%) |
| > 40 years | 15(40%) |
| Location of the school | |
| Urban | 10 (26%) |
| Semi-Urban | 14 (37%) |
| Rural | 14 (37%) |
| Teaching Experiences | |
| 6-10 years | 16 (16%) |
| 11-15 years | 18 (18%) |
| 16-20 years | 29 (29%) |
| >20 years | 42 (42%) |
| Grade Level / Class Taught | |
| Lower | 18 (47%) |
| Mid | 14 (37%) |
| Upper | 06 (16%) |
| Level of Education | |
| PTC | 06 (16%) |
| Diploma Primary Ed | 14 (38%) |
| Diploma Sped | 10 (26%) |
| BEd Sped | 01 (2%) |
| BEd PriEd | 07 (18%) |

*Data Collection Procedure*

Following informed consent and reassurance of confidentiality and anonymity, data were collected through in-depth semi-structured individual interviews. Interviews included a brief questionnaire comprising socio-demographic items, and an interview guide based upon the research topics. The guide was constructed based on a review of literature and feedback of mini focus group discussions with in-service student teachers. The interviews dealt with the following areas: (a) inclusive education; (b) their roles and responsibilities (c) benefits of inclusion; (d) the level of knowledge and skills of the STALDs in regards to inclusion; and (e) barriers of successful inclusion and (f) training needs. The interviews lasted between 45 and 60 minutes each. Interviews were audio-taped and transcribed using MS Word 2010. Later on each interview document was assigned as primary documents of the Hermeneutic Unit of AtlasTI 5.5, qualitative data analysis software.

*Data Analysis*

A four-stage inductive analysis procedure was used. In the first stage, the researcher performed a meticulous reading of the interviews to familiarize themself thoroughly with the transcript content. In the second stage, the researcher identified, classified, organized, and encoded sections of the interview that were identified as 'units of meaning' (Corbin & Strauss, 2008) consistent with inclusive education. The initial coding included the unique aspects of personal functioning as STALDs with the learners with SENs and everyday interactions with these learners. In this way the researcher was able to gather the holistic picture of the roles and responsibilities of special educators. In the third stage of the analysis, the researcher focused on integration and synthesis of similar units of meaning identified for each theme (Corbin & Strauss, 2008). The themes were challenges in supporting learners with disabilities and the attitude of general teachers. In the fourth stage of analysis, researchers compared the themes and drew connections between them to gain a holistic picture.

## Results

The 38 teachers interviewed for this research provided rich, descriptive, and insightful responses about their personal perceptions of teaching learners with SENs and their experiences as teaching professionals in Botswana. The interview responses were diverse in content and scope. Because the interview questions were open-ended, the teachers stated their personal thoughts regarding supporting learners with SENs. Analysis of their experiences regarding inclusion of learners with SENs in regular schools yielded four major themes: (a) conceptualization of inclusive education, (b) roles and responsibilities of STALDs, (c) barriers of inclusive education, and (d) professional developments.

*Special Education Teachers' Conceptualization of Inclusive Education*

Fourteen participants noted that they were familiar with the concept of inclusive education. However, most of them could not differentiate between integration and inclusion, and instead used the terminology interchangeably. Interestingly, most respondents interpreted inclusive education as 'integrating learners with and without disabilities in regular schools.' Some respondents reported having difficulty in defining inclusive education, while others reported misconceptions about inclusive education, such as 'inclusive education being the same as special education', and inclusive education as being 'one of the components of special education.' A few STALDs, however, indicated their concerns about inclusion of learners with SENs in their schools with comments such as this:

> …full-inclusion would not benefit all learners. For example, learners with moderate to severe intellectual disabilities may not benefit from full inclusion; as these learners required special educators to meet their special needs. They also needed more resources to intervene and regular classrooms lacked resources. (urban-trained)

*Special Education Teachers' Support of Inclusive Education*

The second theme that emerged was the STALDs' support of inclusion of learners with SENs in regular schools. It was interesting to find that most of the participants supported an integrated model rather than a full inclusion model, whereas only a few participants supported the idea of full inclusion. Their reason statements revealed that:

> I don't mind having students with disabilities in my school, but it would be better if these learners are placed in special classes rather than in regular classrooms. If you place them in regular classrooms, it would be a disadvantage to students with disabilities. (rural-trained)

> Full inclusion is neither productive nor effective for both learners with and without disabilities for

> the entire school day. Learners with disabilities need separate and self-contained classrooms. (rural-untrained)

These sentiments were echoed by other respondents, who stated that, 'as teachers, we have to support both learners with and without SENs, but we are not clear about our other responsibilities apart from teaching'. Other responses included fear of greater workload, as well as increased difficulty in managing the classroom environment. Additional concerns leading to opposition to full inclusion included the insufficiency of schools' resources and limited support from the government. Since inclusive education is a new concept in Botswana, and the STALDs are not trained, these fears may originate from a lack of understanding of inclusive education.

In choosing which type of learners with SENs would be most suitable for studying in mainstream schools, most of the participants believed that students with learning difficulties and physical disabilities were capable of studying in mainstream schools. Learners with sensory impairments were the least preferred group by the participants and these apprehensions could be attributed to lack of training in Sign Language and Braille. Only a few believed that a full inclusion model will be successful in Botswana

*Special Educators' Perceptions on the Benefits of Inclusive Education*

It emerged from the data that some STALDs expressed satisfaction about the benefits of inclusive education. Five most frequent sub-themes that emerged from the data were: (a) acceptance; (b) equal opportunities; (c) cost-related issues; (d) development of skills and knowledge; and (e) favorable attitudes. Generally**,** STALDs took philosophical standpoints and moral positions in their statements. They viewed inclusive education as a launching pad for promoting 'values like tolerance, acceptance, and respect for the society' and 'valuing human differences'. One participant succinctly said 'inclusive education will develop love and acceptance towards each other to build a caring and compassionate nation that value prosperity for all.' The inclusion of learners with disabilities was an 'eye-opening' experience for some STALDs. One of them said:

> We have included a learner with a hearing impairment in our school. I encouraged other learners to learn sign language. I was very happy to observe that learners were interacting and helping each other and learnt sign language. I think it's been an eye-opening experience for me. (urban-untrained)

STALDs were of the opinion that the immediate benefit of inclusive education was peer interactions and acceptance.

*The Roles and Responsibilities of Special Education Teachers*

During the interviews, STALDs felt enthusiastic and optimistic about the inclusion of learners with SENs in their schools, and that they could improve their classroom practice through 'shared vision':

> Firstly … I think … with us, we need to change our mind-set … everyone is talking about inclusive education, but no one is sure what is inclusion education? Is it alternate to special education? … It's important for everybody talking openly to see … how it would … benefit the school, children, family and community, particularly learners with disabilities. … Maybe it's the right path … and without the shared vision … a collective vision, then I don't think it would take us anywhere. (rural, untrained)

STALDs talked about the importance of training and job descriptions. These teachers likened their experiences to an uncomfortable working environment. One of the STALDs lamented the job descriptions. While describing the current practice she stated:

> I am not sure about what am I supposed to do, if my responsibility is to support learners with disabilities, then I should not be given any other class. I have my class on top it I have to support other teachers and students. Moreover, I am not trained in that area. (urban-untrained)

The processes of collaboration and discussion with stakeholders were not practiced in every school. One of the teachers, who was trained in special education, explained:

> It was very unusual for us to collaborate with teachers and hear from others. Regular teachers think I am supposed to pull-out children with disabilities outside the classroom and provide remediation in teaching Mathematics, English and other school subjects. In actual fact, I am supposed to help learners with disabilities learners within the classroom. (urban-trained)

The unsettling effect of the sharing of experiences initiated debate about the roles and responsibilities of STALDs. One of them said:

> The roles and responsibilities of STALDs in regular schools are not clearly defined, the school-head has no idea and she thinks I am like any other teacher whereas class-teachers think I am a specialist. I am in a serious dilemma. (rural-trained)

*Barriers to the Implementation of Inclusive Education*

*School-Related Barriers.* STALDs often complained about inadequate infrastructure and resources. They complained about the lack of classrooms, inadequate structural modifications such as ramps and assisted toilets, as well as adaptive furniture and instructional materials. One of them said:

> We don't have enough classrooms, assisted toilets and special furniture. These are necessary for our students particularly those who use wheelchairs; they can't move freely. The classrooms are small and often overcrowded. (urban-untrained)

On the issue of availability of support services STALDs were highly disgruntled about the service delivery. One of the participants lamented the lack of support service facilities:

> Psycho-educational assessment and intervention, speech language services and occupational therapy are essential for the successful inclusion of learners with SENs. There is only one assessment and intervention center in Botswana to cater for a large number of learners with disabilities. (urban-trained)

Another participant who was also trained was very clear about professional collaboration. She said:

> Professionals such as speech therapists, occupational therapist and other have never visited the school and work with us. We refer our children for assessment and they send us report and we keep a copy of the report. We never get the opportunity to discuss or collaborate; I think based on the assessment the professionals should collaborate and train us intervention strategies. We cannot work alone. Our school has an intervention team; it exists only on paper, without the support of other professionals the school intervention can't function. (urban-trained)

One of the teachers commented that she never received any detailed assessment information about the abilities, needs, educational background, or current educational goals of a student who came into her class from another institution:

> We've never seen any detailed report about any child before admission. We wouldn't know how to teach a learner with disabilities without proper intervention plan. Moreover, we get students anytime during the term; I am I going to teach that student. (rural-trained)

The participants were concerned about the lack of parental support in the teaching–learning process. Some STALDs also indicated that parents did not cooperate and students did not do their homework because parents did not help their children at home. The STALDs further voiced their disappointment and dissatisfaction about the general lack of parental involvement and interest in their school, and said the following about parental involvement:

> The parental involvement… it's almost non-existent… as if the parents are happy to see their children off to the school. They just dump their children. (rural-untrained)

Interestingly, most of the primary schools in the south central region had Parent Teachers Associations (PTA) and School Intervention Teams (SIT), which existed to encourage parents' involvement and support. Unfortunately, parental support was minimal in most of the schools. In some situations, SIT appeared only on paper but not in practice, while these were supposed to be structures which should involve parents of learners with SENs.

*STALDs Related Barriers.* Participants also identified the following barriers related to themselves as STALDs: (a) limited knowledge and skills; (b) time constraints resulting in inadequate planning and preparation; and (c) teacher "burnout." STALDs described their lack of knowledge and skills related to lack of in-service training facilities. Similarly, others stated their concern about the time required to learn how to apply classroom accommodation strategies. They commented that additional time was required to complete necessary training on inclusive education. The STALDs also complained about the workload and high student teacher ratio. One of them said:

> Although I am promoted as STALDs, I have my own class and on top of it I need to support other teachers. Right now I am teaching 176 children

> "because we are simultaneously experiment subject specializations"; four of them have hearing impairment and rest without any disabilities. I am teaching Social Studies for the whole school. I am failing to provide adequate services to learners with disabilities. (urban-trained)

Participants also felt that large class-size and piloting of subject specialization compromised service delivery in primary schools. One of the participants succinctly summarized how service delivery was affected. She said:

> I think STALDs should not be given any classes. We spend a lot of time teaching content; therefore, do not have time to collaborate with teachers, professionals and parents. I am failing both as a teacher and as STALDs. (urban-trained)

Another added that STALDs would 'burnout" if something was not done about the teacher- student ratio. She mentioned that, 'some of us will be forced to leave the job.'

*Need for Professional Development*

It is important to underscore that, only fourteen interviewees reported that they had participated in in-service training while the majority attended only one training workshop/ seminar. Nevertheless, more than half of the respondents believed that they need specific training on inclusive education in order to perform their job more effectively. Training needs of STALDs were illustrated in the following comment:

> I think all teachers need to be knowledgeable about children with disabilities. This is possible by allowing them to attend training. If I am the only person who receives training, then I am the only one who gains knowledge (whatever limited it may be), someday I might not be here, so teachers should have some knowledge and how to deal with them. Right now, whoever deals with students with disabilities is one that takes responsibility; I think inclusive education could only be successful if all of us take the responsibilities of teaching students with disabilities. (urban-untrained)

In addition, some respondents also identified specific types of special-education needs that they wanted to understand more. It is encouraging to note that many respondents have thought of obtaining additional training in inclusive education, and that they are: (a) adapting curriculum, (b) adapting materials, (c) managing behavior problems, (d) communicating and working with a parent, (e) developing IEPs, (f) adapting technologies, (g) collaborating with team members, and (h) giving individual attention.

## Discussion

The main finding from this study suggested that most STALDs in Botswana did not have a clear understanding of the concept of inclusive education, and of their roles or responsibilities in inclusive classrooms. This finding is in agreement with the study done by Fisher, Frey and Thousand (2003). Although Hoover and Patton (2008) outlined the roles and responsibilities of special educators in inclusive classrooms, Fisher et al. (2003) asserted that these were more at a 'conceptual level' that lacked empirical evidence. As stated earlier, Giangreco et al. (2010) recommended that special educators should be involved in assessment, collaboration with team members, case management, service coordination, instruction, data collection, communication and working with families, positive behavior supports, and transition planning. Unfortunately, during the interviews, participants of the current study never mentioned these activities as essential components of their services. Since inclusive education is a relatively new practice in Botswana and most of the participants were not formally trained in special education, these findings were expected (Mukhopadhyay, 2009).

Interestingly, participants in this study supported the idea of inclusion of learners with SENs in regular school more at a philosophical level, but they preferred learners with mild disabilities as opposed to learners with severe to profound disabilities. These STALDs were of the opinion that such learners lacked the skills needed to cope with regular classroom curriculum; therefore, special schools/units options should be used. This finding is in agreement with the study carried out by Gaad and Khan (2007). Participants in that study preferred to include learners with learning disabilities. This finding also indicated that special educators of Botswana operate within the deficit-driven approach (Kluth, 2005; Rea, McLaughlin, & Walther-Thomas, 2002), rather than the right-based approach. Hence, they preferred special units for learners with intellectual disabilities.

Participants of this study were highly concerned with the lack of support and availability of resources in primary schools. Specifically, they indicated that there was lack of appropriate instructional materials needed for learners with SENs. In addition, they regretted the insufficient time available for collaboration and consulting with other teachers, parents, and professionals

in order to meet the learning needs of various students with disabilities. Findings of this study are quite similar to earlier studies carried-out in Botswana (Chhabra, Srivastava & Srivastava, 2010; Dart et al. 2010; Kuyini & Mangope, 2011; Mukhopadhyay, 2009). Mukhopadhyay reported that general education teachers and school-heads were also concerned about inadequate resources and funding to support students with disabilities in regular classrooms. These findings have been corroborated by other studies in developing countries (Alur, 2001; Singal, 2005, 2006; Johnstone & Chapman, 2009), which expressed concern about the dearth of resources as one of the challenges affecting the successful implementation of inclusive education programs. Given the fact that there is a dearth of resources required for successful implementation of inclusive education in developing countries, teachers and special educators should be trained to be creative and innovative so that they can produce indigenous instructional materials with local resources, and adapt them to suit the needs of learners with disabilities. This can be achieved through in-service training, possibly in conjunction with teacher-training institutions.

A majority of the participants reported that they were not formally trained in special education, therefore, were highly enthusiastic in receiving additional training. Currently, some of them were unable to participate in the training due to heavy workload commitments. On a positive note, the findings of this study may prove very useful in guiding efforts for educational practitioners and government agencies to implement inclusive education. It was interesting to find that the opinions of both untrained and trained special educators were almost similar and that the locations of schools did not have any influence on teachers' perceptions.

## Recommendations and Conclusion

The purpose of this study was to explore the STALDs beliefs and practices of inclusive education in the South Central Region of Botswana. Although learners with disabilities are already placed in regular schools in Botswana, the services offered to them are highly fragmented. STALDs were concerned with the lack of support and non-availability of resources in primary schools. In addition, they lamented the insufficient time available for collaboration and consulting with other teachers, parents, and professionals to meet the diverse learning needs of students with disabilities. The findings reflect the pragmatic factors such as limited time, large class-size, heavy workload, existing regulations, insufficient institutional support, which may pose significant barriers to collaboration and successful implementation of inclusion at the primary school level.

Based on the findings of this research, it is recommended that the Ministry of Education and Skills Development (MoSED) in collaboration with teacher training institutes organize regular professional development programs for STALDs. However, it is important to underscore that short (one-two days) in-service training workshops or seminars alone rarely result in change in teacher behavior (Kaikkonen, 2010). Therefore, multiple components of professional development which include training, implementation guides, classroom materials, instructional coaching, and performance feedback could be used for STALDs (Fox, Hemmeter, Snyder, Binder & Clarke, 2011). In addition, this professional development should equip STALDs with practical skills on instruction, collaboration, alternative forms of evaluation, classroom management, conflict resolution, scaffolding techniques and curriculum adaptation. In addition, the training workshops should also include visits to resource centers and internships. Since different types of activities can offer different content and insights to the respondents, participants' exposure to the topic will be significantly enhanced more than with what short seminars (one-two days) can offer. Eisenman et al. (2011) recommended 'Collaborative Consultative Model' as an ideal conceptual model for in-service training. One encouraging finding from the current study was that most of the respondents were enthusiastic in furthering their training to enhance service delivery. It, therefore, seems likely that, if adequate time is provided and financial support is available, many STALDs will be motivated to take advantage of such training.

## References


Ainscow, M., Booth, T., & Dyson, A. (2006a). Inclusion and the standards agenda: negotiating policy pressures in England. *International Journal of Inclusive Education, 10*(5), 295-308.

Ainscow, M., Booth, T., & Dyson, A. (2006b). *Improving schools, developing inclusion*. London: Routledge.

Alur, M. (2001). Some Cultural and Moral Implications of Inclusive Education in India—a personal view. *Journal of Moral Education, 30*(3), 287-292.

Chhabra, S., Srivastava, R. & Srivastava, I. (2010). 'Inclusive education in Botswana: the perceptions of school teachers.' *Journal of Disability Policy Studies*, *20*(4), 219-228.

Corbin, J., & Strauss, A. (2008). *Basics of qualitative research* (3rd Ed.). Los Angeles, CA: Sage.

Dart, G., Nthobatsang, T., Korwa, L. & Chizwe, O. (2010) 'The experiences of albino children in Botswana junior secondary schools; a double case study'. *The British Journal of Special Education, 37*(2), 77-86.

Eisenman, L. T., Pleet, A. M., Wandry, D., & McGinley, V. (2011). Voices of special education teachers in an inclusive high school: Redefining responsibilities. *Remedial & Special Education, 32* (2), 91-104.

Fisher, D., Frey, N., & Thousand, J. (2003). What do special educators need to know and be prepared to do for inclusive schooling to work? *Teacher Education and Special Education*, *26*(1), 42-50.

Fox, L., Hemmeter, M.L., Snyder, P. Binder, D.P., & Clarke, S. (2011). Coaching early childhood special educators to implement a comprehensive model for promoting young children's social competence. *Topics in Early Childhood Special Education, 31*(3), 178-192.

Gaad, E., & Khan, L. (2007). Primary mainstream teachers' attitudes towards inclusion of students with special educational needs in the private sector: A Perspective from Dubai. *International Journal of Special Education*, *22*(2), 95-109.

Giangreco, M. F., Carter, E. W., Doyle, M. B., & Suter, J. C. (2010). Supporting students with disabilities in inclusive classrooms: Personnel and peers. In R. Rose (Ed.), *Confronting obstacles to inclusion: International responses to developing inclusive schools*. London: Routledge.

Government of Botswana, (1977). *National policy on education.* Gaborone: Government Printers.

Government of Botswana, (1993). *National commission on education*. Gaborone: Government Printers.

Government of Botswana, (1994). *Revised national policy on education.* Gaborone: Government Printers.

Government of Botswana, Central statistics office (2006). *Education statistics report*. Retrieved from http://www.cso.gov.bw/ images/stories/ Education/ education_2006report.pdf

Government of Botswana, Ministry of Education and Skills Development (2008). *National reports on the development of education: Inclusive education: The way of the future.* Draft report. Retrieved from www.ibe.unesco.org.National.pdf.

Government of Botswana, Ministry of Education and Skills Development. (2011). *Inclusive education policy: Action plan*. Draft report.

Guba, E. G., & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions and emerging confluences. In N. Denzin. & Y. S. Lincoln. (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp.191-215), Thousand Oaks; CA: Sage Publications.

Hoover, J. J., & Patton, J. R. (2008). The role of special educators in a multitiered instructional system, *Intervention in School and Clinic*, 43 (4), 195-202.

Johnstone, C. J. & Chapman, D. W. (2009). Contributions and constraints to the implementation of inclusive education in Lesotho. *International Journal of Disability, Development and Education, 56*(2), 131-148.

Jorgensen, C. M., Schuh, M. C., & Nisbet, J. (2006). *The Inclusion Facilitator's Guide*. Baltimore: Paul H. Brookes.Kaikkonen, L. (2010). Promoting teacher development for diversity. In R. Rose (Ed.), *Confronting obstacles to inclusion: International responses to developing inclusive schools*. London: Routledge.

Kluth, P. (2005). *Special education is not a place: Avoiding pull-out services in inclusive schools.* Retrieved from http://www.paulakluth.com /readings / inclusive-schooling/special-education-is-not-a-place.

Kuyini, A. B., & Mangope, B. (2011). Student teachers' attitudes and concerns about inclusive education in Ghana and Botswana, *International Journal of Whole Schooling. 7*(1), 2011

McBride, R (2010). Education and training policy support program (inclusive education policy), Draft Report.

Miles, M.B., & Huberman, A.M. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd ed.) London: Sage Publishers.

Mukhopadhyay, S. (2009). Factors influencing the practice of inclusive education in Botswana primary school. Unpublished Doctoral Dissertation. University of Botswana

Peters, S. (2007). "Education for All?" A historical analysis of international inclusive education policy and individuals with disabilities. *Journal of Disability Policy Studies, 18*(2), 98-108.

Rea, P. J., McLaughlin, V.L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pull-out programs. *Exceptional Children*, *68*(2), 203-223.

Singal, N. (2005) Mapping the field of inclusive education: a review of Indian literature. *International Journal of Inclusive Education, 9*, 331-350.

Singal, N. (2006). An ecosystemic approach for understanding inclusive education: An Indian case study. *European Journal of Psychology of Education, Special issue: Ten years after Salamanca, XXI(3),* 239-252.

Thousand, J. S., Villa R. A., & Nevin, A. (2007). *Differentiating instruction: Collaborative planning and teaching for universally designed learning*. Thousand Oaks, CA: Corwin.

Unicef. (2009). Information by country: Botswana. Retrieved on 15th June, 2011 from http://www.unicef.org/infobycountry/botswana_statistics.html

# A Study of Ghanaian Early Childhood Teachers' Perceptions about Inclusive Education

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**Abstract**

*Inclusion is designed to bring special education services into the general classrooms. Research indicates that children with disabilities demonstrate better progress when learning with typically developing peers in general classrooms than they would in segregated learning environments. In inclusive classrooms, children with disabilities learn by observing their peers without disabilities. The current study explores early childhood teachers' perceptions of inclusive education in Ghana, and identifies the barriers to inclusion in that country. Purposeful sampling was used to select participants, and qualitative measures were used for data collection and analysis. Results revealed that teachers understood the benefits of inclusive education; however, due to limited resources such as teacher aides, developmentally appropriate materials, and lack of proper training on how to manage inclusive classrooms, inclusive education was a challenge to most teachers. Results also indicated that teachers needed more professional development on teaching in inclusive classrooms and on the knowledge of what constitutes quality inclusion in early childhood education classrooms. Finally, the study revealed the need for more funding in order to recruit teacher aides and purchase more developmentally appropriate materials.*

## Introduction

Special education is not new to Ghana. Attempts to provide education for children with disabilities in Ghana date back to the year 1936, when missionaries pioneered the subject (Anthony, 2009; Anthony & Kwadade, 2006; Avoke, 2001). The Society of Friends of the Mentally Retarded Association was established by parents of children with intellectual disabilities (ID) in 1964. The association advocated for a home for individuals with disabilities. Efforts made by the association, led to the establishment of the first "home for the mentally handicapped" in 1966 (Anthony, 2009; Ghana Education Service Special Education Division, 2005). This idea of establishing separate or segregated places (e.g. homes and institutions) for those with disabilities resonated with what was going on in the West. In the 1900s, in the United States and Europe, people with disabilities were placed in segregated institutions (Deiner, 2010; Safford & Safford, 1996).

In Ghana, The National Education Act of 1961 led the government to assume the role and responsibility of educating all children with disabilities (Anthony & Kwadade, 2006). The 'Home for the Mentally Handicapped' became the first 'school for the mentally handicapped' in 1970 (Avoke, 2001). According to Anthony (2009), "the 1970-80's saw rapid growth in the number of segregated 'special schools' for the 'visually impaired' (VI), the 'hearing impaired' (HI), and the 'mentally disabled' (MD)" (p.17). Increasing national recognition of the need for additional education services led to the formation of the Special Education Division (SpEd) within the Ghana Education Service (GES) in 1985 (Ghana Education Service Special Education Division, 2005). The idea of segregating students with special needs is not something peculiar to the Ghanaian education system. In the United States around 1950-1970, special education was marked by segregation; learners with disabilities attended their own schools (Deiner, 2010). With time, segregation was found to be demeaning to those with disabilities and the quality of education in segregated schools was found to be unequal when compared to the quality of education in general schools (Deiner, 2010; Gargiulo & Kilgo, 2011).

Today, the global trend in educating children with disabilities is to have them in general classrooms (called inclusive classrooms), where they play and learn with their peers without disabilities (Aldridge & Goldman, 2007; Pijl, Meijer & Hegarty, 1997; Widerstrom, 2005). This trend is called inclusion. In Ghana, inclusive education implemented by Ghana Education Service FCUBE policy (FCUBE stands for Free Compulsory Universal Basic Education), is still in its infancy. The stated goal by The Ministry of Education, Sports and Science (MoESS) is 100% enrolment of students with severe disabilities into mainstream schools by 2015 (Government of Ghana, 2003; MoESS, 2008)

### *Inclusive Early Childhood Education*

Research in early childhood education indicates that children with disabilities learn more in natural environments or least restrictive environments (LRE) (Deiner, 2010; Gargiulo & Kilgo, 2011; Widerstrom, 2005). LRE is a legal term interpreted to mean that young children with special needs are to be educated in settings as close as possible to the regular or general education environment (Gargiulo & Kilgo, 2011). Natural environments is a term generally interpreted to mean "those settings that are typical or natural for the young child's peers who are not disabled" (Gargiulo & Kilgo, 2011, p. 138). Examples of natural environments are: school, child care centers, community activities like play groups, library story groups, and religious activities (Widerstrom, 2005). Full inclusion in natural environments recognizes "the value of young children with special needs learning from typically developing peers, and at the same time, typically developing children learn to accept and appreciate difference in ability and behavior as they interact with peers with special needs" (Widerstrom, 2005, pp. 16-17). The concept of full inclusion in early childhood classrooms or natural environments has its roots in Albert Bandura's learning theory. The work of Bandura (1992) focused on how children learn by observing other children. Segregating children at an early age would mean that children with disabilities only have peers with disabilities available as role models (Deiner, 2010). Segregation may result in teaching children to become more disabled. With teacher support and exposure, children with disabilities can learn to interact with their peers without disabilities.

For early childhood inclusion to be viable, the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC) identified the features of inclusion that can be used to determine high quality early childhood programs and services. The features are: access, participation, and supports (DEC & NAEYC Joint Position Statement, 2009). Access refers to providing children with disabilities access to a wide range of learning opportunities, activities, settings, and environments (DEC & NAEYC Joint Position Statement, 2009). Participation refers to allowing children with disabilities to have as much participation as possible in typical activities with typically developing children (DEC & NAEYC Joint Position Statement, 2009). It is important to note that, even if environments and programs are designed to facilitate access, some children will need additional individualized accommodations and supports to participate fully in play and learning activities with peers and adults. Supports refer to an infrastructure of systems-level supports that should be in place to facilitate the efforts of individuals and organizations providing inclusive services to children and families. For example, teachers, school administrator, specialists, and family members should have access to on-going professional development and support to acquire knowledge, skills, and dispositions required to implement effective inclusive practices (DEC & NAEYC Joint Position Statement, 2009).

Ghana's concept of inclusive education has a lot of similarities with what the DEC and NAEYC advocate for in terms of features of quality inclusive early childhood education. Similar to DEC and NAEYC who recommended practices or features of quality inclusive early childhood education, Ghanaian inclusive education policy FCUBE advocate for increasing access, retention and participation of all students of school-going age (Agbenyaega, 2007).

Although the international trend toward inclusive education has informed Ghanaian special education policy, and the concept of inclusive education already exists in a number of school districts (Anthony, 2009), there is not much research in Ghana that informs current teachers, parents, and policy-makers of the perception of early childhood education teachers towards inclusive education, and the barriers that may hinder progress in current inclusive classrooms. Anthony (2009) reported that "the number of inclusive schools accommodating children with non-severe disabilities has risen dramatically from 35 in 2004 to 129 in 2008" (p. 7). Before the concept of inclusive education is disseminated on a broad scale in Ghana, studies are needed to find out barriers to inclusive education in diverse Ghanaian educational contexts so as to improve professional development and a variety of other supports that are required to make inclusive early childhood education work.

### *Purpose of the Study*

This current study examined early childhood teachers' perception of inclusive education and the barriers to inclusive education in early childhood classrooms in Ghana. Specifically this study sought to explore teachers' perception and the barriers to inclusive education affecting five to eight year old early childhood education teachers.

### *Research Questions*

This study sought to address the following research questions:

1. How do early childhood education teachers in Ghana

define the concept of inclusion in early childhood education classrooms?
2. What are the early childhood education teachers' perceptions about inclusion in early childhood classrooms in Ghana?
3. What are the barriers to inclusion that affect early childhood education teachers in Ghana?

### *Significance of the Study*

Several educational stake holder groups may find the results of this study useful. Faculty, for instance, involved in global teacher education may find it useful to know how teachers in Ghana perceive and feel about the importance of inclusive education. Perceptions and feelings may reveal the types of needs administrators and policy-makers need to address as a way to improve inclusive education in the Ghanaian context, and in teacher education programs. Teachers could also benefit from the study as the results from the study could help them reflect on their current pedagogy in inclusive classrooms and how to gain more skills on how to teach in inclusive environments.

## Method

### *Research Design and Participants Selection*

The study used a qualitative approach to explore teachers' perceptions of inclusive education, and describe how the teachers perceived the benefits and challenges to inclusion in the Ghanaian classroom context. Purposeful sampling was used to select participants for the study (Merriam, 1998; Patton, 2002). Contact with teachers from early childhood primary schools in the Central Region in Ghana was initiated by way of recruitment letters handed out by one of the researchers during a school visit. Teachers who indicated their willingness to participate in the study were asked to complete an informed consent form and agree to participate in in-depth interviews. All the interviews for the study took place in an office for one of the researchers. Participants of the study consisted of female teachers, six of the participants were kindergarten teachers, three were first grade teachers, and one was a second grade teacher. All the participants had gone through an early childhood teacher training program. The average class size for all participants was 40.

### *Data Collection and Analysis*

Qualitative data for the study were collected from ten participants by way of semi-structured interviews lasting from 45 minutes to one hour twenty minutes. All interviews were audio-recorded with the permission of the study participants. During the interview, probing questions were asked in order for participants to explain fully. The data were coded and analyzed for themes, commonalities, and distinctions (Saldana, 2009). Caudle (2004) simplifies codes or categories as "labels that assign themes to the evaluation of data" (p. 422). Saldana (2009) explains a 'code' as "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attributes for a portion of language-based or visual data (p. 3). In this study, the process of coding involved identification of categories and subcategories, assigning of labels to recurring themes, and also looking for independent ideas bearing in mind that the data collection technique used semi-structured interviews, which are less structured formats that "assumes that individual respondents define the world in unique ways" (Merriam, 1998, p. 74). Member checking was used to ensure the trustworthiness of the information gathered from qualitative data (Edmonson & Irby, 2008; Merriam, 1998); participants were contacted again, and were asked for feedback on the outcomes of the qualitative data analysis. Participants provided more information where they felt they were misrepresented. This process helped to confirm or disconfirm the consistency of the interpretations derived from qualitative data (Merriam, 1998). In reporting the data, participant confidentiality was maintained, no participant names were used. Also, two qualitative research experts were asked to review the preliminary insights ascertained from the data to ensure the authenticity of the data analysis. The criteria used by the experts were to review the responses from participants, and the coding process which led to the themes that emerged.

### *Limitations of the Study*

Marshall and Rossman (2006) note that all proposed research projects have limitations. This study used purposeful sampling. Even though many justify purposeful sampling "based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam, 1998, p. 61), some view purposeful sampling as biased due to the fact that it relies on the judgment of the researcher when it comes to the selection of participants (Morse & Richards, 2002). In addition, this study focused on a few participants; therefore, the findings of the study are not generalizable beyond the Ghanaian education context.

## Results and Discussion

An analysis of the definitions supplied by teachers regarding their perception and understanding of what constitutes inclusion or inclusive classrooms reveal that there was lack of in-depth understanding of what constitutes inclusion, and there was no consensus as to what teachers considered as inclusive classrooms and inclusive education. Also, the definitions provided by teachers were not exhaustive and many definitions were one sentence or less. For instance, teacher one said:

> Inclusion is taking care of a special child.

Teacher Two:

> [Inclusion] is to include the special and challenging children [children with disabilities] in the mainstream.

Teacher Three:

> Inclusion means including all children in a class for teaching not considering any kind of abnormality or challenge.

It is surprising that four of the participants chose not to share their definitions and understanding of inclusive classrooms. It is important to note that the teachers' understanding largely influences pedagogy and their students' achievement (Bitter & Pierson, 2002). Without sharing their understanding, it would be difficult to evaluate what all the teachers considered to be inclusion and the pedagogy required in inclusive classrooms.

All participants agreed that inclusion had benefits for students with disabilities. Participants mentioned that when students with disabilities are allowed to learn together with their typically developing peers in inclusive classrooms, they develop a sense of belonging to the classroom community and the society, learn from typically developing peers, and also develop a positive bond with their peers. One teacher said:

> When children with disabilities are allowed to learn with those without disabilities…this will let them know that they also belong to the society [classroom]. It will let them feel free with their colleagues [peers].

Another teacher said:

> Learning in an inclusive classroom will make them [children with disabilities] feel they belong to the society and they will feel accepted by all…They will learn a lot from other children without problems [children without disabilities].

It is important to note that early childhood special education literature confirms the participants' perceptions that children with disabilities benefit from their peers when they are placed in inclusive classrooms (Widerstrom, 2005; Deiner, 2010). In the same vein, Bandura noted that children with disabilities learned more by observing those without disabilities.

Two participants mentioned that inclusive education did not only benefit children with disabilities, it also benefited typically developing early childhood students. One teacher indicated that:

> Children without disabilities learn how to [relate] with those who have problems. They [typically developing children] need to learn to make friends with them [children with disabilities].

Another teacher said:

> If they get [both children with or without disabilities] to be in the same classroom typically developing children will learn to help those who have problems and not to be afraid of them.

Widerstrom (2005) shared the same view as mentioned by the participants about typically developing children learning from their peers with disabilities. Widerstrom noted that "typically developing children learn to accept and appreciate differences in ability and behavior as they interact with peers with special needs" (p. 17).

Teachers also indicated that inclusive education helps to remove the stigma that families and children with disabilities endure for a long time. One teacher said:

> I like inclusion because parents feel better when their children with disabilities are accepted in normal classrooms…with inclusion the idea of a curse is gone now…people in the society did not like to deal with parents like that because they thought they are cursed. Sometimes parents would hide their children so that others will not comment…inclusive education will change all that…

Another teacher said:

> Many parents struggle to find money to send their children to special schools…if access to special education is in regular classrooms that is good for parents. You know this idea of feeling

> embarrassed over a child with special needs will be less for parents…I am for special education in regular classrooms.

From the above quotes, it is interesting to note the positive shift in attitude and cultural perception about children with disabilities and their families in some contexts in Ghana. Research in the past decades has revealed that "the most critical of all the barriers to free universal education for students particularly those with disabilities is negative attitude and prejudice" (Agbenyega, 2007, p. 43). For a long time some Ghanaians attributed the causes of disabilities to curses from the gods (Agbenyega, Deppler, & Harvey, 2005; Avoke, 2002; Oliver-Commey, 2001).

It is also interesting that the second quote which reads "many parents struggle to find money to send their children to special schools…" suggest that special education in Ghana is not easily accessible to children with special needs. Parents struggle to send their children to special schools where they pay more money compared to regular schools. It is important to note that around the 1960s and 1970s, the idea of moving toward inclusion or normalization (an approach that ensures that children who require special services are not separated from experiences of normal life, that is, educational, social, and recreational environments, are as close as to normal as possible) in the US emerged concurrently with the increasing cost of paying for a separate set of teachers, administrators, and the increasing cost of institutional care (Deiner, 2005). The cost of providing segregated special education in Ghana should be reviewed in comparison to providing similar services in inclusive classrooms.

Even though teachers were positive about inclusion, the challenges they faced every day with children with less severe disabilities (in Ghana inclusion is only for those with less severe disabilities) made them feel that inclusion at this point in their classrooms was not working. The need to complete the syllabus makes it difficult to spend more time with those with disabilities. Teachers mentioned that because of their class size it was difficult to attend to those with special needs and give them one-on-one attention. One teacher said:

> I have 40 students in the classroom and it is difficult to have time for those who have more needs. If I had help like in schools…I heard in the UK teachers have assistants…If I can have an assistant [teacher's aide] then it would help me…

Another said:

> The class size is the problem …how can you focus on one child [Child with special needs] when you have 40 of them in the class? We have the syllabus to complete…that would make me go behind [fail to complete the syllabus]…

The above findings are similar to what Agbenyega (2007) found. Agbenyega found that Ghanaian teachers were concerned about completing their syllabi. Teachers in Agbenyega's study believed that "including students with disabilities limits the amount of teaching work they could do thereby resulting in incompletion of the syllabi" (p. 51).

Teachers also indicated that they did not have materials which were developmentally appropriate in their classrooms. Teachers faced challenges when curriculum modification and adaptation of materials were necessary to meet the needs of students with disabilities such as hearing and visual impairment. The teachers failed to access materials they needed, and had to improvise to meet the needs of their classrooms. One teacher said:

> I have one student who does not see well…we do not have books in brail for him….if we had a computer and a printer maybe I could make some text larger for him….He can't see what is on the chalkboard too.

Another teacher said:

> It is not easy to teach out to all the children without all that they need. You must have all the materials to help any special child. The government is not able to provide to all schools.

Teachers indicated that they did not have much training to work with children with special needs. They felt that children with disabilities did not learn much in inclusive classrooms. One teacher mentioned that:

> …my fear is that they may not understand anything from what the teacher says…I did not have training to teach those with disabilities…

Another teacher shared the same concern*:*

> In college we did not do special education…when you have special needs children it becomes difficult to teach them…they often stop coming to school…they do not write anything in class sometimes.

The above concerns resonate with what Agbenyega (2007) found; teachers in Agbenyega's study perceived that "their professional knowledge and skills were inadequate to effectively teach students with disabilities in regular schools" (p. 51). Without appropriate teaching skills and developmentally appropriate pedagogy, effective teaching and learning would be a challenge in early childhood inclusive classrooms.

Some participants were concerned about children with disabilities causing harm to themselves and to other children. They felt that some children with disabilities were aggressive and they needed to be in their own classrooms or to be with professionals who knew how to handle them. One teacher said:

> I have seen a special needs [student with disabilities] hitting and pushing other children all the time…I do not know how his teacher works with him. He will end up causing harm to other children…he should be in a special school not in that class.

Another said:

> I am afraid that some can harm themselves or other children. I think such children should not be mixed up always but join others from time to time.

The above quotes suggest that teachers were not sure about full inclusion. There were some children with disabilities and challenging behaviors that teachers felt should be segregated. In inclusive early childhood environments, hitting and pushing can be addressed using positive behavioral interventions and supports (PBIS) (Deiner, 2010; Sandall & Schwartz, 2008; Widerstrom, 2005). However, if teachers are not trained or prepared to teach children with challenging behavior in inclusive settings, they may think of segregating children with special needs as a solution. Children with disabilities need to learn to function in real life situations and the inclusive classrooms and environments provide for such future experiences.

## Recommendations and Conclusion

This study demonstrated that the teachers had a good understanding of the importance and benefits of inclusive education. However, there was no consensus as to what they considered inclusion or inclusive early childhood education. For inclusive education to thrive, teachers should be able to define inclusive education according to their own context. This helps teachers to adopt teaching ideas which are suitable to their contexts from other countries such as the U.K. and the U.S. where inclusive education is well developed. The definition of inclusion varies from context to context (Agbenyega, 2007). In general, inclusion in education means including children with special needs in least restrictive and natural environments, and in all aspects of learning that other children are able to access and participate in (Deiner, 2005; Widerstrom, 2005). There is need for professional development and workshops that address what quality inclusive education means globally and contextually. Successful inclusive educational practice cannot be possible without clear definitions and guidelines and a commitment to the principle of inclusion (Agbenyega, 2007; Harvey, 1998).

Teachers in this study indicated that due to limited resources, it is a challenge to teach children with disabilities in inclusive classroom environments. Participants indicated that the average class size is 40. According to the Review of Ghana's Development Fact Files, the average size of primary school classes in Ghana is 46 children (Ghana Nsem, 2009). The fact files also indicate that there are limited resources in the classrooms. The government needs to act on allocating more funds for classroom materials such as assistive technology and other necessary developmentally appropriate materials that allow children with disabilities to function in inclusive classrooms. Emphasis on providing resources is already underway in Ghana to provide resources and building capacity in special and regular schools to offer new opportunities to students who may have previously or continue to experience learning difficulties (Agbenyaga, 2007; GES, 2004). Emphasis alone without action does not lead to attainment of the goal of inclusive education.

There is need for teacher professional development geared toward providing teachers with pedagogical skills necessary for teaching in inclusive environments. Agbenyega (2007) shared the same view in noting that, "…inclusive education, as implemented by Ghana Education Services FCUBE policy is not leading to equal and appropriate education outcomes …because of inappropriate school practices,…in appropriate resources, and lack of generic support and training services" (p. 53). Teachers in this study indicated that they did not go through early childhood special education programs during teacher training and preparation. For inclusive education to be viable, DEC and NAEYC noted that there should be some "supports" which refers to on-going professional development and support (for teachers and other practitioners) to acquire knowledge, skills, and dispositions required to implement effective inclusive practices (DEC and NAEYC Joint Position Statement, 2009).

Teachers in this study also indicated that they feared

aggression and harmful behaviors from some children with disabilities. Professional development in PBIS is necessary for helping teachers to learn how to handle aggression and other challenging behaviors (Gargiulo & Kilgo, 2011; Sandall & Schwartz, 2008).

Class size also affects effective teaching. A class size of 40 as indicated by most teachers interferes with the one-on-one teaching which is necessary to meet the needs of children with disabilities. Developmentally and individually appropriate practices recognize the need for personalized and one-on-one instruction for some children who learn best with more teacher support, including direct instruction (Widerstrom, 2005; Cook, Tessier & Klein, 2000). The government needs to provide more funding to recruit teacher aides. Teacher education programs should provide training for teacher aides that will help in inclusive classrooms. Also, parents and guardians should be encouraged to volunteer in the classrooms in order for teachers to have enough time for one-on-one instruction. Parent workshops in schools should be designed and implemented to help parents who choose to volunteer in the classrooms. Research today supports parental involvement in all aspects of children's learning, and teachers should be prepared and willing to work jointly with parents on supporting students' educational progress (Deiner, 2010; Gargiulo & Kilgo, 2011; Gonzalez-Mena & Eyer, 2007; Aldridge & Goldman, 2007).

Finally, all early childhood teacher preparation programs should consider a blended curriculum (Blended Early Childhood Education) which ensures that early childhood teachers have pedagogical skills for inclusive classrooms (Cook, Tessier & Klein, 2000). Only one participant indicated having been trained as a special education teacher. Blended early childhood education programs not only prepare teachers for inclusive classrooms, but also prepare teachers to adapt their teaching depending on varying classroom needs (Cook, Tessier & Klein, 2000; Deiner, 2005). Blended early childhood education recognizes that sometimes teachers face similar challenges from typically developing children as they would face with children with disabilities (Widerstrom, 2005; Sandall & Schwartz, 2008).

Given the findings of the current study, early childhood teacher education programs in Ghana, education policy makers, and other stakeholders are encouraged to review the current early childhood teacher preparation curriculum, and inclusive polices and work towards integrating inclusive education effectively.

**References**


Agbenyega, J. (2007). Examining teachers' concerns and attitudes to inclusive education in Ghana. *International Journal of Wholeschooling, 3*(1), 41-56.

Agbenyega, J. S., Deppler, J., & Harvey, D. (2005). Attitudes towards inclusive education in Africa scale (ATIAS): An instrument to measure teacher's attitudes towards inclusive education for students with disabilities. *Journal of Research and Development in Education, 5,* 1-15.

Aldridge, J., & Goldman, R. (2007). *Current issues and trends in education* (2nd ed.). Boston: Pearson Education, Inc.

Anthony, J. H., & Kwadade, D.D., (2006). *Inclusive education: master teacher trainer manual.* Accra, Ghana, Education Quality for All (EQUALL) Special Education Needs (SEN) Component, United State Agency for International Development (USAID)

Anthony, J. H. (2009). *Background paper prepared for the education for all Global monitoring report 2010: Reaching the marginalized*. Retrieved from http://unesdoc.unesco.org/images/0018/001865/186588e.pdf

Avoke, M. (2001). Some historical perspective in the development of special education in Ghana. *European Journal of Special Needs, 16*, 29-40.

Avoke, M. (2002). Models of disability in the labeling and attitudinal discourse in Ghana. *Disability and Society, 17* (7), 769-777.

Bandura, A. (1992). Social cognitive theory. In R. Vasta (Ed.), *Six theories of child development* (pp.1-60). London: Jessica Kingsley Publishers.

Bitter, G., & Pierson, M. (2002). *Using technology in the classroom*. Boston: Allyn and Bacon.

Caudle, S. L. 2004. Qualitative data analysis. In J. S. Wholey, H. P. Hatry, and K. E. Newcomer (Eds.), *Handbook of practical program evaluation* (pp. 417-438). San Francisco: Jossey-Bass.

Cook, R., Tessier, A., & Klein, D. (2000). *Adapting early childhood curricula for children in inclusive settings* (5th ed.). New York: Charles E. Merrill.

DEC & NAEYC Joint Position Statement. (2009). *Early childhood inclusion: A joint position statement of the Division for Early Childhood (DEC) and the National Association for the Education of Young Children (NAEYC).* Chapel Hill: The University of North Carolina, FPG Child Development Institute.

Deiner, P. L. (2010). *Inclusive early childhood education: Development, resources, and practice* (5th ed.). Wadsworth, Cengage Learning.

Deiner, P. L. (2005). *Resources for educating children with diverse abilities: Birth through Eight.* NY: Clifton Park, Thomson/Delmar Learning.

Edmonson, S., & Irby, B. (2008). *Ten tips for producing a top qualitative research study*. New York: Pearson Education, Inc.

Gargiulo, R., & Kilgo, J. (2011). *Young children with special needs,* NY: Clifton Park, Thomson/Delmar Learning.

Ghana Education Service. (2004). *Increasing access to quality basic education for children with special needs: special education project with VSO*. Accra: GES.

Ghana Education Service Special Education Division. (2005). *Special education needs policy framework*. Government Publication.

Ghana Nsem. (2009). *Review of Ghana's development: Fact files*. Retrieved from http://www.ghanansem.org/index.php?option=com_content&task=view&id=19&Itemid=60#education_64

Gonzalez-Mena, J., & Eyer, D. (2007). *Infants, toddlers, and caregivers: A Curriculum of respectful, responsive care and education*. Boston, McGraw Hill.

Government of Ghana. (2003). Education strategic plan 2003-2015. In M. O. (Ed.), *Education* (pp.1-51).

Harvey, J. M. (1998). Inclusion, the law and placement decisions: Implications for school psychologists. *Psychology in the Schools, 35*(2), 269-78.

Marshall, C., & Rossman, G. (2006). *Designing qualitative research*. CA: Thousand Oaks, Sage Publication.

Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass.

Ministry of Education Sports & Science (MoESS). (2008). *Preliminary education sector performance report.* Ministry of Education, Science and Sports, Accra, Ghana.

Morse, J. M., & Richards, L. (2002). *Read me first for a user's guide to qualitative methods*. New Delhi: Thousand Oaks, Sage Publication.

Oliver-Commey, J.O. (2001). *The disabled child in Ghana: Whose fault and who cares?* Accra: Ghana University Press.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. CA: Sage Publications, Inc.

Pijl, S. J., Meijer, C. J.W. & Hegarty, S. (Eds.). (1997). *Inclusive education: A global agenda.* New York: Routledge.

Safford, P.L., & Safford, E. J. (1996). *A history of childhood and disability*. New York: Teachers College Press.

Saldana, J. (2009). *The coding manual for qualitative researchers*. CA: Sage Publication Inc.

Sandall, R. S., & Schwartz (2008) *Building blocks for teaching preschoolers with special needs* (2nd ed.). Baltimore: Brookes Publishing, Co.

Widerstrom, A. H. (2005). *Achieving learning goals through play: Teaching young children with special needs* (2nd ed.). Baltimore, Brookes Publishing Co.

# The Underachievement of Gifted Students: A Synopsis

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**Abstract**

*The existence of underachievers who are gifted remains an important concern for many educators. As educators work to reverse this phenomenon we believe the underachievement of gifted students needs attention via this research and other studies that contextualize the issues within the North American education system. The authors believed that every teacher will have at least one gifted underachiever in their classroom. Consequently, a review of gifted underachievement via current literature is vital to facilitate clarification regarding this issue. The study of giftedness, which began in the early 20th century, was documented in light of the fact that research and interest has fluctuated in recent years, along with the influence of political, social, and public support. It is a controversial area, as agreement on the identification and programming of gifted students sparks debate between educators, administrators, and researchers, alike. The means to reverse gifted underachievement is detailed using rudimentary educational methods within the curriculum.*

## Introduction

Underachievement is an international concern (Jyotsna & Kelleher, 2006), and refers to a significant gap between student ability (as determined via testing) and student achievement (grades, marks, outcomes, results) in school (Hoover-Schultz, 2005; Reis & McCoach, 2000). Underachieving may surface specifically within one class, only in the school setting, or throughout one's entire educational development. Whenever signs of underachievement appear, it can draw the attention of educators, parents, peers, and the underachiever. It has been noted that many believe that, "no matter how you define or identify underachievement, one thing is clear: the failure of many of our most able students to reach their potential remains one of the most perplexing, challenging problems in education today" (Flint, 2002, p. 4). Researchers have linked underachievement to self-esteem, emotions, maturity levels, impoverished curricula, level of engagement (boredom), wanting instruction, socioeconomics, culture, ethnicity, and to gender (Jyotsma & Kelleher, 2006; Little, Feng,VanTassel-Baska, Rogers, & Avery, 2007; Park, Lubinski, & Benbow, 2007; VanTassel-Baska, 2010).

The National Association for Gifted Children (NAGC) in the United States has suggested that there is "no universally agreed upon" definition. The organization states, "the word 'gifted' has become a term with multiple meanings and much nuance" (2005). The term 'gifted' is, admittedly, challenging to define, as many Canadian provinces use dissimilar definitions. Additionally, this dissimilarity increases as one moves from country to country. Nevertheless, it should be noted that within this discussion, the Ontario conception of giftedness has been used. Educators in Ontario are directed by their provincial Ministry of Education, and these individuals suggest that giftedness is:

> An unusually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular program to satisfy the level of educational potential indicated. Characteristic traits of giftedness include: advanced cognitive abilities, high intellectual curiosity, high creativity and sensitivity, capacity for intense motivation and advanced affective capacity. Learners identified as gifted often have exceptional intellectual, academic and social needs. (Waterloo Catholic District School Board, 2010)

Understanding what giftedness is, and what it is not, is a first step towards helping these individuals. Understanding what underachievement is, is also important to ensure that the first steps are informed and sensible. When the two understandings are combined an educator now has the ability to take action, to reflect upon possibilities, and to revise both the teaching and learning within classrooms, schools, and nations. Reversing gifted underachievement is not

straightforward, as one need consider teacher training, teaching methods, and student needs. To begin, perceptions of the problem are given, followed by background information, definitions, and educational elements. The discussion concludes with an examination of the educational model in play.

### *The Problem*

Underachievers, even when gifted, can be viewed, addressed, and understood as a rather heterogeneous group, composed of a varied mixture of distinctive individuals (Hill, 2005). This poses significant challenges for an educational system that is "increasingly held accountable for students' achievement, [hence] gleaning inside information about underachievement and how to reverse it becomes even more critical" (Flint, 2002, p. 6). Although it has been a decade since this statement was made, researchers are still no closer to reversing gifted underachievement. Therefore, this review is purposeful in that it is an effort to explore, examine, and answer the following questions: (a) how do current and past societal beliefs, the education system, and teachers' beliefs affect our understanding of gifted underachievement and (b) how can educators help reverse underachievement among gifted learners? With an estimate of up to fifty percent of high ability students achieving below their potential or considered to be "at-risk" of failing (Hoover-Schultz, 2005; Rayneri, Gerber & Wiley, 2006), and a drop-out rate between eighteen and twenty-five percent (Hill, 2005; Renzulli & Park, 2000), the issue of gifted underachievement is one that continues to demand attention.

It is important to look at the factors that have contributed to gifted underachievement, such as social and political influences, as well as the education model, and the student(s) functioning within the model. It is also imperative to examine how teachers' personal beliefs affect their understanding of giftedness and underachievement. Each teacher has their own personal set of experiences that have played an important role in the formation of their views on gifted education and in how they believe it is best to meet the needs of gifted learners.

As researchers, the intention was to review the existing literature on gifted underachievement in order to shed light on the issues associated with it, and to find ways to reverse this phenomenon among gifted learners. The framework was guided by these objectives:

1. To understand how the concerns of society play a role in the research trends and in literature developed on gifted awareness
2. To understand how the education model affects gifted learners
3. To understand how the beliefs of teachers affect gifted learners
4. To explore how teachers can reverse underachievement among gifted learners.

### *Background*

The study of gifted underachievement is one that is of great interest; however, the lack of research available implies that there are few researchers looking into this area. It quickly became apparent that the study of giftedness began in the early 20th century, and since then, both research and interest has fluctuated, with the influence of political, social, and general public support playing a key role (Jolly, 2008). So, in the end, this leaves a population of underfunded and underserved students in the school system, with little research being conducted to help these learners (Robinson, 2006).

The majority of research available focused on how to identity giftedness, and demonstrated differences amongst gifted individuals rather than focusing on how to teach these students. For gifted education to be successful in the classroom, teachers need to be provided with staff development, relevant resources, and support from administration (McDaniel, 2002).

### *Definition of Terms*

To understand the term 'gifted underachievement' we defined what is meant by the terms "gifted" and "underachievement" within our North American region of Ontario, Canada.

*Giftedness.* According to the Ontario Ministry of Education, giftedness is defined as "an usually advanced degree of general intellectual ability that requires differentiated learning experiences of a depth and breadth beyond those normally provided in the regular school program to satisfy the level of educational potential indicated" (Ministry of Education, 2001, p. A19).

*Underachievement.* Defining underachievement is more difficult, as there is no one definition that has been accepted amongst researchers (Hoover-Schultz, 2005; Rayneri et al., 2006). For the purpose of this paper, we use a common definition found in the literature to define underachievement as a discrepancy between a student's potential or ability and their actual performance (Emerick, 1992; Hoover-Schultz, 2005; Whitmore, 1980).

*Gifted Underachievement*. A clear definition used by researchers to define gifted underachievement was illusive indicating that the phenomenon of gifted

underachievement has yet to be agreed upon, nor has it been made public. However, Dowdall and Colangelo (1982) have outlined three underlying themes in forming their definition of underachievement, these being: "a) underachievement as a discrepancy between *potential* achievement and actual achievement, (b) underachievement as a discrepancy between *predicted* achievement and actual achievement, and (c) underachievement as a failure to develop or use potential" (p. 46).

Gifted underachievement is often the demonstration of an advanced degree of general intellectual ability yet the performance is not equal to the students' potential ability (Hill, 2005). Admittedly, even this definition was controversial, as some researchers such as Anastasi (1976) suggested underachievement can be traced to a statistical artefact (measurement errors), while others claim that "family dysfunction is a result of, rather than a cause of, the child's underachievement" (Reis & McCoach, 2000, p. 160).

*Education Model: Influence*

Each country has their own model of education that directs how students in their country are taught. Many countries require, sometimes by law, that provisions such as special programs and training for teachers are made available for children with disabilities, whether these be developmental, physical or mental. However, the majority of schools in America, England, and Australia do not include special programs or training for teachers of the gifted (Geake & Gross, 2008). This lack of training can reduce the identification of gifted students (Bianco & Leech, 2010), and even when identified, referred and taught, special educators focused mostly on basic skills remediation and not on gifted programming (Baum, Cooper, & Neu, 2001).
This is believed to be due to the fact that:

> Preservice teacher preparation does not adequately prepare teachers to identify or serve gifted students. Information concerning the unique needs of gifted learners should be part of every teacher's training. Specifically, general education and special education teachers may benefit from training that includes learning the characteristics and needs of gifted students, including an intentional focus on twice-exceptional learners and other underrepresented gifted populations (e.g., culturally and linguistically diverse students). If an additional course cannot be added to already crowded requirements, then teacher educators in all disciplines (special education, general education, English as a second language, etc.) should consider infusing gifted education topics in their courses through readings, assignments, field experiences, and discussions. (Bianco & Leech, 2010, p. 331)

With insufficient teacher training in exceptionalities such as gifted education (Starko, 2008), the new educator is unprepared to identify, instruct, or meet the needs of gifted students. In Ontario, all teachers have the option of taking additional qualifications in the education of gifted students; however, it is the teacher's decision as to whether or not they will complete these extra courses.

*Ontario, Canada*

In Ontario, the Ministry of Education administers the system of publicly funded education, through issuing curriculum, setting requirements for student diplomas and certificates, and providing funding for academic instruction. Recently, the ministry released a document entitled *Reach Every Student*, and the goals of this document are to achieve higher levels of achievement, to reduce gaps in achievement, and to increase public confidence in the education system. The document reads:

> Our commitment is to *every* student. This means both "raising the bar" to encourage the absolute highest achievement from our students, and "closing the gap" to ensure that we develop strategies to help every student learn, no matter their personal circumstances. (Ministry of Education, 2008, p. 2)

Many times throughout this document, the phrase "reach every student" is used; however, as can be seen in the above quotation, "every student" actually only refers to those students who are not already achieving provincial standards. Unfortunately, there is no mention of the needs of students who are already achieving at provincial standards or beyond. This is an example of how Ontario's education system fails to look at the needs of gifted students.

As long as students are being offered educational opportunities with the intent of raising ability levels to approach average performance, educational undertakings have earned social approval. "The prevailing attitude has been that the 'top end' special education students (the gifted) would either "get it on their own" or at least they could "hold their own" without the need to invest funds and resources in programming" (Schultz, 2002, p.195). It is little wonder that students begin to lose

their individuality when the attempt is being made to fit all of them—with their various strengths, areas of need, likes, and dislikes—into the same education 'box', and yet educators tend to see any resistance to 'fitting the mold' as some type of perplexing mystery. The story of Jack exhibits this phenomenon:

> His name is Jack and he lives in a box. It appears that he doesn't like the box because he keeps popping out. Whenever he does, everyone seems surprised. Some people try to figure out why Jack pops out, while others try to explain why he should stay in, and nearly everyone pushes and shoves until Jack is forced back into the box. Once Jack has returned to his box, people begin to play the same old tune; Jack tolerates it as long as he can, but soon, out he pops again. And everyone rushes to stuff him back where he belongs. If all these people watched Jack over a period of time, they'd notice that he emerges from his box less and less often. One day, he'll stop popping out altogether. (Strip & Hirsch, 2000, p. viii)

This story seems to demonstrate the struggle of a gifted child, whose needs are not understood. Eventually, these students stop popping out of their box, stop asking questions, and no longer strive to reach their full potential. In order to better help these students, it is important to look at the role that teachers' beliefs and understanding of giftedness plays.

*Influence of the Teacher.* Teacher beliefs and their understanding of gifted underachievement influence how they perceive and teach the students in their classroom. It is known that, "Teachers need to be aware of the limiting effect that their personal biases and stereotypes have on their students, particularly when these biases may prohibit some students from the benefits of additional services" (Bianco & Leech, 2010, p. 331). When teachers enter into teacher's college, they come with their own set of beliefs (pre-understanding) that have been formed through their own experiences; often times these beliefs remain the same despite reinforcement from teacher preparation programs (Silverman, 2003; Tomlinson et al., 1994). Even after completing a teacher preparation program, one study showed that teachers continued to believe that:

1. Teaching subject matter involves telling or showing
2. Every child is special and deserves an education tailored to his/her needs
3. Different objectives and standards should be applied to different students
4. Pupils are responsible for their school failures because they lack either the right home environment, right attitude or right ability
5. The more learners practice, the more they will learn. (McDiarmid, 1990, p. 13)

Many of the aforementioned beliefs can affect how a teacher perceives the needs of gifted students. Many pre-service teachers do believe that students differ in their needs, and that pre-service teachers do have a desire to tackle these needs; however, with their lack of experience and training, they become frustrated in their attempts to do so (Moon & Brighton, 2008). In actuality, the needs of students far outweigh the resources that teachers have to meet these needs. As a result, teachers often end up creating one lesson that meets the needs of the majority of students, and they then try to tailor the lesson for a limited few (Johnson, VanTassel-Baska, & Robinson, 2008; Starko, 2008). It was found that teachers spent the majority of their time working with the students who were performing below average, leaving the other students to do busy work because they felt that those students would "get along fine without special help, programs, or materials" (Clarkson, 2003; Schultz, 2002; Tomlinson et al., 1994).

Teachers have justified their choices by rationalizing that, "so many of my other students read below grade level that it is hard to justify not working with them . . . the top group already reads at grade level so I rarely have any instructional time to give them" (Reis, 2007). Statements like this one strengthen the point that teachers have little knowledge or understanding of how to provide for the needs of the gifted (Starko, 2008). It may be that teachers do not feel prepared or well enough equipped to provide appropriate programming for the gifted children in their classroom, and, in turn, they may find it more comfortable for themselves to treat these children as they treat the others (Reis et al., 1998; Starko, 2008; Strip & Hirsch, 2000; Tomlinson et al., 1994).

A study by Moon and Brighton (2008) found that a vast majority of teachers continue to hold traditional conceptions of giftedness, such as believing that gifted students are more creative, highly motivated, eager, confident, and have the ability to excel in many subjects. Many teachers were also found to believe that gifted services were appropriate for students who had traditional signs of giftedness and no observable deficits (such as difficulty with reading), while gifted children with deficits needed to correct these before being offered special programming (Moon & Brighton, 2008). Lacking even "minimal training in the nature and needs of gifted students, teachers tend to believe that gifted students are globally gifted; that is, they perform at high

levels in all academic and social areas, test well, and need little support " (Bianco & Leech, 2010, p. 331).

In Australia, Britain, the United States, and Europe, research has found that many teachers are actually against the idea of special provisions being made for gifted children (Geake & Gross, 2008). However, a number of researchers have reported that the beliefs and attitudes of teachers can be changed through professional development (Hill, 2005). In both Australia and the United States, studies suggest that providing in-service training related to gifted education results in teachers having a significant improvement in attitudes and beliefs towards gifted children (Geake & Gross, 2008). Having only one 6 hour in-service program that provided information on the incidence and causes of underachievement was enough to result in considerable changes in teacher attitudes (Starko, 2008). In a study conducted by Bain, Bliss, Choate, & Brown (2007), it was concluded that seventy six percent of their respondents agreed with the statement, "children who are truly gifted are likely to excel even if they do not receive special service" (p. 452). However, this myth was refuted by Fiedler, Lange, & Winebrenner (2002) who stated that there was no proof showing that gifted students *can* succeed without special programming (as cited in Bain et al., 2007). The fact of the matter is that teachers need to take part in training courses and professional development in order to better understand gifted underachievement, as well as giftedness, in general. Without a push from administration, many teachers who hold stereotypical beliefs about gifted children are unlikely to enrol in professional development programs (Geake & Gross, 2008).

Studies have found that teachers who already have an interest in giftedness, may be gifted themselves or know someone that is gifted, are most eager to enroll in professional development, and are also more likely to already have a more positive attitude towards the gifted (McCoach & Siegel, 2007). Although some research supports this, other research has found that although training may increase teachers' understanding of the needs of gifted students, for many it will not affect their desire to meet those needs (McCoach & Siegel, 2007). Ultimately, it comes down to the teachers' desire to help the students in their class succeed, whether they are gifted or not (Starko, 2008).

### *Reversing Gifted Underachievement*

As a teacher, one may be faced with children who have great potential, but are unmotivated to achieve. Fortunately, there are ways to help motivate these students. Much of the literature on reversing underachievement addresses many of the same strategies that can be used to help students reach their full potential, such as providing challenging work, curriculum enrichment, strength-based accommodations (Bianco, Carothers, & Smiley, 2009), and classroom environment. However, before any of this can happen, one must first be able to identify gifted underachievers (Starko, 2008).

*Identifying Gifted Underachievers.* It is often difficult to identify these students in a classroom, as they may blend in with the other students in the room (Schultz, 2002). Gifted children may process new information faster than most children, and when this occurs they can become bored and frustrated as they wait for their classmates to process the same information and skills that they have already mastered (Reis, 2007). When bored and frustrated, these students may become the class clown, show anti-social behaviours, challenge authority, or develop other undesirable behavioural issues; however, other students may grow quiet and withdraw in a response to feeling as if they do not fit in with their classmates (Hill, 2005; Strip & Hirsch, 2000). Every child is different, and so it is important to get to know one's students and to be aware of what may lie beneath their behaviours, and know that it cannot be assumed that all gifted children will have the same characteristics and attributes (McCoach, & Siegel, 2007; Jacobs, 1970; Kolb & Jussim, 1994). Some gifted students with learning disabilities who are not identified experience emotional difficulties and seek counselling. High percentages of gifted students do underachieve, but this underachievement can be reversed. Some gifted students do drop out of high school (Renzulli & Park, 2000; Reis, 2007).

If the strengths and potential of these students continue to be ignored or go unrecognized, these learners could be denied appropriate educational opportunities, and their love of learning runs the risk of being extinguished (Hill, 2005; Emerick, 1992). These students may also experience "a loss of hope for self, for the classroom and for the future of school as a worthwhile place to be" (Smutny, Walker, & Meckstroth, 1997, p.25). As a teacher, one never wishes his or her students to experience this; teachers want to provide the means for each child to be successful in their classroom. There are a number of things one can do, as a teacher, in order to help engage these students in the classroom; one of these being to provide more challenging work.

*Challenging Work.* A challenging and engaging curriculum that promotes the development of necessary and relevant skills is vital (Hansen & Johnston-Toso, 2007; Rayneri et al., 2006; Rimm, 1997). Providing creative opportunities that allow for divergent thinking and analyses gives students the challenge they need, but

it is also important that students are provided with meaningful, practical activities that involve day-to-day living, not more of the same or irrelevant busy work (Renzulli & Park, 2000; Strip & Hirsch, 2000).

Studies have found that when students are not challenged, they get bored, and when they get bored they may drop out of school, regardless of whether or not they are gifted (Clarkson, 2003; Renzulli & Park, 2000). Hansen & Johnston-Toso (2007) discovered that one of the reasons gifted students disliked school was linked to the lack of challenging curriculum, and the perception that teachers did not care enough to create or locate material that was authentic.

*Classroom Environment.* The classroom environment is important in promoting students to succeed and reach their full potential; it can also be a key to reversing the pattern of underachievement. Students felt that classes that provided intellectual challenge and advanced studies had a positive influence on their achievement (Reis, 2007). These classes also encouraged students to progress through their work faster and were often more complex (Starko, 2008). Another commonality was that the assignments given were relevant, allowed class discussion and the opportunity to apply the skills and content they had learned (Starko, 2008). Many of the factors the students mentioned that enabled them to reverse their pattern of underachievement were related to being in a classroom that promoted a safe learning environment and a supportive teacher.

Weber and Bennett (2004) suggested that there are a few attributes that a safe classroom environment should include, despite the teacher's own preferences, styles, and area of interests, for the gifted child to be encouraged to achieve their full potential. These attributes include:

1. Establish an environment that clearly shows that intelligent thought, analysis, and creativity are valued.
2. Encourage students to discover and develop their special abilities. Provide the time, space, materials, and opportunities for them to do this at the sacrifice, if necessary, of the laid-on curriculum.
3. Provide opportunities for students to interact with adults, other students, and with various experts so that they will be challenged.
4. Create an atmosphere where risk-taking, speculation, and conjecture can be undertaken safely. (Weber & Bennett, 2004, p. 111)

Not only will these attributes help provide a safe learning environment for gifted students, as well as all students in the classroom, but they will allow the opportunity for the teacher to enrich the curriculum for their gifted learners.

*Curriculum.* Research has found that the following methods have proven beneficial in aiding the needs of gifted students:

*Differentiation.* One of the most commonly stated methods of reversing gifted underachievement is said to be through curriculum differentiation (Clarkson, 2003; Cohen, 1987; Coleman, 2006; Reis, 2007; Weber & Bennett, 2004). Differentiation can be defined as "...accommodating learning differences in children by identifying students' strengths and using appropriate strategies to address a variety of abilities, preferences and styles" (Reis et al., 1998, p. 75). Put into simpler terms, differentiated instruction means teaching by using methods and strategies that work with each student's individual needs.

Teachers who offer differentiation in their classroom view their students as individuals, each with their own strengths, skills, interests, learning styles, and talents (Reis et al., 1998). However, despite the fact that many children would benefit from this type of learning (Cohen, 1987; Reis et al., 1998; Strip & Hirsch, 2000), only a small percentage of teachers actually offer differentiation in their classrooms (Reis et al., 1998), as many claim that it is too difficult or time consuming to implement. Numerous teachers believed that it is important for gifted students to be provided with extra support, but are unsure of how to put this into practice, or are unable to fit it into the framework of the mandated curriculum (Bain, et al., 2007; Moon & Brighton, 2008). By differentiating for students in one's classroom, one can help their learners become engaged in appropriate learning, rather than engaging in disruptive behavior or withdrawing from the class.

*Curriculum Enrichment.* Curriculum enrichment is another way teachers can challenge and stimulate gifted students in their classroom. When materials and skills that match a student's current abilities and potential are implemented and used, a student is able to progress through the curriculum at a faster rate than usual (Bain et al., 2007; Reis, 2007).

Curriculum compacting eliminates or streamlines content that students already know. This material is then replaced with more challenging material, often based on the student's interests (Hansen & Johnston-Toso, 2007; Reis, 2007; Reis et al., 1998). By expanding the curriculum, educators allow gifted students to venture away from the basic curriculum they have already mastered, into areas of their own interest (Clarkson, 2003; Strip & Hirsch, 2000).

Teachers may expand a student's curriculum through alternative texts or supplemental material, small group or individual research, independent study, or tiered

assignments. Providing students with the opportunity for independent study allows them to work on broader, deeper, and more in-depth explorations related to regular instruction (Clarkson, 2003; Cohen, 1987). It also allows students the opportunity for individually prescribed levels of content (Reis et al., 1998).

Curriculum compacting can be implemented in a regular classroom, allowing gifted students the opportunity to stay in their own classroom and providing them the opportunity to continue to develop their social skills with their fellow classmates (Clarkson, 2003; Strip & Hirsch, 2000). Research shows a number of ways that gifted students can be challenged, whether this is through differentiation in the regular classroom, or other special programs offered by the school board. The important thing to remember is that each child is unique— what works for one student may not work for another (Hill; 2005; Kolb & Jussim, 1994).

## Summary

From the beginning of the 20th century, there have been a number of factors that have influenced understanding in the area of giftedness. By looking at the research, one can see that there is a cyclical pattern that emerges over time, with the research in the area of giftedness coming to the forefront and then once again fading into the background, as political and social concerns change.

Despite the fact that research on giftedness has been present for more than 80 years, much of the research conducted still focuses on describing the phenomenon of giftedness (Jolly, 2008). The research is better at identifying and showing differences among gifted children than it is of focusing on the actual teaching of gifted children (Coleman, 2006). This is a trend that has remained in the education system, as was seen in the document released by the Ministry of Education entitled *Reach Every Student.* Many times throughout this document, the words "reach every student" are used; however, there is no mention of the needs of students who are already achieving at provincial standards or beyond. "The prevailing attitude has been that the top end special education students (the gifted) would either 'get it on their own' or at least they could 'hold their own' without the need to invest funds and resources in programming" (Schultz, 2002, p.195). Luckily, research has shown that with professional development, teachers' attitudes and beliefs can be significantly altered, leaving teachers with less stereotypical beliefs and a more supportive outlook on special programming (Geake & Gross, 2008). Changing teachers' attitudes and beliefs about gifted students is one of the first steps in better understanding and helping reverse the phenomenon of gifted underachievement (VanTassel-Baska, 2010).

Changing the beliefs and attitudes that teachers' hold is not the only area where professional development can be beneficial. Teachers need to know that gifted children are students who require differential learning opportunities (curriculum enrichment), not just more of the same work to keep them busy (Bianco & Leech, 2010; McDiarmid, 1990; VanTassel-Baska, 2010). Research has shown that gifted students benefit from being provided with a more challenging and differentiated curriculum (Clarkson, 2003; Cohen, 1987; Coleman, 2006; Reis, 2007; Weber & Bennett, 2004). Teachers who provide this in their classrooms view their students as individuals, each with their own strengths, skills, interests, learning styles and talents (Starko, 2008).

It is vital to remember that reversing underachievement is complex and unique for each child (Emerick, 1992; VanTassel-Baska, 2010). It takes teacher commitment, but also parental commitment, prudent curriculum design, and quality materials to find an appropriate program that allows for gifted underachievers to excel in the classroom (Clarkson, 2003). Each child is different, and their interests, along with what makes them unique needs to be identified in order to develop a program that works.

## Recommendations

The first recommendation would be for more international research. In conducting this literature review, it was quite difficult to find research on giftedness that was not focused on the United States, creating a bias herein. As Jolly (2008) suggested, researchers need to take the time to look into the research of other countries, and compare what we they are doing for their students to what other countries are offering.

Secondly, there needs to be a deeper examination of how educators can teach gifted underachievers, as well as gifted students in general, in their classrooms. Despite the fact that research has been suggesting the use of the same methods to reverse gifted underachievement for decades, few teachers know how to successfully implement these methods within their classrooms. It is now time to inquire as to how we can teach these exceptional beings in the classroom setting (inclusion).

The third recommendation is in regards to the need for research to be conducted examining the importance of providing professional development for teachers regarding the needs of gifted students. In order for gifted education to succeed in the classroom, educators need to continue researching how appropriate teaching

methods can be implemented into the classroom. Research has shown that teachers need to be provided with staff development, resources, and support from administration to help make it work (McDaniel, 2002). It is now time to look further into what kind of professional development is most beneficial, and how it can effectively be implemented.

Further investigations in these areas will help researchers and educators gain a better understanding of the phenomenon of gifted underachievement, and of how teachers can help reverse its occurrence in classrooms.

**References**


Anastasi, A. (1976). *Psychological testing*. New York: Macmillan.

Bain, S., Bliss, S., Choate, S., & Brown, K. (2007). Serving children who are gifted: Perceptions of undergraduates planning to become teachers. *Journal for the Education of the Gifted, 30*(4), 450-478. doi: 10.4219/jeg-2007-506

Baum, S., Cooper, C. R., & Neu, T. (2001). Dual differentiation: An approach for meeting the curricular needs of gifted students with learning disabilities. *Psychology in the Schools, 38*(5), 477-490.

Bianco, M., & Leech, N. (2010). Twice-exceptional learners: Effects of teacher preparation anddisability labels on gifted referrals. *Teacher Education and Special Education, 33*(4), 319-334.

Bianco, M., Carothers, D., & Smiley, L. R. (2009). Gifted students with Asperger syndrome: Strategies for strength-based programming. *Intervention in School and Clinic, 44*(4), 206-215.

Clarkson, C. (2003). Beautiful minds. *American School Board Journal, 190*(8), 24-28. Retrieved from http://www.asbj.com

Cohen, L. (1987). 13 tips for teaching gifted students. *Teaching Exceptional Children, 20*(1), 34-38.

Coleman, L. (2006). A report card on the state of research on the talented and gifted. *Gifted Child Quarterly, 50*(4), 364-350. doi: 10.1177/001698620605000408

Dowdall, C. B., & Colangelo, N. (1982), Underachieving gifted students: Review and implications. *Gifted Child Quarterly*, 26, 179-184.

Emerick, L. (1992). Academic achievement among the gifted: students' perception of factors that reverse the pattern. In S. Moon (Ed.), *Social/emotional issues, underachievement, and counselling of gifted and talented students* (pp.105-118). Thousand Oaks, CA: Corwin Press.

Fiedler, E. D., Lange, R. E., & Winebrenner, S. (2002). In search of reality: Unraveling the myths about tracking, ability grouping, and the gifted. *Roeper Review*, *24,* 108–111.

Flint, L. J. (2002). *Self-interventions of gifted underachievers: Stories of success*. Retrieved from http://purl.galileo.usg.edu/uga%5Fetd/flint%5Flori%5Fj%5F200208%5Fphd

Geake, J., & Gross, M. (2008). Teachers' negative affect toward academically gifted students. *Gifted Child Quarterly, 52*(3), 217-231. doi: 10.1177/0016986208319704

Hansen, J., & Johnston-Toso, S. (2007). Gifted dropouts: Personality, family, social and school factors. *Gifted Child Today, 30*(4), 30-41. doi: 10.4219/gct-2007-488

Hill, J. (2005). Understanding underachievement of gifted students: Insights and implications, Atlanta, GA: University of Georgia. Retrieved from http://m4hand04.myweb.uga.edu/portfolio/projects/pdfs/Underachieving_Gifted_6900.pdf

Hoover-Schultz, B. (2005). Gifted underachievement: oxymoron or educational enigma? *Gifted Child Today, 28*(2), 46-49. doi 10.4219/gct-2005-169

Jacobs, J. (1970). Are we being misled by fifty years of research on our gifted children? *Gifted Child Quarterly, 14*(2), 120-123. doi: 10.1177/001698627001400213

Jyotsna. J., & Kelleher, K. (2006). Boys' underachievement in education: An exploration in selected commonwealth countries. Commonwealth Secretariat and Commonwealth of Learning.

Johnson, S., VanTassel-Baska, J. L., & Robinson, A. (2008). *Using the national gifted education standards for university teacher preparation programs*. Thousand Oaks, CA: Corwin.

Jolly, J. (2008). Gifted education research 1994-2003: A disconnect between priorities and practice. *Journal for the Education of the Gifted, 31*(4), 427-446. doi: 10.4219/jeg-2008-792

Kolb, K., & Jussim, L. (1994). Teacher expectations and underachieving gifted children. *Roeper Review, 17*(1), 26-30. Retrieved from http://search.ebscohost.com

Little, C. A., Feng, A. X., VanTassel-Baska, J., Rogers, K. B., & Avery, L. D. (2007). A study of curriculum effectiveness in social studies. *Gifted Child Quarterly, 51*, 272–284.

McCoach, D., & Siegel, D. (2007). What predicts teachers' attitudes towards the gifted? *Gifted Child Quarterly, 51*(3), 246-255. doi: 10.1177/0016986207302719

McDaniel, T. R. (2002). Mainstreaming the gifted: historical perspectives on excellence and equity. *Roeper Review, 24*(3), 112-114. Retrieved from http://search.ebscohost.com

McDiarmid, G. (1990). Challenging prospective teachers' beliefs during early field experience: a quixotic undertaking? *Journal of Teacher Education, 41*(3), 12-20. doi: 10.1177/002248719004100303

Ministry of Education. (2001). *Special education: A guide for educators.* Queen's Printer for Ontario.

Ministry of Education. (2008). *Reach every student: Energizing Ontario education.* Queen's Printer for Ontario.

Moon, T., & Brighton, C. (2008). Primary teachers' conceptions of giftedness. *Journal for the Education of the Gifted, 31*(4), 447-480. doi: 10.4219/jeg-2008-793

National Association for Gifted Children (NAGC) (2005). Supporting the needs of high potential learners, Washington, DC., Information & resources: What is gifted? Retrieved from 2005 from http://www.nagc.org/index.aspx?id=574&ir

Park, G., Lubinski, D., & Benbow, C. P. (2007). Contrasting intellectual patterns predict creativity in the arts and sciences: tracking intellectually precocious youth over 25 years. *Psychological Science, 18*, 948–95.

Rayerni, L., Gerber, B., & Wiley, P. (2006). The relationship between classroom environment and the learning style preference of gifted middle school students and the impact on levels of performance. *Gifted Child Quarterly, 50*(2), 104-118. doi:10.1177/001698620605000203

Reis, S. M., & McCoach, D. B. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly, 44*(3), 152-170.

Reis, S. (2007). No child left bored: How to challenge gifted and talented students with a continuum of heightened learning opportunities. *School Administrator, 64*(2), 22-26. Retrieved from http://www.aasa.org

Reis, S., Kaplan, S., Tomlinson, C., Westberg, K., Callahan, C., & Cooper, C. (1998). Equal does not mean identical. *Educational Leadership, 56*(3), 74-77. Retrieved from http://www.ascd.org/publications

Reis, S. M., Gubbins, E. J., Briggs, C., Schreiber, F. R., Richards, S., & Jacobs, J. (2004). Reading instruction for talented readers: Case studies documenting few opportunities for continuous progress. *Gifted Child Quarterly, 48*, 309-338.

Renzulli, J., & Park, S. (2000). Gifted dropouts: The who and the why. *Gifted Child Quarterly, 44*(4), 261-271. doi:10.1177/001698620004400407

Rimm, S. (1997). An underachievement epidemic. *Educational Leadership, 54*(7), 18-22. Retrieved from http://www.ascd.org/publications

Robinson, N. (2006). A report card on the state of research in the field of gifted education. *Gifted Child Quarterly, 50*(4), 342-345. doi: 10.1177/001698620605000407

Schultz, R. (2002). Understanding giftedness and underachievement: At the edge of possibility. *Gifted Child Quarterly, 46*(3), 193-208. doi:10.1177/001698620204600304

Silverman, L. K. (2003). Gifted children with learning disabilities. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 533-543). Needham Heights, MA: Allyn & Bacon.

Smutny, J., Walker. S., & Meckstroth, E. (1997). Teaching young children in the regular classroom: Identifying, nurturing and challenging ages 4-9 (M. Lisovskis, Ed.). Minneapolis, MN: Free Spirit Publishing Inc.

Starko, A. J. (2008). Teacher preparation. In J. A. Plucker & C. M. Callahan (Eds.), *Critical issues and practices in gifted education* (pp. 681-694). Waco, TX: Prufrock Press.

Strip, C., & Hirsch, G. (2000). *Helping gifted children soar: A practical guide for parents and teachers.* Scottsdale, AZ: Gifted Psychology Press, Inc.

Tomlinson, C., Tomchin, E., Callahan, C., Adams, C., Pizzat-Tinnin, P., Cunningham, C., et al. (1994). Practices of pre-service teachers related to gifted and other academically diverse learners. In C. Tomlinson (Ed.), *Differentiation for gifted and talented students* (pp.191-208). Thousand Oaks, CA: Corwin Press.

VanTassel-Baska, J. (2010). The history of urban gifted children today. *Gifted Child Today, 33*(4), 18-27. Retrieved from http://www.davidsongifted.org/db/Articles_id_10668.aspx

Waterloo Catholic District School Board. (2010). *Gifted Education Services*. Retrieved from http://www.wcdsb.ca/spec-ed/gifted/gifted.html

Weber, K., & Bennett, S. (2004). *Special education in Ontario schools.* (5th ed). Palgrove, ON: Highland Press.

Whitmore, J. R. (1980). *Giftedness, conflict and underachievement.* Boston, MA: Allyn and Bacon, Inc.

# Effectiveness of Scaffolding Interrogatives Method: Teaching Reading Comprehension to Young Children with Hyperlexia in Singapore

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**Abstract**

*Children with hyperlexia display spontaneous superior word decoding ability before the age of five but impaired listening and reading comprehension. They have direct phonological processing of any given text with apparent ease and often well beyond their vocabulary usage. Though they can recognise and read words, words appear meaningless. As a result, it has been suggested that the word recognition skills and the general verbal functioning employed in the reading process probably exist separately and apart from each other. It may co-exist with non-verbal learning disorders and autism. In this paper, the authors did an action research study on the effectiveness of using the Scaffolding Interrogatives Method (SIM) to teach reading comprehension to a group of 10 eight-year-old children with hyperlexia at a private learning clinic. Findings suggested that mands and tacts were essential functional verbal components of the SIM to aid in answering reading comprehension questions.*

## Introduction

*Hyperlexia* is a syndrome with various subtypes identified by three criteria (Chia, Poh & Ng, 2009; Kennedy, 2003; Richman & Wood, 2002): spontaneous word reading before the age of five; impaired comprehension on both listening and reading; and word recognition (decoding) skill above expectations. Research studies on hyperlexia can be categorised under psychological and psychogogic perspectives. By the term *psychological*, where *psycho* means "mind" and *logical* means "pertaining to the study of", our focus here is on the scientific study of mind as affected by hyperlexia. The other term *psychogogic*, first coined by Oswald Schwartz (1925), where *psycho* refers to "mind" and *gogic* means "leading" or "teaching", means "of leading or teaching the mind". In this study, the term here means to lead or teach a learner with a hyperlexic mind.

### *Psychological Perspective*

The psychological perspective focuses on the symptomatic studies on the explicit traits of hyperlexia and etiological studies on the origin and causes of hyperlexia via psycho-educational, neurological, and medical diagnoses (Chia, 2002; Chia, Poh & Ng, 2009). Children whose "(measured) reading level was above their expected word recognition level by the following amounts: 1.5 in grades 1 and 2, and 2.0 in grades 3 and up" (Silberberg & Silberberg, 1967, p. 236) were described as hyperlexic. When the definition was based solely upon the discrepancy between expected and actual decoding skills, some normal and superior readers had been labelled hyperlexic (Joshi, Padakannaya, & Nishanimath, 2010). However, hyperlexia was redefined as a severe comprehension deficit despite good decoding skills (Newman, Macomber, Naples, Babitz, Volkmar, & Grigorenko, 2007). Four predominant theoretical concepts of hyperlexia have been identified and are briefly described below.

*Theoretical Concept of an Accelerated Cognitive Ability.* Early research studies suggested that hyperlexia is a syndrome that manifests a unique and accelerated cognitive ability (Niensted, 1968). An extensive literature review of studies on hyperlexia undertaken by Grigorenko, Klin and Volkmar (2003) supports the view "that hyperlexia is a super ability demonstrated by a very specific group of individuals with developmental disorders rather than as a disability exhibited by a person of the general population" (p. 1079). Although children with hyperlexia are as skilled as the good comprehenders on measures of word and non-word decoding ability, they often perform badly on the measure of reading comprehension (Nation, Clarke, Wright, & Williams, 2006). They also perform badly on two measures of oral

language comprehension: a picture vocabulary test such as the Peabody Picture Vocabulary Test-Third Edition and the comprehension subtest of the Wechsler Intelligence Scale for Children-Third Edition. These children possess only a specific super ability in word and non-word decoding (Kennedy, 2003; Silberberg & Silberberg, 1967), but not comprehension of single words, compromising the subsequent text-level comprehension (Nation, 1999).

*Theoretical Concept of Bipolarity of Reading Disabilities.* According to this concept, reading is a complex process skill that depends on the integrity of two key components: decoding and language comprehension (Cardoso-Martins & da Silva, 2010). The understanding of this concept is based on the Component Model of Reading and the Simple View of Reading (Hoover & Gough, 1990). This concept describes dyslexia and hyperlexia as two different reading disabilities in decoding and language comprehension respectively that occur at opposite extremes of the reading continuum. Failure in any of these two components will result in poor reading. Based on this criterion, one would expect three types of reading problems: "those with poor decoding but good comprehension skills; those with good decoding but poor comprehension skills; and those with poor decoding as well as comprehension skills" (Joshi, Padakannaya, & Nishanimath, 2010, p.101).

*Theoretical Concept of Hyperlexia as a Subtype of a Disorder.* Another concept of hyperlexia describes the condition as a subtype of a disorder that can either be dyslexia or autism (Grigorenko, Klin, & Volkmar, 2003). In other words, hyperlexia can be a disorder of language development (Joshi, Padakannaya, & Nishanimath, 2010) or a disability of social imperception (Grigorenko, Klin, & Volkmar, 2003) or even both (Cardoso-Martins & da Silva, 2010). To understand this concept, Chia, Poh and Ng (2009) have argued the need to understand that hyperlexia is a syndrome that results in a breakdown in both inter-textuality and inter-subjectivity. Inter-textuality involves a reader's ability to establish the relationship between the given text and other relevant texts that he has encountered to interpret the text. "In other words, hyperlexia is seen as a facility in word calling with inferior reading comprehension that represents a special instance within the larger category of dyslexia syndrome" (Chia, Poh & Ng, 2009, p.74). As for inter-subjectivity, it involves an individual's ability to understand his social environment through recognition and control of cooperative intentions and joint patterns of awareness. A breakdown in inter-subjectivity will result in an inefficiency of social imperceptions that "ultimately contributes to immaturity and difficulty making routine judgements necessary to succeed in everyday life" (Leavell, 1998, p.4). This in turn causes defective theory of mind resulting in autistic tendency (Baron-Cohen, 1999). Hence, it is not surprising to note that hyperlexia carries autistic traits and may represent an autistic subtype.

*Theoretical Concept of Hyperlexia as a Syndrome of Comprehension Disability.* Jackson and Coltheart (2001) used the term hyperlexia strictly to refer to those "with general deficit in cognition and comprehension" (p.158). Nation and Norbury (2005) estimate that approximately 10% of the school-age children may be classified showing specific comprehension impairment. They further clarified that "most of the children with hyperlexia manifest autistic traits and show general impairments in reading comprehension accompanied by poor vocabulary and oral language comprehension although decoding is within the normal range" (p.26).

### *Psychogogic Perspective*

Chia and Ng (2011) define psychogogy as follows:

> In this respect, we define psychogogy as the instructive theory that includes psychological influence on a learner's mind in terms of his/her learning and thinking abilities (cognition), feelings (affect), and will (conation) to perform or act and whose behavioural traits interlinked by various senses through different sensory processes (sensation) in order to establish his/her own perception and belief through interaction with others within a given socio-cultural context." (para.7)

Current intervention strategies to help children with hyperlexia rely heavily on language and speech therapies, whose goals are targeted in a variety of group contexts, including theme-related activities, stories, games, and group routines. These goals maximise motivation, functional communication, and generalisation (Kleiman, 1997). There is also a literacy-based strategy relying on concrete poems to teach word meanings to children with hyperlexia (Chia, 2006). These poems do not have line, meter, rhythm, stanza, or even a title, but are expressed in the form of pictures. Concrete poems help such children make associations between a target word (drawn in a certain way) and its referent (the thing it represents). Although concrete poetry works with content words and is useful for teaching single word recognition, it becomes extremely difficult to rewrite every word in sentences into concrete poetry (Chia, 2002). Another intervention strategy is the functional verbal behaviour therapy that has also been

found to benefit children with hyperlexia in their language development.

Although there are few studies on intervention strategies for children with hyperlexia, most adopt the following general intervention principles: "use of written and visual models; patterned language; open-ended sentences; use of examples rather than direct explanations to elaborate a point; and teaching specific pragmatic rules" (Chia, 2002, p.14).

### *Current Practices in Singapore*

Currently, in Singapore, children with hyperlexia are referred directly to speech and language therapists for intervention. In special schools, teachers used the Picture Exchange Communication System (PECS) (Bondy & Frost, 2002) to teach their children to form sentences using pictures and also to answer questions using them. The mainstream teachers are not familiar with the PECS. They use whatever comprehension strategies, such as story mapping and Know/Want to Know/Learned (K-W-L), they know to work with such children hoping that one day they would be able to comprehend what they read or listen. Most, if not all of these strategies are often not effective with these children.

### *Alternative Practice*

The authors chose the Scaffolding Interrogatives Method (SIM), which incorporates PECS, as a comprehension strategy to be taught by an educational therapist (ET) to a group of children with hyperlexia. The SIM uses the verbal operants of mands and tacts (see Skinner, 1957, for more details). Devised by Chia (2002) and trialled at a special needs clinic with children with poor reading comprehension, the strategy requires a child to read sentence by sentence, before charting each sentence in several columns of *what* interrogatives (*what*-mands) with sentential contents (tacts).

### *Research Question*

What are the learning processes involved in implementing Scaffolding Interrogatives Method (SIM) on ten students with hyperlexia and the effects the method had on them?

## Method

### *Research Design*

Practical action research design (Mills, 2007) was selected as this study involved an applied approach of SIM with contextualized understanding of each subject. SIM uses a training-assessment approach that requires a great deal of intuitive, creative latitude from the researchers by providing the participants with the necessary principles, skills and techniques with visual modeling, followed by the opportunity to apply them to new tasks as in dynamic assessment (Feuerstein, Feuerstein, Falik, & Rand, 2002). The authors of this study adopted look-think-act (Stringer, 2007), a reiterative approach to dynamically and adaptively study and problem-solve for effectiveness. Over a period of six months, the ET's monthly reflection reports on the participants' improvements and their results were recorded. Effects of the SIM intervention were also determined by a pretest-posttest design of the six months intervention with paired *t*-test statistical analysis of the difference between expected maturity age difference of six months at posttest and the measured difference of reading comprehension age from pretest where significance level was set at $p=0.05$.

### *Participants*

With parental consent, ten male children, aged between eight and nine years old were selected from the Learning Disabilities Center, Singapore, based on convenience sampling (see Creswell, 2012, p.145-146, for more detail), to participate in the study for a period of six months from March to August 2010. They were chosen on the basis of a history of precocious word reading ability provided by their parents during initial case consultation. Literature (e.g., Grigorenko, Klin, & Volkmar, 2003) has frequently reported such early spontaneous onset of word decoding ability in children with hyperlexia. All the participants, previously assessed and identified to have hyperlexia with autistic symptoms by clinical psychologists from public hospitals, were first referred to the Children Autism Center for a two-year early intervention program using the first five phases of PECS. In the first year, they were taught how to perform basic exchanges with a wide range of pictures (Phase 1), to persist in getting an adult's or peer's attention and in moving across increasing distances (Phase 2), and to discriminate between a number of pictures in an array (Phase 3). In the second year, they were taught how to form sentences using pictures (Phase 4) and answer questions using pictures (Phase 5).

When they were in Primary 2, the ten children were referred to the Learning Disabilities Center, where they were assessed by the authors on the Neale Analysis of Reading Ability-Third Edition (Neale, 1999), to continue receiving specialized help in their studies. The psycho-educational profiles of the ten children are given in Table 1.

Table 1

*Participants' Psycho-educational Profile*

| Subject (n=10) | Chronological Age* | WISC-IV | NARA-III | GARS-2 (Age Equivalent) | GARS-2 (Age Equivalent) |
|---|---|---|---|---|---|
| | | FSIQ | Reading Accuracy* | Reading Comprehension | Autism Index |
| S1 | 8:03 | 96 | 10:07 | 5:10 | 79 |
| S2 | 8:04 | 92 | 10:04 | 5:06 | 81 |
| S3 | 8:04 | 103 | 10:11 | 6:09 | 86 |
| S4 | 8:05 | 97 | 11:02 | 5:10 | 77 |
| S5 | 8:05 | 94 | 10:03 | 5:03 | 83 |
| S6 | 8:06 | 101 | 11:04 | 6:06 | 75 |
| S7 | 8:07 | 98 | 11:00 | 6:01 | 84 |
| S8 | 8:07 | 104 | 10:07 | 6:04 | 82 |
| S9 | 8:09 | 95 | 10:08 | 5:08 | 87 |
| S10 | 8:10 | 102 | 11:02 | 6:11 | 83 |

*Note.* * in years and months; WISC-IV = Wechsler Intelligence Scale for Children – Fourth Edition; NARA-III = Neale Analysis of Reading Ability-Third Edition; GARS-2 = Gillian Autism Rating Scale – Second Edition

### *Instrument*

The Reading Comprehension (RC) subtest of the Neale Analysis of Reading Ability-Third Edition (NARA-III) (Neale, 1999) was selected as the standardized assessment (also the dependent variable) to measure the participants' RC ages before (pre-test) and after (post-test) intervention. It was administered to determine the participants' RC age-equivalent scores. The NARA-III Form 1 was used before intervention and Form 2 was used after it to avoid practice effect. According to Neale (1999), the test-retest reliability with testing conducted after an 8-week interval on a sample of 100 young children yielded coefficient of .93 for RC. The parallel forms reliability (Form 1 and Form 2) is high. The coefficients of Reading Rate, Reading Accuracy and Reading Comprehension were all in excess of .90 for whole-year age groups (N=140). Particularly high levels of reliability were obtained for the young age groups (Neale, 1999). The two sets of age equivalent RC scores were then compared to determine the participants' progress in RC and hence, the effectiveness of SIM as a RC strategy.

### *Validity and Reliability of the Study*

Validity is taken to mean the degree to which the observations actually measure or record what they purport to measure (Mills, 2007). The validity will depend on researchers' subjective values, perspectives and degree of perception of learning taking place in the participants, which will inevitably involve researcher reflective bias. Researchers have attempted to mitigate the subjectivity by examining the degree the intervention 'ideas' conceived to address the perceived needs of participants do actually meet the expectations of the researchers (Greenwood & Levin, 2000) as well as by collecting quantitative data from an alternative set of testing forms from pretest at posttest.

Guba (1981) argues that trustworthiness of qualitative inquiry can be addressed by considering credibility, transferability, dependability and confirmability. Credibility refers to researchers' ability to take into account the complexities that present themselves in a study and to deal with patterns that are not easily explained. The authors of this study prolonged participation at the study site of three times a week for six months to test biases and perceptions. Moreover, persistent observations via dynamic assessments of learning propensity of the participants with mutual peer debriefing allowed both authors opportunity to test insight from each other addressing credibility of the action research. The use of principles of mediated learning experience as well as dynamic assessment addresses transferability, dependability and confirmability of the learning taking place by

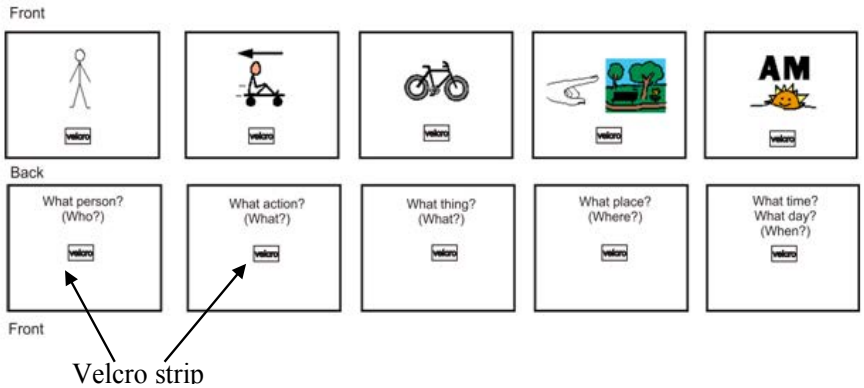


*Figure 1:* PECS cards with What-mands for what person (who), what action (what), what thing (what), what place (where), and what time and what day (when)

participants.

*Procedure*

In the pre-test phase the NARA-III (Form 1) was administered to obtain participants' RC age equivalents. The participants were taught to use the SIM to answer RC questions by the same ET throughout the six-month intervention on Monday, Wednesday and Friday per 45-minute session. Below is a breakdown of the intervention phase:

*First Month.* During the first three sessions of the first week, the participants were introduced to the five *what*-mands with the aid of PECS cards: *what person* for *who*; *what action* and *what thing* for *what happened*; *what place* for *where*; and *what time* and *what day* for *when* (see Figure 1).

They would learn to differentiate one *what*-mand from the others using PECS cards (e.g., *what person* is different from *what action* and *what thing*). Each time, the participants also learned to match each of the *what*-mands with the correct *wh*-interrogative word (e.g., *what place* is matched correctly with *where*). In the subsequent weeks of the first month, the participants were taught to pick out the subject (*what person*) of a sentence using PECS cards as in the example, *Ali rode his bicycle in the park all morning*. *Ali* is the subject of the sentence that represents *what person* and was matched with the correct word card. All the PECS and word cards were stuck with a small strip of Velcro each. These cards were then pasted on a clip-board with two strips of Velcro so that the cards would not be easily misplaced or accidentally moved out of line. A worksheet containing 15 sentences was given to every participant to practice at the end of each session.

*Second Month.* In the second month, two *what*-mands were covered: *what action* during the first six sessions of the month, and *what thing* in the next six sessions. In addition to revising and reinforcing what had been taught or learnt previously each session, the participants were taught to identify and pick out the action word (represented by an action PECS card) found in a sentence, normally after the subject (*what person*), as in the example, *Ali rode his bicycle in the park all morning*. The word *rode* is the action of the subject *Ali* in the sentence and it represents *what action* and matched with the correct word card. The participants were also introduced to *what thing*, i.e., the receiver or object of an action in a sentence, as in the example, *Ali rode his bicycle in the park all morning*. The phrase *his bicycle* is *what thing* and it was matched with the correct word. Practice worksheets on *what action* and/or *what thing* were given to every participant at the end of each session.

*Third Month.* Each session began with a revision on *what person*, *what action* and *what thing* as well as matching correctly the different *what*-mands with their respective *wh*-interrogative words with the use of PECS cards. In the third month, the participants were taught to identify and pick out *what place* (*what*-mand for *where*) using PECS cards from a sentence, as in the example, *Ali rode his bicycle in the park all morning* and was matched with the correct word. The prepositional phrase *in the park* is *what place*. At the end of every session, a worksheet containing 15 sentences was provided for more practice to reinforce learning.

*Fourth Month.* During the fourth month, the participants were taught to identify and pick out *what time* or *what day* (both *what*-mands are referring to the same *wh*-interrogative word *when*) from a sentence, as in the example: *Ali rode his bicycle in the park all morning*. If *Last Sunday* is added at the beginning of the sentence, it refers to *what day* (*when*) while *all morning* is *what time* (*when*) and was matched with the correct word. A practice worksheet was given to every participant to reinforce learning at the end of each session.

| Sentence Number | | *What*-mands | | | |
|---|---|---|---|---|---|
| | | Who? | What? | Where? | When? |
| | | *What* person? | *What* happened? | *What* place? | *What* time? |
| Tacts | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| | 8 | | | | |

*Figure 2.* An example of a blank SIM chart

1. Ali rode his bicycle all morning in the park. 2. He met his friend Bala at the park. 3. Bala skated beside Ali for an hour. 4. The two boys saw a *kacang puteh* man at the main gate of the park. 5. The *kacang puteh* man sold them each a cone of sugar-coated peanuts. 6. It was twelve o'clock noon when a park ranger told the boys to leave the park. 7. The park had to be closed for maintenance work. 8. The boys met their parents outside the park.

*Figure 3.* An example of a reading passage for SIM

| Sentence Number | | *What*-mands | | | |
|---|---|---|---|---|---|
| | | Who? | What? | Where? | When? |
| | | *What* person? | *What* happened? | *What* place? | *What* time? |
| Tacts | 1 | Ali | rode his bicycle | in the park | all morning |
| | 2 | He | met his friend Bala | at the park | |
| | 3 | | | | |
| | 4 | | | | |
| | 5 | | | | |
| | 6 | | | | |
| | 7 | | | | |
| | 8 | The boys | met their parents | outside the park | |

*Figure 4.* An example of SIM Chart partially filled

Example 1: Question: What time (When) of the day did Ali ride his bicycle in the park?
The *what*-mand is *what* time (when?) where the answer can be found. The prompts are: "Ali", "did ride (rode) his bicycle" and "in the park". These prompts help to zero-in on the tact, i.e., "all morning", which is the answer to the question

*Figure 5.* Example showing how wh-question (When) prompts

Example 2: Question: What place (Where) did the boys meet their parents?
The *what*-mand is *what* place (where?) where the answer can be found. The prompts are "The boys" and "did meet (met) their parents". These prompts identify the tact: "outside the park" as the answer to the question. For every correct answer, a colourful star sticker was given as a reward.

*Figure 6.* Example showing how wh-question (Where) prompts

*Fifth Month*. During the first two weeks of the fifth month, the participants were introduced to the SIM chart and shown how the PECS and word cards were used in filling up the chart. For example, using the same sentence again, this is how a SIM chart was completed with the PECS and word cards: *Ali* rode his bicycle in the park all morning. Using *Ali rode his bicycle in the park all morning* as the model sentence, other sentences were given to the participants to fill the words in the correct boxes in the SIM chart. For the last two weeks of the fifth month, the participants were given short passages with familiar simple sentence structures to complete their SIM charts until they became more familiar with using the SIM chart.

*Sixth Month*. During each session in the final month, the participants were given short passages and taught how to answer correctly questions using prompts (word cues) taken from each sentence found in the boxes of the SIM chart. These word cues helped the participants to locate the correct answer to the question by zeroing on the tact that could be found under the column of each *what*-mand. After six months of intervention, a post-test was done on the participants' RC using the same NARA-III but Form 2. This is to avoid practice effect. The pre-test and post-test results were compared to determine what difference, if any, the exposure to the intervention using SIM had impacted on the participants' RC performance. It was also the authors' attempt to verify the effectiveness of the SIM as a RC strategy.

### *Intervention*

The Scaffolding Interrogatives Method (SIM) uses the verbal operants of mands and tacts. Devised by Chia (2002) and trialled at a special needs clinic with children with poor RC, the strategy has a child read sentence by sentence, then chart each sentence in several column of *what* interrogatives (*what*-mands) with sentential contents (tacts). Figure 2 shows an example of the SIM chart. The child reads the text to create the textual meaning (see Figure 3 for an example). The completed chart provides a new format of reorganised ideas based upon the original text, to aid comprehension.

Figure 4 shows an example of a partially completed table where the first two and last sentences have been completed.

## Results

Results of this study are presented in two sections. The first section deals with the analysis of pre-test and post-test data gathered from the administration the RC subtest of the NARA-III to compare the two sets of data as well as with the participants' chronological ages at the pre-test and post-test. The second section covers the ET's monthly observational feedbacks throughout the intervention phase. Her input was essential to the authors of this study to understand the procedural changes that might have taken place during the intervention process.

### *Analysis of Pre-test and Post-test Results of the Reading Comprehension (RC)*

Despite their normal intelligence, the ten participants continued to encounter challenges in RC (M=72.80, SD=6.58) as measured by NARA-III RC subtest Form 1 (See Table 2).

The SIM method intervention was carried out for six months. Table 3 shows the pre-test and post-test scores as obtained from the administration of the NARA-III RC subtest using Form 1 and Form 2 respectively. Post-test results using Form 2 for alternate forms reliability and paired samples *t*-test showed highly significant improvements difference (M=15.10, SD=5.31, $p < .05$) (see Table 3) even after accounting for six months of maturational or developmental growth (M = 9.10, SD = 2.60, $p < .05$) (see Table 3, Table 4 and Figure 7).

Table 4 shows the means and standard deviations for the ten participants on the NARA-III RC subtest. The mean score (in months) for RC increased from 72.8 (SD=6.58) at pre-test (Form 1) to 87.9 (SD=7.75) at post-test (Form 2) after six months of intervention.

A paired samples *t*-test was carried out on the pre-test and post-test scores (in months) of the RC subtest of NARA-III to determine whether changes were significant. By conventional criteria, the results indicated that there was statistically significant difference between the pre-test and post-test scores (in months), $t$ (18) = 4.697, 2-tailed $p$ = 0.0002, with a standard error of difference = 3.215. The 95% confidence interval of this difference was from -21.8975 (lower limit) to -8.3025 (upper limit). The effect size ($d$), which measures the magnitude of the intervention effect (Cohen, 1988) on the participants' RC performance, was computed using Ray and Shadish's (1996) Equation II, and $d$ was 2.09, i.e., the size of effect was large.

The findings of this study show that there was a significant improvement in the RC performance by the ten participants with hyperlexia after they had been taught how to use SIM to answer comprehension questions. The positive impact (size of effect) of the intervention on the participants' RC was large according to Cohen's guidelines.

Table 2

*Summary of Results*

| Variables | Abbreviations | M | SD | SE |
|---|---|---|---|---|
| Mental Age | MA | 100.19 | 5.31 | 1.68 |
| Chronological Age (Posttest) | CA(Post) | 108.00 | 2.26 | 0.72 |
| RCA Pretest Form 1 | PreF1 | 72.80 | 6.58 | 2.08 |
| Expected Maturity (+6 months) | ExPost+6m | 78.80 | 6.58 | 2.08 |
| RCA Posttest Form 2 | PostF2 | 87.90 | 7.75 | 2.45 |
| Measured Difference | MD | 15.10 | 5.31 | 1.68 |
| Expectation Exceeded | ExE | 9.10 | 2.60 | 0.82 |

*Note.* All values are in months

Table 3

*Paired t-test comparisons of NARA-III RC Subtests*

| | Paired Differences | | | 95% CI | | *t* | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | M | SD | SE | Lower | Upper | | | |
| Pair 1 Pretest-Posttest | -15.00 | 2.60 | 0.82 | -16.96 | -13.24 | -18.36* | 9 | 0.00 |
| Pair 2 Expected Posttest-Posttest | 9.10 | 2.60 | 0.82 | 7.24 | 10.96 | 11.06* | 9 | 0.00 |
| Pair 3 Expected Growth-Actual Growth | 9.10 | 2.60 | 0.82 | -10.96 | -7.24 | -11.06* | 9 | 0.00 |

*$p < 0.05$

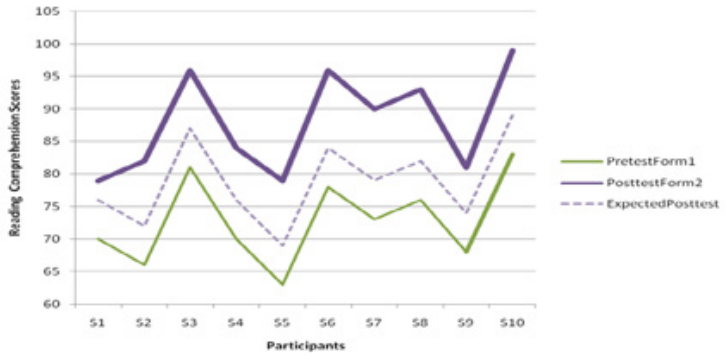


*Figure 7.* Results of RC Scores (in months) before and after SIM Intervention

Table 4

*Performance in NARA-III RC Subtest*

| Phase | Paired Differences | | | | | | t (df ) | Sig. (2-tailed *p*) | Effect size (d) |
|---|---|---|---|---|---|---|---|---|---|
| | Mean (in Months) | SD | Variance ($\sigma^2$) | SEM | 95% CI of the difference | | | | |
| | | | | | Lower limit | Upper limit | | | |
| Pretest (Form1) | 72.8 | 6.68 | 43.29 | 2.11 | -21.90 | -8.30 | 4.67 | 0.0002 | 2.09 |
| Posttest (Form 2) | 87.9 | 7.75 | 60.1 | 2.45 | | | (18) | | |

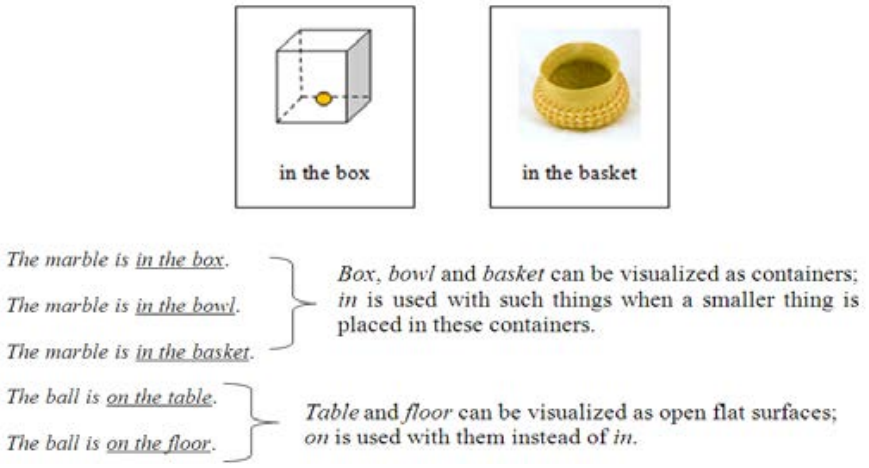


*Figure 8.* Selected PECS Cards on Prepositions

*Monthly Observational Feedback from the Educational Therapist (ET)*

Monthly observational feedbacks on the participants' responses in terms of their learning and behaviors were provided by the ET to the researchers at the end of each month during the conference session. It was also during these sessions that the ET informed the researchers of any changes he had made to the intervention procedure in order to meet the participants' needs. This allows the intervention procedure to be improved in the future.

*First Month.* Despite having been taught using the PECS cards previously at the Children Autism Center, four of the 10 participants were not keen to work with the four *what*-mand PECS cards: *what person*, *what happen*, *what place*, and *what time*. By the second session, the ET had to prepare some extrinsic motivators (e.g., colorful stickers of Thomas the train for their sticker albums) to gain their cooperation. Another challenge encountered was the confusion with some of the *what*-mands, especially *what happen* which could refer to *what action* and/or *what thing*. Initially, *what*

*happen* was used for both action and thing as in this sentence: *Ali rode his bicycle*. *Ali* is *what person* while *rode his bicycle* refers to *what happen*. Since *rode* and *his bicycle* are two separate PECS cards, all the participants failed to recognize that *what happen* refers to both the action *rode* and the thing (object) *his bicycle*. As a result, the *what happen* PECS card was removed and replaced with two other *what*-mand PECS cards: *what action* and *what thing*.

*Second Month.* More time was spent on teaching the *what action* and *what thing*, as the participants seemed to be confused between them. The educational therapist used a lot of examples to illustrate *what action* and *what thing* where *what action* was followed by *what thing*. All the participants were able to differentiate between *what action* and *what thing* by the end of the second month. Practice exercises given to the participants helped to reinforce what they had learned.

*Third Month.* Teaching the *what place* (*where*) was easy and straightforward if a picture of a place was shown on the PECS card as well. However, prepositions like *in*, *on*, and *at* are functional words that the participants found meaningless unless these words were taught in a given context that could be easily visualized, and with as many examples as possible to help them to grasp the concept. For instance, as illustrated in the following sentences by the ET using PECS cards (see Figure 8):

According to the ET, only one participant was unable to grasp the concept of prepositions. This particular participant kept confusing *in*, *on* and *at* as well as *beside*, *below* and *behind*. Practice exercises were given to the participants in all sessions to reinforce their learning.

*Fourth Month.* Teaching *what time* (*when*) was challenging too. It also could mean *what day*, *what month*, *what year* and so on. In this study, only *what day* and *what time* were taught. The *what day* was taught in terms of the seven days of a week (e.g., Sunday, Monday, Wednesday). The *what time* was taught two ways: Firstly, it was introduced in term of clock time (e.g., seven o'clock, 2:30 pm). Next, it was taught as different parts or periods of the day (e.g., morning, noon). The participants were introduced to the following sentence structure using PECS cards: *what time* follows by *what day*. All of them were able to distinguish between *what time* and *what day* in their practice exercise.

*Fifth Month.* The participants were able to complete the SIM chart using the PECS cards to form sentences. Word cards that matched with the respective PECS cards were also used to form the exact sentences on the chart. These words were copied in the next row just below row for pasting the word cards on the Velcro strips. By the end of the month, all participants were able to complete the task with ease except for the last column on the *what*-mand for time/day (*when*). The ET suggested to have two separate columns under the headings *what time* and *what day*, which the participants had been taught in the previous month, rather than one column for the two *what*-mands. The reason was to avoid confusing the participants should they have to make a choice deciding whether to place *what time* or *what day* PECS card in the one given box/column.

*Sixth Month.* Without using PECS and word cards, the participants completed the SIM chart by filling the words taken from sentences in a passage in the correct boxes. Questions asked of the passage were presented with PECS and word cards as prompts to help the participants find the correct answers to the respective questions. Although the participants were not able to answer all questions correctly all the time, they were close to getting the right answers. Through more practice, the ET noted that all the participants were able to cope with their reading comprehension using the SIM.

In this study, all possible care was taken to control for extraneous variables. However, there is no assurance that SIM is the only major factor in the pre-test/post-test difference. Moreover, other probable errors include the testing effects (i.e., the experience of pre-test) by itself, may increase motivation, alter attitudes, induce learning sets, or stimulate self-pacing, and maturation (i.e., the participants are also growing older and, therefore, more matured and experienced than before).

### *Limitations of the Study*

The small sample size of ten participants quantitatively limits interpretation of the findings to the study participants. However, as individuals with autism are generally unique due to differential degrees of perception and response to sensory stimuli with varied challenges (Tomcheck & Dunn, 2007) it is not possible to have homogenous samples in any case.

In addition, there are also three other threats to the single-group action research design but the authors have taken precaution to avoid them: Firstly, there is a threat of history. It refers to something other than the intervention causing the post-test mean to increase (Soh & Tan, 2008). The authors made an informal check with the parents of the participating students to confirm that all the ten participants did not go for other treatments except the SIM intervention. Secondly, there is a threat of maturation. According to Soh and Tan (2008), it refers to the normal growth or maturation of the participants causing the increase in post-test mean. The authors have already factored this into their data analysis to account for six months of maturational or developmental growth ($M=9.10$, $SD=2.60$, $p<.05$) (see

Table 5). Lastly, there is a threat of test instrumentation. This concerns the practice effect if the participants become more experienced when the same test is used in the pre-test and post-test (Soh & Tan, 2008). Although the NARA-III RC subtest was administered in the pre-test and posttest, the test uses parallel forms (Form 1 and Form 2) that allow for retesting while avoiding practice effects on the passages. The test-retest reliability of the NARA-III RC subtest is .92 (Neale, 1999).

## Conclusion

Children with hyperlexia process texts superficially, failing to process information at a story level because they are less able to integrate new information with general knowledge when reading (Nation, 1999). Results of the present study suggest SIM as an effective RC strategy to aid such children in their reading comprehension. It uses two of six elementary verbal operants identified by Skinner (1957): mands, which are important for early language development and daily verbal interactions of children and adults, and tacts, which are necessary for vocabulary development to name or identify objects, actions and events (Sundberg, 2007).

Findings of this study also show that children with hyperlexia gradually learnt to replace *what*-mands with appropriate *wh*-mands in answering comprehension questions. With print prompts provided in each question to match those found in the SIM chart, the correct tact was easily located to answer the question. Moreover, the findings of the study also suggest that the RC difficulties manifested by children with hyperlexia may be due to the way they go about processing the written texts. These children can make sense of what they best understand the texts read through the use of the SIM as RC strategy. However, there still remain many unanswered questions concerning the RC skills of children with hyperlexia such as the early onset and unusual preoccupation with reading in hyperlexia and the nature of RC skills in such children.

## References


Baron-Cohen, S. (1999). *Mindblindness*. London, UK: MIT Press.

Bondy, A., & Frost, L. (2002). *A picture's worth: PECS and other visual communication strategies in autism*. Bethesda, MD: Woodbine House.

Cardoso-Martins, C., & da Silva, J. R. (2010). Cognitive and language correlates of hyperlexia: Evidence from children with autism spectrum disorders. *Reading and Writing*, *23*(2), 129-145.

Chia, N. K. H. (2002). Effectiveness of scaffolding interrogatives method: A strategy to improve a hyperlexic child's reading comprehension. *The Educational Therapist*, *23*(3), 12-19.

Chia, N. K. H. (2006, Winter). Concrete poems: A unique and creative way to address reading comprehension in children with Asperger's syndrome. *Autism Spectrum Quarterly*, 15-18.

Chia, N. K. H., & Ng, A. G. T. (2011). *Psychogogy: Redesigning pedagogy for special and allied educators*. Retrieved from http://www.lsesnet.com/blog/.

Chia N. K. H., Poh, P. T. C., & Ng, A. G. T. (2009, Winter). Identifying and differentiating children with hyperlexia and its subtypes: A meta-analysis. *Journal of the American Academy of Special Education Professionals*, 71-99.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Earlbaum Associates.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education.

Feuerstein, R., Feuerstein, R. S., Falik, L., & Rand, Y. (2002). *The dynamic assessment of cognitive modifiability* (2nd ed.). Israel: ICELP Publications.

Greenwood, D. J., & Levin, M. (2000). Reconstructing the relationships between universities and society through action research. In N. K. Denzin & Y. S. Lincoln (eds.), *Handbook of qualitative research* (2nd ed.) (pp. 85-106). Thousand Oaks, CA: Sage.

Grigorenko, E. L., Klin, A., & Volkmar, F. (2003). Annotation: Hyperlexia: Disability or super ability? *Journal of Child Psychology and Psychiatry*, *44*(8), 1079-1091.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology, 29*(2), 75-91.

Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing*, *2*(2), 127-160.

Jackson, N. E., & Coltheart, M. (2001). *Routes to reading success and failure: Toward an integrated cognitive psychology of atypical reading*. London, UK: Psychology.

Joshi, R. M., Padakannaya, P., & Nishanimath, S. (2010). Dyslexia and hyperlexia in bilinguals. *Dyslexia: An International Journal of Research and Practice*, *16*(2), 99-118.

Kennedy, B. (2003). Hyperlexia profiles. *Brain and Language*, *84*(2), 204-221.

Kleiman, J. (1997). *Group intervention for language disorders*. Toronto: Canadian Hyperlexia Association.

Leavell, C. (1998). Identifying and managing a child with a nonverbal learning disability. *Learning Disabilities Journal*, *8*(6), 4-7.

Mills, G. E. (2007). *Action research: A guide for the teacher researcher* (3rd ed.). Upper Saddle River, NJ: Pearson Education.

Nation, K. (1999). Reading skills in hyperlexia: A developmental perspective. *Psychological Bulletin*, *125*(3), 338-355.

Nation, K., Clarke, P., Wright, B., & Williams, C. (2006). Patterns of reading ability in children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *36*(7), 911-919.

Nation, K. D., & Norbury, C. F. (2005). Why reading comprehension fails: Insights form developmental disorders. *Topics in Language Disorders*, *25*(1), 21-32.

Neale, M. D. (1999). *Neale Analysis of Reading Ability* (3rd Ed.). Berkshire, UK: NFER-Nelson.

Newman, T. M., Macomber, D., Naples, A. J., Babitz, T., Volkmar, F., & Grigorenko, E. L. (2007). Hyperlexia in children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *37*(4), 760-774.

Niensted, S. M. (1968). Hyperlexia: An educational disease? *Exceptional Children*, *35*(2), 162-163.

Ray, J. W., & Shadish, W. R. (1996). How interchangeable are different estimators of effect size? *Journal of Consulting and Clinical Psychology*, *64*, 1316-1325.

Richman, L. C., & Wood, K. M. (2002). Learning disability subtypes: Classification of high functioning hyperlexia. *Brain and Language*, *82*, 10-21.

Schwartz, O. (1925). *Psychogenese und psychotherapie korperlicher symptom*. Vienna, Austria: Verlag Julius Springer.

Silberberg, N., & Silberberg, M. (1967). Hyperlexia: The other end of the continuum. *Journal of Special Education*, *5*(3), 233-242.

Skinner, B. F. (1957). *Verbal behavior*. New York, NY: Appleton-Century-Crofts

Soh, K. C., & Tan, C. (2008). *Workshop on action research: Transforming teachers to action researchers*. Hong Kong: Educational Leadership 21.

Stringer, E. T. (2007). *Action Research* (3rd ed.). Thousand Oaks, CA: Sage.

Sundberg, M. L. (2007). Verbal behavior. In J.O. Cooper, T.E. Heron & W.L. Heward (eds.), *Applied Behaviour Analysis* (2nd ed.) (pp.526-547). Upper Saddle River, NJ: Merrill/Prentice Hall.

Tomchek, S. D., & Dunn, W. (2007). Sensory processing in children with and without autism: A comparative study using the Short Sensory Profile. *American Journal of Occupational Therapy, 61*(2), 190-200.

# Parentally Placed Students in Private Schools: A Brief Review of United States Policy and Practice

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**Abstract**

*The article addresses the small but consistent population of students with disabilities who are placed by parents, as opposed to local educational agencies, within private-school settings in the United States. The article presents current data on the number of such students and, to the extent available, the settings in which they are served. Relevant federal laws governing identification, accommodations and service delivery for this group of students are described, and the article further reviews the relatively small research literature in this area. Concerns and issues facing educators in the field are identified, and the article presents recommendations for future research in this area.*

## Introduction

*Ms. Ochoa, Riverview Elementary's principal, had just received a request for evaluation for a fourth-grader at a local private school within Riverview's school zone. She walked the referral form down the hall to her special education coordinator, and together they looked at the information provided about the student. "I'm glad this student is being referred for evaluation if she needs it," said the special education coordinator, "but it is sometimes frustrating to evaluate students outside our school. When students attend this school, I know them, I know their teachers, I see their families. I know what words are on their Friday spelling tests, and I watch them count change to pay for their lunch in the cafeteria. Without that kind of background knowledge, I worry that I'm not giving very informed input to the teachers and family of this student."*

*Mr. Hearst taught fourth grade at the Woodshire Academy, a small private school close to Riverview Elementary. For the past several months, he had noticed that Dorothy, one of his students, seemed to be struggling in reading. He had tried providing her after-school help, had experimented with different instructional strategies, and had given her several untimed tests to see if she would benefit from testing under different circumstances. At this point, he felt he didn't know the next steps needed to support Dorothy, but he had strongly recommended to her mother that she investigate other options, including testing for a learning disability. He had suggested she talk to the Woodshire guidance counselor and call the local elementary school to find out more, but he regretted that he was not familiar enough with the process or paperwork to give Dorothy's mother any more specific guidance. It must be overwhelming, he thought, for families to have to work through two different school systems to get their children evaluated, let alone coordinating services.*

*Mrs. Brooks, Dorothy's mother, knew even before the suggestion came from Dorothy's teacher that she should look into having Dorothy evaluated for learning differences. Dorothy had always learned a little differently—that was one reason that Mrs. Brooks felt Woodshire Academy, with its small classes, would be the perfect fit for her. She had visited Riverview Elementary and had many family and friends whose children attended and loved the school. But the thought of navigating the special education assessment process at the public school, in addition to the requirements at Dorothy's own school, seemed daunting. The questions in her head seemed to go on forever: What kind of testing would they do? Would she need to bring Dorothy to a different school for evaluation? What were the options if testing did show a learning disability? Would Dorothy receive any services from the public school, and if so, how would that work? And would she be able to remain at Woodshire and to succeed if she had a learning disability? What would be the best solution to help her daughter, and as Dorothy's mother, how could she make sure it happened?*

The three interrelated scenarios presented above are based on real-life situations in the United States, where the author has worked in both private and public settings providing content instruction as well as inclusive educational services. Such situations, in fact, occur frequently as United States public school staff, private school staff, and families all negotiate the process of identification, eligibility determination, and service coordination for students with disabilities who are

parentally placed in private schools (United States Department of Education, U.S. Department of Education, 2004; Office of Nonpublic Education, 2012; Taylor, 2005). This scenario could apply to a large group of staff, families and students; while the overwhelming majority of America's K-12 students are educated in the public-school system, the U.S. Department of Education estimates that private-school students, and children who are homeschooled, make up about 13% of all K-12 students (U.S. Department of Education, 2008National Center for Education Statistics (NCES), 2011). Of these students who are parentally placed in private-school settings, a significant number have disabilities; the National Center for Education Statistics (NCES) estimates that over 65,000 students with disabilities, each year, are served across the nation in "regular private schools," as opposed to those designated as special education schools or self-contained placements for students with disabilities (NCES, 2011). In fact, about ten percent of all students with disabilities are served within private-school settings, a number reflecting a slight increase over previous years (NCES, 2011; NCES, 2006), and including students placed by their parents in private schools ("parentally placed students") (United States Department of Education, Office of Special Education and Rehabilitative Services (OSERS), 2006) in addition to those who attend at a school system's expense in order to receive services specific to their disability. For school staff (both public-school and private-school) and families seeking to support parentally placed students with disabilities enrolled in private schools, any number of needs and challenges can exist in the process: familiarity with one another's systems and procedures; awareness of applicable federal and state regulations; common curriculum standards; interpretation of data to inform decision-making; effective communication among all parties; and logistics for planning and implementing accommodations and, where appropriate, services (Taylor, 2005; Sopko, 2008). This article provides a brief overview of federal policy governing services to parentally placed students with disabilities, describes current findings regarding challenges that may arise in the identification, consultation, and service delivery processes, and offers recommendations for personnel involved in the process.

### *Context and Policy for Serving Parentally placed Students*

In recent years, educational awareness of students with disabilities, and inclusion of those students in general education settings, has gradually increased (Vislie, 2003). Throughout the past several decades, in particular, nations have reached consensus on key principles regarding individuals with disabilities and particularly students with disabilities, as demonstrated by the multiple nations' adoption of the 1994 Salamanca Statement on Principles, Policy and Practice in Special Needs Education (Blandul, 2010) and, more recently, the United Nations Convention on the Rights of Persons with Disabilities (United Nations, 2012). Throughout the world, different nations use differing approaches to assessment, service delivery and inclusion, although trends toward inclusion have increased in many countries (Blandul, 2010; Norwich, 2009). Like many nations, the United States differentiates in law between publicly funded schools, which are required to offer special education services at no cost to families, and private schools, which operate under a less rigorous set of requirements with respect to students who have disabilities. The United States' special education system, particularly with respect to the differences between public and private education, is worthy of examination as one example of how laws and trends may differ within and outside the publicly funded system (United States Department of Education, Office of Special Education and Rehabilitative Services (OSERS), 2006). As with other nations around the world, the U.S. has been impacted by trends toward greater inclusion and awareness of those with disabilities, changes in private-school affordability and enrollment due to economic concerns, and changing policy requirements.

In the United States, educational programming for students with disabilities is governed largely by the Individuals with Disabilities Education Improvement Act (IDEIA) (OSERS, 2006; Bryant, Smith & Bryant, 2008). Originally passed in 1975 as the Education for All Handicapped Children Act and reauthorized multiple times since that date, this bill requires public schools to provide specialized instruction, services and support to students identified as having a disability impacting educational performance (Bryant, Smith & Bryant, 2008). Under parts B and C of IDEIA, such services are extended to early childhood, so that, in all 50 states, special education services are available from birth through graduation or the age of 21. In the preschool and K-12 settings, services are specified in an Individualized Education Program (IEP), a document that lists the student's current levels of performance, needed accommodations, program modifications, and individual educational goals (Smith & Tyler, 2010). This document is reviewed and updated annually in order to ensure that goals and accommodations continue to be appropriate as each student develops. In addition to spelling out elements of the special education process, from identification to determination of eligibility for services to delivery of services, IDEIA also establishes

some fundamental rights for students with disabilities. Among these are the responsibility of the school system to provide a "free and appropriate public education" ("FAPE") for all students with disabilities and the right of students to be placed in the "least restrictive environment" ("LRE"), or the least segregated and most inclusive environment appropriate to their needs (Smith and Tyler, 2010; OSERS, 2006). IDEIA applies only to public schools, although additional U.S. laws, such as the Americans with Disabilities Act and the Rehabilitation Act of 1973, provide additional protections to individuals with disabilities, often (but not always) including K-12 students (United States Department of Education, Office of Civil Rights (OCR), 2012). While much of the national conversation and research in the U.S. centers on public education for K-12 students with disabilities, a substantial number of families opt to educate their children outside the public-school setting, choosing homeschooling or opting to pay tuition at a private school rather than participating in the public educational system. Under IDEIA, students with disabilities whose families opt to educate them in private schools are referred to as "parentally placed private-school students" or "parentally placed students with disabilities" (United States Department of Education, Office of Special Education Programs (OSEP), 2012). IDEIA also provides for limited situations in which a school system can agree to place a child with a disability in a private setting as the best place to serve his or her needs; however, the scope of this article extends only to those students whose parents unilaterally, without the school system's participation, elect private school for their child.

At first glance, it may appear that private-school placements of students with disabilities are becoming less relevant than previously. Several factors have combined to decrease the prominence of private schools in the national debate. First, the recent economic downturn in the U.S. has decreased the ability of many families to afford private school (Hadderman, 2009). Second, a decade of highly-publicized public school reform has made public school a more viable alternative for many families, particularly for students considered to be at risk (Frieden, 2003), decreasing the likelihood of those families selecting and paying for a private school as public schools improve and as school choice within public systems becomes more commonplace (NCES, 2009). Finally, private schools face increased competition from charter schools, a relatively new development within the U.S. educational landscape, which involve organizations other than the school district operating tuition-free, public schools under a specialized "charter" from the district and enjoying significantly more autonomy in curriculum, management and hiring than what exists within typical public schools (Chakrabarti & Roy, 2009). Nevertheless, private school remains an attractive option to families in a variety of circumstances (Taylor, 2005), including those receiving voucher aid, school financial aid, or other support (Bukhari & Randall, 2009). Several studies have found that families' private-school selections are often based on a desire for academic rigor or more selective peer groups; religious affiliation and preference, longstanding family relationships with private schools, interest in particular curricula or emphasis areas, or a desire for smaller classes or greater individualization (Bukhari & Randall, 2009; Lacireno-Pacquet, 2008; Hall & Nattinger, 2012). Lacireno-Pacquet (2008) found that the primary motivator for families in making school-choice decisions was perceived academic quality, although the study also noted that families may define academic quality in divergent ways based on personal priorities (Lacireno-Pacquet, 2008).

In the realm of school choice for families, another relatively new policy development, school vouchers, has impacted private-school enrollments and, for some families, alleviated financial pressures associated with private school enrollment. Nineteen states and the District of Columbia have currently adopted some form of state support of private education, whether in the form of individual tax credits for tuition, business tax credits for scholarships, or tuition vouchers given directly to families, voucher support, individual tax credit, or business tax incentive to fund private-school tuition (Banchero, 2012; Frieden, 2003). Under the Individuals with Disabilities Education Improvement Act (IDEIA), a parent who unilaterally places their child with a disability in a private school setting (not seeking reimbursement from the school district as part of a specialized IEP) forfeits the right to "free and appropriate public education" (FAPE) (OSERS, 2006) even when using voucher funds. In other words, under federal law, the school district is no longer obligated to provide special education services for that student in particular, although there is still a responsibility to expend proportional funds to support private-school students with disabilities in general (OSERS, 2006). However, some states still extend these services to students in private schools as well, covering those students fully under IDEIA and allowing parents to choose between public and private placements with reduced, or no, impact on available services (Sopko, 2008; Eigenbrood, 2010; ONPE, 2009). In any event, no matter what the state policy might be, the local education agency (LEA) or school district still has two significant obligations under federal law: 1) the responsibility to identify any students with a disability who may be eligible for FAPE, even if the parents choose to remain

in a private-school setting, through the Child Find process; and 2) the responsibility to consult with local private-school officials and to expend a proportional share of special education funds on parentally placed private school students (U.S. Department of Education, 2004).

### *Identifying Students with Disabilities*

Through the Child Find process, representatives from the school district where the child attends school provide screening, assessment and eligibility determination, just as they would for a child in the public school system (OSERS, 2006). Prior to the revision of IDEIA in 2004, the child's school district of residence—rather than the district where he or she attended school—was responsible for conducting the evaluation and identification process. However, IDEIA 2004 updated this requirement, mandating that the evaluation be carried out by the LEA where the child's private school is located. This requirement both simplifies communication for private-school representatives (who previously might find themselves coordinating with multiple different LEAs, particularly for private schools serving large geographic areas) and, at the same time, has potential to complicate the process for families, who may live far from both the private school and the consulting LEA.

Additionally, should the child be determined to have an educational disability, and should the family choose to remain at the private school, the decision-making team typically will create a service plan or accommodations plan rather than an IEP, as the child is not necessarily eligible for full special education services under IDEIA while in the private school setting unless specific state requirements mandate otherwise (Office of Nonpublic Education, 2009; National Education Association, 2008). Based on state and local requirements, students may be eligible for some services, which may be provided in the home public school setting, the private school setting, or another location (ONPE, 2009; OSERS, 2006).

### *Consulting with Private School Representatives about Provision of IDEIA Services to Parentally Placed Private School Students*

In addition, school officials sometimes have questions about the obligation to consult with private school officials. This obligation does not necessarily translate into a responsibility to provide services to any specific child, but rather to consult, in a "timely and meaningful" manner, with private-school officials about appropriate ways to allocate special education funds for the education of parentally placed private school students with disabilities. IDEIA gives a preference to direct service delivery as opposed to consultation alone, and requires LEA officials to consider the needs of all students with disabilities in making this determination (United States Department of Education, 2006). From this point in the process on, the nature and structure of services and funding is typically dictated by state regulations; some states and districts allow IDEIA money and services to be provided directly within private schools (United States Department of Education, 2009); some may restrict the nature or location of services based on district policies or feasibility. While IDEIA does require school districts to consult in a "meaningful" manner with private-school representatives prior to deciding how to expend the appropriate percentage of funds, it does not require that private-school officials agree with the LEA or approve the plan—only that they are notified and involved in the planning process in some meaningful fashion (United States Department of Education, 2006). IDEIA further authorizes LEAs to use private contractors where appropriate to meet the needs of parentally placed students in private schools (United States Department of Education, 2006). Finally, an important point for all parties to understand is that under federal law, LEAs are required only to expend a proportional amount of funds to serve parentally-placed students with disabilities, not to provide services to each individual student. While some state laws may require LEAs to do more than this minimum, the federal law governs the amount of money that must be spent, but leaves to school districts the choice of how to spend it. An LEA might, for example, decide to fund speech therapy for parentally placed students but not to fund any physical, occupational, or behavioral therapies for those students.

### *Federal Policy Requirements for Private Schools*

Finally, the student with a disability who remains in the private-school setting is not necessarily entitled to the same protections under IDEIA that he or she might receive in the public school setting. (However, some states do extend such protections to private-school students.) If the private school accepts any federal funding, it is likely bound by Section 504 of the Rehabilitation Act and is therefore prohibited from discriminating against students with disabilities. Some private schools are also covered under the Americans with Disabilities Act (ADA), although the ADA does not apply to religious schools (Americans with Disabilities Act, 1990). While neither of these laws provides the extensive protection to students with disabilities that is found in IDEIA, section 504 may require a school to

make accommodations and "minor adjustments" for students with disabilities, and the ADA may require a minimal level of physical accessibility in any new construction or renovations (Rehabilitation Act, 1973). Increasingly, professionals in the field have acknowledged that private schools "do not have the option," simply by virtue of being private schools, of failing to provide appropriate services to students with disabilities (Taylor, 2005).

As in the public-school identification and IEP process (OSERS, 2006), some rights associated with free and appropriate public education still apply (Eigenbrood, 2010); for example, families have the right to challenge findings of assessments or request re-assessment. Research has demonstrated the importance of clearly explaining procedural rights and safeguards to families (Fitzgerald & Watkins, 2006) as well as all aspects of IEP meetings (Dabkowski, 2004), and this holds true when the process concerns students in private school as well as those attending public school.

*Inclusion in Private Schools: Current Data and Trends*

Despite the decentralized nature of private education in America and the resulting difficulties in collecting reliable data, existing information does suggest that recent years have seen an increase in inclusionary trends in private schools, creating an increased demand for teacher knowledge, skills and collaboration related to students with exceptionalities (Taylor, 2005; Glendinning, 2009. In order to identify information related to current research and trends regarding inclusion of students with disabilities parentally placed in private schools, a review was conducted of website information from relevant private school associations as well as demographic data from the National Center for Education Statistics. In addition, a database search was conducted for articles from 1992-2012, including those whose abstracts or keyword lists contained terms such as "parentally placed," "inclusion," "nonpublic," "LEA and private schools", "disabilities and private schools," and "disabilities and nonpublic schools." References of relevant research and professional sources were consulted to identify additional sources in addition to this database search. Based on this search, the author's first conclusion was that, while demographic information is plentiful, a dearth of research exists on this topic. Using all these methods, the author found a total of seven articles from peer-reviewed sources that primarily addressed specific issues relating to parentally placed students in private schools. Of these seven, three (Eigenbrood, 2010; Eigenbrood, 2004; Van Dyk & Newman, 1994) were specifically geared toward faith-based schools, a significant but not all-inclusive subset of U.S. private schools. Several additional articles were found which addressed private-school issues as a subset of a more general treatment (e.g., Katsiyannis & Maag, 1998). Accordingly, the following brief summary of the literature is necessarily incomplete in its scope, as the research base on this topic is itself sparse.

The U.S. Department of Education reports that at least 43% of private schools, nationwide, have at least one student who is served under IDEIA or "participates" in IDEIA services (NCES, 2011). The United States Conference of Catholic Bishops (USCCB) found in 2002 that 7% of students in Catholic schools (which collectively account for nearly 40% of national private-school enrollment) includes students considered by their public school system to have disabilities (USCCB, 2002). However, this does not take into account students who may be diagnosed with an educational disability but whose parents have chosen to forgo special education referral in the public system, suggesting that the actual figure may be higher (USCCB, 2002). The National Catholic Educational Association, the largest single private-school association in the U.S. and the leading professional organization for Catholic schools, reports that, based on a 2009 survey, 89% of Catholic elementary schools accepted students with "special learning needs," including learning or other disabilities. The most common disabilities among enrolled students were specific learning disabilities (reported by 66% of respondents); speech and language impairments (59%); AD/HD (53); and autism spectrum disorders including Asperger's syndrome (27%) (NCEA, 2012). Of Catholic secondary schools, 41% had only informal programs or accommodations to meet students' needs; 27% self-rated their programs as existing but "developing," and only 32%, or less than 1/3, considered their own programs to be "responsive" to the needs of students with disabilities (NCEA, 2011). Fewer than half of the schools had any staff with formal training or certification in special education (NCEA, 2011).

This data suggests that, private schools are responding to-and in some cases leading—increased demand and advocacy for the inclusion of students with disabilities. However, it also suggests a need for increased staff awareness and skills and for proactive information-sharing by special education professionals in public-school systems. The limited number of articles on parentally placed students with special needs tends to validate this judgment. As Taylor (2005) states, the existence of legal mandates does not immediately answer every question that public and private school staff may have about the relationship between the two. Questions are likely to remain about the nature, structure, delivery, and planning of services available to students with disabilities (Katsiyannis and Maag, 1998;

Eigenbrood, 2010; Glendinning, 2009). Concerns related to these questions will also arise, particularly when individuals from two or three different systems (public school, private school, and family) try to engage in collaborative planning without a common vocabulary or understanding of what the goal is (Friend & Cook, 2010).

Frequently, personnel from private schools may operate within a different framework and set of understandings from that common to public school personnel (Katsiyannis & Maag, 1998). This is particularly true with issues such as the tension between admissions processes and zero-reject policies; varied expectations of student achievement; and varied experiences with respect to students' background and prior knowledge. Educators should also be aware of potential differences in terminology or communication styles, which can also make collaboration difficult due to a lack of common understanding and background knowledge. One educator in a district-wide assessment role once described his job circumstances as "alphabet soup," making reference to a seemingly endless collection of acronyms that seemed utterly incomprehensible to an outsider. This phenomenon is not unheard of in IEP meetings in general (Fitzgerald & Watkins, 2006; Copenhaver, 2007) and may result in families not comprehending the information shared (Stoner et al, 2005). Such concerns have potential to exist even more frequently when families and school personnel (from both the LEA and the private school) are both navigating an unfamiliar school, system or process.

Finally, the topics discussed in this article illustrate the importance, for both private and public educators, of inclusive education and appropriate support for students with disabilities. As American schools, like those in other nations (Vislie, 2003) continue to evolve in response to trends such as school choice, accountability, economic changes and growing acceptance of those with disabilities, both private and public schools and systems should reevaluate their existing processes for supporting students with exceptional learning needs, the degree to which they integrate current knowledge in the field, and existing opportunities for collaboration among schools and personnel. Such collaboration may take the form of joint professional development for staff, delineating clear processes for supporting students and parents transitioning between schools or systems, and more streamlined sharing of information. The U.S. Department of Education facilitates such sharing of information on a broader level through the Office of Nonpublic Education (ONPE), a division devoted exclusively to policy, research and practical issues related to private schools (ONPE, 2008). As part of its mission, ONPE also facilitates formal partnerships and model projects in which public and private schools engage in collaborative work and sharing of resources (ONPE, 2011). Continued efforts toward information sharing, joint development of resources, and staff awareness may be helpful on both local and national scales as means to increase collaboration and improve service delivery for all students with disabilities, whatever their educational setting.

## Conclusion

As discussion of educational success, accountability and reform continues in the public arena, families and students continue to weigh educational options, often choosing among traditional public schools, charter schools, and private schools. While the complexity of our educational landscape may continue to increase with future school reform efforts, educators must also continue to increase their awareness of the issues involved in identification, eligibility determination, and service delivery for students with disabilities who are parentally placed in private schools. Additional research on the challenges of identifying and serving parentally placed students is essential. In particular, research might profitably focus on demographic data regarding this population, identification, service structure, collaborative practices among educators, and service delivery. In order to facilitate effective collaboration for this small but significant student population, both researchers and practitioners must increase our knowledge base in order to identify best practices for working together to serve students' needs.

## References


Americans with Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1990).

Banchero, S. (2012). School vouchers gain ground. *The Wall Street Journal,* Apr. 11, 2012. Retrieved from http://online.wsj.com/article/SB10001424052702303624004577338131609745296.html.

Blandul, V. (2010). International approaches to inclusion of children with special educational needs in mainstream education. *Problems of Education in the 21st Century, 21*, 9-36.

Bryant, D., Smith, D. & Bryant, B. (2008). *Teaching students with special needs in inclusive settings.* Upper Saddle River, New Jersey: Pearson.

Bukhari, P. & Randall, E. (2009). Exit and entry: Why parents in Utah left public schools and chose private schools. *Journal of School Choice, 3*(3), 242-270. doi:10.1080/15582150903304746

Chakrabarti, R. & Roy, J. (2009). *Do charter schools crowd out private school enrollment? Evidence from Michigan*. 2011. Retrieved from http://www.ncspe.org/publications_files/OP194.pdf

Copenhaver, J. (2007). An educator and parent primer on special education acronyms, abbreviations, and definitions. Mountain Plains Regional Resource Center. Retrieved from http://www.vcu.edu/partnership/downloadables/acronymsspecialed.pdf.

Dabokowski, D. (2004). Encouraging active parent participation in IEP team meetings. *Teaching Exceptional Children, 36*(3), 34-39.

Eigenbrood, R. (2004). IDEIA requirements for children with disabilities in faith-based schools. *Journal of Disability Policy Studies*, 15(1), 2-8. Retrieved from EBSCO*host*. doi: 10.1177/10442073040150010101

Eigenbrood, R. (2010). IDEIA requirements for children with disabilities in faith-based schools: Implications for practice. *Journal of Religion, Disability & Health*, *14*(4), 393-409. doi:10.1080/15228967.2010.517441.

Fitzgerald, J., & Watkins, M. (2006). Parents' rights in special education: The readability of procedural safeguards. *Exceptional Children*, *72*(4), 497-510.

Frieden, L. (2003). School vouchers and students with disabilities. Washington, DC: National Council on Disability. Retrieved from http://www.ncd.gov/publications/2003/April15.

Friend, M. & Cook, L. (2010). *Interactions: Collaboration skills for school professionals*, 6th ed. Upper Saddle River, NJ: Pearson.

Glendinning, M. (2009). Supporting students with disabilities in independent schools. *Independent School*, *68*(2), 96-104.

Hadderman, M. (2009). *Trends and issues: School choice*. Eugene, OR: ERIC Clearinghouse on Educational Management, University of Oregon. Retrieved from http://eric.uoregon.edu/trends_issues/choice/index.html.

Hall, J., & Nattinger, M. (2012). Determinants of private school attendance: Evidence from Wisconsin School Districts. *International Advances in Economic Research, 18*(2), 245-246. doi:10.1007/s11294-012-9352-5

Katsiyannis, A., & Maag, W. J. (1998). Disciplining students with disabilities: Practice considerations for implementing IDEIA '97. *Behavioral Disorders*, *23,* 276-289.

Lacireno-Pacquet, N. (2008). Who chooses schools and why? Lansing, MI: Great Lakes Center for Education Research and Practice. Retrieved from http://greatlakescenter.org/docs/Policy_Briefs/Lacireno-Paquet_Who%20Chooses%20Schools.pdf.

National Catholic Educational Association (NCEA) (2011). *Financing the mission: A profile of Catholic elementary schools in the United States.* Arlington, VA: National Catholic Educational Association.

National Catholic Educational Association (NCEA) (2012). *Dollars and sense: Catholic high schools and their finances 2011*. Arlington, VA: National Catholic Educational Association.

National Center for Education Statistics (NCES) (2006). *Characteristics of schools, districts, teachers, principals, and school libraries in the United States: 2003-2004*. Retrieved from nces.ed.gov.

National Center for Education Statistics (NCES) (2009). *The condition of education.* United States Department of Education: Washington, DC. Retrieved from http://nces.ed.gov/fastfacts/display.asp?id=6.

National Center for Education Statistics (NCES) (2011). *The condition of education.* United States Department of Education: Washington, DC. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011033

Norwich, B. (2009). Dilemmas of difference and the identification of special educational needs/disability: international perspectives. *British Educational Research Journal*, *35*(3), 447-467. doi:10.1080/01411920802044446

Rehabilitation Act of 1973 (1973). Section 504. 29 U. S. C. §794.

Smith, D. & Tyler, N. (2010). *Introduction to special education: Making a difference.* Upper Saddle River: Pearson.

Sopko, K. M. (2008). *Universal design for learning: Implementation in six local education agencies.* Alexandria, VA: Project Forum at the National Association of State Directors of Special Education.

Stoner, J. B., Bock, S. J., Thompson, J. R., Angell, M. E. Heyl, B. S., & Crowley, E. P. (2005). Welcome to our world: Parent perceptions of interactions between parents of young children with ASD and education professionals. *Focus on Autism and Other Developmental Disabilities, 20*(1), 39-51.

Taylor, S. S. (2005). Special education and private schools: Principals' points of view. *Remedial & Special Education*, *26*(5), 281-296. doi: 10.1177/07419325050260050301.

United Nations (2012). Convention on the rights of persons with disabilities. Retrieved from http://www.un.org/disabilities/default.asp?id=150

United States Conference of Catholic Bishops (USCCB) (2002). *Catholic school children with disabilities: A study commissioned by the USCCB*. Washington, DC: United States Conference of Catholic Bishops.

United States Department of Education, Office of Civil Rights (OCR) (2012). Disability discrimination. Retrieved from http://www2.ed.gov/policy/rights/guid/ocr/disability.html.

United States Department of Education, Office of Nonpublic Education (ONPE) (2011). Public-private partnerships leveraging resources for student success. Retrieved from http://www.ed.gov/blog/2011/10/public-private-partnerships-leveraging-resources-for-student-success/

United States Department of Education, Office of Nonpublic Education (ONPE) (2008). Office of Nonpublic Education Facts. Retrieved from http://www2.ed.gov/nclb/choice/schools/onpefacts.html.

U.S. Department of Education, Office of Nonpublic Education (ONPE) (2009). *State regulation of private schools*. Washington, D.C., 2009.

United States Department of Education, Office of Special Education Programs (OSEP) (2012). The Office of Special Education Programs and parentally placed students with disabilities. Powerpoint presentation. Retrieved from http://www2.ed.gov/parents/needs/speced/onpe/IDEIA04/index.html.

United States Department of Education, Office of Special Education and Rehabilitative Services (OSERS) (2006). *Individuals with Disabilities Education Improvement Act of 2004, Final Regulations*. Washington, DC. Retrieved from http://IDEIA.ed.gov/explore/view/p/,root,regs,/.

Van Dyk, B., & Newman, B. (1994). For all God's children: Inclusive education. *Christian Educators Journal, 34,* 12–13.

Vislie, L. (2003). From integration to inclusion: Focusing global trends and changes in the western European societies. *European Journal of Special Needs Education, 18*(1), 17-35. doi: 10.1080/0885625082000042294

# Effects of Emotional Intelligence and Locus of Control Training on the Psychological Well-Being of Adolescents with Visual Impairments in Nigeria

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**Abstract**

*This current study, investigated the relative effectiveness of Emotional Intelligence Training (EIT) and Locus of Control Training (LCT) on the psychological well-being of adolescent with visual impairment. The pretest-posttest control group experimental design with a 3x2x2 factorial matrix was used. The participants were 120 adolescents with visual impairment purposively selected from three integrated secondary schools in Ogbomosho, Ibadan and Owo in South-West Nigeria. Two valid and reliable instruments were used to assess levels of visual impairment and psychological well-being. Three research questions guided the study. Data were analyzed using Analysis of Covariance, while Duncan test was used for post hoc analysis. The result indicated that EIT and LCT were effective in fostering psychological well-being among the participants. However, EIT was superior in terms of outcomes. Also, type of visual impairment and gender did not mediate effectively the causal link between the treatments and criterion measure. Suggestions and recommendations were made based on the findings.*

## Introduction

It might be difficult to relate to the experience and challenges faced by adolescents with visual impairment based entirely on the literature. This is because the adolescents are different from one another in terms of personality, unique needs, and the ability to overcome different challenges. Adolescents with visual impairment face dual problems (Adebiyi, 2004). They have to contend with problems rooted in their inability to understand who they are and the limitations imposed on them by the loss of vision (Ayoku, 2006). Particularly, adolescence is a very critical and important stage in human development. Most psychological, physiological, and social changes in individuals take place during this period. This period can be looked upon as a time of struggle and turmoil when compared to the period of childhood (Rathi & Rastogi, 2007). Today, adolescents live in a society which has become multi-complex; thus, they engage in several activities including those that pose real threat to their psychological well-being (Adeyemo & Adeleye, 2008).

Psychological well-being is a subjective, dynamic, or multi-faceted concept which means different things to different people. It is also thought of as one of the hallmarks of outcomes resulting from educational encounters and experiences that guide students in the search of direction in life, as well as help them realize their potential (Seifert 2005; Adeyemo & Adeleye, 2008). Ryff (1989) noted dimensions of psychological well-being to include autonomy, personal growth, environmental mastery, positive relations with others, purpose in life, and self-acceptance. These are key components that make up psychological well-being.

Visual impairment is generally presumed to have psychological consequences on the individual. As observed by Jernigan (2002), Adebiyi (2004) and Ayoku (2006), such psychological consequences might be acute or severe conditions or chronic difficulties that could lead to sustained levels of depression, anxiety or emotional instability. Research (e.g., Williams, 1998; Simon, 2000; Adejumobi, 2007; Kolo, 2007) has indicated that adolescents with visual impairment experience a lot of problems at least in one or more of the dimensions of psychological well-being such as autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff, 1989).

Further, research by Williams (1998) and Simon (2000) shows that there are problems of psychological well-being among adolescents generally and among those with visual impairment in particular especially in such areas as environmental mastery, self-acceptance, decision-making, self-awareness, emotional identification, and perception (Adeyemo & Adeleye, 2008; Adeoye, 2008). Therefore, the focus of this current study is on enhancing the psychological well-being of adolescents with visual impairment. One of the ways to accomplish this is to put in place training activities that would enable individuals with visual

impairment to be taught the various skills or approaches which would lead to the attainment of a better psychological well-being. Such training programs include emotional intelligence and locus of control (Mayer & Salovey, 1993; Goleman, 1995; Rotter, 1966).

Emotional intelligence is conceptualized as a set of interrelated abilities. It is also described as an eclectic mix of traits and disposition, such as happiness, self-esteem, optimism and self-management rather than being ability-based (Petrides & Furnham, 2001; Bar-On, 2003; Boyatzis & Sala, 2004). In addition, Salovey and Mayer (1990) opine that emotional intelligence involves abilities that may be classified into four domains. These include: self-awareness, managing emotions, motivating one's self, as well as empathy and handling relationships. Studies on emotional intelligence have largely been fuelled by the inability of traditional intelligence as measured by the intelligence quotient test to account adequately for the variability in success criteria in human endeavor. Training or teaching of emotional intelligence skills in schools or rehabilitation centers brings about positive influence in adolescents with visual impairment (Kolo, 2007). Seligman and Csikszentmihalyi (2000) and Kolo (2007) report that emotional intelligence has implications for the way problems are tackled and prevented. The acquisition of emotional intelligence skills is useful for intervention in schools, families, communities and rehabilitation centers.

The locus of control dimension indicates a person's belief regarding the placement of control over his or her life events (Jonassen & Grabarski, 1993; Rotter, 1975). It has been pointed out that an adolescent's locus of control reflects his or her attitude, academic success, and emotional and psychological status. If an individual believes success, achievement, or failure is due to factors within his/her control, such an individual is said to have internal locus of control. On the other hand, if a person believes his/her success, progress, achievement, or failure is due to factors outside his/her control such as fate or luck, the individual has an external locus of control (Sinclaire, 1991; Abe, 1995; Bode, 1995). Interestingly, external and internal loci of control of individuals differ from their emotional awareness and psychological well-being (Howard, 1996; Emeke, 1997).

Gender has been identified as an important moderating variable in enhancing psychological well-being of adolescents with visual impairment. Cheshire (2004) explained that women who had an internal locus of control were reported to be more self-described than men. In another study, Bookwala and Boyar (2008) reported that body mass was a significant predictor of low psychological well-being for women and that they experienced stronger social stigma for being overweight relative to their male counterparts. Also, Arantzazu (2009) reported that boys had greater psychological well-being than girls due to their better physical self-concepts and that this related positively with psychological well-being.

Type of visual impairment has also been identified as another moderating variable in this current study. It is worth noting that the coping abilities of adolescents with visual impairment when confronted with such problems differ from one person to the other. Inability to cope with stress in an adaptive manner leads adolescents to develop problem behaviors, mannerism and misinterpretation of people's actions, emotions, and behaviors that affect their psychological well-being (Mayer & Salovey, 1993; Goleman, 1995; Rotter, 1966). Studies have revealed that types of visual impairment affect a person's psychological well-being and that the impact of visual loss, either total blindness or partial sight, are often accompanied by difficulties in various aspects of life (Branch, Horrowitz & Carr 1989; Cherry, Keller & Dudley 1991; Williams, Brody, Thomas, Kaplan & Brown, 1998). This study is designed to serve as a knowledge-based databank and intellectual resource for future researchers, parents, special educators, education policymakers, heads of special schools and curriculum planners particularly in a Nigerian context.

### *Research Questions*

The following research questions guided the study.

1. Is there significant main effect of treatment (emotional intelligence, locus of control and control group) on the psychological well-being of adolescents with visual impairment?
2. Is there a significant main effect of type of visual impairment on the psychological well-being of adolescents with visual impairment?
3. Is there a significant main effect of gender on the psychological well-being of adolescents with visual impairment?

## Method

### *Population*

The target population for the study comprised of all adolescents with visual impairment in secondary schools (integrated settings) in Ogbomoso and Ibadan in Oyo State and Owo in Ondo State, Nigeria.

*Sample and Sampling Technique*

A total of 120 adolescents with visual impairment from three integrated secondary schools in Ogbomosho, Ibadan and Owo in South-West, Nigeria participated in this study. Purposive sampling was used in selecting the participants. Students from Junior Secondary School (JSS) I, II – Senior Secondary School (SSS) I, II were used because they were very few in each of the classes but were old enough to be exposed to such training which would enable them to improve their psychological well-being, feelings and interaction at school, home and in their communities. Forty students were purposively selected from each of the three schools. The ages of the participants ranged from 12 to 21 years (the age range used is due to delay experienced by students with visual impairment in starting school). The students were screened to ascertain that they did not have any other disability aside from visual impairment.

*Instruments*

The Snellen Scale and the Adapted Version of Ryff Scale (1989) of Psychological well-being (AVRPWB) were used in the study for the purpose of data collection. The Emotional Intelligence Training Package and the Locus of Control Training Package were also administered.

*The Snellen Scale.* The Snellen scale is a vision screening instrument used to measure visual acuity. It is a standardized eye screening instrument approved by the World Health Organization (WHO) to identify the degree of visual loss. This instrument was used to screen the participants for the study in order to ascertain their level of visual impairment, whether they were totally blind or partially sighted.

*Adapted Version of Ryff Scale of Psychological Well-being (AVRPWB).* The Adapted Version of Ryff scale of psychological well-being was another instrument used for the study. It measures six areas of psychological well-being in an individual. The Ryff scale (1989) of psychological well-being consists of 84 questions (long-term) or 54 (medium-form). The short-term, consists of less questions. However, for the present study, the researcher adapted the medium form from which only 25 items were drawn since it consists of a series of statements reflecting six dimensions of psychological well-being such as: autonomy, environmental mastery, personal growth, positive relations with others, purpose of life, and self-acceptance. The scoring of the items was reversed in the final scoring procedures so that high scores indicate high self-rating on the dimension assessed. Those who show positive measures in feelings, behaviors, mastery, and competences, tend to have quality of better psychological well-being with scores from 50 and above, while those with scores below 40 tend to have a sense of stagnation in psychological well-being. The instrument was transcribed into Braille for participants to be able to read through it. Ryff (1989) found a coefficient alpha for each of the sub-scales ranging from 0.83 to 0.99. The Cronbach's alpha was used to establish the internal consistency of the scale; the overall test reliability of Cronbach's alpha was 0.77 after three weeks interval of administration.

*Emotional Intelligence Training Package (EITP).* This package was used as a treatment package by Adeoye (2008). The researcher adapted the package in the present study. Modifications were made to suit the participants who were adolescents with visual impairment. This training package was used for the experimental group 1. The instrument was made up of the following areas – orientation activities or tasks and assignments at the various stages of the training program. EITP has eight sessions. Each session is devoted to peculiar aspects/components of emotional intelligence. Eight sessions, each lasting for two hours, were presented by the researchers as follows: emotional intelligence and importance of enhancing psychological well-being, self-awareness/management, social awareness/channeling emotions, relationship management, motivation, and summary.

*Locus of Control Training Package.* This was the training package used in the experimental group 2 (Locus of group) like the EIT package, this instrument has eight sessions with each session addressing a particular aspect of locus of control. The sessions were presented as: general orientation to the treatment program and test administration, meaning of locus of control, orientation on external locus of control, orientation on external locus of control, behavioral expectations, understanding oneself in relation to locus of control, self-determination and awareness, behavioral attitude, self-control and management, general revision, administration of post-test, and termination of treatment program. The sessions were presented by these researchers and lasted for eight weeks.

*Research Design*

The study adopted a pre-test, post-test control group true-experimental design. It was used to examine the effect of emotional intelligence and locus of control training in enhancing the psychological well-being of adolescents with visual impairment in Oyo and Ondo States. A 3x2x2 factorial matrix was adopted with the treatment at three levels and crossed with gender and type of visual impairment at two levels respectively (male and female; totally blind and partially sighted).

The factorial designed in the study was used to trace the possible interaction and independent effects on the variables involved in the study.

*Procedure*

The study was conducted in a classroom setting as group training. All the students with visual impairment in the selected schools received treatment except those in the control group. The treatment comprised of Emotional Intelligence Training (EIT) and Locus of Control Training (LCT) Packages. EIT was made up of the following components: orientation activities or tasks and assignments at the various stages of the training program, general introduction and administration of the test, emotional intelligence and importance of enhancing psychological well-being, self-awareness/management, social awareness/channeling emotions, relationship management, motivation, and summary. EIT has eight sessions, each of which lasted for two hours, across eight weeks.

LCT was made up of different aspects of Locus of control such as general orientation to the treatment program and test administration, meaning of locus of control, orientation on external locus of control, orientation on internal locus of control, behavioral expectations, understanding oneself in relation to locus of control, self-determination and awareness, behavioral attitude, self-control and management, general revision, administration of post-test, and termination of treatment program. LCT also has eight sessions, each of which lasted for two hours, across eight weeks. Both treatments were implemented by these researchers.

**Results**

*Research Question One*

Table 1 indicates a significant effect of treatment on adolescents with visual impairment. ($F_{2/107}$ = 21.020; P< 0.05) this means there was significant main effect on psychological well-being of adolescents with visual impairment score of participants in the experimental groups 1 and 2 and the control group.

*Research Question Two*

Table 2 presents the result on the degree of significance of the treatment groups, emotional intelligence and locus of control. Also, shown are the moderating effects of gender and level (type) of visual special needs.

Table 2 indicates that the experimental group 1 recorded the highest adjusted post-test mean score in psychological well-being ($\bar{x}$ = 80.01). This was followed by the experimental group 2 ($\bar{x}$ = 75.07) while the lowest score was recorded by the control group ($\bar{x}$ = 61.47). To this end, the emotional intelligence training group was more effective in enhancing psychological well-being of adolescents with visual impairment when compared to the locus of control and control groups.

Table 1 indicates the effect of the type of visual impairment on the psychological well-being of adolescents with visual impairment (F = 0.112, P>0.05). There was no significant main effect on the psychological well-being of participants with total and partial blindness. Table 1 also shows that on psychological well-being, participants with partial blindness recorded higher mean scores ($\bar{x}$ = 74.93) than their counterparts with total blindness ($\bar{x}$ = 70.45), but the difference was not significant.

*Research Question Three*

Table 1 shows that gender level had no significant effect on the psychological well-being of individuals with visual impairment ($F_{(1,107)}$ = 1.874, P>0.05).

**Discussion**

Results indicated a significant effect in the psychological well-being of adolescents with visual impairment in both the experimental and control groups. Results also indicated that those exposed to emotional intelligence benefited more than those exposed to locus of control. This finding supports the results of Cooper and Sawaf (1997) that individuals exposed to emotional intelligence training had greater success, fostered greater personnel relationship, had effective leadership skills and were healthier than those exposed to locus of control. The finding also corroborates findings of Matthews, Zeidner and Roberts (2002) affirming the reduction in the anxiety of 50 telephone interviewees who had stressor strained relationships. Equipped with the skills in emotional intelligence, the participants reported strengthened relationships.

Also, on locus of control, where there was significant difference with respect to the control group, the study corroborates the finding of Pareek (1997) that children with internal locus of control appear to have high level of self-esteem. Locus of control relates positively to mental health such as less anxiety, decreased loneliness, decreased alcohol and drug abuse, but is not as effective as emotional intelligence.

In this current study the type of visual impairment had no significant main effect on the psychological well-

Table 1

*Post-test Adolescents Psychological Well-being by Treatment, Visual Impairment and Gender*

| Source of Variation | Sum of squares | Df | Mean square | F | P | Remarks |
|---|---|---|---|---|---|---|
| Covariate | 671.402 | 1 | 671.402 | 4.102 | 0.045 | Sig |
| Treatment | 6880.748 | 2 | 3440.374 | 21.020 | 0.000 | Sig |
| Type of Impairment | 18.313 | 1 | 18.313 | 0.112 | 0.739 | NS |
| Gender | 306.785 | 1 | 306.785 | 1.874 | 0.174 | NS |
| Treatment by Type of Impairment | 145.121 | 2 | 72.560 | 0.443 | 0.643 | NS |
| Treatment by Gender | 305.646 | 2 | 152.823 | 0.934 | 0.396 | NS |
| Gender by Type of Impairment | 160.330 | 1 | 160.330 | 0.980 | 0.325 | NS |
| Treatment by Type of Impairment & Gender | 59.976 | 2 | 29.988 | 0.813S | 0.833 | NS |
| Explained | 8642.836 | 12 | 720.236 | | | |
| Residual | 17513.031 | 107 | 163.673 | | | |
| Total | 26155.867 | 119 | 219,797 | | | |

Note: Df= Degree of Freedom; F= F-Ratio; P= Level of Significance; NS=Not Significant

Table 2

*Multiple Classification Analysis of Post-Test Psychological Well-Being by Treatment, Gender and Levels of Visual Impairment*

| Variable + Category | N | Unadjusted | | Adjusted for independent + covariate | |
|---|---|---|---|---|---|
| | | Dev'n | ETA | Dev'n | BETA |
| Experimental Group 1 | 40 | 7.94 | | 8.48 | |
| Experimental Group 2 | 40 | 2.34 | | 3.54 | |
| Control | 40 | -10.94 | | -10.06 | |
| | | | 0.52 | | 0.51 |
| Male | 92 | 0.42 | | 0.93 | |
| Female | 28 | -1.39 | | -3.04 | |
| | | | 0.05 | | 0,11 |
| Totally Blind | 91 | -1.08 | | 0.24 | |
| Partially sighted | 29 | 3.40 | | 0.76 | |
| | | | 0.13 | | 0.03 |
| Multiple $R^2$ | | | | | 0.301 |
| Multiple R | | | | | 0.549 |

Notes: Grand mean = 71.53; Experimental Group 1 = Emotional Intelligence; Experimental Group 2 = Locus of Control

being of participants. This finding is in agreement with Adeyemo and Adeleye (2008) who reported that psychological well-being among secondary school adolescents could only be boosted by the combination of emotional intelligence, religiosity and self-efficacy. One of the contributing factors to this may be the on-set of visual impairment. A majority of the adolescents in the current study had total blindness from birth. They had long adjusted to the disability by learning to live with it and only aspiring to acquire new skills that would enhance good quality psychological well-being. In addition, self-management of emotions could also have enabled the adolescents to be aware of their emotions and be able to cope with strong feelings and challenges.

Results of this current study indicated that there was no significant main effect of gender on psychological well-being of adolescents with visual impairment. This finding contradicts previous studies (i.e., Bracket, Mayer & Werner, 2004; Kafetsions, 2004; Perry, Ball & Stancy, 2004; Van Rooy, Alonso & Viswesvaran, 2005) that found intelligence to be gender-related with women scoring higher in measures of emotional intelligence. Also, the findings of Lewinsohn, Gotlib, Seeley and Allen (1998) established that anxiety status was more frequently found in women than in men.

This study also indicated there was no significant difference on effect between anxiety and gender. The reason for this may be the fact that the groups exposed to self-awareness skills emphasized self-determination. Participants were charged to believe in their potentials not letting gender or special needs stand as a barrier to their quality of life.

### *Implications*

The study found that emotional intelligence and locus of control training were effective in enhancing the psychological well-being of adolescents with visual impairment. Also, the two treatment packages were capable of equipping adolescents with visual impairment with skills to improve their psychological well-being based on the utilization of self-awareness and management skills. The weakness of the control group method on improvement of psychological well-being of adolescents with visual loss was also discovered. It follows, therefore, that special educators in care of adolescents with visual impairment should realize that they should look beyond conventional programs when handling adolescents but work towards leading them to achieve quality psychological well-being that would enable them to function effectively in the society.

The implication of this study for special educators in Nigerian schools is that adolescents with visual impairment, like their counterparts in developed countries, can improve greatly on their psychological well-being through exposure to emotional intelligence and locus of control training.

Results of this study indicated that adolescents with visual impairment must be taught emotional intelligence skills, which would make them useful to themselves and the entire society during their school years and thereafter. Like it is in some developed countries, emotional intelligence should be taught as a subject in secondary schools. The findings of this study indicated that when students are exposed to locus of control training, it helps in the utilization of skills acquired thereby improving their psychological well-being. This study has also given us insight into the need and or benefit of reaching out to other related disciplines to special education (counseling psychologists) while serving adolescents with visual impairment. Furthermore, this current study highlighted the need for continuous updating of emotional intelligence skills and locus of control of adolescents with visual impairment through conferences, seminars, and workshops.

### *Recommendations and Conclusion*

This current study examined the effectiveness of the two intervention programs in enhancing the psychological well-being of adolescents with visual impairments. The findings of the study indicated that adolescents exposed to emotional intelligence and locus of control training performed better than those in the control group. The use of such an intervention program has proven to boost and enhance the psychological well-being of adolescents. It is pertinent to state that such intervention programs can be used in the school setting both for students with and without disability.

It is important that emotional intelligence and locus of control training be incorporated in the curriculum for students with or without special needs. The use of emotional intelligence and locus of control training should not be limited to enhancement of psychological well-being but should permeate all areas of deficit in self-care, social skills, listening skills, travel skills and academic subjects. It is only when adolescents acquire adequate skills that they can function effectively and be able to face challenges imposed on them either by the special needs or some other defects. In addition, it is recommended that adolescents with total blindness should be exposed to more therapeutic treatment in order to attain a possible increase in their psychological well-being. This would afford them the opportunities of training in emotional intelligence and locus of control skills. It would also expose and equip them with the knowledge and skills in handling adolescents with

visual impairment and the discharge of their related duties.

Finally, it is recommended that adolescents with visual impairment be encouraged to join student clubs and associations that promote healthy interaction and modeling or imitation of positive behaviors. This may help to enhance their psychological well-being. The study noted that treatment had significant effect on the psychological well-being of adolescents with visual impairment. It is therefore suggested that a replication be carried out in other locations and other levels of educational settings. Future studies should use larger sample sizes.

**References**


Abe, V. C. (1995). *A casual model of some socio – psychological variables as determinants of achievement in sec. sch. social studies*. Unpublished Ph.D, thesis, University of Ibadan.

Adebiyi, B.A. 2004. *Rational emotive behavioral and reality therapies in enhancing socialization among visually impaired students of Federal College of Education (special) Oyo.* Unpublished Ph.D. Thesis. University of Ibadan, Ibadan.

Adejumobi, A. A. (2007). Assessment of emotional intelligence of some selected hearing impaired students of Federal College of Education (Special) Oyo. *Paper presented at the School of Special Education, Federal College of Education (Special), Oyo, August.*

Adeoye, M. A. (2008). Emotional intelligence and self-efficacy as determinants of academic achievement in English language among students in Oyo State senior secondary schools. *An unpublished Ph.D thesis submitted to the Institute of Education, University of Ibadan*, Ibadan, Nigeria.

Adeyemo, D. A. & Adeleye, A. T. (2008). Emotional intelligence, religiosity and self-efficacy as predictors of psychological well-being among secondary school adolescents in Ogbomoso, Nigeria. *Europe's Journal of Psychology*, *1,* 51-67.

Arantzazu, R. F. (2009). *Boys have greater psychological well-being than Girls due to a better physical self-concept.* An Unpublished Ph.D. Thesis. University of Basque Country.

Ayoku, F. A. (2006). The visually impaired in the regular classroom. In T. C. Obani (Ed.) *Teaching pupils with special educational needs.* Ibadan: Book Builders.

Bar-On, R. (2003). How important is it to educate people to be emotionally and socially intelligent and can it be done? *Perspective in Education*, *21*(4), 3-17.

Bode, E. A. (1995). A descriptive study of locus of control in selected medical office assisting students and its relationship to certain characteristics and academic success as measured by grade achievement. *Dissertation Abstract International, 56* (6), 2169 – A.

Bookwala, J. & Boyar, J. (2008). Gender, excessive body weight, and psychological well-being in adulthood. *Psychology of Women Quarterly, 32*(2), 188–195.

Boyatzis, R. E. & Sala, F. (2004). The Emotional Competence Inventory (ECI). In G. Gober (Ed). *Measuring emotional intelligence: common ground and controversy* (pp. 147 – 180). New York: Nova Science.

Brackett, M. A., Mayer, J. D. & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behavior. *Personality and Individual Differences, 36,* 1387-1402.

Branch, L. G., Horowitz, A. & Carr, C. (1989). The implications for everyday life of incident self-reported visual decline among people over age 65 living in the community. *The Gerontologist*, *29*, 359-365.

Cherry, K. E., Keller, M. J. & Dudley, W. W. (1991). A needs assessment of persons with visual impairments: Implication for older adults and service providers. *Journal of Gerontological Social Work, 17*, 99-123.

Cheshire, C. A. (2004). *Spirituality and religious scales: The relationship to locus of control*. Ph.D. Dissertation submitted to Tennessee State University, United States.

Cooper, R. K. & Sawaf, A. (1997). *Executive EQ: emotional intelligence in leadership and organizations*. NY: Grosset/Putnum.

Emeke, E. A. (1997). Identity crises: The search for a meaning; "SKEPTICOS". *Journal of the Dominican Community, Ibadan, Nigeria, 1*(7), 8-13.

Goleman, D. (1995). *Emotional intelligence: why it can matter more than IQ.* New York: Bantam Books.

Howard, D. E. (1996). The relationship of internal locus of control and female role models in female college students. *Unpublished doctoral dissertation, University of Texas, Austin.*

Jernigan, K. (2002). *Blindness: Concepts and misconceptions.* Retrieved from *http://el/blindness20conceptand20misconceptions.*

Jonassen, D. H. & Grabarski, B. L. (1993). *Handbook of individual differences in learning and instruction.* Hillsdale, N.J: Lawrence Erlbaum Association.

Kafetsios, K. (2004). Attachment and Emotional Intelligence Abilities across the life course. *Personality and Individual Differences*, 37, 1, 129-145.

Kolo, E. N. (2007). Emotional intelligence status of in-school adolescents as perceived by secondary school students in Niger State, Nigeria. Unpublished *M.Ed dissertation University of Ilorin.*

Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender differences in anxiety disorders and anxiety symptoms in adolescents. *Journal of Abnormal Psychology, 107*, 109-177. doi:10.1037//0021-843X.107.1.109.

Matthews, G., Zeidner, M., & Roberts, R. D. (2002). *Emotional intelligence: Science and myth*. Cambridge: MIT Press.

Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17* (4), 433-442.

Pareek, U. (1997). *Evaluating human resource development*. Jaipur HRD Research Foundation, IIHMR, Jaipur.

Perry, C., Ball, I. & Stacey, E. (2004). Emotional intelligence and teaching situations: Development of new measure. *Issues in Educational Research*, *14*(1), 29-43.

Petrides, K. V. & Furnham, A. (2001). Trait emotional intelligence: psychometric investigation with reference to establishment trait taxonomies. *European Journal of Personality, 15*, 425-448.

Rathi, N & Rastogi, R. (2007). Meaning in life and psychological well-being in pre-adolescents and adolescents. *Journal of the Indian Academy of Applied Psychology, 33*(1), 31-36.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*(1), 609.

Rotter, J. B. (1975). *Social learning and clinical psychology.* New York: Prentice Hall.

Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069-1081.

Salovey, P. & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, *9*, 185-211.

Seifert, T. (2005). *Assessment of the Ryff scales of psychological well-being.* Lowa Center of Inquiry in the Liberal Arts.

Seligman, M. E. & Csikszentmihalyi, M. (2000). Positive Psychology: An introduction. *American Psychologist, 55*(1), 5-14.

Simon, B. S. (2000). Predictors of high school and family partnerships and influence of partnerships on students' success. *Unpublished doctoral dissertation, Johnshop University.*

Sinclaire, K. E. (1991). Students' effective characteristics and classroom behavior. In IC Marjoribauts (ed). *The foundation of students learning.* Potts Points Australia: Pergamon press.

Van Rooy, D. L., Alonso, A., & Viswesvaran, C. (2005). Group differences in emotional intelligence scores: Theoretical and practical implications. *Personal and Individual Differences*, *38*, 689-700.

Williams, J. (1998). Emotions at work. *The Psychologist Special Issue: Disability and Equal Opportunity. 12*(1), 1-56.

Williams, R. A., Brody, B. K., Thomas, R. G., Kaplan, R. M. & Brown, S. I. (1998). *The Psycho-Social Impact of Macular Degeneration. Archives of Ophthalmology*.

# Keeping it Organized: Developing an Instructional Product Resource File (*i-File)*

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Working with students in special education comes with some unique challenges (Brownell, Sindelar, Kiely, & Danielson, 2010; Jenkins & Yoshimura, 2010). Special educators can become overwhelmed with paperwork, new information, and unanticipated problems. Special education teachers must be prepared to deal with changing demographics, to address learning and accountability, and to identify and use responsive and evidence based resources (Etscheidt, Curran, & Sawyer, 2011). It takes a knowledgeable, organized, confident, and resourceful person to work with students who often need more support than typically developing children. This article introduces and describes the development of a personal *Instructional Product Resource File* (*i-File*) that supports instruction by organizing updated, context specific information, which can be readily available in one location.

One time consuming task that special education teachers face is navigating, identifying, and organizing relevant research based resources and materials that will accommodate the academic and adaptive needs of students with special needs (Jenkins & Yoshimura, 2010). Compounding the difficulty of this task can be the fact that resources, especially for students having low incidence or intensive needs, tend to be part of a highly specialized niche market. The specialization of instructional products specific to the needs of some students with disabilities results in the need for special education teachers to be aware of products on the market, knowledgeable of publishers and distributors of products, as well as familiar with trends in curriculum materials, technology, and supplemental aids.

Although special education represents only 9.3 billion dollars in annual sales of products and services compared to the overall K-12 education industry sales of 500+ billion dollars (Edwards & Mahoney, 2005), there is a wide variety of proven instructional materials, supplies, and assistive technologies that support the achievement, behavior, and adaptive learning of students with disabilities (Michaels & McDermott, 2003). Innovative research and products on disabilities, diagnostic methods, intervention programs, and assistive technology advance the education of special needs students at a tenacious pace. A way to collect and organize such voluminous information is developing and maintaining an *Instructional Product Resource File* (*i-File*).

An *i-File* can be as simple as a file folder containing random information on specific instructional products. It can also be an electronic portfolio containing product information specific to curriculum areas or disabilities that can be easily accessed and shared with others. It is important that teachers organize and build their *i-File* themselves. Ownership guarantees quality, relevance, and user-friendly organization. Thus, the *i-File* will be reflective of teachers' professional development, the school environment, the classroom context, and student population served. The *i-File* may alleviate the time consuming and often frustrating process of locating appropriate instructional products and materials. In addition, an updated *i-File* will document the teachers' professional interests and knowledge of new and current resources.

## *Steps to Developing an Instructional Product Resource File (i-File)*

There are several steps teachers can follow in developing, identifying content, and updating an *i-File*. The steps include:

1. Get on the mailing lists of publishers and distributors. Many publishers and distributors send out hard copy and/or electronic catalogs on a regular basis. This is an easy and inexpensive way for teachers to stay current on available products. Doing a simple web search using the terms *special education publishers* and *special education distributors* will lead to dozens of potential resources. Getting on catalog or mailing lists

typically can be as easy as contacting publishers and distributors via telephone, email, or by fax and making a request. The resulting catalogs, brochures, and flyers can easily be added to the *i-File.*

2. Collect or develop web libraries. Web libraries are lists of specific and relevant web sites. Several authors have identified web libraries for special education teachers (Koehler, 2007; Singh, 2010; Webster, 2012). These web libraries save teachers time in locating resources as well as alleviate the frustration of wading through vast Internet searches. Teachers may consider developing their own libraries or adding to pre-existing web libraries as they come across sites of interest. In addition to the web resources, there has been a huge growth in the availability and use of educational applications for smart phones and tablets. It is suggested that special educators make efforts to keep track of free or low cost applications as the use of handheld technology is increasing.

3. Attend vendor displays at conferences and workshops. Distributors and publishers often display their wares at large conferences or workshops. These vendor displays provide excellent opportunities to actually see and interact with products. They also provide an opportunity to ask questions of sales people. Brochures, flyers, and catalogs, which can be added to an *i- File*, are typically available at such events.

4. Join professional organizations. Most professional organizations for special education teachers sponsor publications such as journals or magazines. These publications often include articles that directly or indirectly address products used with students who have disabilities. Some professional publications may include advertisements concerning new or updated products. Articles of interest as well as advertisements can also be included in an *i-File.* Furthermore, joining professional organizations can provide opportunities to collaborate and share product information with other teachers over cyber space. Many professional organizations provide blogs and webinars where teachers present effective teaching strategies and instructional materials. Information on such shared strategies and resources can be easily included in an *i-File.*

5. Conduct classroom observations. All too often, after completing licensure requirements at colleges or universities, teachers stop observing other classrooms. Observations can afford teachers the opportunity to identify promising instructional practices, identify possible leads on products of interest, and collaborate with colleagues. Seeing products used in the real world can often be much more enlightening than simply hearing about them or viewing them in glossy pictures. Written notes taken during or after observations can be added to an i-*File* and accessed for future reference.

6. Browse bookstores. Bookstores, especially used bookstores, can carry instructional products pertinent to students with disabilities. When browsing, it may be possible to purchase products at substantial discounts as well as locate products that are no longer in publication. Online bookstores afford teachers the luxury of browsing from home. Examples of such online bookstores include: www.alibris.com; www.abebooks.com; and www.half.com. Even if teachers don't immediately purchase products of interest from bookstores, they can often print out the product descriptions to be added to an *i-File*.

7. Have a camera. Sometimes the opportunity to view products of interest can happen unexpectedly. During non-school hours teachers might observe a child in the community using a device of interest. Teachers may discover previously unknown products at garage sales. They may even be in stores shopping but not prepared to purchase certain materials. Taking pictures of products, supplies, resources, or technology and adding them to an *i-File* provides teachers with a visual reference that they can access at a later date when they are ready to actually shop.

## Conclusion

Even the most experienced of special education teachers can use guidance, inspiration, and information to help them locate and organize top rated and effective resources. This article demonstrates how a personal *i-File* could be developed for accessing readily available, organized and context specific information about products, programs, supplies, and materials.

Special education teachers need to be current and informed about the availability of resources and instructional materials. A personal *i-File* will support their efforts in locating such resources and materials and in doing so, creating classrooms were all students learn. Additionally, *i-Files* can serve as documentation of teachers' professional interests and expertise in special education.

## References


Brownell, M. T., Sindelar, P. T., Kiely, M. T., & Danielson, L. C. (2010). Special education teacher quality and preparation: Exposing foundations, constructing a new model. *Exceptional Children*, *76*(3), 357–377.

Edwards, K. & Mahoney, R. (2005). New rules, new schools, new market. Retrieved from Education Industry Association website: www.educationindustry.org/assets/thinkequity-k12-report.pdf

Etscheidt, S., Curran, C. M., & Sawyer, C. M. (2011). Promoting Reflection in Teacher Preparation Programs: A Multilevel Model. *Teacher Education and Special Education*, *35*(1), 7-26.

Jenkins, A. A., & Yoshimura, J. (2010). Not another in service!: Meeting the special education professional development needs of elementary general educators. *Teaching Exceptional Children*, *42*(5), 36-43.

Koehler, L. (2007). 50 essential web sites for teacher of students with mild to moderate disabilities. *Intervention in School and Clinic, 42*(5), 285-289.

Michaels, C. A., & McDermott, J. (2003). Assistive technology integration in special education teacher preparation: Program coordinators' perceptions of current attainment and importance. *Journal of Special Education Technology*, *18*(3), 29–44.

Singh, D. K. (2010). Web resources for special education (Document No. 61815551). Willimantic, CT: Eastern Connecticut State University. Retrieved from ERIC database (ED50774).

Webster, J. (2012). Websites for special education teachers. Retrieved from http://specialed.about.com/od/resources/tp/Websites-For-Special-Education-Teachers.htm.

## Manuscript Invitation for a Topical Issue on Inclusion from Around the World

The *Journal of the International Association of Special Education (JIASE)* is seeking manuscripts for publication of its debut topical issue to be published online in the last quarter of 2014. The theme of this issue is **Inclusion from Around the World**. We therefore, invite interested authors from around the world to submit their manuscripts, which could either be research or conceptual papers on the theme of inclusion.

Even though invited, all manuscripts will undergo a peer review process in the same fashion as any other manuscript submitted to the *JIASE*. Thus, the invitation is not a guarantee that a manuscript will be published. However, we guarantee you that your manuscripts will be given careful consideration based on the journal's peer review process.

All submitted manuscripts should follow the same submission guidelines as the regular print version of the *JIASE*. These author guidelines can be found on the IASE website (www.iase.org).

The deadline for submission of articles is December 31, 2013. Manuscripts should be submitted to Dr. Morgan Chitiyo via email (chitiyom@duq.edu).

If you have additional questions about the Topical Issue please contact *JIASE* editor Dr. Morgan Chitiyo (chitiyom@duq.edu)

# SUBMISSION GUIDELINES

## The Journal of the International Association of Special Education

*Articles that have not been previously published are not under review by any other publication and meet the IASE mission statement aims are invited for review. Both research articles and articles for practitioners will be given equal preference. Please indicate if this is a PRAXIS article.*

***Mission Statement***
**International Association of Special Education**

The aims of the IASE are to promote professional exchange among special educators all over the world, to develop special education as a discipline and profession, to encourage international cooperation and collaborative international research, to promote continuing education of its members by organizing conferences, and to foster international communication in special education through The Journal of the International Association of Special Education.

***Style***

Total length of the manuscript is not to exceed 20 pages and should include all references, charts, figures, and tables. Articles submitted should follow the guidelines of the Publication Manual of the American Psychological Association, sixth edition.

***Word Processing***

Using American English, manuscripts are to be typed in Microsoft Word using 12 point Times regular face (no bold or italics). The entire document should be doubled spaced with .75 margins all around. *(top, bottom, left, and right)*. However, only put one space in between sentences. Tables, charts, figures, and or illustrations should fit in a 3 ¼ width column and are to be on separate pages at the end of the manuscript. Additionally, a copy of any photos, illustrations or other graphics must be attached electronically in jpeg format. This aids in the printing process for compatibility with the Macintosh computers that printers use. References are to be in APA style with hanging indents. *(If you do not have access to Microsoft Word please contact us)*

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Include this information on a separate sheet

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On a separate sheet of paper at the beginning of the manuscript describe the essence of the manuscript in 100 – 150 words.

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*Authors will be notified of the receipt of their manuscripts by the return postcard and/or e-mail as noted above. After an initial review by the editors, those manuscripts that meet established specifications will be sent to members of the Professional Journal Committee for further editing and reviewing. The journal editors reserve the right to make editorial changes. It is the responsibility of the author(s) to ensure the accuracy of the content in their articles. Also, it is the responsibility of the author(s) to obtain appropriate permission and ensure the ethical treatment of research participants. Points of view and opinions are those of the individual authors and are not necessarily those of the International Association of Special Education.*

## PRAXIS Submission Guidelines

The PRAXIS section of this journal is intended for readers to be able to immediately apply the methods/strategies described in the articles in their classrooms. These methods/strategies may be new and unique ideas or they can be effective methods/strategies that some teachers have been using and believe that by publishing them, many more teachers could implement them in their classrooms. The articles should be approximately three to six pages and describe in detail a specific teaching strategy or informal assessment method. The articles should include specific instructions on how to develop and implement the methods/strategies. The methods/strategies should require no unique materials for development. These articles are to be submitted following the same submission guidelines and will go through the same review process as all *The Journal of the International Association of Special Education* articles with the exception of including an abstract (s*ee submission guidelines)*. The format for these articles should include an introduction, step-by-step directions, materials/examples of charts or graphs if needed, conclusions and references.

We encourage you to consider submitting methods/strategies that you have used with students with disabilities and think would be of interest to our readers. Both classroom teachers and university instructors are welcome to submit articles for consideration for publication in the PRAXIS section of the journal.

# Membership Renewal

## Two Easy Ways to Renew Your Membership

By Mail: IASE Treasurer
Dr. Jim Chapple
1230 Cherokee Path
Vermilion, Ohio 44089-3328, USA
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If you have special needs that require the journal or newsletter to be sent to you electronically, please note that here. IASE membership runs from January 1 through December 31 of each calendar year.

# Conference Information

**THE INTERNATIONAL ASSOCIATION OF SPECIAL EDUCATION**

**In collaboration with The University of British Columbia, Department of Educational & Counseling Psychology and Special Education**

***The Bridge from Segregation to Inclusion….A Long Journey***

**13th BIENNIAL CONFERENCE**
JULY 7 – 11, 2013
**Vancouver, British Columbia, Canada**

**Sunday, July 7th Conference Registration Desk**

**Location:** Lobby of the Woodward- Instructional Resource Centre, (IRC) on UBC Campus
**Time:** 2:00 p.m. – 5:00 p.m. so that you can pick up your registration packets and programs.
Auction items can be dropped off at this location at this time.

**Welcome Reception**
**Location:** Museum of Anthropology (MOA) on UBC campus
**Time:** 7:00 p.m. – 10:30 p.m.
First Nation Dancers and a night at the museum for IASE delegates!

**Monday, July 8th to Wednesday July 10th**

There will be over 200 lectures, workshops, panels, poster sessions and round table discussions.

**Tuesday, July 9th**

**General Membership Meeting**
**Location:** Woodward- Instructional Resource Centre (IRC Theatre)
**Time:** 8:00 a.m.-9:00 a.m.

**Gala Dinner, Auction and Reception**
**Location:** Downtown Hyatt Regency Vancouver (655 Burrard Street) Traditional/cultural dress is encouraged to represent your country.
**Time:** 7:00 p.m. Silent Auction and Cash Bar 8:00 p.m. Dinner, Live Auction, and Entertainment.

**Thursday, July 11th**

IASE Board Meeting for Board Members, Committee Chairs, and Incoming Officers will convene at the Faculty of Education Building from 8:00 a.m. – 9:30 a.m.
**Graduate Student Showcase session (Faculty of Education Building from 9:30 a.m.- 12:00 noon).**

**Key Note Speakers:**
**Monday, July 8th**: **JA Tan** (Jose Antonio S. Tan), a Vancouver based visual artist who will share his story "It Isn't Simple…But A Bridge Gets You There…"

**Tuesday, July 9th: Dr. Liliana Mayo**, Founder & General Director Centro Ann Sullivan del Peru (CASP), uses life stories in her keynote entitled: "Full Inclusion into Life in Peru: People with different abilities economically and meaningfully supporting their families."
**Wednesday, July 10th**, the closing plenary session will highlight a panel of keynoters.
**Nadine Bakas-Howarth** from Nelson, a small city in the Selkirk Mountains in the Southern Interior of British Columbia, will present "The Indomitable Spirit - a journey of courage and hope."
**Evan and Hannah Bakas-Howarth** will perform Tae Kwon Do.

**Mary Jane Trunzo**, from Phoenix, Arizona, USA, a Certified Speech-Language Pathologist, Clinical Director the Arizona Institute for Communication and Cognitive Disorders, and founder and co-chair of the Phoenix Sister Cities Disabilities Awareness Committee (DAC) will discuss "Going Beyond our Borders." Special Chengdu artists will also be introduced.

**Dr. Kathy Johnson**, Associate Professor at St. Cloud State University in Minnesota, USA, and **Zhao Chun Li** (known as Angel) representing The Ginkgo Academy Partnership (Yangshuo, China) will discuss "From Pity to Compassion: Angel's Story."

# Conference Information

## Conference Tours

**Pre and Post Conference One Week Alaskan Tour:** Celebrity Cruises – Celebrity Century
June 30 - July 7, 2013 and Celebrity Cruises – Celebrity Century July 14 - July 21, 2013 (book online by e-mailing Sandra@forbes-travel.com.).

**Pre and Post Conference Rocky Mountains Vacation Tour** offers travelers the best that the Rockies and surrounding areas have to offer. View the Rockies by rail, and enjoy the majestic views in luxurious surroundings. Rocky Mountaineer rail tours range from 3-day tours to 17-day tours that offer all the best attractions (book online by emailing danielle@forbes-travel.com
Book all tours online or contact Forbes Travel International Ltd. Tel: 604-689-0461 or contact Sandra D'Souza or danielle@forbes-travel.com or e-mail: danielle@forbes-travel.com

**Thursday July 4th Tour # 1: Vancouver City Highlights Tour - 9:00 p.m. or 2:00 p.m. (4 hours) Rates: Adult $69**
**Child $45.00** *(Canadian dollars) *Admissions and tax included* Note: Queen Elizabeth Park (2p.m. only)

**Friday July 5th Tour # 2: Vancouver City Highlights Tour - 9:00 p.m. or 2:00 p.m. (4 hours) Rates: Adult $69**
**Child $45.00** *(Canadian dollars) *Admissions and tax included* Note: Queen Elizabeth Park (2p.m. only)

**or**

**Tour #3: Vancouver and North Shore COMBO Tour -**8:00 a.m. (9 hours) Rates: Adult $170* Child $112 * (Canadian dollars)* *Admissions and tax included*

**Saturday July 6th Tour #4: Victoria and the Butchart Gardens Tour -**8:00am (13.5 hours) Rates: Adult $189* Child $99(Canadian dollars)* *Admissions and tax included*

**or**

**Tour # 5: Whistler Mountains and Adventure Tour -** 8:00 a.m. (11 hours) Rates: Adult $145* Child $75 (Canadian dollars) * Admissions and tax included

**Sunday, July 7th Tour # 6: City Tour Vancouver City Highlights Tour-9:00 a.m. (4 hours) Rates: Adult $69**
**Child $45.00** *(Canadian dollars) *Admissions and tax included Note*: Vancouver lookout

**Friday, July 12th Tour #7**

**Victoria Tour including Floatplane – VAN003**
All day tour; 8:00 a.m.
Rates: Adult $349* Child $179*
* Admissions and tax included

**Victoria and the Butchart Gardens Tour - VAN004**
All day tour; 8:00am - 13.5 hours
Rates: Adult $189* Child $99*
* *Admissions and tax included*

**Whistler Mountains and Adventure Tour - VAN004**
All day tour; 8:00 am - 11 hours
Adult $135* Child $75
* Admissions and tax included