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NUMBER 1

- Analysis of Special Education Tribunal Outcomes Using Luhmann's Systems Theory
- Assessments and Intervention for Pupils with Reading Difficulties in Sweden - A Text Analysis of Individual Education Plans
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- Stress Levels of Kuwaiti Mothers of Children with SLD: Does Work and Educational Status Matter?
- The Educational, Social and Emotional Experiences of Students with Dyslexia: The Perspective of Postsecondary Education Students

International Journal of Special Education

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ANALYSIS OF SPECIAL EDUCATION TRIBUNAL OUTCOMES USING LUHMANN'S SYSTEMS THEORY

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This paper examines Special Education Tribunals, in Ontario, Canada through a Luhmannian theoretical lens. A total of 58 Special Education Tribunal summary hearings were analyzed using the constant comparative method through NVivo software. The results revealed that these Tribunals appear to favour the assessment testimony of teachers and other school personnel over that of other professionals such as educational psychologists, medical doctors, and university professors. This finding is discussed in relation to the available interpretations of Luhmann's social systems theory along with the limitations of using educational tribunals to remedy social justice issues.

Analysis of Special Education Tribunal Outcomes Using Luhmann's Systems Theory

In 1984 the Canadian province of Ontario passed Bill 82, thereby mandating publicly funded school boards to assume responsibility for providing an appropriate education to all students with exceptionalities. Until that point, school boards could refuse to accept these students. This legislation was a significant step in redressing unfair treatment of those with disabilities by the education system. The legislation went further and established the right of parents to appeal educational decisions made by school boards concerning their exceptional children. Regulation 554/81 (currently Regulation 181/98) outlined the process by which students with disabilities would be identified and their placement decided. Identification, Placement, and Review Committees (IPRCs) were established to consider a range of possible placement options, from full time attendance in a regular classroom with some resource support to a segregated special education environment. Parents who disagree with an IPRC decision can appeal to a Special Education Appeal Board (SEAB) and still further to a Special Education Tribunal. This final step in the process is a highly significant one, and can be viewed as a reflection of what Mashaw (1983) refers to as the *body politic* embracing *participatory governance* (p. 2) and arising out of the politics of protest movements during the civil rights actions in the United States in the 1950s.

The mainstreaming of special education students into regular classrooms has been carried on the wave of the civil rights banner. In the United States, *Brown versus the Board of Education of Topeka* (1954) is credited with initiating the movement towards the mainstreaming of children with disabilities finally resulting in the Education for All Handicapped Children Act (1975) and then the Individuals with Disability Education Act (IDEA) (1990). Similar legislation in Canada (Bill 82) was passed in 1984 but the addition of a quasi-judicial administrative body, such as a special education Tribunal, allowing for parental involvement was especially hard won after parents of children with disabilities lobbied for the creation of a space where they could contest the educational system's treatment of their children. Thus, Ontario's Special Education Tribunals were the result of the politics of civil rights and societal justice. Both the designation of a child as 'exceptional' and the programs or services that they would/could receive could now be determined by a Tribunal (Ontario Legislature, 1980, December 12).

The Special Education Tribunal is a quasi-judicial body created from a legislative act, the Statutory Powers and Procedures Act, and is guided by section 57 of the Education Act (the Education Act, R.S.O. 1980, c.129 for Tribunal cases from 1984 to 1993; the Education Act, R.S.O. 1990, c. E.2 for Tribunal cases from 1993 to 2010). Within the Education Act, the Tribunal is also bound by Regulation 181/98 (formerly Regulation 302 in cases from 1993 to 1998; and Regulation 554/81 in cases from 1984 to 1992). As such, it is bound by legislation in its consideration of the issues at hand. Under section 57 of

the Education Act, the Special Education Tribunal has only two options: it can dismiss the appeal, or it can grant the appeal with respect to the identification or placement of a student (the Education Act R.S.O. 1990, c.E.2, section 57). The Education Act is also specific in terms of the identification labels that can be used (Special Education Information Handbook, 1984).

However, administrative tribunals are also charged with the responsibility of ensuring that decisions made by other regulatory bodies (in this case decisions by an IPRC, or SEAB) comply with processes of procedural fairness. Additionally, any administrative tribunal must decide on issues of substantive justice regarding the outcomes of their administrative decisions. Substantive justice, sometimes also called 'natural justice' brings with it the consideration of fairness in a decision aside from any inconsistencies in procedural irregularities. Substantive justice is about remedying a loss or a disadvantage that an individual has suffered as a result of incorrect rendering of legislation (Adler, 2003; Cumming, 2008).

In the early days of the Tribunals (1984 - 2001) there was a strong emphasis on the Education Act and the Ministry handbook which describes the categories of disabilities in guiding the decision. Tribunals appeared to adhere strictly to the letter of the law in ensuring that decisions were only about placement and identification. This ruled out discussions of programming and student needs, which is what parents really wanted to talk about (Valeo, 2003). But this changed substantially after 2001: Tribunals began to allow discussion of student programming and needs arguing that these also needed to be taken into consideration to act in the best interests of the child and determine the most suitable placement. This shift in Tribunal behaviour occurred without changes to the legislation. What is particularly interesting about this shift in perspective is that the discourse on the 'best interests of the child' was adopted from the legal system and first featured in *E. v. Brant County Board of Education*, 1993. Many of the Tribunal hearings after 1996 used this as a reason to hear or rule on an appeal. Only one case prior to 1993 used this discourse, and even then it was tied to legislation and did not arise from within the education system. In *MJS and the Board of Education for the City of Toronto* (1985), the Tribunal noted that:

The Tribunal believes that the purpose of the legislation under which it is constituted has been written with the best interests of the child in mind. Therefore this Tribunal in the spirit of the Act and within the parameters of the Statutory Powers Procedure Act intends to act accordingly, by admitting and giving appropriate weight to whatever evidence is available to decide in the best interests of the child. (p. 6)

This suggests that panel members perceived the Tribunal's structure and responsibility as belonging in the realm of law rather than that of education. Their responsibilities were judicial and seen as conforming to legal practices.

However, early analyses of Tribunal hearings revealed that parental hopes of real involvement in influencing their child's educational outcomes were limited. Tribunals ruled more often in favour of school boards than they did in favour of parents (Valeo, 2003). Understanding this finding has been difficult for parents and has raised questions about the value and role of the Tribunal in educational matters. It begs the question of whether judicial safeguards and procedures can influence educational practices. Can a Special Education Tribunal deliver on substantive justice issues concerning educational matters? This paper explores this question through an analysis of Tribunal cases from 1984 to 2010 and then applies Luhmann's theoretical framework to interpret the results in light of the question posed above.

Niklas Luhmann and Systems Theory

Niklas Luhmann (1927 – 1998) was a German sociologist who adapted systems theory for use in the social sciences. His approach has an overall framework based on general systems theory, but its real strength lies in the break-down of the bigger societal system into a number of differentiated social institutions that are unique systems in and of themselves. Rather than existing to serve the needs of society, each individual system is intent on reproducing its own unique structure somewhat independently of societal needs and independently of other institutions (Arnoldi, 2001). Luhmann spent 40 years carefully developing the particular characteristics of these individual systems. For example, he explored how the institutions of law, and economics are independent systems: although they are surrounded by an environment thought of as 'society,' they are actually closed off from that environment to some extent and their behaviour is governed by a set of internal constructs known as 'communications' that are unique to each institution (Arnoldi, 2001).

Luhmann dismissed the relevancy of actions in social systems and emphasized the role of communications. He felt that people's actions were meaningless: meaning only existed in the communications produced by the systems. These communications serve to establish a boundary around the particular institution and to make sense of the environment or society. That is, each institution is a system that engages in self-regulation, or *self-reference* (Arnoldi, 2001, p. 4) and is continuously in the process of trying to make sense of its environment and maintain internal order and consistency through a process of creating communications: these communications are always reproducing the system itself. But the key aspect of each system is Luhmann's descriptions of the manner in which communications work. Communications in each particular system, be it law, economics, the media, or education, use a different code specific to that system. This difference between codes makes each system unique and partially closed off to other institutional systems and to society itself. With regard to the origins of each code Arnoldi (2001) wrote:

Each of the function systems – law, politics, economics, art, science, family and so forth – are domains of communication that have structured their recursive meaning-processing to such a degree that they have become codified (Luhmann, 1982, 1987, 1997a: ch. 4, 1998: 131). This is to say that their communication oscillates between the negative and positive value of their code. Such a structured form of meaning-processing uses one particular distinction so often that this distinction forms a binary code (Luhmann, 1998:131). (p. 6)

Understanding the code is the key to understanding why a system behaves the way it does. Luhmann spent a considerable amount of effort attempting to outline and decipher the codes of each sub system. For example, the code for law would be 'legal/illegal' and as Nobles and Schiff (2013) commented, *What establishes that a communication is a legal communication, one that connects to other legal communications and generates legal meanings, is the code that is being applied* (p. 9). In the economic system, the code may be 'payment/nonpayment' (Arnoldi, 2001); for science Luhmann believed the code to be, 'truth/falsity', and for mass media the code may be 'information/non-information' (Mingers, 2000). The code is applied during each communication and distinguishes the system from any other (Noble and Schiff, 2013). Luhmann did not explore the educational system in as much detail as other systems. His work on the educational system was cut short by illness that ended in his death (Vanderstraeten, 2000). Additionally, the translation of his partial work in education from German to English, and exploration of what implications his findings may have on the field of education have only recently been undertaken (Vanderstraeten, 2000, 2001, 2003, 2004).

In beginning to think about the code for formal education, we must first think about what formal education aims to do. Few would argue with the premise that formal education is intended to instruct young children in order to prepare them for society. Education can be thought of as socialization to help integrate young people into adult society; it aims for a *specific output* (Vanderstraeten, 2003, p. 137) and makes a concerted effort to ensure its control of this process. Vanderstraeten (2003) wrote, *It aims to attain something that cannot be left to chance socializing events.* (p. 137). Education involves two systems: that of the personal (the child) and that of the educational system with education seen as attempting to change the child's psyche. Consequently the possibility of a child's resistance to and rejection of the communications is a very real threat in education (Vanderstraeten, 2003). According to Vanderstraeten (2003), Luhmann's conceptual framework means that the act of taking part in communications in education cannot *result in the transfer of knowledge, nor in the internalization of the norms and value orientations of a social group* (p. 137) because the child can always choose to reject the information contained in the communication. An added complexity within the educational system is that what students are asked to learn is intended to be used at a much later time and in a different context. Vanderstraten (2003) wrote:

At school, students are prepared for entirely different situations; they learn things that might be of use in another context and at another moment in time (e.g., in professional life). Decisions about what is to be learned and how something is to be learned there are made without consulting the family of the students. (p. 137)

Furthermore he noted:

There is, however, no immediate access to the results of educational interventions. Nobody can look in the heads or souls of other human beings. A teacher has to deduce

the results of his or her own action from these external characteristics. What can be done in the interaction to resolve this problem? What kind of *Ersatz* is available if immediate observation is not possible? With regard to these questions, Luhmann argues that educational initiatives automatically produce a situation within which particular patterns of behaviour are acceptable, while others are not. What occurs is compared with what is expected. Students are continually confronted with questions, remarks, tests, exams, and other kinds of communicated expectations (Luhmann and Schorr, 2000: 318-25). Seen this way, it can be argued that the educational intention produces its own characteristic distinction (Luhmann, 2002: 102-10). The difference between acceptable and unacceptable patterns of behaviour, between approval and disapproval, between good and wrong, etc., develops within the school system. (p. 138)

For this reason, face-to-face interaction is thought to be the most effective way of monitoring the success of communications in the educational system (Vanderstraeten, 2003). This also means that assessment of learning and the success of schooling can only be done within the educational setting and by those who are certified (as for example, teachers) and belong to the system. Vanderstraeten commented:

...the school socializes for the school, not for society. At school, it becomes important to be a good student. Its way of working generates its own, special side effects. It promotes attitudes that make it possible to handle educational problems in special ways via educators, teachers, and schools. (p. 142)

It would appear then, that 'schooling' cannot be divorced from its setting, and that problems of education can only be solved by educators working within that milieu because its problems are unique creations of the system itself. Testing and direct teacher observation of students is the key to assessing whether education is accomplishing its task and is the only way that the communications can be deemed effective or ineffective. While testing and schooling are easily paired, and summative, formative, and diagnostic assessments have long played a large role in educational theory and practice, it is not yet clear how this aspect of education supports Luhmann's theory. What evidence supports the claim that assessment and teachers' observations are critical to the functioning of the educational system and its communication codes of 'acceptable/unacceptable behaviour', 'approval/disapproval', and 'good/wrong'? The following discussion explores the nature of a system's boundaries as they are viewed in Luhmann's theory.

Understanding the nature of boundaries in Luhmann's theory is vital to understand what a system is for Luhmann. While it may be intuitive to think of a boundary as a fixed, given structure that separates the system from society, this would be an incorrect characterization of boundaries in the Luhmannian sense. Instead of focusing on the structures that differentiate a system from its surroundings, Nobles and Schiff (2013) focused on the restrictions of the system, commenting:

...we prefer to focus on the more general point that systems develop boundaries, not in the sense that nothing passes through those boundaries, but in the sense that the system closes itself to its environment by establishing restrictions on what can enter or leave. Only by doing this can a system differentiate itself from its environment. Finding out how a system establishes restrictions on its openness to its environment, its closure, is the basis of its openness to its environment. (p. 6)

According to Nobles and Schiff (2013) it is the particular codes, as applied to the communications of a system, that determine and reflect the particular restrictions in the system. Application of the codes creates communications, which in turn creates meaning within the system. Additionally the system is also constantly creating new communications from older communications, still using the same codes. Therefore, knowing the codes in the system is vital to understand the system itself. When one system comes up against another system, the codes of the system *link these communications to each other* (Nobles & Schiff, 2013, p. 11) that limit and curtail communications from other systems with different codes from entering. Consequently the codes of a particular system are much more likely to be revealed when that system comes up against another system that uses a different code. Therefore, in looking for an event when situations in which the educational system is forced to interact with another system may yield evidence of the codes used in the educational system, and help clarify why the system reacts as it does.

Methodology

In Ontario approximately 58 appeals were heard by an English Special Education Tribunal between 1985 and 2010. It should be noted that the following analysis did not include the full transcripts of the proceedings, but rather the summaries of hearings including summaries of the reasons for the appeal, the evidence presented by each side (the appellants and the school boards), the decision of the Tribunal panel and reasons for this decision. Initially all of these summaries were read to get a sense of the issues and discussion, but only the sections on the Tribunal's reasons/basis for their decision were coded. Analysis focused on questions such as: What kind of evidence did they use? What kinds of recommendations did they make? According to Luhmann, the selection of information is a critical feature in the creation of a communication (Vanderstraeten, 2000). Additionally, a communication cannot be said to have taken place unless the receiver (in this case the members of a Tribunal) has demonstrated an understanding of the information by *addressing herself to the information component*. (Vanderstraeten, 2000, p. 10) An analysis of the Tribunals' decisions would appear to satisfy both of these features of communication in Luhmann's theory.

All 58 appeals were analyzed using the constant comparative method through NVivo software. Initially 48 separate codings were made and these were collapsed into six broad sub-themes: 1) legislative influences, 2) daily school performance, 3) assessment information, 4) best interests of the child, 5) lack of communication among professionals, and 6) parental evidence. It should be noted that category five, lack of communication among professionals, did not directly influence Tribunal decisions, but was often noted in the Tribunal's recommendations, indicating the Tribunal's frustration with this aspect of the behaviour of educational personnel and the lack of coordination in assessment. These six categories were then collapsed into two major categories: 1) assessment considerations, and 2) legislative considerations. The 58 hearings included appeals from parents desiring both congregated and inclusive classroom placements for their children, and cases involving a range of disabilities such as Down syndrome, autism, learning disabilities, developmental disabilities, behavioural and giftedness.

Findings

What is surprising in the Tribunals' decisions is the amount of consideration given to assessment information. Much of the evidence presented by both appellants (parents) and the school boards took the form of presentation of standardized test results by expert witnesses such as psychologists, medical doctors, and speech-language pathologists. Considerable presentation of testimony also came from parents, teachers, and school officials. In 53% of cases, the Tribunal made specific reference to assessment information in its decision. The more controversial or complex the case under consideration, the more substantial was the presentation of assessment data and its notation in decision-making. But not all assessments presented were noted by the Tribunal as helping shape their decision. More than half of the cases in this category (36%) noted teacher in-put and teacher observation as a playing a large role in Tribunal panel decisions. This was the largest category of evidence and revealed that Tribunal members appeared to favour one particular type of assessment information over others. That is, they gave substantially more weight to the witness testimony of teachers and others who had direct observation of the student in the classroom than to diagnostic assessment. Classroom performance was the largest sub-category. In many cases teacher observations and testimony trumped expert testimony.

In *E. & E. S. v. The Carleton Board of Education* (1993), an appeal in which parents sought an identification of exceptionality on the basis of environmental sensitivities for their two children, the Tribunal dismissed the testimony of a physician with expertise in the field of environmental medicine and who had treated the children for 3-5 years, noting that he, had *not observed the child in the classroom*. (p. 23). *Furthermore, this witness also acknowledges that he has no first hand observations of the child in school* and that he has no objective measures of the child's cognitive functioning; instead he relies on what he is told by the mother and what he observes in his office. (*E. & E. S. v. The Carleton Board of Education*, 1993, p. 21)

Viewing expert knowledge as detached from the authenticity of classroom and professional practice is a recurring theme in Tribunal deliberations and became more evident in the comments on the teacher's testimony in the same case. The Tribunal noted:

This testimony of two expert medical witnesses, appearing for the appellants, makes clear to the Tribunal that no direct link between the child's physical school environment and the child's behaviour and learning style is established. Our conclusion is reinforced by the evidence of the child's present teacher, [name of teacher], who is

able to observe the child in school on a daily basis, and testifies that she does not see any of the physical symptoms in the child that [name of child's family physician] attests may show up in a person who is environmentally hypersensitive. (E. & E. S. v. The Carleton Board of Education, 1993, p. 24).

The teacher's testimony was further substantiated by the testimony of the speech and language pathologist:

This observation is independently confirmed by [name of speech language pathologist], the speech and language pathologist who is also in a position to observe and evaluate the child's behaviour and learning style on a regular basis. (E. & E. S. v. The Carleton Board of Education, 1993, p. 24).

This decision clearly revealed a preference for direct observation of the child in the classroom setting by educational professionals such as the teacher; and in this particular case, the principal's testimony was also accepted and influenced the decision to deny the appeal.

References to the regularity of observation also appear to be a consideration for the Tribunal. In E v. The Brant County Board of Education (1993) concerning the inclusive placement of a child with cerebral palsy into the regular classroom of her neighborhood school, the Tribunal did not take into serious consideration the expert testimony of an associate professor from the Ontario Institute for Studies in Education because he, *only saw one class for a period of about two and one-half hours, and in our opinion therefore, would not be competent to make such a judgment.* (E v. The Brant County Board of Education, 1993, p. 41). Additionally the Tribunal in this case dismissed research evidence for lacking empirical support but added the caveat that the experts did not observe the child in the classroom:

Given the absence of clear research support and clear empirical support for the integration of exceptional children like the student; viz., the uncertainty in the area for which they are presented as expert, and given that they did not...observe the student in a school setting, we do not find their testimony significant in the specific matter of the student's placement. (E v. The Brant County Board of Education, 1993, p. 48)

It would appear that empirical research is valued, but that expertise lacking observation in a school setting is not valued. It also would appear that empirical research can be dismissed if classroom observation of the student did not occur. In B. T. & B. T. v. Simcoe County District School Board (1995), despite acknowledging an expert witness as being a prodigious scholar in the area of autism, the Tribunal dismissed the expertise because the witness' research focused on a specific area of research and because the doctor did not know the child and had no knowledge of the classroom particulars.

Teacher observations also appear to trump parental observations. In R. v. York Board of Education (1986), the Tribunal members gave the following rationale in denying the placement of a child with Down syndrome into the regular classroom:

In the light of the parents' wishes and desires for the child, the Tribunal has had to weigh carefully, the evidence of the child's present, daily functional level. To a significant extent, the practical and professional observations of the child's teachers, and of others involved with the child, seem to be somewhat at odds with what the parents anticipate, at least at present. (R. v. York Board of Education, 1986, p. 23)

Not only teacher observations were highly valued: the observations of educational assistants were also given enough weight to affect a decision. Again, in E. v. Brant County Board of Education (1993) the Tribunal notes:

The mother testifies that the student uses and comprehends a small number of manual signs. She also testifies that the student rarely repeats signs, and that the student often presents them quickly and idiosyncratically. The mother and the educational assistants testify that to learn sign, the student needs repetitive, hand-over-hand instruction; they testify further that this practice has indeed been followed with the student for several years. Nevertheless the testimony of the teachers and educational assistants is that they have very rarely, if ever, seen the student use signs spontaneously, or at least in a

manner that adults versed in sign can interpret. Based on this testimony, the Tribunal concludes there is reasonable doubt that the student will be able to use sign meaningfully. (p. 40)

While some Tribunals scrutinized the expertise of many of the professionals called as witnesses, they had no difficulty underscoring what they believed to be the professional qualifications of teachers:

Teachers learn behavioural principles and techniques in their teacher education programs. How children learn using behavioural principles is one of the classical learning theories and is not exclusive to ABA [the Lovas term] or IBI. (C. v. Dufferin-Peel Catholic District School Board, 2003, p. 8)

Furthermore, the Tribunal opinion in T. & Simcoe County District School Board (2004) noted *the level of training and support for the teachers and EA's in the Primary ASD/PDD class was very appropriate to help [the child], a child with autism, to learn.* (T. & Simcoe County District School Board, 2004, p. 71). In this hearing statements reinforcing the credentials of teachers were considered more accurate than the testimony of a psychologist who was also a professor at a Canadian university:

The consistent reference to IBI as the only way to teach children with autism, in the opinion of the Tribunal, has led to a lack of understanding of and appreciation on the part of the parents of the extensive knowledge that educators have about child development and how children learn, including children with autism. [psychologist's name] comment that T.'s education program was 'babysitting' and that his daily schedule was *bunk* did not help instill confidence in the significant work that the school and Board were doing in providing a comprehensive program for T, a placement that had materials and activities that were developmentally and cognitively appropriate for [the child's] learning needs. (T. & Simcoe County District School Board, 2004, p. 76)

These comments suggest that the psychologist's strong words regarding the programming provided at school was incorrect and served to undermine the child's educational progress. Teacher evidence was also used to support research literature findings:

The teachers testified that the child does not imitate or transfer spontaneously. This is consistent with the evidence in much of the literature on Down syndrome children. (R v. York Board of Education, 1986, p. 23)

However, this Tribunal did not cite nor directly indicate any of the literature on Down syndrome children in their deliberations.

This is not to suggest that Tribunal panels did not, sometimes, accept the testimony of psychologists and parents over that of teachers. Psychological data took precedence over teacher opinion in two cases both involving children identified as gifted. But in the majority of cases, and particularly in cases involving children with developmental delay, Tribunals clearly demonstrated a strong bias toward daily classroom-based evidence to the exclusion of professional testimony and research presented. This bias was so strong that, in at least two of the examples above, Tribunal members made broad, unsubstantiated references regarding the qualifications of teachers and their knowledge of the literature on disabilities.

Discussion

Continual references to the expertise of teachers and teaching staff as well as the acceptance of the belief in observation as holding the key to understanding a child's current level of functioning continued through many of the Tribunal decisions. In light of the emphasis on this type of evidence, questions arise regarding the fairness and justice in giving substantial weight to evidence which is considered to be of questionable objectivity and reliability (Allal, 2013). Hall et al. (1997) found that teachers themselves do not trust the assessments of their colleagues who have also worked with the same child. Morgan & Watson (2002) conducted a study of typically developing students' mathematical abilities and found that, not only did different teachers offer different evaluations, but a teacher's early perceptions of a child could influence later assessments. In her review of the literature on assessment over the last 100 years, Brookhart (2012) found:

...whether in classroom grading or in research studies using standardized test scores as a criterion, teachers mix judgments of students' attainment of intended learning outcomes with judgments of students' efforts, work habits, and other 'academic enabler' traits. (p. 84)

She surmised that teachers have difficulty separating achievement from personal characteristics and this appears to be more complicated in the assessment of children with disabilities. Teacher bias often more negatively skews assessments of children with disabilities (Reeves, Boyle, & Christie, 2001) and teacher assessments of children with disabilities has been criticized for adhering to ideas of normalization (Loyd, 2008). This is not to say that Tribunals should rely on standardized assessments in their decisions. Standardized testing has a long and cruel history of use in segregation: these tests are development based on theories of normalization and do not adequately capture the intellectual functioning of children with disabilities (Green, 2005; Schneider, 1992). According to Jackson (2011), psychological assessments are also "value-laden" as "...all observers interpret evidence in the context of their own personal histories, assumptions, and values." (p. 71). A more prudent approach would be to consider all assessment information equally with the goal of creating a full picture of the child's functioning (Wortham, 2008), but this is not what has been happening.

It is not always clear whether teacher testimony was seen as more objective than other testimony. In all fairness, Tribunal decisions did not explicitly state that teacher testimony was more objective than other information. Teacher testimony was highly valued because of its link to curriculum and classroom practices. To some extent there seemed to be a belief that assessment of a child's capabilities could not be assessed outside of the context in which they must function, and this would certainly be consistent with the principles of assessment which maintain that context is important in getting the big picture (Wortham, 2008). Crossouard and Pryor (2012) explored this insistence on knowing the child's level of functioning in the classroom incorporating Foucault's work on the development of state institutions. They found that assessment practices are:

...embedded in the apparatus of modern schooling, with classification and normalizing judgment woven into the production of the schooled subject. As a process that makes the subject visible and knowable within a particular regime of truth, this introduces a less idealistic view of schooling than informs Enlightenment associations of education with emancipation. It locates assessment (and schooling) as a historically contingent practice, productive of material realities and of particular subjectivities, rather than a neutral measurement process. (p. 253)

Not only are school based assessment practices at the heart of teaching, they are essential to producing the very act of what we can refer to as schooling, and can never be considered to be anything but a solid strand of that system. Furthermore, subjectivity in assessment would appear to be inevitable. The value of assessment in education, then, would be directly related to its function in the classroom. In this respect, perhaps Tribunals are correct to value teacher observations highly. Shay (2008) referred to assessment, "as a socially-situated interpretive act" (p. 162) in which discrimination cannot be avoided and is at the very centre of the "judgment making process" (ibid, p. 162). All assessment practices, then, are caught-up in their respective professional cultures and will bear the particular subjectivity of that profession. This is equally true of assessment by teachers or those with medical or psychological training, and there can never, in any context, be a situation where an assessment is value-free. Given the choice of information from a number of different professionals, Tribunals generally appear to favour the opinion of teachers, especially in cases involving children with significant developmental disabilities.

Scholars such as Crossouard and Pryor (2012), Shay (2008) and Jackson (2011) have confirmed the entwined nature of educational practice and assessment, but their findings do not reveal why assessment would be so highly linked to the internal practices of a classroom. Additionally any discussion or evaluation of the fairness or unfairness of relying so heavily on teacher observations needs to focus on why this is the case. This question of why is closely linked with Luhmann's discussion of the educational system.

Luhmann's Theory Revisited

The finding that assessments and in-classroom observations are critical evidence for Special Education Tribunals would appear to support Luhmann's idea of the dependency of education on face-to-face interaction which is linked with the idea of the need to alter a child's inner being. A personal bond is

required between the child and the teacher. Only this allows the effects of teaching to be assessed. This bond between the teacher and the student is especially significant given that the process of educating is somewhat elusive in that it is not grounded in the present: whether or not education has succeeded (in whatever context that is defined) can only be established many years after the very act itself. It is not always clear to students why they are being asked to learn what the teacher is teaching: they are asked to perform in the present for a loosely defined expectation in the future. Under these circumstances the threat of rejecting the act of 'being taught' is a possibility for students (in either a latent way, or more immediate way through behaviour), and Luhmann's theory recognizes this. Therefore, the bond that is created between the teacher and the student is highly significant in ameliorating or managing any opportunity to reject the instruction. This means that the teacher is at the core of any educational endeavour. Tribunals appear to have an intuitive sense of this centrality of a teacher's role in education and tend to give way to this idea. However, it is not easy to interpret the fairness or unfairness of this situation because the actions of teachers cannot be examined independently of the teachers themselves. In other words, it is not possible to deduce meaning from a teacher's actions (Arnoldi, 2001). According to Luhmann's theory, actions are meaningless. According to Herting and Stein (2007) "The real 'impertinence' of Luhmann's systems theory is the radical abstraction from the human being as a communicative actor." (p. 11). They went on to comment:

Luhmann's unique view on communication as constituent of social processes helps us to understand interpersonal communication from a different perspective: The individual is not responsible for the things that are said, but the autopoietic communication system itself. As absurd as this may sound in the first place, such an approach to social exchange can help to understand one's counterpart and to develop some empathy for his or her views. The abstraction from personal responsibility and guiltiness opens the doors to a new way of mutual respect and understanding. (p.11)

In reality, then, it may not be correct to think in terms of 'Tribunals favouring teacher' observations'. Communications are what create, order, and perpetuate the system and assessments can be viewed as playing a part in the codification of these communications. In this sense, the idea of whether it is fair or unfair to accept a teacher's interpretations of daily classroom observations is a moot point. It is no longer about the teacher, but about the self-regenerating communicative events of the system.

The key point here is the autopoietic nature of the system and the communications created as a result of the codes applied. If it is accepted that a system is autopoietic, then it must also be agreed upon that it is a system that works to maintain its identity, cohesiveness, and independence/autonomy (Vanderstraeten, 2000). This is significant because it means that the system is not directly influenced by outside sources that may be present in the environment. It is not a mirror of society in that it simply replicates the struggles and tensions present in the broader environmental society in an educational setting. In an autopoietic system, the outside environment (society) is messy and chaotic and the system's goal is to maintain order (its own kind of order) within this environment. So to some extent, it is a closed system, but not entirely. Further, the system is assessing itself rather than the child's outcomes.

The system is capable of adapting and changing over time and outside influences can enter, but they can only enter the system once they have been translated into a pattern that the system recognizes as its own and has been coded with the particular code of that system (Schiff and Nobles, 2013). Or as Vanderstraeten (2000) noted, "It means that autopoietic systems use the environment according to their own standards." (p. 7). Further, although different systems such as law or education may co-exist in the same environment, Vanderstraeten (2000) noted that they "cannot participate in each other's autopoiesis." (p. 10). The codes that are applied are at the heart of the system. If education can be thought of as applying codes of 'acceptable/unacceptable behaviour', 'approval/disapproval', and 'good/wrong', then the codes of a quasi-judicial body such as a Tribunal, whose communications are governed by codes such as procedural 'fairness/unfairness', or 'just/unjust' cannot be reconciled with those of the educational system. Within this context, asking a Tribunal to implement ideas of 'justice/injustice' in a system with completely different codes is not feasible. Special Education Tribunals cannot deliver on substantive justice, because the education system is not about justice. In light of Luhmann's theory, the efficacy of Special Education Tribunals to influence educational practices is and was limited from the beginning.

References

Adler, M. (2003). A socio-legal approach to administrative justice. *Law & Policy*, 25(4), 324-352.

- Allal, L. (2013). Teachers' professional judgment in assessment: A cognitive act and a socially situated practice. *Assessment in Education: Principles, Policy & Practice*, 15(2), 123-135.
- Arnoldi, J. (2001). Niklas Luhmann: An introduction. *Theory Culture and Society*, 18(1), 1-13.
- Brookhart, S. M. (2013). The use of teacher judgment for summative assessment in the USA, *Assessment in Education: Principles, Policy & Practice*, 20(1), 69-90
- Brown v. the Board of Education of Topeka. (1954). United States District Court for the District of Kansas.
- C. v. Dufferin-Peel Catholic District School Board. (2003). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Crossouard, B., & Pryor, J. (2012). How theory matters: Formative assessment theory and practices and their different relations to education. *Studies in Philosophy of Education*, 31, 251-263.
- Cumming, J. J. (2008). Legal and educational perspectives of equity in assessment. *Assessment in Education: Principles, Policy, & Practice*, 15(2), 123-135.
- E. & E. S. v. The Carleton Board of Education. (1993). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Eaton v. The Brant County Board of Education. (1996). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Green, T.D., McIntosh, A. S., Cook-Morales, V. J., Robinson-Zanartu, C. (2005). From old schools to tomorrow's schools: Psychoeducational assessment of African American students. *Remedial and Special Education*, 26(2), 82-92.
- Hall, K., Webber, B., Varley, S., Young, V., & Dormant, P. (1997). A study of teacher assessment at key stage 1. *Cambridge Journal of Education*, 27(1), 107-122.
- Herting, S., & Stein, L. (2007). The evolution of Luhmann's systems theory with focus on the constructivist influence. *International Journal of General Systems*, 36(1), 1-17.
- Jackson, M. R. (2011). Psychology and social justice. *A Journal of Social Justice*, 23(1), 69-76.
- Lloyd, C. (2008). Removing barriers to achievement: A strategy for inclusion or exclusion? *International Journal of Inclusive Education*, 12(2), 221-236.
- Mashaw, J. L. (1983). *Bureaucratic justice: Managing social security disability claims*. New Haven and London: Yale University Press.
- Mingers, J. (2000). Can social systems be autopoietic? Assessing Luhmann's social theory. *The Sociological Review*, 50(2), 278-299.
- Minow, M. (2013). Brown v. Board in the world: How the global turn matters for school reform, human rights, and legal knowledge. *San Diego Law Review*, 50(1), 1-27.
- MJS v. The Board of Education for the City of Toronto. (1985). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Morgan, C., & Watson, A. (2002). The interpretative nature of teachers' assessments of students' mathematics: Issues for equity. *Journal for Research in Mathematics Education*, 33(2), 71-110.
- Nobles, S., & Schiff, D. (2013). *Observing law through systems theory*. Portland, Oregon: Hart Publishing Limited.
- Ontario Legislature. (1980). Office of the Legislative Assembly of Ontario. <http://hansardindex.ontla.on.ca/>
- R. v. York Board of Education (1986). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Reeves, D. J., Boyle, W. F., & Christie, T. (2001). The relationship between teacher assessments and pupil attainments in standard test tasks at key stage 2, 1996-98. *British Educational Research Journal*, 27(2), 141-160.
- T. v. Simcoe County District School Board. (2004). Ontario Special Education (English) Tribunal, Ministry of Education. Toronto, Ontario, Canada.
- Schneider, W. H. (1992). After Binett: French intelligence testing 1900-1950. *Journal of the History of the Behavioural Sciences*, 28, 111-132.
- Shay, S. (2008). Researching assessment as social practice: Implications for research methodology. *International Journal of Educational Research*, 47, 159-164.
- Valeo, A. (2003). Special Education Tribunals in Ontario. *International Journal of Special Education*, 18(2), 18-30.
- Vanderstraeten, R. (2000). Luhmann on socialization and education. *Educational Theory*, 50(1), 1-23.
- Vanderstraeten, R. (2001). The school class as an interaction order. *British Journal of Sociology of Education*, 22(2), 267-277.
- Vanderstraeten, R. (2003). An observation of Luhmann's observation of education. *European Journal of Social Theory*, 6(1), 133-143.
- Vanderstraeten, R. (2004). The social differentiation of the educational system. *Sociology*, 38(2), 255-272.

Wortham, S. (2008). *Assessment in Early Childhood Education*, (5th ed.). Upper Saddle River N.J.: Pearson/Merrill Prentice Hall.

ASSESSMENTS AND INTERVENTION FOR PUPILS WITH READING DIFFICULTIES IN SWEDEN - A TEXT ANALYSIS OF INDIVIDUAL EDUCATION PLANS

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Since 1995 all Swedish compulsory schools have been required to establish Individual Educational Plans (IEPs) for pupils with special educational needs. According to the Swedish Education Act such a plan should be drawn up if pupils do not achieve the goals in the curriculum or the syllabus. The process of IEPs covers a prior investigation to identify and assess what kind of problems or difficulties a pupil has. These investigations should be the basis for decision to ensure that the pupils get adequate support for their needs. In the current study we examine the use of IEPs for pupils with reading difficulties. Data in the study comprised 150 IEPs. One important part of the analysis of the IEPs included quality aspects of investigations and interventions. The results show a large variation of the quality for both. In many cases there is a lack of prior investigation in the IEPs and in other cases a limited connection between the assessments of the investigations and the interventions. Furthermore, the results indicate interventions based on assessments of the investigations, generally show a higher quality level. Therefore, the key conclusion is that investigations are crucial in designing interventions and establishing IEPs.

Schools are expected to accept and teach all pupils, and accommodate and respond to their individual differences. According to the Swedish Education Act (SFS 2010:800) schools have to ensure that all children have access to quality education and that pupils should also be able to participate more fully and achieve their potential, which is a major concern. At the same time, schools are under pressure to raise the attainment of academic achievement for individual pupils with challenges to learning and individual planning and documentation have been highly recommended as instruments to achieve this goal (Andreasson, Asp Onsjö & Isaksson, 2013; Ball, 2003).

Since 1995 all Swedish compulsory schools have been required to establish Individual Educational Plans (IEPs) for pupils not attaining the goals in the curriculum or the syllabus. According to the Education Act (SFS 2010:800), such plans should be drawn up in consultation with the pupil and the parents for the planning, follow up and evaluation of the special support provided by the schools. The IEPs should include written goals and strategies, which must be recorded and evaluated. The IEPs should also cover the pupil's performance, school context and teaching, all in relation to the pupil's needs. In the Education Act (SFS 2010:800) from 2011, it is also mandatory for the schools to make an investigation to assess and identify what kind of problems or difficulties a pupil has, previously it was only recommended. This investigation should be the basis for decision to ensure that the pupils get the adequate support for their needs. One specific requirement for the pupil's school situation of each plan is that it must cover individual-, group-, and school organisational level elements of the pupil's needs. Therefore, details should not be restricted solely to individual level requirements, but also include an analysis of the pupil's teaching and social environment (Swedish National Agency for Education [SNAE], 2001; 2008; 2013; 2014). Another important change in the Education Act (SFS 2010:800) from 2011 is that the special support in the IEP now can be appealed.

The purpose of this study is to review the quality of IEPs for Swedish students with reading difficulties with a focus on assessment, interventions, and teacher's descriptions of the student. The focus of the study is how pupil problems are identified and assessed and the types of support proposed in relation to

the students' problems.

The term special education needs and its documentation requirements in a Swedish context are presented in the article, which also includes a review of the literature concerning previous research studies about IEPs in the Swedish context. In addition, issues about students with reading difficulties are presented for further discussion. The study of pupils with reading difficulties and teachers' construction of IEPs, therefore, is placed within this context before discussing the role of the IEP as a tool for assessment and the conclusions made from conducting the study.

In recent years, an increasing number of children in Sweden have been defined as having some form of difficulty in school and approximately 20 % of pupils are considered to be in need of special support. A majority of these pupils have reading problems (Giota & Emanuelsson, 2011; SNAE, 2011). The use of Individual Educational plans in Swedish schools for pupils with reading difficulties, therefore, is the central theme and purpose of the current article.

Historically, the use of IEPs in Sweden has been strongly linked to the ideological goals of a 'school for all', which emphasises the egalitarian aspects and demands for support for all pupils not reaching the knowledge goals of the curriculum, and is not dependent upon a psychological or medical diagnosis (Swedish Board of Education, 1987; SNAE, 2014). This principle has a long history in Sweden and has been adhered to by politicians from different political parties for much of the last century. This inclusive ambition is based on democratic ideals about rights to full participation for all pupils in school as well as in society as a whole (Assarson, 2007; Haug, 1999). The Government's aim, as specified in the most recent policy document states that all children and young people with special educational need (SEN) or disabilities should reach their full potential in school. At the same time, it has been noted that the achievement gap between students deemed to be failing the system and those who are achieving has widened. Furthermore, there has been an increase in pupils with SEN in recent years (SNAE, 2011).

The formulation of IEPs for pupils with special educational needs was initially recommended in the compulsory school curriculum of the 1980s (SFS 1980:64) and in 1995 it became mandatory to establish an IEP for pupils with special educational needs (SFS 1994:1194). The Education Act from 2011 (SFS 2010:800) stipulates more stringent rules on investigation before given special support for children with learning disabilities. The legal rights of pupils and their parents/custodians are also strengthened by making it possible to appeal against decisions of special needs support (SFS 2010:800).

Literature Concerning Individual Educational Plans

Studies of the individual educational plans of pupils in compulsory schools show what expectations are directed towards the pupils (Andreasson, 2007). The words used in the programs by teachers show that pupils' approaches to learning are of greater priority than learning itself. Furthermore, independence and desire for learning are attitudes emphasized in the goals for pupils to attain. Several studies have also shown that the IEPs often focus on pupils' own responsibility and self-regulatory language and assessments. It also shows that the personal reviews in these plans are plentiful and how this description can affect children's identity constructs (Andreasson, 2007; Andreasson & Asplund Carlsson, 2013; Vallberg Roth & Månsson, 2006). According to the Swedish National Agency for Education (SNAE, 2013) information about pupils' social and personal development or characteristics are not allowed apart from curricular goals and should be used with caution not to harm the pupils' integrity. Furthermore, the goals formulated in the IEPs are both learning goals and social fostering goals and in many cases the social goals take precedence and are worked on before tackling learning problems (Andreasson, 2007). With this precedence, a student's reading problems may initially be ignored.

Results from both international and national studies, show that the documents often focus on the individual shortcomings and deficiencies (Asp Onsjö, 2006; Isaksson, Lindquist & Bergström, 2007; Millward, Baynes, Dyson, Riddell, Banks, Kane, & Wilson, 2002; Andreasson et al, 2013). In an international meta- study of almost 300 studies, Mitchell, Morton and Hornby (2010) demonstrated that there is some general criticism against support plans that seems to recur in different contexts. They point out the undue influence of behavioural psychology and the over-emphasis on the individual in the documents. They also found an overall criticism in the studies on the unproven efficacy of such plans. Millward et al., (2002) also discuss the influence of behavioural psychological in the documents and note that it fits well with the emphasis on educational accountability.

There also seems to be a gender bias among the pupils receiving special support; 70 % of all IEPs are written for boys (Asp Onsjö, 2006; Persson, 2013). The fact that more boys than girls receive special support in schools is, however, not unique to Sweden; similar patterns exist in most Western countries. The skewed gender distribution among pupils with IEPs also seems to relate to specific categories of problems. For example, a study in Norway found that an outstandingly higher frequency of boys than girls (7.2 % versus 1.3%) in a sample of pupils had been estimated to have behavioural difficulties (Nordahl & Sarromaa, Haustätter, 2009). There is also supposed to be a gender bias among students with dyslexia. For example, Rutter, Caspi, Fergusson, Horwood, Goodman, Maughan, et al. (2004) suggested that the prevalence is two to three times higher among boys than girls. However, Shaywitz, Escobar, Shaywitz, Fletcher and Makuch (1992) found much smaller differences between the sexes, but they also found a significant referral bias in favour of boys. This may be due to the higher incidence of behavioural difficulties among boys, leading to that teachers attend to the boys more and thereby are more likely to detect their reading problems.

Reading Difficulties

It is a rather simple task for a teacher to detect if a pupil has some kind of reading problems. It may be less clear, though, why the pupil has such problems. There are many possible causes, as the reading process is a very complex activity, involving a host of higher mental processes. For example, it requires syntactic competence, vocabulary, decoding skills and the ability to make inferences. Environmental and cultural factors may also influence the reading performance.

However, Gough & Tunmer (1986) proposed the Simple View of reading (Reading=Decoding x Linguistic comprehension), where reading ability is the product of word decoding and comprehension. If one of the factors equals zero, the product will equal zero too. This implies that both decoding and comprehension are necessary skills for reading, whereas reading disability can derive from three conditions: deficient decoding skills, deficient comprehension skills, or deficient decoding and comprehension skills.

One group of children with poor reading skills is children with dyslexia. The prevalence is estimated to be around five percent. They have reading problems due to poor word decoding skills (Ramus, 2004), which in turn may be caused by poor phonological skills. Most researchers agree that dyslexia is a phonological deficit with word decoding problems as the core manifestation (Høien & Lundberg, 2000; Mellby-Lervåg, Lyster & Hulme, 2012; Snowling, 2000). Even though dyslexia does not imply generally poor comprehension, it may imply poor reading comprehension as a secondary problem, as very slow and effortful reading may be an obstacle in the comprehension process.

In a meta-analysis conducted by the National Reading Panel (2000), explicit instruction in phonemic awareness, phonemic decoding skills, fluency, construction of meaning, vocabulary, and guided reading were found to signify effective reading instruction. Reading intervention studies for children with impaired word decoding, have shown that intensive instruction in phoneme awareness and phoneme/grapheme matching, in a one-to-one setting over a shorter period of time is efficient (Fälth, 2011; Torgesen, Alexander, Wagner, Rashotte, Voeller & Conway, 2001; Wolff, 2011). Multicomponent interventions targeting several aspects of reading, as for example, speed and accuracy, seem to be superior to interventions just addressing accuracy (Fälth, Svensson & Tjus, 2011; Wolff, 2011). For an individual with dyslexia compensatory strategies, like listening to recorded text are often very helpful (e.g. Wolff, 2006).

There are also children, who have average, or good, decoding skills, but who still will have difficulties in understanding the text they read (Catts, Hogan & Fey, 2003; Wolff, 2010). Between seven to ten percent of all pupils have been identified to have poor listening comprehension, but adequate word decoding skills (Nation & Snowling, 1997; Samuelsson, 2002; Wolff, 2010). In contrast to children with dyslexia, recorded texts would most probably not help these children to understand the text (Samuelsson, 2002). However, they may benefit from the same kind of intervention concerning vocabulary and reading comprehension strategies as typically developing children would, only in a much slower pace and embracing a smaller amount of new information.

One could also expect a subgroup of second language learners with adequate decoding skills and poor reading comprehension (Lesaux & Siegel, 2003), even though general comprehension is normal. Children, who are second language learners, are often able to handle the phonological dimension of the new language (Lundberg, 1999). They speak without accent, but may have difficulties to understand

nuances of words, metaphors or idiomatic expressions (Lundberg, 1999). Hence, vocabulary acquisition and syntactic competence may be particular obstacles for them.

On the surface, various reading problems can express themselves in similar ways, even though the character of the reading problem and the underlying cause may be totally different. Therefore, it is of critical importance to understand the nature of the reading problem and to implement interventions accordingly.

Methodology

This study was part of a project about reading difficulties and teachers' competence within this field. The research took place from autumn 2011 to spring 2012. Data comprised Individual Educational Plans from 150 pupils. The sample was gathered from 61 teachers in 11 municipalities in Sweden and includes pupils in the compulsory schools from school Year 1 to Year 9 (7-16 years old). This means that approximately 2-3 IEPs were collected from each teacher. The IEPs were marked with teacher /school identification, the pupils' sex /school year and in compliance with the ethics guidelines of the Swedish Research Council, the children's names were erased by the teachers before submitting the IEP for the research project.

Analysis

To establish both an investigation and an individual educational plan for children with special educational needs are mandatory in the Swedish school system (SFS 2010:800). Therefore, both documents were included in the analyzes, and they were analysed separately. Code schemes were elaborated in order to enable analyzes in regards to the documents quality. The aspects of the code schemes reflected adequate assessments and interventions concerning reading difficulties (SBU, 2014). Further, the aspects in the schemes were based on the National Agency for Education's general guidelines (SNAE, 2014). For example, the guidelines require assessments on individual, group and organization levels.

The Investigation

Five aspects were established as crucial in the investigations, quality of:

- information/naming of the instruments/tests used
- information about which ability the instruments/tests measure
- report of the test results
- interpretation/assessment of the test results
- assessment on Individual/Group/Organization level

Each investigation was assigned a grade on a five grade scale: 1= lowest value; 5= highest value. The grade scale was based on key words such as: word decoding, spelling, phoneme/grapheme correspondence, phonological awareness, phoneme awareness, listening/linguistic comprehension, reading comprehension and working memory. These are concepts crucial for understanding the nature of the reading difficulties (Wolff, 2005). In addition, key words for secondary problems, like problems with tables in mathematics, were also listed. Synonyms to the key words and concepts were included as far as possible. A concluding valuation of each investigation was made based on the values above.

The Individual Educational Plans

The following four aspects were used in the valuation of the IEPs:

1. how were the individual's particular learning needs addressed
 - interventions suggested
 - assistive technology/compensatory strategies suggested
 - subjectivity

Each IEP was ascribed a mark from a five grade scale: 1= lowest value; 5= highest value.

The first aspect was related to the descriptions of the educational needs. Was the problem description specific, i.e. reflecting the characteristics of the reading difficulties, or was the problem described in more general terms? Furthermore, were the problem descriptions adequately linked to the assessments in the investigation?

The second aspect applied to the pedagogical interventions stated in the IEP and whether the interventions were clearly linked to the child's reading assessment/ description of need as stated in the investigation. The grade scale of the interventions were based on key words of practice and skills training such as reading, spelling, phoneme/grapheme mapping, reading comprehension, word decoding, strategies for developing reading comprehension, phonological awareness, phoneme awareness, morphology, reading fluency, and vocabulary.

The third aspect was assistive technology/compensatory strategies, and was related to the use of various methods and technologies for the pupil to employ in order to compensate for their difficulties. Key words such as speech synthesis, scanned text, recorded text, audio books, spelling programs, help with note taking, study techniques, programs for predictions, and Dictaphone were noted.

The fourth aspect was subjectivity. It regards the teachers' statements made in the IEP that may describe, or address, the pupil's personal characteristics such as social behavior or that ascribe general abilities or traits. Some example from the documents are *being behind*, *not wanting to practise and train*, *not wanting to do repetitive skills training*, *slow starter* or *take responsible for home-work*. A concluding valuation of each IEP was made based on the values above.

Validity and Reliability

The coding was carried out by three researchers jointly. Each code was defined and written down and supplied with typical examples in order to make the coding reliable between the three coders. The coding of a specific statement could be unclear. The strategy employed for managing such ambiguities was to deliberate until consensus was reached. The sharpening of the criteria for each code made the coding more distinct and promoted a valid and more reliable coding. Consistency in coding was further ensured by a final comparison of text pieces within the same code. The contents in the documents were interpreted in the context of conducting investigations and assessments of reading difficulties when using IEP as a tool. A context that was familiar to all three coders.

Results

The results are presented in two sections: the investigations, and the individual educational plans. Of the total 150 IEPs, 102 (68%) were written for boys and 48 (32%) were written for girls. This is in line with previous research that showed that more boys than girls received special support in Swedish schools (Asp Onsjö, 2006; SNAE, 2011; Persson, 2013).

The Quality of Investigations

Figure 1 shows that most of the investigations have a high or very high quality as a whole (56 %). However, 29 % of the total IEPs do not include an investigation at all, and another 9 % received a low valuation of the investigations. This indicates that many pupils get interventions for their reading difficulties without adequate investigation of their specific difficulties. Thus, the lack of investigation means that the teachers do not have a decision support for the assessments of the reading difficulties, or for the choice of interventions.

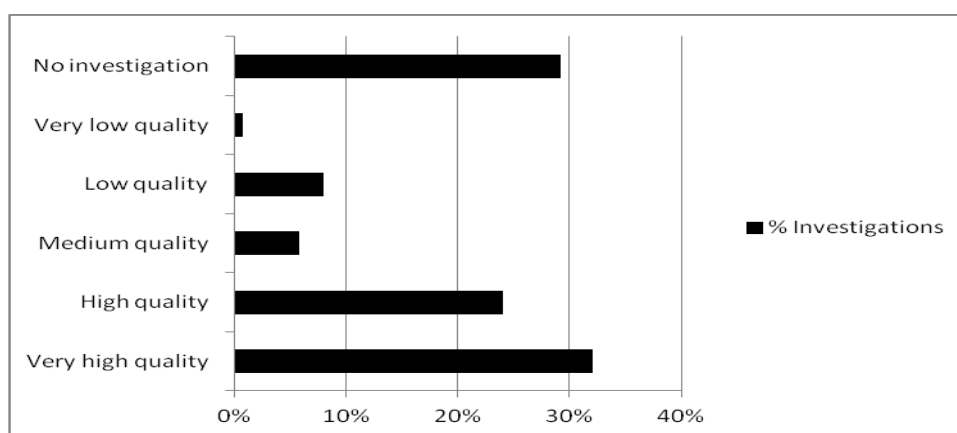


Figure 1. Quality of Investigations based on overall evaluations.

The Individual Educational Plan

In 76% of the IEPs, specific problem descriptions of the reading difficulties were given. Hence, in 24 %

of the total IEPs the descriptions of the pupils' problems were unspecified. In turn, almost half of those with unspecified descriptions (47%) did not receive any investigation. Also, the same IEPs received low values on the quality of both pedagogical and compensatory interventions (83% values 0-2).

Interventions

In 97%, of the IEPs there are pedagogical interventions prescribed (see figure 2). Of those, 29% have a medium valuation, and 37% have a high or a very high valuation. However, 31% of the pedagogical interventions have none or low or very low values, and are thus estimated to be below adequate standard.

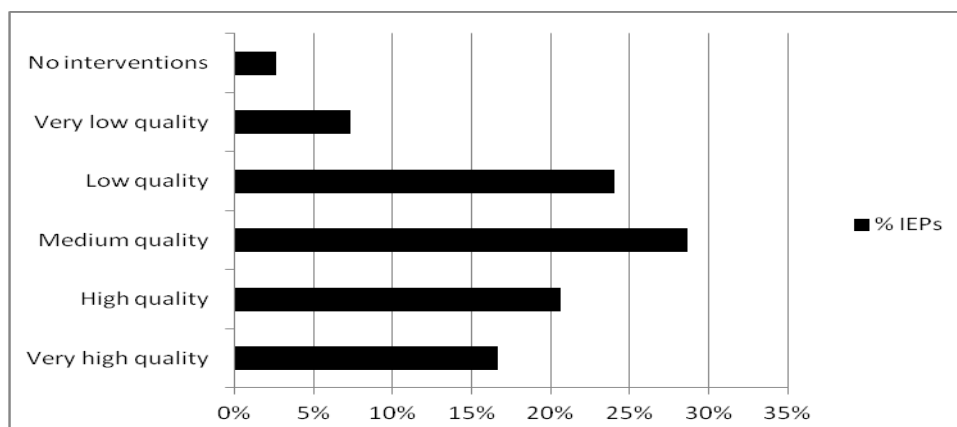


Figure 2. Quality of pedagogical interventions related to difficulties formulated in the pupils' IEPs.

Figure 3 indicates that it is unusual for pupils to obtain good quality compensatory interventions in the IEPs. Firstly, 32 % of the total numbers of IEPs have in fact no compensatory interventions at all, and secondly, another 28 % of the cases are estimated to have interventions of low or very low quality.

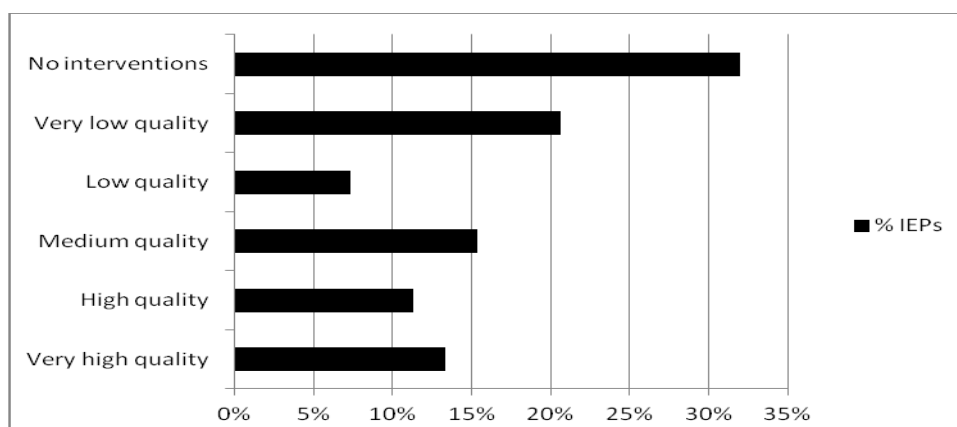


Figure 3. Quality of compensatory interventions related to difficulties formulated in the pupils' IEPs.

Figure 4 shows that 69% of the IEP interventions are written without any connection to the investigations, whereas 31% have a clear connection between the investigation and the intervention. This means that a remarkably high proportion of the teachers do not use the investigations when planning the interventions. To better understand how this affects the quality of the interventions the results were split between connection/no connection to the investigations. Figures 5 and 6 below illustrate the relationship between the pedagogical respectively the compensatory interventions and their connection to the investigations.

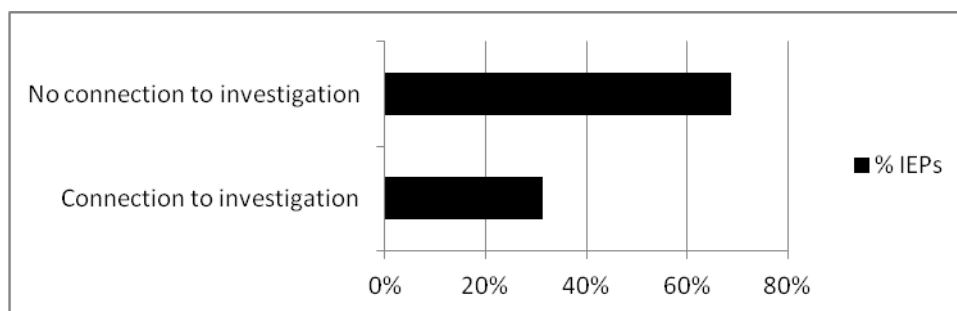


Figure 4. IEP interventions connections to investigations.

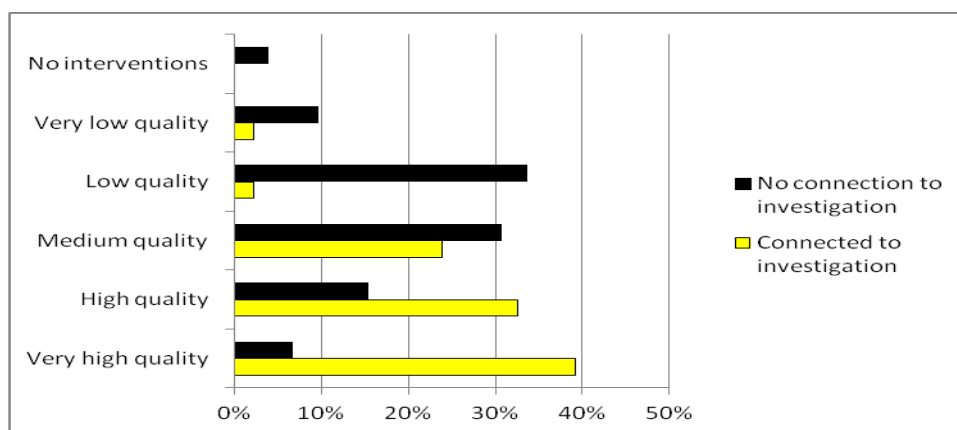


Figure 5. Pedagogical interventions relative IEPs connections to investigations.

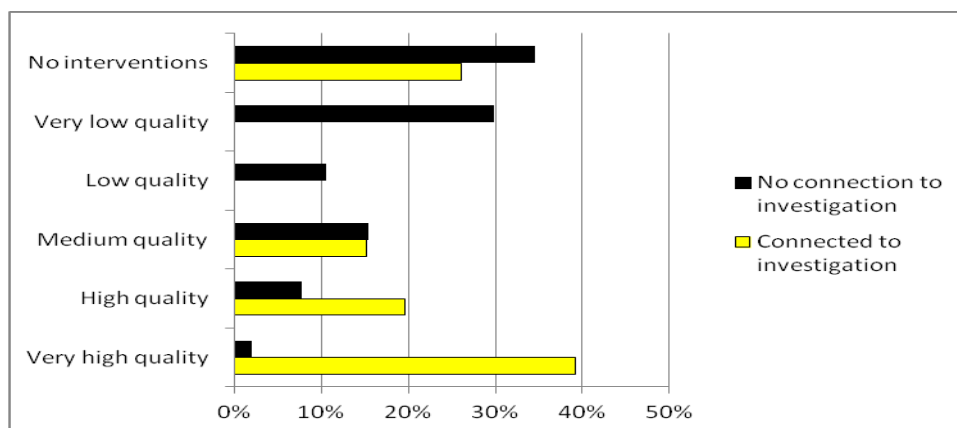


Figure 6. Compensatory interventions relative IEPs connections to investigations.

The results generally show a higher quality for interventions based on investigations, although 22% of the interventions not connected to the interventions also show high or very high quality, and 48 % show low or very low quality. In contrast, only 4% of the interventions based on investigations show a low quality.

Compared to the pedagogical interventions the compensatory interventions show a pattern with a clearer split of quality between connected/not connected to the investigations. When there are no connections to the investigations, the interventions show a predominance of low-medium quality results, whereas the interventions based on investigations show medium to very high quality values with no low quality scores.

Subjectivity

The descriptions of the pupils are predominantly in subject-specific terms and related to students' reading and writing difficulties. Descriptions of the pupils' attitudes, behaviour, personal and social developments in the IEPs do take place in the material. 29 % of the cases include statements of subjectivity. Generally, the comments describe the pupils' attitudes to the school work, motivation and

degree of responsibility in both positive and more negative terms. Explicit and implicit blame was not unusual. Pupils are told to be in time, need help to discipline themselves, or focus on the homework. Notable are that many of the statements in this category are focused on the pupils' shortcomings in areas outside of reading. These statements may have serious consequences for the pupils' self-confidence, motivation and future learning (see, Andreasson, 2007, Vallberg Roth & Månsson, 2006)

Sex

There were no, or very modest differences, between girls and boys regarding the quality of investigations and pedagogical interventions in the material. In regard to the quality of compensatory interventions it was a tendency of more boys (35%) than girls (29%) that received no or low estimated interventions. However, there was one substantial difference between boys' and girls' IEPs. There were negative statements, in the category of subjectification for 96% of the boys. In contrast, there were only such statements for 4% of the girls.

Discussion and Conclusions

The ideological goals of a *school for all* have for a long time being strong in Sweden which implies ensuring a basic minimum standard of education for all, for example everyone should be able to read, write and do simple arithmetic. The individual educational plans have in policy texts launched as a tool for pupils in need of special support to achieve the educational goals in the syllabus and curricula (SNAE, 2013; 2014). Our research focuses on the use of individual educational plans for pupils with reading difficulties and the results show that there is a large various qualities of the Swedish IEPs. Many of the IEPs seem to be effective as tools for enhancing pupils' learning but at the same time there is a large quantity of IEPs that do not contains the qualities that make them suitable as operative tools. We argue that a number of issues require particular consideration in the IEP-process and should be highlighted. These issues will be further discussed here.

In almost every IEP there are pedagogical interventions prescribed, and two thirds of these are of medium, high or very high quality. However, this is not true for compensatory strategies; more than one of three IEPs have actually no compensatory interventions, although needed, and another 28 % of the IEPs have low or even very low quality of the interventions.

Around 60% of all IEPs were preceded by an investigation. On the whole, these investigations were of high quality. However, almost one third of the IEPs do not include any investigation at all. This is indeed quite surprising as it is mandatory by the Education Act (SFS 2010:800) to perform an investigation when establishing an IEP. The lack of investigations implies that the teacher do not have any decision support before considering appropriate interventions. Furthermore, more than two of three IEPs do not reflect the adherent investigations. These facts raise questions about the status of the investigation in the IEP-process. One possible explanation why the investigations are not used in the process might be that the investigation sometimes is made by external specialists, e.g. a psychologist or a speech therapist. They may not be able to translate the meaning of the results into educational terms. Additionally, the teachers may not be competent in the area of reading difficulties, and may not be able to interpret the results in order to design adequate interventions. Of course, the reason may simply be limited resources to carry out possible interventions.

Among the IEPs that do not reflect the investigation, almost half are estimated to have pedagogical interventions with low or very low quality. In the IEPs where the pedagogical intervention reflects the investigation, only 4% are estimated to be low or very low quality. It is a plausible assumption that there is a difference between the quality of interventions depending on if they are based on investigations or not. Thus, interventions based on investigations increases the quality. Children with reading difficulties exhibit different profiles of reading performance (Wolff, 2010), and not having an investigation of the pupils' difficulties will make it impossible to adapt the intervention to the pupil's needs.

The importance of connections to the investigations is even more pronounced when it comes to compensatory strategies. There is a clear pattern indicating that without connections between the investigation and the intervention, the intervention is estimated to be of low or very low quality, or there are no compensatory strategies at all suggested. The use of compensatory strategies may prevent children from failure in a broad range of academic skills, not only in the domain of reading. It is therefore of critical importance that teachers fully recognize the need to implement these strategies for pupils with reading difficulties.

In accordance with previous research, there were substantially more boys than girls who had IEPs. There were no noticeable differences in quality between the girls' and boys' investigations or interventions. However, the boys' IEPs comprised more negative statements about their personal characteristics, not related to reading difficulties. There are reasons to believe that this may impact their future learning, self-confidence and motivation (see Andreasson, 2007).

We can conclude that there are many IEPs that have adequate, or very good investigations and interventions. Nevertheless, there is also a number of IEPs where the investigations are completely absent or of questionable quality, often resulting in low quality interventions. Thus, the results show the investigation's importance for good quality of the interventions, not least for implementation of compensatory strategies.

References

- Andreasson, I. (2007). *Elevplanen som text – om identitet, genus, makt och styrning i skolans elevdokumentation* [The individual education plan as text. About identity, gender, power and governing in pupils' documentation at school]. PhD diss., Göteborg: University of Gothenburg.
- Andreasson, I. & Asplund Carlsson, M. (2013). Individual Educational Plans in Swedish schools - forming identity and governing function in pupils' documentation. *International Journal of Special Education*. 28 (3) s. 58-67.
- Andreasson, I. Asp-Onsjö, L- & Isaksson, J. (2013) Lessons learned from research on Individual Educational Plans in Sweden: Obstacles, opportunities and future challenges. *European Journal of Special Needs Education* 28(4), 413-426
- Asp-Onsjö, L. 2006. *Åtgärdsprogram – dokument eller verktyg? En fallstudie i en kommun* [Individual education plan – document or tool?]. PhD diss., University of Gothenburg.
- Assarson, I. 2007. *Talet om en skola för alla – Pedagogers meningskonstruktion i ett politiskt uppdrag*. [The discourse of a school for all – Teachers constructions of meaning in a political mission] PhD diss., Malmö studies in educational sciences No. 28. Malmö: Malmö högskola
- Ball, S.J. 2003. The teacher's soul and the terrors of performativity. *Journal of Education Policy* 18, no. 2: 215-228.
- Catts, H.W., Hogan, T.P., & Fey, M. 2003. Sub-grouping poor readers on the basis of reading related abilities. *Journal of Learning Disabilities*, 36, 151-164.
- Fälth, L., Svensson, I., Tjus, T. 2011. The effects of two training programs regarding reading development among children with reading disabilities. *Psychology*. 2. 173-180.
- Giota, J., and I. Emanuelsson. 2011. Policies in special education support issues in Swedish compulsory school: a nationally representative study of head teachers' judgements. *London Review of Education* 9, no. 1: 95-108.
- Gough, P. & Tunmer, W. 1986. Decoding, reading, and reading disability. *Remedial and Special Education*, 7, 6-10.
- Haug, P. 1999. Formulation and realization of social justice: the compulsory school for all in Sweden and Norway. *European Journal of Special Needs Education* 14, no. 3: 231-239.
- Høien, T & Lundberg, I. 2000. *Dyslexia. From theory to intervention*. Dordrecht NL: Kluwer Academic Publishers.
- Isaksson, J., R. Lindqvist, and E. Bergström. 2007. School problems or individual shortcomings? A study of individual educational plans in Sweden. *European Journal of Special Needs Education* 22, no. 1: 75-91.
- Lesaux, K.N. & Siegel, L.S. 2003. The development of reading in children who speak English as a second language. *Developmental Psychology*, 39, 1005-1019.
- Lundberg, I. 1999. *Bilingualism: Psychological perspectives*. Hong Kong: Monograph 3, School of language in education. Hong Kong Institute of Education
- Melby-Lervåg, M., Lyster, S-A. H. & Hulme, C. 2012. Phonological skills and their role in learning to read: A meta-analytic review. *Psychological Bulletin*, 138, 322-352.
- Millward, A., A. Baynes, A. Dyson, S. Riddell, P. Banks, J. Kane, and A. Wilson. 2002. Individualised educational programmes: Part 1: a literature review. *Journal of Research in Special Educational needs* 2, no. 3.
- Mitchell, D., M. Morton, and G. Hornby. 2010. *Review of the literature on individual education plans. Report to the New Zealand Ministry of Education*. Wellington, Ministry of Education.
- Nation, K. & Snowling, M. 1997. Assessing reading difficulties: The validity and utility of current measures of reading skill. *British Journal of Educational psychology*, 67, 359-370.

- National Reading Panel. 2000. *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington DC: National Institutes of Child Health and Human Development.
- Nordahl, T., and R. Sarrmaa Haustätter. 2009. *Spesialundervisningens förutsetningar, insatser og resultater: Situasjonen til elever med særskilte behov for opplæring i grunnskolen under Kunnskapsløftet* [Assumptions, content and learning outcome in special education. The situation of pupils with special educational needs in the compulsory school during Kunnskapsløftet] Elverum: Høgskolen i Hedmark.
- Persson, B. 2013. *Elevers olikheter och specialpedagogisk kunskap*. [Pupils differences and special education knowledge]. Stockholm: Liber
- Rutter, M., Caspi, A., Fergusson, D.M., Horwood, L.J., Goodman, R., Maughan, B., et al. 2004. Gender differences in reading difficulties: Findings from four epidemiology studies. *Journal of the American Medical Association*, 291, 2007-2012.
- Samuelsson, S., 2002. Läs- och skrivsvårigheter: Inte bara dyslexi. [Reading and writing difficulties. Not only dyslexia.] *Dyslexi- aktuellt om läs- och skrivsvårigheter*, 3, 17-20.
- SBU, 2014. *Dyslexi hos barn och ungdomar - tester och insatser. En systematisk litteraturoversikt*. [Dyslexia in Children and Adolescents – Tests and Interventions. A systematic meta-analytic review] Stockholm: SBU – Swedish Council on Health Technology Assessment, SBU-rapport nr 225. ISBN 978-91-85413-66-9.
- SFS 1980:64 *Curriculum for the compulsory school*. Stockholm: Fritzes.
- FS 1994:1194 *Compulsory school ordinance*. Stockholm: Fritzes.
- SFS 2010:800 *Swedish Education Act*. Stockholm: Fritzes
- Shaywitz, S.E., Escobar, M.D., Shaywitz, B.A., Fletcher, J.M. & Makuch, R. (1992). Distribution and temporal stability of dyslexia in an epidemiological sample of 414 children followed longitudinally. *New England Journal of Medicine*, 326, 145-150.
- SNAE (Swedish National Agency for Education). 2001. *Att arbeta med särskilt stöd med hjälp av åtgärdsprogram* [Working with special support by means of Individual Education Plans] Stockholm: Fritzes.
- SNAE (Swedish National Agency for Education). 2008. *Allmänna råd och kommentarer för arbete med åtgärdsprogram. Skolverkets allmänna råd 2008* [General guidelines and comments for working with individual educational plans]. Stockholm: Fritzes.
- SNAE (Swedish National Agency for Education). 2011. *Särskilt stöd i grundskolan. En sammanställning av senare års forskning och utvärdering* [Special support in the compulsory school. A summary of research and evaluations during the last years]. rev. ed. Stockholm: Fritzes.
- SNAE (Swedish National Agency for Education). 2013. *Allmänna råd. Arbete med åtgärdsprogram för elever i behov av särskilt stöd* [Working with Individual Educational plans for children in need of special support]. Stockholm: Fritzes.
- SNAE (Swedish National Agency for Education). 2014. *Allmänna råd. Arbete med extra anpassningar, särskilt stöd och åtgärdsprogram*. [Working with extra adjustments, special support and Individual Educational Plans]. Stockholm: Fritzes.
- Swedish Board of Education 1987. *Skolöverstyrelsens allmänna råd för tillämpning av föreskrifterna i läroplanen för grundskolan om individuella åtgärdsprogram för elever med svårigheter* [Recommendations of the Swedish Board of Education for applying the instructions in the curriculum for compulsory school on individual educational plans for pupils with special educational needs]. SÖ-FS 1987:242. Stockholm: Skolöverstyrelsen.
- Torgesen, J.K., Alexander, A.W., Wagner, R.K., Rashotte, C.A., Voeller, K.K.S. & Conway, T. 2001. Intensive remedial instruction for children with severe reading disabilities: Immediate and long-term outcomes from two instructional approaches. *Journal of Learning Disabilities*, 34, 33-58.
- Vallberg Roth, A.C., and A. Månsson. 2006. Individuella utvecklingsplaner som fenomen i tiden, samhället och skolan [Individual development plans as a phenomenon of the times, of society and of the school]. *Utbildning & Demokrati* 15, no. 3: 31-60.
- Wolff, U. 2006. *Att studera med dyslexi*. Rapport skriven på uppdrag av jämlikhetssekreteraren vid GU. [To study with dyslexia. A report from Gothenburg University]. <http://www.gu.se/omuniversitetet/jamlikhet/Rapporter/>
- Wolff, U. (2010). Sub-grouping of readers based on performance measures: A latent profile analysis. *Reading and Writing: An Interdisciplinary Journal*, 23, 209-238.
- Wolff, U. 2011. Effects of a randomized reading intervention study: an application of structural equation modeling. *Dyslexia: An International Journal of Research and Practice*, 17, 295-311.

BURNOUT AND WORK STRESS AMONG DISABILITY CENTERS STAFF IN OMAN

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Extensive efforts have been made to maximize the potential of children with disabilities in Oman. The establishment of Al-Wafaa centers of disabilities served as a channel to help families secure a variety of services provided to children with different disabling conditions. The purpose of this study was to explore the burnout of staff working in the disability centers in Oman. A related purpose was to compare their burnout levels in relation to the type of disability (intellectual disability and hearing impairment) and years of experience (1-5 years, 6-10 years, and above 10 years). Also, the study explored the association between burnout and work stress. The participants were 81 female staff in the disability centers from different areas. The participants completed the Maslach Burnout Inventory and the Teacher Occupational Stress Factor Questionnaire (TOSFQ). The results of the study showed that disability centers staff had a moderate level in both emotional exhaustion and personal accomplishment while they had a high level of depersonalization. The Kruskal Wallis test showed a significant effect of the experience level in the depersonalization subscale, $\chi^2 (2, N = 81) = 6.07, p = 0.048$. Post-hoc analyses using the Mann-Whitney test indicated that staff with the experience level (6-10 years) had a higher depersonalization level than the experience level (above 10 years). The results also indicated that a significant relationship was found between burnout and work stress. The results of the study are discussed in relation to the early intervention services provided to children with disabilities and how the study variables relate to the policy and practice in the disability centers in Oman.

Burnout and Work Stress among Disability Centers Staff in Oman: Does Experience and Type of Disability Make a Difference?

Recent developments in the field of special education have led to a renewed interest in the stress that special educators are exposed to in their professional life. When educators and teachers encounter recurrent daily stress, it may lead to burnout (Mearns & Cain, 2003). Burnout was coined as a term to refer to emotional exhaustion (overwhelmed by extensive work), depersonalization (negative attitudes toward the children), and personal accomplishment (negative evaluation of one's performance in the job) (Maslach & Jackson 1981). Burnout is related to frustration in the job and the negative affective and professional consequences (Mearns & Cain, 2003; Sari, 2004). Stress and burnout have an impact on the welfare of the employee and the quality of service within organizations (Seaward, 2008). Reducing staff stress will have an impact on absenteeism and turnover (Rose, 1995). Most importantly, the employer's responses may encumber their ability to deal efficiently with challenging behaviors (Rose, Horne, Rose, & Hastings, 2004). When the employees are subject to stress and burnout, they might be more inclined to abusive practices (White, Holland, Marsland, & Oakes, 2003).

Burnout and Special Education

Psychological theories had different explanations of job burnout. Those are the psychoanalytical theory, the existential approach, and the job-demand control model. According to the psychoanalytic approach, the lives of individuals are delineated consciously and unconsciously. The theory postulates that career choices are shaped through individuals' rearing and culture. Individuals strive to experience unpleasant experiences from their childhood by accomplishing goals set by their families through their careers. In the psychoanalytic approach, people often amalgamate the value of their careers with their view of self-worth (Pines & Yanai, 2001). According to the existential approach, it is important that individuals possess the belief that their personal experiences are valid and important (Pines, 2000). The two

perspectives were merged into what is known as *the psychoanalytic-existential model to uncover the source of job burnout*. *The psychoanalytical-existential approach assumes that the root of career burnout lies in the need of human beings to believe that their lives are meaningful, that the things they do, and consequently they themselves, are important and significant* (Pines & Yanai, 2001, p. 171).

According to this combined theory, people who were not able to resolve their psychological problems during their childhood are characterized by having a great deal of passion and they show a high sense of self-confidence in their career choice. Once these individuals achieve feelings of personal gratification and accomplishment from their careers, the bad experiences in their adulthood are generally resolved. On the other hand, if they will not have feelings of self-worth and success in their careers, they will tolerate the feelings of failure, which in turn, will lead to burnout (Pines, 2000).

Maslach, Schaufeli, and Leiter (2001) proposed a model of career burnout which consists of six domains (work overload, lack of control, insufficient reward, breakdown of community, absence of fairness and conflicting values). When the gap between any of these domains becomes larger, it is probable that the individual is susceptible to burnout (Maslach et al., 2001). Work overload is characterized by the overburden and excessive amount of work. Lack of control is experienced when employees have less freedom in their decisions and strategies to manage their work tasks. Insufficient reward refers to the amounts of intrinsic satisfaction of employees in the workplace. Breakdown of community is related to the isolation experienced by individuals in their jobs. Absence of fairness refers to feelings of respect, trust, and openness experienced by employees in the workplace. Conflicting values are related to the juxtaposition between organizations' values and real actions (Angerer, 2003).

One of the main reasons of burnout of special education teachers is the lack of administrative support (Stephens & Fish, 2010). A large body of administrators does not fully understand the special education policies and instruction. Therefore, they usually do not address the needs of special education teachers (Billingsley, 2005). Another main reason for special education teachers' burnout is the daily routines and responsibilities. Some factors that are related to these daily routines and responsibilities include excessive paperwork, placement, professional development, standardized testing, data reporting, scheduling, teaching and training, and ongoing changes in special education policy (Bozonelos, 2008; Stephens & Fish, 2010). Such duties are time consuming and they could diminish the amount of time allocated for teachers to spend with students with special needs (Vannest & Parker, 2010). Excessive paperwork might also jeopardize the special education teachers' duties and impact instructional time, efficacy, and commitments towards students (Mehrenberg, 2009). The lack of professional development opportunities may lead to burnout and attrition (Billingsley, 2007). Lack of instructional materials may also lead to stress (Kaufhold, Alvarez, & Arnold, 2006). Positive interactions with colleagues or peers in schools or work can reduce the stress and negative emotions that lead to alienation and burnout (Schlichte, Yssel, & Merbler, 2005).

Teacher burnout can lead to negative effects on students' well-being, behavior, and performance (Kokkinos, Panyiotou, & Davazoglou, 2005; Yoon, 2008). Burnout is manifested through changes in attitudes and behaviors related to the job (Bilge, 2006). Changes in behaviors and attitudes are a direct result of the protracted responses to chronic stressors on the job and are reflected throughout the components of emotional exhaustion, cynicism, and inefficacy (Maslach & Leiter, 2008). Emotional exhaustion is usually described as the individual's inability to offer any more of oneself at an emotional level. Cynicism, or depersonalization, is the negative attitude toward work, students, and colleagues. Low personal accomplishment, or inefficacy, is the inadequate performance and insufficient competence at work (Montero-Marín & García-Campayo, 2010). A review of the literature on burnout pointed out that organizational characteristics have been shown to be associated with emotional exhaustion. For example, a negative correlation between the overall perception of the organization and emotional exhaustion was found by Blumenthal, Lavender, and Hewson (1998). Devereux, Hastings, Noone, Firth, and Totsika (2009) found no relationship between staff support and emotional exhaustion. Also, positive social support was found to be associated with less emotional exhaustion (Janssen & Nijhuis, 2004). Maslach et al., (2001) posited that 'workload is most directly to the exhaustion aspect of burnout' (p. 414). Devereux et al., (2009) found that excessive work was associated with emotional exhaustion in disability services staff. There has been a decrease in the levels of burnout among staff working with intellectual disabilities over the past 20 years (Skirrow & Hatton, 2007). Organizational and environmental factors have been the most consistent predictor of burnout (see Hatton, Rose, & Rose, 2004).

Certain factors of work organization predict emotional exhaustion in professionals working with people with disabilities. These factors are work load, latitude in decision-making, and the importance of considering aspects of organization at the workplace to prevent burnout (Kowalski et al., 2010). Excessive exposure to aggression was associated with higher levels of emotional exhaustion and personal accomplishment in a sample of 169 staff members working in intellectual disability summer camps in Ontario, Canada. As the staff are vulnerable to aggression in the summer job, which is associated to burnout, there is a need for training and support (Ko, Lunskey, Hensel, & Dewa, 2012).

Hastings (2002) reported that there is an association between staff exposure to challenging behaviors and staff stress. Hensel, Lunskey, and Dewa (2012) studied the association between exposure to aggressive behavior and burnout in 926 community staff working with intellectual disabilities. They found that personal accomplishment scores were higher than comparable studies. Vassos and Nankervis (2012) investigated the association between factors contributing to burnout in a sample of 108 disability support workers. Results indicated that burnout predictors were challenging behavior, workload, supervisor support, work-home conflict, job feedback, role ambiguity, low job stress, role conflict, and work hours.

Work Stress and Special Education

Several theories explain work stress theories. The person-environment theory suggests that stress results from the degree of fit between the person and the environment. According to this theory, when this fit is weak, individuals may be subject to work overload, role ambiguity, and role conflict (Spielberger, Vagg & Wasala, 2001). Another model is the demand-control-support model. This model suggests that the work stress is affected by the interaction between the perception of work demands, perception of control, and the degree of support employers perceive (Karasek & Theorell, 1990). The cognitive behavioral approach proposes that stress is a cognitive process and an individual phenomenon (Lazarus & Folkman, 1984). According to this model, stress is not inherent in the environment or the person but is a result of the relationship between them. According to the model, job stress or strain is interaction between demand and control. This model was used to classify work situations according to the balance they suggest between the demands on the workers and the level of control a person can put forth over those demands to better understand the link between the occupation and the psychological health (Sale & Kerr, 2002).

Several studies have been conducted to explore the challenging situations that special education staff encounter in their job (Billingsley, Carlson, & Kelin, 2004; Center & Stevenson, 2001; Kaufhold et al., 2006; Schlichte et al., 2005). Stress represents a main factor in the burnout of special education teachers (Center & Stevenson, 2001). The most frequent job stressors among special education personnel are large caseloads, several meetings, large amounts of paperwork, parental interactions and expectations, and lack of administrative support (Kaff, 2004; Schlichte et al., 2005). Other stressors encompass problems in curriculum, behavior management, unclear roles, low salaries, and lack of respect (Billingsley et al., 2004; Schlichte et al., 2005). Other factors that contribute to the teachers' stress are insufficient time for planning and changes in students' abilities (Kaff, 2004). Special educators are challenged by financial limitations and lack of relevant school resources (Kaufhold et al., 2006).

Gerstan, Keating, Yovanoff, and Harniss (2001) reported that the structure of special education job can lead to stress: *Expectations, goals and directives; the severity of student needs; student behavior and discipline problems; and bureaucratic requirements – rules, regulations, and paperwork* (p. 555). Since special education is a profession that entails emotional investment and because special educators are required to spend more time with students who exhibit little progress over time, they might develop factors related to the outcomes of emotional exhaustion and feelings of depersonalization (Embich, 2001). Stress has an impact on the well-being of staff working in intellectual disability services (see Hastings, 2002).

The Context of Special Education in Oman

The establishment of Al-Wafaa Centers in Oman has been a significant change in the care of children with disabilities. These centers are available in most of the Omani governorates. About 2173 children with disabilities receive educational and rehabilitation services in these centers. Although inclusive services have started in public schools a few years ago, Al-Wafaa centers for disabilities, under the patronage of Social Development Ministry, still remain the main source where parents bring their children with disabilities as a first station to receive services. These centers were based on voluntary donations and philanthropy but they turned to be governmental agencies starting from 2013. There are 19 disability centers spread all over Oman. These centers serve students with intellectual disability (35%), hearing loss (28%), motor impairment (12%), visual impairment (5%), and other disabilities (2%).

Children usually come with their parents to receive day-care programs provided by special educators to improve the quality of life for those individuals. The activities and programs provided to children in these centers include: a) training children on life skills that help them achieve independence, b) developing children's awareness to model the appropriate social behavior and sound habits, c) preparing children to join different educational and vocational institutions, d) raising the awareness of families about caring and dealing with the child, e) including the children with disabilities in the local society through social, cultural, and recreational activities, and f) raising the societal awareness related to the disability issues through workshops, symposiums, and philanthropic activities. Some problems jeopardize the activities of these centers. Some of these problems include the small of number of centers spread all over Oman, the lack of support programs for youth with disabilities upon the completion of their education and rehabilitation in these centers, and the lack of coordination among different institutions that serve individuals with disabilities in the country. These centers turned to be governmental institutions after royal amendments. As such, staff disability centers became official institutions under the supervision of the ministry of social development.

The current study is important as it is the first in Oman that addresses burnout and work stress exhibited by special education staff in these centers. No research, to date, has been implemented to explore either burnout or stress experienced by staff in these centers. Since these centers represent the focal point for parents of children with disabilities, there is a need to study the problems that might have an impact on the performance of staff working in these centers. Second, the field of special education and inclusion is fairly recent in Oman.

The purpose of this study was to explore the burnout of Omani caregivers in Disability Centers. A related purpose was to compare the caregivers' burnout levels in relation to the type of disability (intellectual disability and hearing impairment) and experience (1-5 years, 6 -10 years, and above 10 years). Also, the study explored the association between burnout and work stress. Several questions guided the study:

1. What is the level of burnout and work stress of special education staff at disability centers in Oman?
2. Is there any difference between intellectual disability staff and hearing impairment staff in their burnout and work stress levels?
3. What is the effect of experience on the burnout and work stress among special education staff?
4. What is the relationship between burnout and work stress in intellectual disability and hearing impairment staff?

Method

Participants

The sample consisted of 81 female special education staff. The sample was randomly selected from a pool of special education staff from different disability centers in the ten Governorates of Oman. The original population was 300 female staff which is the total number of staff working in these centers. The special education staff ages ranged from 27 to 42 years ($M= 32.38$, $SD=6.96$). All of the staff graduated from high school and they were recruited to work as volunteers in these centers approximately after 3 or 4 years from graduation from high school. Staff were recruited to work in these centers through written tests, interviews, and their interest in providing services to individuals with disabilities. Most of the female staff provided services to either children with intellectual disability or children with hearing impairment. This study focused on intellectual disability and hearing impairment as these two categories represented the most common disabilities in Omani disability centers. The number of children with other disabilities such as motor impairments, visual impairments, speech disorders, and multiple disabilities was little. Children with disabilities in these centers were usually referred to disability centers by local hospitals and medical centers. The study tools were mailed to staff in these centers and 81 participants responded. At least two centers in each governorate were represented in this study. The distribution of sample according to experience and type of disability is shown in Table 1.

Table 1. Characteristics of the Study Sample

Type of Disability/Experience	1-5 years	6-10 years	Above 10 years	Total
Intellectual	12	23	21	56
Hearing Impairment	7	10	8	
Total	19	33	29	81

*Instrument**Maslach Burnout Inventory.*

The participants were asked to complete the Maslach Burnout Inventory-Educators Survey (MBI-ES). This survey was used to assess teachers' burnout (Maslach, Jackson, & Leiter, 1996). This self-report scale has three subscales: a) emotional exhaustion, b) depersonalization, and c) personal accomplishment. The survey consisted of 22 statements that refer to personal feelings and attitudes toward job conditions. The emotional exhaustion subscale included nine items. They describe feelings of fatigue, loss of emotional energy, and tiredness. The depersonalization subscale assessed negative attitudes toward students and environmental settings and perceptions of achieving a person's goals in helping students to learn. The personal accomplishment subscale included eight items which refer to the teachers' perceptions of achieving one's goals of helping students to learn. The frequency of teachers' feelings on each item was measured using a seven-point Likert type scale (Never = 1, Every Day = 7). The Cronbach Alpha values were 0.71, 0.68, and 0.65 for the emotional exhaustion, personal accomplishment, and depersonalization subscales respectively.

Teacher Occupational Stress Factor Questionnaire.

The questionnaire used in this study is a modified version of the Teacher Occupational Stress Factor Questionnaire (TOSFQ, Clark, 1980). The TOSFQ consists of 30 items that measure teachers' perceptions of job-related stress. The questionnaire consisted of five subscales: administrative support (7 statements), work stress (8 statements), financial security (3 statements), relationship with teachers (7 statements), task overload (5 statements). The overall Cronbach Alpha reliability of the questionnaire was 0.88. Cronbach Alpha values for the administrative support, work stress, financial security, relationship with teachers, and task overload were 0.80, 0.62, 0.81, 0.65, and 0.53 respectively. The TOSFQ uses a five-point Likert scale ranging from 1-5. This can help respondents indicate how stressful or not they perceive specific events and situations that might occur in the school or the center.

Procedure

A mail survey, including the study tools, was sent to the study participants. The study tools were administered to a random sample of staff working at Al Wafaa Centers of Disabilities in different areas of the Sultanate of Oman. Teacher consents were secured prior to the beginning of the administration. The staff took about two months in responding to the study tools. The percentage of the staff who responded was about 75%. Then, the data were entered to the SPSS, version 21 to run the appropriate statistical analyses required to answer the study questions. The statistical analyses included descriptive statistics (means and standard deviations) and inferential statistics (t-test, correlation, and ANOVA).

Results

The first question was: what is the level of burnout for staff working in Al Wafaa centers of disability? To answer this question, means and standard deviations for the three subscales of the Burnout scale were calculated. Means and standard deviations distributed across the two types of disability are shown in Table 2.

Also, mean ranks, chi-square values, and significance levels are shown in Table 3. Results showed that the level of emotional exhaustion and personal accomplishment of the staff in both hearing and intellectual disability was moderate. However, the level of depersonalization was high. To explore the differences among intellectual disability and hearing impairment staff in the MBI subscales and TOSFQ subscales, the Mann-Whitney test was employed. No significant differences were detected between intellectual disability and hearing impairment staff in the subscales of the burnout subscales and the subscales and total score of the TOSFQ.

Table 2. Means and Standard Deviations of the MBI Subscales and the TOSFQ Subscales and Total Score

Subscale	Type of disability	N	Mean	Std. Deviation	Std. Error Mean
MBI(Emotional Exhaustion)	Intellectual	56	28.23	10.78	1.44
	Hearing	25	25.24	6.39	1.28
MBI (Depersonalization)	Intellectual	56	12.71	3.72	0.50
	Hearing	25	11.08	1.75	0.35
MBI (Personal Accomplishment)	Intellectual	56	41.70	6.11	0.82
	Hearing	25	41.48	6.80	1.36
Work Stress (Administrative support)	Intellectual	56	20.30	5.90	0.79
	Hearing	25	22.24	6.02	1.20
Work Stress (Working with students)	Intellectual	56	22.07	4.52	0.60
	Hearing	25	21.04	4.41	0.88
Work Stress (Financial security)	Intellectual	56	8.93	3.72	0.50
	Hearing	25	9.12	3.75	0.75
Work Stress (Relationship with teachers)	Intellectual	56	21.71	5.13	0.69
Subscale	Type of disability	N	Mean	Std. Deviation	Std. Error Mean
	Hearing	25	22.56	4.49	0.90
Work Stress (Task overload)	Intellectual	56	14.00	3.90	0.52
	Hearing	25	13.88	2.74	0.55
Work Stress Total Score	Intellectual	56	87.02	18.41	2.46
	Hearing	25	88.84	14.31	2.86

To answer the third question, the Kruskal-Wallis test was calculated to explore the effect of the three levels of experience on both MBI and work stress subscales. The analysis was significant, $F(2, 72) = 2.66$, $p = 0.013$. The Kruskal Wallis test showed a significant effect of the experience level in the depersonalization subscale, $\chi^2(2, N = 81) = 6.07$, $p = 0.048$. *Post-hoc* analyses using the Mann-Whitney test indicated that staff with the experience level (6-10 years) had higher depersonalization level than the experience level (more than 10 years), $U = 313$, $p = 0.015$.

To answer the fourth question, Pearson Product Moment Correlation was used to explore the relationship between the burnout and work stress of both hearing impairment and intellectual disability staff. As shown in Table 4, the emotional exhaustion subscale was significantly correlated to the work stress subscale, $r(81) = .33$, $p < .01$. Also, the financial security subscale was significantly correlated to the emotional exhaustion subscale and the depersonalization subscale, $r(81) = .29$ and $.30$, $p < .01$ respectively. Also, a negative significant correlation was found between the level of experience and the depersonalization subscale, $r = -0.28$, $p = 0.05$.

Discussion

The purpose of this study was to explore the burnout of Omani caregivers in Disability Centers. A related purpose was to compare the caregivers' burnout levels in relation to the type of disability (intellectual disability and hearing impairment) and experience (1-5 years, 6-10 years, and above 10 years). Also, the study explored the association between burnout and work stress. The results showed that level of emotional exhaustion and personal accomplishment of the staff working with both hearing and intellectual disability was moderate while the level of depersonalization was high. No significant differences between the hearing impairment and intellectual disability staff in the burnout subscales, work stress subscales, and the total score. The emotional exhaustion subscale was significantly correlated to the work stress subscale. Also, the financial security subscale was significantly correlated to the emotional exhaustion subscale and the depersonalization subscale. The level (6 to 10 years) had the highest burnout in the depersonalization subscale.

Table 3. Mean Ranks, Chi-Square Values, and Significance Levels of the Work Stress Subscales and Burnout Subscales

Subscale		N	Mean Rank	χ^2	Sig.
Work Stress Administrative support	1-5 years	19	39.71	1.19	.55
	6-10 years	33	38.44		
	> 10 years	29	44.76		
	Total	81			
Work Stress working with students	1-5 years	19	38.74	2.13	.31
	6-10 years	33	37.67		
	> 10 years	29	46.28		
	Total	81			
Work Stress Financial security	1-5 years	19	34.18	2.28	.32
	6-10 years	33	41.89		
	> 10 years	29	44.45		
	Total	81			
Work Stress relationship with teachers	1-5 years	19	48.24	2.36	.31
	6-10 years	33	38.55		
	> 10 years	29	39.05		
	Total	81			
Work Stress Task overload	1-5 years	19	37.45	.58	.74
	6-10 years	33	42.44		
	> 10 years	29	41.69		
	Total	81			
WS Total Score	1-5 years	19	39.39	.68	.71
	6-10 years	33	39.38		
	> 10 years	29	43.90		
	Total	81			
MBI Emotional Exhaustion scale	1-5 years	19	42.42	1.30	.52
	6-10 years	33	37.48		
	> 10 years	29	44.07		
	Total	81			
MBI Depersonalization	1-5 years	19	43.66	6.07	.04
	6-10 years	33	46.65		
	> 10 years	29	32.83		
	Total	81			
MBI Personal Accomplishment	1-5 years	19	35.61	1.61	.45
	6-10 years	33	41.12		
	> 10 years	29	44.40		
	Total	81			

Table 4. The Correlation between the TOSFQ and the MBI Scale

	Experience	Admin Support	Work Stress	Fin. Security	Relationship with Teachers	Task Overload	Emotional Exhaustion	Depersonalization	Personal Accomplishment	Total Work Stress
Experience	-	0.00	0.11	0.11	-0.05	0.03	0.07	-.278*	0.20	0.04
Administrative Support		-	.364**	.292**	.603**	.614**	0.04	0.12	0.20	.806**
Work Stress Financial			-	.423**	.484**	.621**	.335**	0.15	0.08	.746**
Security				-	0.17	.517**	.295**	.295**	0.12	.585**
Relation with Teachers					-	.553**	0.22	0.13	0.09	.775**
Task Overload						-	.323**	0.14	0.13	.853**
Emotional Exhaustion							-	.356**	0.08	.293**
Depersonalization								-	0.14	0.21
Personal Accomplishment									-	0.17
Total Work Stress										-

Note: * Significant at the 0.05 level; ** Significant at the 0.01 level

The results of the study are somewhat similar to what Motti-Stefanidi (2000) found and reported that the level of burnout for special education teachers was moderate. The interpretation of this finding is that Al Wafaa centers staff had permanent positions since the governmental decisions stated that these centers would change to governmental agencies and that the personnel working in these centers would be qualified and hired on a full-time basis. This was also consistent with what Platisdou and Agalotis (2008) found. They reported that special education teachers showed low to moderate levels of burnout. This finding is not consistent with what Zabel and Zabel (2001) found that the level of experience did not have an effect on burnout. This finding might be attributed to the fact special education teachers in the disability centers hold permanent jobs in the meantime. In the past, these centers were based on philanthropy but they turned now to governmental centers. The results of the study are also in line with the results of Küçüksüleymanoğlu (2011) who concluded that intellectual disability teachers had higher depersonalization than hearing impairment teachers. Surveys of intellectual disability services concluded that between 32.5% (Hatton et al., 1999) and 25% (Robertson et al., 2005) of staff experienced significant levels of stress. This finding is in contrast with what Ko et al., (2012) found. They concluded that staff supporting people with intellectual disability in summer camps had low levels of depersonalization.

This study produced results which corroborate the findings of a great deal of the previous work in this field. Kowalski et al., (2010) concluded that the work load predicted the emotional exhaustion among professionals working with people with disabilities. Taken together, the results suggest that staff in the disability centers might encounter negative feelings toward children with disabilities. The author of this study taught a large proportion of females working in the centers through a two-year diploma in special education. The staff, during the courses, expressed their feelings of dissatisfaction and discomfort toward the lack of systematic plan of diagnosis and intervention in these centers. The author argues that the staff's attitudes are not negative toward the children with disabilities; rather, they feel that the disability centers still need significant improvements on different levels including human resources.

The results also showed that those having 6-10 years of experience had a higher level of depersonalization than the other two levels of experience. This finding is consistent with the literature that those whose teaching experience is shorter had more burnout (Kilgore & Griffin, 1998). This also contradicts with what Küçüksüleymanoğlu (2011) found. Although differences among experience levels were not significant on the depersonalization subscale, teachers who had the experience level (more than 10 years) had the lowest burnout score. Zabel and Zabel (2001) reported no significant differences related to the amount of experience in the depersonalization subscale. Kowalski et al., (2010) found no impact of professional experience on burnout. Ko et al., (2012) concluded that experience was not

associated to the three burnout dimensions. Hatton et al., (1999) found a small but direct relationship between support from colleagues and immediate supervisors. Years of experience have been reported as high predictors of teacher burnout and attrition and have been consistently connected to special education teacher burnout (Billingsley, 2004). Researchers found that the rate of attrition due to burnout is very high for teachers who are less experienced and who are at the beginning of their job life, and then goes down for middle-age teachers, and then increases when teachers are close to retirement (Mukundan & Ahour, 2010). This finding suggests that staff who are having 6-10 years of experience might be at higher risk of burnout. The author argues that when staff in the disability centers experience excessive duties throughout the day; and given that they have more experience than others, parents and administrators might put an extra burden on their shoulders. Therefore, they are exposed to stress which leads to burnout. The fact that they are more experienced makes them guide the less experienced staff and, therefore, they are prone to higher rates of depersonalization.

Research indicated that demographic variables such as years of experience have an impact on the special education teacher's intent to leave (Boe & Cook, 2006; Olivarez & Arnold, 2006). Nonetheless, research related to the impact of demographic variables of the special teacher education is still inconsistent (Kokkinos, 2007). Low scores in depersonalization refer to increased work commitment (Maslach & Leiter, 2008). Also, a relationship exists between higher levels of empathic concern (feeling of concern for another person) and lower levels of depersonalization (Lakin, Leon, & Miller, 2008).

Teachers in the disability centers should be empowered by having more professional development opportunities. Teachers' empowerment has a direct impact on students' achievement (Zembylas & Papanastasiou (2005). Teachers in these centers feel that they are part of the decision-making process. Teachers' perceptions about their input are related to their attrition or intent to stay in the job (Darling-Hammond, 2003). Accordingly, teachers should play a critical role in the conceptual and operational process of their institutions, including impact on classroom and overall policies (Leiter & Maslach, 2004). The interpretation of the low scores on the depersonalization subscale might be due to problems related to classroom management and students' challenging behaviors. Classroom management, discipline maintenance, and students' challenging behaviors represent a major source burnout (Clausen & Petruka, 2009; Geving, 2007). Also, research posits that special education staff who interact with students with significant behavioral problems (e.g. self-injurious behaviors, hyperactivity, impulsivity, verbal and physical aggression, violence, and other behavioral disorders) are likely to have higher rates of burnout (Kaff, 2004; Lecavalier, Leon, & Wiltz, 2006). The recurrent exposure to aggressive and violent behaviors from students with disabilities may develop emotional exhaustion and depersonalization (Mitchell & Hastings, 2001).

Another issue related to the disability centers in Oman is the nonexistence of general curriculum for children with disabilities. Staff in these centers are generally volunteers who joined the center based on their personal interest in addition to other factors of hiring such as interviews and written tests. Some of the staff in these centers take a two-year diploma as a professional development. The officials in charge of these centers have a long-term plan to get the staff involved in this professional development experience. In this diploma, they have a chance to study special education in depth. However, they reported that have a difficulty in applying the theory into practice. It is an issue of juxtaposition between what they see in the university and what they experience in the field. Special education teachers *must be knowledgeable about the general education curriculum, skillful at anticipating student difficulties with learning tasks, and adept at providing ongoing adaptations and accommodations* (Klinger & Vaughn, 2001, p. 1). Another problematic issue is the misdiagnosis of children. Sometimes, staff in these centers report problems of misdiagnosis. Children who join these centers are usually diagnosed in hospitals and medical centers spread all over Oman, albeit, staff in the disability centers reported issues of misdiagnosis. This issue might increase their feelings of stress and burnout.

Implications

On the basis of the findings of this study, disability centers in Oman could eventually adopt standard practices related to the diagnosis and intervention of children with disabilities. The study pinpointed significant predictors that are associated to the turnover of staff from disability centers. Future research should consider problems that staff encounters inside the organizations (e.g. organizational climate, relationship among workers, reaction of parents, relationship between the staff and the children with disabilities). This study can be helpful in exploring possible solutions or acts as a knowledge base for future research.

Limitations

A number of caveats need to be noted regarding the present study. First, using two self-report measures might subject to recall bias. Second, the cross-sectional nature of the study might refer to the association or relationship among study variables; however, no causality can be inferred. Third, the small sample size might have affected the results. Larger sample size could have further stronger associations among the study variables. Further assessment of the disability center staff should consider other variables such as organizational factors, lack of professional development, lack of sufficient resources, lack of referral services, and other psychological problems they might encounter.

References

- Angerer, J. M. (2003). Job burnout. *Journal of Employment Counseling*, 40(3), 98-107.
- Bilge, F. (2006). Examining the burnout of academics in relation to job satisfaction and other factors. *Social Behavior & Personality: An International Journal*, 34, 1151-1160.
- Billingsley, B. S. (2004). Special education teacher retention and attrition: A critical analysis of the research literature. *The Journal of Special Education*, 38, 39-55.
- Billingsley, B. S. (2005). A leader's framework for supporting new special educators. *Journal of Special Education Leadership*, 18(2), 3-7.
- Billingsley, B. S. (2007). Recognizing and supporting the critical roles of teachers in special education leadership. *Exceptionality*, 15(3), 163-176.
- Billingsley, B., Carlson, E., & Klein, S. (2004). The working conditions and induction support of early career special educators. *Exceptional Children*, 70(3), 333-347.
- Blumenthal, S., Lavender, T., & Hewson, S. (1998). Role clarity, perception of the organization and burnout amongst support workers in residential homes for people with intellectual disability: A comparison between a National Health Service trust and a charitable company. *Journal of Intellectual Disability Research*, 42, 409-417.
- Boe, E., & Cook, L. (2007). National trends in the sources of supply of teachers in special education and general education. *Teacher Education and Special Education*, 30, 217-232.
- Bozonelos, J. (2008). Retention in special education: Reducing attrition through supportive administrative interventions. *International Journal of Learning*, 15(1), 149-157.
- Center, D. B., & Steventon, C. (2001). The EBD Teacher Stressors Questionnaire. *Education and Treatment of Children*, 24(3), 323-35.
- Clark, E. (1980). *An analysis of occupational stress factors as perceived by public teachers*. Unpublished doctoral dissertation, Auburn University, Alabama.
- Clausen, K. W. & Petruka, D. R. (2009). Tending the garden: Case studies in school stress. *The Clearing House*, 28, 187-191.
- Darling-Hammond L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership* 60(8), 6-13.
- Devereux, J. M., Hastings, R. P., Noone, S. J., Firth, A., & Totsika, V. (2009). Social support and coping as mediators or moderators of the impact of work stressors on burnout in intellectual disability support staff. *Research in Developmental Disabilities*, 30, 367-377.
- Embich, J. L. (2001). The relationship of secondary special education teachers' roles and factors that lead to professional burnout. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 24(1), 58-69.
- Geving, A. M. (2007). Identifying the types of student and teacher behaviors associated with teacher stress. *Teaching and Teacher Education: An International Journal of Research and Studies*, 23(5), 624-640.
- Gersten, R., Keating, T., Yovanoff, P., & Harniss, M. K. (2001). Working in special education: Factors that enhance special educators' intent to stay. *Exceptional children*, 67(4), 549-567.
- Hastings, R. P. (2002). Do challenging behaviors affect staff psychological well-being? Issues of causality and mechanism. *American Journal on Mental Retardation*, 107, 455-467.
- Hatton C., Rose, J., & Rose, D. (2004) Researching staff. In Emerson E, Hatton C, Thompson T and Parmenter T (eds.) *International Handbook of Research Methods in Intellectual Disabilities* (pp. 581-605). Chichester: Wiley.
- Hatton, C., Emerson, E., Rivers, M., Mason, H., Mason, L., Swarbrick, R., & Alborz, A. (1999). Factors associated with staff stress and work satisfaction in services for people with intellectual disability. *Journal of Intellectual Disability Research*, 43(4), 253-267.
- Hensel, J. M., Lunskey, Y., & Dewa, C. S. (2012). Exposure to client aggression and burnout among community staff who support adults with intellectual disabilities in Ontario, Canada. *Journal of Intellectual Disability Research*, 56(9), 910-915.

- Janssen, N., & Nijhuis, F. J. N. (2004). Associations between positive changes in perceived work characteristics and changes in fatigue. *Journal of Occupational and Environmental Medicine*, 46, 866–875.
- Kaff, M. S. (2004). Multitasking is multitaxing: Why special educators are leaving the field. *Preventing School Failure*, 48(2), 10-17.
- Karasek R. & Theorell T. (1990) *Healthy work. Stress, Productivity and the Reconstruction of Working Life*. Basic Books, United States of America.
- Kaufhold, J. A., Alvarez, V. G., & Arnold, M. (2006). Lack of School Supplies, Materials and Resources as an Elementary Cause of Frustration and Burnout in South Texas Special Education Teachers. *Journal of Instructional Psychology*, 33(3).
- Kilgore, K. L. and Griffin, C. C. (1998). Beginning Special Educators: Problems of Practice and Influence of School Context. *Teacher Education and Special Education*, 21, 155–173.
- Klinger, J., & Vaughn, S. (2002). The changing roles and responsibilities of an LD specialist. *Learning Disability Quarterly*, 25, 19 – 31.
- Ko, C., Lunsy, Y., Hensel, J., & Dewa, C. S. (2012). Burnout Among Summer Camp Staff Supporting People with Intellectual Disability and Aggression. *Intellectual and developmental disabilities*, 50(6), 479-485.
- Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77(1), 229–243.
- Kokkinos C. M., Panayiotou G., & Davazoglou, A. M. (2005). Correlates of teacher appraisals of student behaviors. *Psychology in the Schools*, 42, 79-89.
- Kowalski, C., Driller, E., Ernstmann, N., Alich, S., Karbach, U., Ommen, O., Schulz-Nieswandt, F. & Pfaff, H. (2010). Associations between emotional exhaustion, social capital, workload, and latitude in decision-making among professionals working with people with disabilities. *Research in developmental disabilities*, 31(2), 470-479.
- Kucuksuleymanoglu, R. (2011). Burnout Syndrome Levels of Teachers in Special Education Schools in Turkey. *International Journal of Special Education*, 26(1), 53-63.
- Lazarus R. S. & Folkman S. (1984). *Stress, Coping and Adaptation*. Springer, New York.
- Lakin, B. L., Leon, S. C., & Miller, S. A. (2008). Predictors of burnout in children's residential treatment center staff. *Residential Treatment for Children and Youth*, 25(3), 249-270.
- Lecavalier, L., Leone, S., & Wiltz, J. (2006). The impact of behavior problems on caregiver stress in young people with autism spectrum disorders. *Journal of Intellectual Disability Research*, 50, 172-183.
- Leiter, M. P., & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. In P. L. Perrewe & D. C. Ganster (Eds.), *Research in occupational stress and well-being: Vol. 3. Emotional and physiological processes and positive intervention strategies* (pp. 91-134). Oxford, UK: JAI Press/Elsevier.
- Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior*, 2, 99-113.
- Maslach, C. & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology*, 93, 498–512.
- Maslach, C., Jackson, S., & Leiter, M. (1996). *Maslach burnout inventory manual*. (3rd Ed.). Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
- Mearns, J., & Cain, J. E. (2003). Relationships between teachers' occupational stress and their burnout and distress: Roles of coping and negative mood regulation expectancies. *Anxiety, Stress and Coping*, 16, 71–82.
- Mehrenberg, R. L. (2009). *An Investigation of the Effects of Paperwork Demands on the Morale of First Year Special Education Teachers: Does "Red Tape" Overwhelm Green Teachers?* (Unpublished Doctoral dissertation, George Mason University, Virginia).
- Mitchell, G.; & Hastings, R.P. (2001). Coping, burnout, and emotion in staff working in community services for people with challenging behaviors. *American Journal on Mental Retardation*. 106, (5) 448-459.
- Montero-Marín, J. & García-Campayo, J. (2010). A newer and broader definition of burnout: Validation of the. *BMC Public Health*, 10(1), 302.
- Motti-Stefanidi, F. (2000). Burnout among specialized personnel of school units for individuals with special needs and of group members employed in medical-educational centers]. In A. Klantzi-Azizi & I. Bezevegis (Eds.), *[Themes regarding further education and sensitization of staff employed in psychological health centers for children and adolescents]* (pp. 95–103). Greece.

- Mukundan, J., & Ahour, T. (2011). Burnout among female teachers in Malaysia. *Journal of International Education Research (JIER)*, 7(3), 25-38.
- Olivarez, M., & Arnold, M. (2006). Personal and demographic characteristics of retained teachers of special education. *Education*, 126(4), 702-710.
- Pines, A. M. (2000). Treating career burnout: A psychodynamic existential perspective. *Journal of Clinical Psychology*, 56(5), 633-642.
- Pines, A., & Yanai, O. (2001). Unconscious determinants of career choice and burnout: Theoretical model and counseling strategy. *Journal of Employment Counseling*, 38(4), 170-184.
- Platisdou, M. & Agaliotis, I. (2008). Burnout, job satisfaction and instructional assignment-related sources of stress in Greek special education teachers. *International Journal of Disability, Development and Education*, 55(1), 61-76.
- Robertson J., Hatton C., Felce D., Meek A., Carr D., Knapp M., Hallam A., Emerson E., Pinkey L., Caesar E. & Lowe K. (2005) Staff stress and morale in community based settings for people with intellectual disabilities and challenging behaviour: a brief report. *Journal of Applied Research in Intellectual Disabilities* 18, 271-277.
- Rose, J. (1995) Stress and residential staff: towards an integration of existing research. *Mental Handicap Research*, 8, 220-236.
- Rose, D., Horne S., Rose J. L. & Hastings R. P. (2004) Negative emotional reactions to challenging behaviour and staff burnout: two replication studies. *Journal of Applied Research in Intellectual Disabilities*, 17, 219-223.
- Sale, J. E., & Kerr, M. S. (2002). The psychometric properties of Karasek's demand and control scales within a single sector: data from a large teaching hospital. *International archives of occupational and environmental health*, 75(3), 145-152.
- Sari, H. (2004). An analysis of burnout and job satisfaction among Turkish special school head teachers and teachers, and the factors effecting their burnout and job satisfaction. *Educational Studies*, 30, 291-306.
- Schlichte, J., Yssel, N., & Merbler, J. (2005). Pathways to burnout: Case studies in teacher isolation and alienation. *Preventing School Failure: Alternative Education for Children and Youth*, 50(1), 35-40.
- Seaward, B. (2008). *Managing Stress: Principles and Strategies for Health and Well-Being-BOOK ALONE*. Jones & Bartlett Publishers.
- Skirrow, P. and Hatton, C. (2007). Burnout amongst direct care workers in services for adults with intellectual disabilities: a systematic review of research findings and initial normative data. *Journal of Intellectual and Developmental Disability*, 20, 131-144.
- Spielberger C. D., Vagg P. R. & Wasala C. F. (2001) Health psychology and work stress: a more positive approach. In: *Handbook of Occupational Psychology* (eds. L. E. Tetrick & J. C. Quick), pp. 185-200. American Psychological Association, Washington.
- Stephens, T. L., & Fish, W. W. (2010). Motivational factors toward pursuing a career in special education. *Education*, 130(4), 581-594.
- Vannest, K. J., & Parker, R. I. (2010). Measuring time: The stability of special education teacher time use. *The Journal of Special Education*, 44(2), 94-106.
- Vassos, M. V., & Nankervis, K. L. (2012). Investigating the importance of various individual, interpersonal, organisational and demographic variables when predicting job burnout in disability support workers. *Research in developmental disabilities*, 33(6), 1780-1791.
- White C., Holland E., Marsland D. & Oakes P. (2003) The identification of environment and cultures that promote the abuse of people with intellectual disabilities: a review of the literature. *Journal of Applied Research in Intellectual Disabilities* 16, 1-9.
- Yoon J. S. (2008). Teacher characteristics as predictors of teacher-student relationships: Stress, negative affect, and self-efficacy. *Social Behavior and Personality*, 30, 485-494.
- Zabel, R.H., & Zabel, M. K. (2001). Revisiting burnout among special education teachers: Do age, experience, and preparation still matter? *Teacher Education and Special Education*, 24 (2), 128-139.
- Zembylas, M., & Papanastasiou, E.C. (2005). Modeling teacher empowerment: The role of job satisfaction. *Educational Research & Evaluation*, 11, 433-459.

DEVELOPMENT OF A SCALE FOR MEASURING PARENTAL SATISFACTION WITH SERVICES AVAILABLE FOR DISABLED CHILDREN IN JORDAN

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Undoubtedly, parents of children with disabilities are better knowing than anyone else about their children's development and progress. Therefore, considering their perspectives on the services may lead to enhancing service delivery to their disabled children. In this paper, we described the procedure of developing an instrument for measuring parental satisfaction with the services that disabled children and their parents received. The scale developed in the current study consists of five dimensions: Medical care services, accessing to services, special education institutions, parental involvement, and available support. The scale items construct was based on three resources: Reviewing literature, semi-structured interviews, and asking professionals. The results show that the validity and reliability of the scale are satisfactory.

Introduction and Background

Recently, seeking users satisfaction of a service was increased as this investigation may contribute to enhancing the services. However, in the field of delivering services for disabled children, parental satisfaction is a repeatedly used way to measure the quality of the services and identify many aspects of the services that disabled children receive from public and non-public agencies (Jinnah & Walters, 2008; Ireys & Perry, 1999; Lanners & Mombaerts, 2000; MacNeil, 2007). According to Rodger et al (2008 p.174) *Satisfaction refers to the degree to which parents feel that a service meets their needs and those of their child.*

Parents whose children are diagnosed with a disability are in need for several services and used to contact different professionals in order to meet their child's need. For example, health care services, assessment, education, rehabilitation, accommodation, physiotherapy, speech therapy, physical therapy, and transportation. Considering parents' views on the services available for their disabled children may help professionals to develop their services (Liptak et al., 2006; Rodger et al., 2008). This is because parents could be the optimal source of information related to services' outcomes (Jones & Swain, 2001; Gerkensmeyer & Austin, 2005). Parents' opinion on the services may also encourage parents to be involved in service delivery (Bailey et al., 2004b; Laws & Millward, 2001; Liptak et al., 2006; MacNeil 2007; Pelchat et al., 2004). Further, if parents appear to be satisfied with the services, this may evidence the value of such services which accordingly may boost the funding promoted by audience, stakeholders and policy makers (Summer et al., 2005).

The Constitution of Satisfaction with Disability Services

Taking stock of parental satisfaction with the services provided for children with disabilities is a critical issue since the literature identified several overlapped factors that contribute to the demonstration of parents being contented with the received services. Much of research dealt with parental support as a corner stone when the satisfaction is being assessed. This support could be financial, social, informative, and emotional (Crawford & Simonoff, 2003; Park & Turnbull, 2001; Summers et al., 2005a; Summers et al., 2005b; Whitaker; 2007)

Parental involvement is one of the main components of the satisfaction (Bailey et al., 2004b; Jinnah & Walters; 2008; Laws & Millward, 2001). For example, when parents take part in educating their disabled child, this may increased their satisfaction with the services. This is highly connected with family-centred approach in delivering services to children with disabilities and their parents where the family can be an important member and play an active role in the service delivery team (Bailey et al., 2005; Carpenter, 2007; Guralnick, 2005).

Consequently, researchers have argued that the communication skills that service providers have and their interaction way with the parents affect on such involvement and influence the satisfaction with the services (Dunst, 2002; Hart et al., 2007; McConkey, & Hartrop, 2005; Wall, 2003; Whitaker; 2007). Good parent-professional partnerships may pave the way for active involvement and uphold high satisfaction with the services, and vice versa (Crawford & Simonoff, 2003; Dale, 1996; Hess et al., 2006; Graungaard & Skov, 2007; Summers et al., 2005b).

The outcomes experienced are also a significant concern that is taken into account when the services for children with disabilities are being appraised. These outcomes could appear on both parents and their children, for example, Rodger et al (2007) found that the improvement of children's development and parenting stress levels were the main factor influencing mothers' satisfaction with the services delivered to their disabled children. The positive effects that may parents experience is studied further in the literature and utilised as a primary indicators of services' satisfaction (Crabtree, 2007; Checker et al., 2009; Park & Turnbull, 2001; Parsons et al., 2009; Whitaker, 2007).

Further important ingredients of assessing satisfaction with services offered, to children with disabilities and their parents, were discussed in the literature, such as services accessibility, readiness and availability in examining parental satisfaction (Bailey et al., 2004; Grawford & Simonoff, 2003; Parsons, Lewis & Ellins, 2009). The way in which parents can easily access the different available services in their local communities are reported by the respondents in the previous research (Bailey et al., 2004; Lanners & Mombaerts, 2000; Parsons et al., 2009a).

It should be noted that none of the abovementioned research was conducted in Jordan where different social characteristics are practised; health and educational system are applied. Therefore, the current study attempts to shed the light on the satisfaction's components when considering the services available for children with disabilities and their parents in Jordan.

Jordan is a small country land, hearted the Middle East. According to Jordanian General Statistics Department (GSD) (2011), 6.2 millions bodies are living in Jordan. The prevalence of disability in Jordan is not clearly recorded, however, the GSD (2010) reports that % 2 of the total population is disabled. In Jordan, services for children with disabilities are delivered by many different institutions including most serving ministries, the Higher Council for the Affairs of Persons with Disability, private and voluntary sector (Hyassat, 2013).

Measuring Parental Satisfaction

A growing body of research has employed parental satisfaction to measure the successfulness and effectiveness of the services that delivered to children with disabilities and their parents. While some researchers have tried to demonstrate the satisfaction utilising qualitative approach, others employed quantitative methods, and others include both ways in order to assess parental satisfaction with disability services.

In most previous studies, a 5-point Likert scale was utilised to construct and develop instruments to quantitatively measure satisfaction in different places around the world. Ireys & Perry (1999) described the development and evaluation of the Multidimensional Assessment of Parental Satisfaction (MAPS) for children with special needs in Washington DC. They aimed to develop a scale to measure satisfaction with care which was presenting to special needs children. The (MAPS) was used in a later research conducted by Liptak et al (2006). A part of a study conducted by Lanners & Mombaerts (2000) aimed to evaluate parents' satisfaction with early intervention programmes, in the different European countries. They developed a questionnaire (The European Parent Satisfaction Scale EPSS) by employing a group of researchers and professionals according to theoretical concept dimensions. Summers et al (2005b) used the Beach Centre Family-Professional Partnership Scale to appraise the satisfaction of parents of disabled children with special education services in the USA. Knoche et al (2006) surveyed American parents to rate their satisfaction with the child care provided to their children with and without disabilities.

Whitaker (2007) examines the satisfaction of parents whose children received special education provisions in Northamptonshire in England by administer a postal questionnaire. Parsons et al's (2009) study investigates the satisfaction of parents and carers of disabled children with educational provision in England, Wales and Scotland. Data were collected from a survey completed by the parents.

Several studies have assessed the satisfaction with the services delivered to disabled children qualitatively. For example, King et al (2001) conducted a study to examine parental satisfaction. They asked, two groups of parents of children with special needs, to describe 'what they liked best and least about the services provided for their child' (p.115). Park and Turnbull (2001) interviewed -via telephone-eight Korean parents of children with special needs to explore their satisfaction with special education system in the USA. Crabtree (2007) interviewed 15 Arabic Muslim mothers of disabled children in the United Arab Emirates to discover their satisfaction with the special education services.

Further research attempt to investigate parental satisfaction with the services provided to disabled children by utilising both approach quantitative and qualitative. In some instances, open-ended questions were included to the instruments. Rodger et al's (2008) exploratory case study investigates the factors that influence parental satisfaction with early intervention programmes. The researchers recruited two mothers who had children with ASD and were identified as reporting low levels of satisfaction. Several questionnaires and semi-structured interviews were administered.

There are many instruments that were developed to measure parental satisfaction with services delivered to disabled children but these may be not valid measure in Jordan where the time, culture, country, and social context are different (Boynton & Greenhalgh, 2004). Thus, none of instrument used in the reviewed literature can be used as a global tool to measure parental satisfaction as most items within these scales are too specific to a particular services system and some only developed based on the literature. On the other hand, some of the parental satisfaction's components of the services were overlooked when researcher construct their scales. Furthermore, issues related to testing the psychometric properties (validity and reliability) of the parental satisfaction scale were not explained clearly in some previous studies.

Methodology

The process of scale development was gone through several procedures undertaking mixed methodological approach, a qualitative to develop the scale contents and a quantitative to assess the psychometric properties. Utilising mixed methods in social research science can help in counteracting the weakness in both quantitative and qualitative research (Dawson, 2007).

For generating the scale items, we utilised three techniques: Reviewing the literature, conducting interviews, and asking professionals. Bryman (2004) and Boynton and Greenhalgh (2004) suggest that construction a scale can be facilitated by qualitative data. Therefore, after meeting the ethical requirements, the first author conducted a series of semi-structured interviews with parents of children with disabilities. The open-ended questions that were asked during the interviews were derived from reviewing the relevant literature, Table (1) shows examples of the questions asked during the interview. We also relied on the professionals in the field to construct the items. Five professionals, who were working in delivering disability services field, were asked the question *what does make a parent satisfied with the services provided for his or her disabled child?*

Table (1). Examples of the Interview Questions

• How did the medical care staff tell you about your child problem, and how did they treat you? • Can you remember your thoughts about the diagnosis you received? • Were you satisfied with the work medical care staff did? Why? • How did you hear about the special education services? • What do you think of accessing the special education services in Jordan? • How did you rate the support that you received from different resources? • What do you think of the place where your child received the services? • What are the strengths and weaknesses in the programme which is presented to your child? • Have you taken part in educating your child?
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Thematic analysis techniques were used, as described by Braun and Clarke (2006), to examine the data collected from the interviews and the professionals' responses. This process identified a long list of

categories which then collated under five overarching themes, and these themes served as dimensions of the scale. Coding process conducted by the three authors and was informed by the relevant literature. Iterative rounds of categorisation were conducted until consensus among the coders was achieved. We present a brief description of each theme as follow:

Medical Care Services

This theme refers to parental satisfaction with the medical care services that are available in their local communities, and their perspectives of the way that they and their disabled children are treated at hospitals and general practices (GPs). This includes all the times that parents try to contact the health care professionals starting from the suspicious of a disability and passing through the diagnostic process.

Accessing to Services

This theme looks at how the services can be accessed, pointing out the eases and challenges of applying for the services, and dealing with the staff who work at the agencies involved in facilitating the services.

Special Education Institutions

This theme measures parental satisfaction with schools and centres that provide educational and related services for their disabled children. This consists of their perspectives on the school's environment and staff's abilities to treat and instruct the disabled children.

Parental Involvement

This theme describes the extent that the parents participate in educating their disabled children and the activities that the parents have taken part in.

Available Support

This theme assessed the satisfaction with available support that is offered either by formal or informal bodies. Support could be informatics, financial, emotional, and or social.

From the three abovementioned sources (empirical literature in the field, interviews data, and professional's responses) we arrived at a set of proposed items that clearly represent the construct of parental satisfaction with the services for disabled children. The items were formatted into statements (for the first three dimensions) and questions (for the other dimensions). At that stage we identified 50 items, table (2) shows examples of the scale items. We tried to keep the scale as short as possible and directly related to the concept of parental satisfaction. We also tried to keep the words number of each item is not long (Dawson, 2007; Boynton & Greenhalgh, 2004). This would encourage the potential participants to complete the scale and obtain high response rate (Dawson, 2007; Worthington & Whittaker, 2006).

Table 2. Example of the Scale Items

Dimension	Examples of related items
Medical care services	• The doctor gave me sufficient information about my child case before leaving the hospital • The doctor provided us sufficient information about the available services for my child
Accessing to services	• It was easy to have accurate assessment for children with disabilities in Jordan • It was easy to access special education services in Jordan
Special education institutions	• My child receives appropriate programme in the special education institution • My child's teachers understand his or her needs
Parental involvement	• How often do you take part in constructing the educational objects for your child? • How often do you call your child's teacher?
Available support	• How often do you receive social care and family support services? • How often do you receive financial assistance services?

A further revision revealed a drafted instrument and was initially called Parental Satisfaction with Disability Services Scale (PSDS). This scale consisted of three parts: the PSDS starts with a cover page entitled with the scale name, and presents introductory information about aims and dealing with the

scale. The second part requires demographic data about the potential participant and his or her disabled child, which includes age, educational level, family size, monthly income, and the child's disability type. The third part comprises a self reported questionnaire containing 50 items and parents are required to rate their feeling utilising a five-point Likert scale. Two types of scaling responses were used. For the first three dimensions, we used: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. For the last two subscales, we used: never, rarely, sometimes, often, and always.

It might be worthwhile to mention that the interviews were conducted in Arabic language as well as asking the professionals in the field. Arabic language is the main language in Jordan, so both parents and professionals could express their selves easily. Also, coding process was carried out in Arabic as translation the data collected was unfeasible. Additionally, the samples of items shown in table (2) were made in English language for the purpose of this article, but the original version of the PSDS will be administered in Arabic in the later research.

Results and Discussion

Content validity was established in the development procedure (Muijs, 2004). The initial scale items of PSDS were sent to 10 arbiters, who were experts in special education, psychological measurement and evaluation, to assess content validity. The referees were asked to provide a rating of item relevance to each of the five scale's dimensions, selection of the words, the appropriateness of scale dimensions, items order and flow, items clarity, typos and grammatical issue. The experts were allowed to suggest adding or deleting items. Following discussion and agreement with the experts, the PSDS was ultimately become 45 items and approved.

Our reviewing of the literature suggested that the concept of parental satisfaction is multidimensional construct. Different factors constituted the satisfaction with the services provided to children with disabilities, this informed by our analysis of the qualitative data collected. We kept this in our mind when first established the PSDS. Therefore, five subscales (medical care services, accessing to services, special education institutions, parental involvement, and available support) formed the overall satisfaction with the services as shown in figure (1). Under each subscale a number of items were issued. Hence, as just mentioned above, the referees were asked to see whether each item measured the subscale it was supposed to measure to look at construct validity.

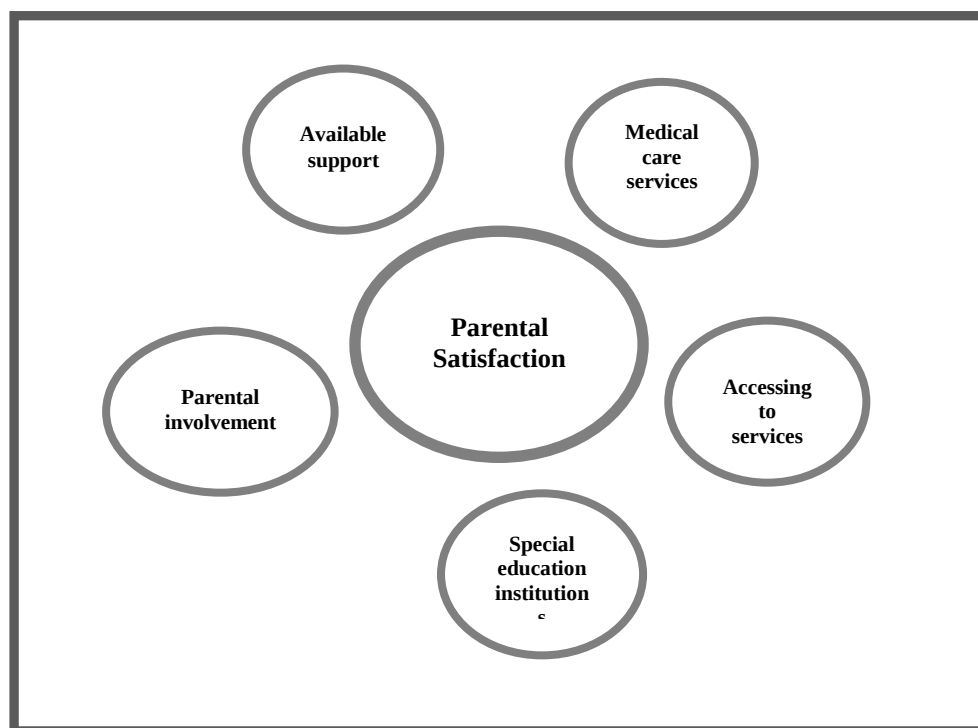


Figure 1. The Constitution of PSDS

The PSDS targets parents who have a child diagnosed with a disability. For piloting purposes, 53 parents were recruited by contacting several special education programs in Jordan. The PSDS had been sent to

them and 50 completed scales returned. Data collected from the completed PSDS were entered and analysed using version 16.0 of the Statistical Packages for Social Sciences (SPSS) software. Pearson's Correlation Coefficient was used to test the internal consistency of the PSDS items. The relationship between the score on each single item and the total score was statistically significant (table 3) except five items (5, 9, 11, 24, 45), therefore, those five items were removed from the PSDS.

Table 3. Shows the Correlation Between Each Item and the Total Score.

Item No.	Item correlation with total score	Item No.	Item correlation with total score
1	*0.56	24	0.15
2	*0.45	25	*0.50
3	*0.25	26	*0.45
4	*0.34	27	*0.47
5	0.09	28	*0.46
6	*0.32	29	*0.60
7	*0.50	30	*0.45
8	*0.50	31	*0.50
9	0.14	32	*0.45
10	*0.50	33	*0.62
11	0.15	34	*0.40
12	*0.51	35	*0.61
13	*0.60	36	*0.45
14	*0.54	37	*0.51
15	*0.60	38	*0.45
16	*0.51	39	*0.57
17	*0.62	40	*0.44
18	*0.45	41	*0.60
19	*0.67	42	*0.40
20	*0.47	43	*0.37
21	*0.61	44	*0.40
22	*0.46	45	0.20
23	*0.52		

* The correlation is statistically significant

Several ways to ensure the reliability of PSDS were sought. First, the split-half reliability was applied (Muijs, 2004); we test the correlation coefficient between the odd and even items of the PSDS corrected by Spearman Brown equation. Result indicates that reliability coefficient after being adjusted is (0.83), and this deemed a sufficient evidence for considering the PSDS as reliable measure.

Test-Retest Reliability was the second way of examining PSDS's reliability (Muijs, 2004). Fifteen copies of PSDS were completed by parents whose children identified as disabled. After two weeks later, the same respondents filled in the PSDS again. We looked at how strong the relationship is between the scores on the scale at the two time points. To test this, we statistically used Person correlation (0.87).

To ensure more reliability indicators, we tested the relationship between the score on each dimension and the total score of the scale. As shown in table (4), the reliability coefficients for sub-scales ranged between (0.65-0.89) which was considered suitable for reliability of the scale dimensions. Consequently, we estimated Chronbach alpha which was (0.80) and this was reasonable for the purposes of the PSDS.

Table 4. Shows Reliability Score for Each Sub-scale

Dimension	Reliability score	Number of items
Medical care services	0.65	9
Accessing to services	0.88	8
Special education institutions	0.84	10
Parental involvement	0.89	8
Available support	0.72	5

We believe that the results of testing validity and reliability of the PSDS are satisfactory for using such a scale to measure satisfaction of the disability services in Jordan. The PSDS was shown to have good content and construct validity as well as acceptable split-half, test-retest reliability, and internal consistency.

Conclusion

The primary aim of the current study was to develop a valid and reliable instrument for use by professionals and researcher to measure parental satisfaction with the services offered for disabled children and their parents in Jordan. This has involved a variety of activities; we reviewed the relevant literature, conducted semi-structured interviews, asked working professionals, consulted experts, and statistically tested the scale. We have shown above the procedure of developing the PSDS.

Content and construct validity were evidenced in the PSDS. Correlation coefficients were used to evaluate the stability of the scale and it was concluded that the scale demonstrated good split-half, and test-retest reliability. Piloting the scale suggests that it is easy to administer tool and understandable, so it is expected to have high response rate.

References

- Bailey, D. B., Hebbeler, K., Spiker, D., Scarborough, A., Mallik, S. (2004) First experiences with early intervention: a national perspective. *Pediatrics*, 113(4), pp. 887-896.
- Bailey, D. B., Hebbeler, K., Spiker, D., Scarborough, A., Mallik, S., Nelson, L. (2005) Thirty-six-month outcomes for families of children who have disabilities and participated in early intervention. *Pediatrics* 116(6), pp. 1346-1352.
- Boynton PM, Greenhalgh T. (2004) Hands-on guide to questionnaire research: Selecting, designing, and developing your questionnaire. *BMJ: British Medical Journal*, 328(7451), 1312.
- Braun, V. and Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp. 77-101.
- Bryman, A. (2004) *Quantity and Quality in Social Research*. 2nd ed. London and New York: Taylor & Francis.
- Carpenter, B. (2007) The impetus for family centred early childhood intervention. *Child: Care, Health and Development*, 33(6), pp. 664-669.
- Checker, L. J., Remine, M. D., Brown, P. M. (2009) Deaf and hearing impaired children in regional and rural areas: Parent views on educational services. *Deafness & Education International*, 11(1) pp. 21-38.
- Crabtree, S. A. (2007) 'Family responses to the social inclusion of children with developmental disabilities in the United Arab Emirates. *Disability & Society*, 22(1), pp. 49-62.
- Crawford, T. and Simonoff, E. (2003) Parental views about services for children attending schools for the emotionally and behaviourally disturbed (EBD): a qualitative analysis. *Child: Care, Health and Development*, 29 (6), pp. 481-491.
- Dale, N. (1996) *Working with families of children with special needs: Partnership and practice*. London: Routledge
- Dawson, C. (2007) *Practical research methods: a user-friendly guide to mastering research techniques and projects*. How To Books Ltd.
- Dunst, C. J. (2002) Family-Centred Practices: Birth through High School. *Journal of Special Education*, 36(3), pp. 139-147.
- General Statistics Department (GSD) (2010). 'The actual of disability in Jordan', Government report. Amman.Jordan.Availableat:http://www.dos.gov.jo/dos_home_a/main/Analasis_Reports/emp/Disability.pdf (Accessed: 24 April 2013).
- General Statistics Department (GSD) (2011) *Estimated Population of the Kingdom by Sex and Age Group, at End-year 2011*. Government report. Amman. Jordan. Available at: http://www.dos.gov.jo/dos_home_a/main/2004/2011/2-5.pdf (Accessed: 24 April 2013).
- Gerkenmeyer JE, Austin JK. (2005) Development and testing of a scale measuring parent satisfaction with staff interactions. *Journal of Behavioral Health Sciences & Research*. 32(1):61-73.
- Graungaard, A. H. and Skov, L. (2007) Why do we need a diagnosis? A qualitative study of parents' experiences, coping and needs, when the newborn child is severely disabled. *Child: Care, Health and Development*, 33(3), pp. 296-307.
- Guralnick, M. J. (2005) Early Intervention for Children with Intellectual Disabilities: Current Knowledge and Future Prospects. *Journal of Applied Research in Intellectual Disabilities*, 18(4), pp. 313-324.
- Hart, Chantelle Nobile, et al. (2007) Parent-provider communication and parental satisfaction with care of children with psychosocial problems. *Patient education and counseling*, 68(2) 179-185.

- Hess, R. Molina, A., Kozleski, E. (2006) Until somebody hears me: parent voice and advocacy in special educational decision making. *British Journal of Special Education*, 33(3), pp. 148-157.
- Hyassat, M. (2013) *Jordanian Parents of Young Children with Disabilities Perspectives on Care, Coping and Service Provision*. Scholars' Press.
- Ireys, H. T. and J. J. Perry (1999). Development and evaluation of a satisfaction scale for parents of children with special health care needs. *Pediatrics*, 104(5): 1182-1191.
- Jinnah, H. A. and Walters, L. H. (2008) Including parents in evaluation of a child development program: Relevance of parental involvement. *Early Childhood Research & Practice*, 10(1), pp. 1-13.
- Jones, P. and Swain, J. (2001) Parents reviewing annual reviews. *British Journal of Special Education*, 28(2), pp. 60-64.
- King, G., Cathers, T., King, S., Rosenbaum, P. (2001) Major elements of parents' satisfaction and dissatisfaction with pediatric rehabilitation services. *Children's Health Care*, 30(2), pp. 111-134.
- Knoche, L., Peterson, C. A., Edwards, C. P., & Jeon, H. (2006). Child care for children with and without disabilities: The provider, observer, and parent perspectives. *Early Childhood Research Quarterly*, 21, 93-109.
- Lanners, R. and D. Mombaerts (2000). Evaluation of Parents' Satisfaction with Early Intervention Services within and among European Countries: Construction and Application of a New Parent Satisfaction Scale. *Infants & Young Children* 12(3): 61-70.
- Laws, G., and Millward, L. (2001) Predicting parents' satisfaction with the education of their child with Down's syndrome. *Educational Research*, 43(2), pp. 209-226.
- Liptak, G. S., M. Orlando, et al. (2006) Satisfaction With Primary Health Care Received by Families of Children With Developmental Disabilities. *Journal of Pediatric Health Care*, 20(4): 245-252.
- MacNeil, J. R., Liu, C. L., Stone, S., & Farrell, J. (2007). Evaluating families' satisfaction with early hearing detection and intervention services in Massachusetts. *American Journal of Audiology*, 16(1), 29.
- Muijs, D. 2004. *Doing quantitative research in Education with SPSS*. London: Sage Publications.
- O'Connor, Una, Roy McConkey, and Brendan Hartop. (2005) Parental views on the statutory assessment and educational planning for children with special educational needs. *European Journal of Special Needs Education* 20 (3) 251-269.
- Park, J. and Turnbull, A. P. (2001) Cross-cultural competency and special education: Perceptions and experiences of Korean parents of children with special needs. *Education and Training in Mental Retardation and Developmental Disabilities*, 36(2), pp. 133-147.
- Parsons, S., Lewis, A., Davison, I., Ellins, J., Robertson, C. (2009) Satisfaction with educational provision for children with SEN or disabilities: A national postal survey of the views of parents in Great Britain. *Educational Review*, 61(1), pp. 19-47.
- Patton, Angela Havard. *Parental Understanding and Satisfaction with Special Education Services in the State of Texas*. Denton, Texas. UNT Digital Library. <http://digital.library.unt.edu/ark:/67531/metadc4946/>. Accessed August 20, 2013
- Pelchat, D., Lefebvre, H., Perreault, M. (2004) Differences and similarities between mother satisfaction and father satisfaction experiences of parenting a child with a disability. *Journal of Child Health Care*, 7(4), pp. 231-247.
- Rodger, S., Keen, D., Braithwaite, M., Cook, S. (2008) Mothers' satisfaction with a home based early intervention programme for children with ASD. *Journal of Applied Research in Intellectual Disabilities*, 21(2), pp. 174-182.
- Rogers, C. (2007) Disabling a family? Emotional dilemmas experienced in becoming a parent of a child with learning disabilities. *British Journal of Special Education*, 34(3), pp. 136-143.
- Summers, J. A., Hoffman, L., Marquis, J., Turnbull, A. P., Poston, D., Nelson, L. L. (2005a) Measuring the quality of family-professional partnerships in special education services. *Exceptional Children*, 72(1), pp. 65-81.
- Summers, J. A., Hoffman, L., Marquis, J., Turnbull, A., Poston, D. (2005) Relationship Between Parent Satisfaction Regarding Partnerships With Professionals and Age of Child. *Topics in Early Childhood Special Education*, 25(1), pp. 48-58.
- Wall, K. (2003) *Special Needs and Early Years: A practitioner's guide*. London: Paul Chapman Publishing.
- Whitaker, P. (2007) Provision for youngsters with autistic spectrum disorders in mainstream schools: what parents say—and what parents want. *British Journal of Special Education*, 34(3), pp. 170-178.
- Worthington, R. L. & Whittaker, T. A. (2006). Scale development research: A content analysis and recommendations for best practices. *The Counseling Psychologist*, 34, 806- 838.

EFFECT OF AUDITORY TRAINING ON READING COMPREHENSION OF CHILDREN WITH HEARING IMPAIRMENT IN ENUGU STATE

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The paper focused on the effect of auditory training on reading comprehension of children with hearing impairment in Enugu State. A total of 33 children with conductive, sensory neural and mixed hearing loss were sampled for the study in the two schools for the Deaf in Enugu State. The design employed for the study was a quasi experiment (pre-test and post-test design) with all the subjects exposed to training. The instrument used for data collection was Reading Comprehension Test (RCT) and validated by experts in the education of children with hearing impairment. Two research questions and two hypotheses were formulated to guide the study. Mean and standard deviation were used to answer the research questions while Analysis of covariance (ANCOVA) was used to analyze the hypotheses at 0.05 level of significance. The finding of the study showed that all the children with hearing impairment exposed to reading comprehension through the use of auditory training achieved a measure of reading. Gender does not influence the mean reading achievement of children with hearing impairment. Conclusions and recommendations were also made.

Introduction

It is very discouraging to review literature on reading comprehension achievement of children with hearing impairment (CHI). This is because the results of a number of studies collected vividly explain the devastating effects the above assertion has on children with hearing impairment. The first effect according to Davis and Hardick (1986) in Ugwuanyi (2009) is that the reading levels of these children fall far below the norms for normally hearing children regardless of the age of the subject involved in the studies. The second effect according to the authors is that reading skills in these children slowly increase between ages of 8 and 14 years, there is a leveling off of achievement in the early teens though the minimal growth in reading achievement occurs beyond age of 13 and so on. This is of course, is dictated by the level of language development acquired in the early childhood.

Reading is a linguistic skill that is entirely based on several years of language experience. A normal child performs well in reading tasks as a result of his well developed language skills that were acquired through several years of auditory information with linguistic codes. Reading tasks for such a child is simple and possible because he is able to pair his visual stimuli with his previous language experience acquired through undisturbed auditory system. For a child with hearing impairment, learning to read may be possible through two possible means. That is learning speech or words and formulating signs for words, ideas and concepts contained in the text and reading at the same time. This according to Ugwuanyi and Onu (2011) makes these children's reading very slow and it presents difficulty to the readers who have to either finger spell or sign words or sentences and articulate such words before acquiring information from the text. It is possible that before they (the readers) could get to the end of the text, they may have forgotten not only the signs but the important information contained in the text. This according to Ugwuanyi (2009) makes their comprehension rate to be very slow that result in poor achievement in schools especially language related tasks.

From the foregoing, reading can be perceived as the key to further language development and it is essential to academic success. It is generally believed that the development of good reading skills is dependent on the development of good language skills. The two skills complement each other because under optimal condition both are sequentially learned. Obviously, children with hearing impairment do

not exhibit sufficient knowledge of language to insure a basis for a normal development of reading skills. These children like their normal peers are expected to learn to read without extensive experience with basic psycholinguistic skills and to use reading as a means of increasing linguistic knowledge from childhood. With the above facts in mind, it would be unwise to expect these children to be able to perform well in reading tasks like their peers.

Tye-Murray, Spencer and Woodsworth (1995) reported the reading comprehension achievement scores of 29 children with hearing impairment. The findings of the study revealed a depressing performance in reading. In another study conducted by Hassahan and Kauffman (1997) in which they compared the reading comprehension of 15 hard of hearing and 15 with severe to profound hearing loss, the study reported a reduced reading performance. Kirk reported in Abang (2005) that the language development of 26 children in America with cochlear implant were from 2 months to 5 years retarded in speech and language. More recent estimates of reading comprehension achievement are reported by Ugwuanyi (2009) for 35 children with hearing impairment in Enugu State Nigeria. The author reported that the reading comprehension achievements of these were below frustration levels. Ugwuanyi and Onu (2011) reported for 40 pupils with hearing loss on reading comprehension achievement using American and local sign language models in Enugu State – Nigeria, revealed poor performance especially for those exposed to American sign language mode. Ugwuanyi, Onu, Eskay, Obiyo and Igbo (2012) reported the effect of remedial reading instruction on word recognition for inclusive education in Nigeria for 20 pupils with reading disability in Nsukka, Enugu State. Their data revealed mean difference in remedial reading instruction on word recognition.

Depressing as these findings are, there is clear evidence that reading comprehension achievement test scores overestimate the actual psycholinguistic functioning level of CHI. Children with hearing impairment are those in which the sense of hearing is defective that makes the awareness of sound impossible to hear. Their inability to hear sound well enough affect their reading ability. There is no doubt that the social and personality of these children would also be affected. It must be emphasized that reading is the basis of all academic subjects within the educational setting and as such constitutes the fulcrum on which academic performance pivot. Yet a large number of children with learning problems especially those with hearing loss are finding it difficult to read resulting in poor achievement in schools.

However, literature evidence advocates that teaching skills such as auditory training facilitates the acquisition, interaction and recalling information and therefore, improves reading comprehension among CHI. Auditory Training (AT) means teaching children listening skills. Children with hearing impairment need to develop skills in using auditory information to acquire language. Apart from reading, these children need to learn to use auditory skills to be able to perform a variety of functions such as safety travels, reaching out, identifying people, as well as communication. Durkel (2013) emphasized that auditory skills development, just like visual skills, requires well-thought-out instruction that is provided regularly and consistently throughout the child's school career. This is because a child requires a unique blend of abilities in the areas of hearing, thinking, visual and communication to enable him do well in his chosen career.

The American Speech – Language – Hearing Association (2005) explains that auditory training uses electronically modified music and language to stimulate the auditory pathways and enhance auditory mental plasticity to assist and enhance auditory processing ability. Devices such as hearing aids or cochlear implant are useful and make auditory training possible, their fitting hearing aids or cochlear implant are quickly followed with auditory training which may require the use of total communication (TC) and other communication techniques to receive language because inserting implant is not enough to learn language. Bellis, (2004) perceives auditory training as teaching the brain to listen by providing auditory stimuli and coaching that help one learn to identify and distinguish among or between sources. The goal of auditory training according to Durkel (2012) is to help a student discriminate sounds in order to gain meaning from the sounds he hears. This implies helping the child to use speech and using speech requires that such child would be able to make very fine discriminations of pitch of each sound, loudness and timing. To be able to do this, the child requires to hear the speech of others well enough to imitate it and hear his own speech well enough to monitor its intelligibility. A child monitors his speech and makes appropriate fine discriminations when he receives appropriate verbal response. We should have this in mind that auditory training is about teaching a child to make appropriate fine and gross discriminations of sounds. A fine discrimination is the ability of the child to distinguish between sounds 'r' like the first sound in 'run' and 'f' in *fun*, *good* and *food*, *sun* and *fun* while gross discrimination of sounds is the ability of the child to recognize absolute quiet from very loud sound as in the car horns, motorcycle horns

honking, and gun shots. Apart from recognizing the above sounds as signaling danger other sounds like knock at the door or door bell ringing, telephone ringing and alarm clock or town cries and morning criers are all have meaning in our world today. Also, the sounds of music, rocking of keys, crying, siren, ticking of wall clock, bouncing a ball and banging are all used in auditory training and these can be tied to real life situation and functional activities for the child anywhere.

Recently, a good number of studies that investigated the efficacy of auditory training on reading comprehension achievement of CHI have been reported. For instance Battin, Young and Buins (2000) examined the clinical files of 15 children diagnosed with central auditory processing disorder and subjected to fast forward (FFW) language. Their findings showed that children's language acquisition increased significantly after training. Tallah (2000) examined 51 children diagnosed with Auditory Processing Disorder (APD) using tests of their choice, revealed significant improvement on standardized language measures after training. Wartz and Hall (2002) reported from four case studies of children aged 8 to 12 with APD. The children exposed to auditory training using FFW. The studies revealed an improved measures of receptive language and phonological awareness but not in expressive languages. Hook, Macaruso and Jones (2001) exposed children who had poor reading skills to FFW, observed some gains in the children. Pokorni, Worthington and Jamison (2004) treated children with reading and language difficulties using FFW, Earobics and the Lindamood Phonemic Sequencing Program (LIPS). The findings showed that the Earobics and Lips groups improved significantly on some phonemic awareness measures whereas the FFW group did not. The problem of this study is that no studies exist that have dealt with the effect of auditory training on reading comprehension of children with hearing impairment in Enugu State in Enugu. The study also sought whether there was difference in the use of AT to acquire language by gender.

To guide the present study properly, two research questions and two hypotheses were raised thus:

1. To what extent do the mean achievement scores in reading comprehension of CHI depend on the use of AT?
2. What is the interaction effect of gender and AT in the mean achievement scores in reading comprehension of CHI?

The two null hypotheses tested at 0.05 level of significance are:

- Ho₁: There is no significant difference in the mean achievement scores in reading comprehension of CHI who were exposed to AT.
- Ho₂: There is no significant interaction effect of gender and treatments on the reading comprehension of CHI as measured by their pre-test and post-test achievement scores on Reading Comprehension Test (RCT).

Method

Design of the Study

This study adopted a quasi experimental design which sought to determine the effect of experimental groups receiving treatment on AT. It is a pre-test and post-test design with all the children exposed to treatment using AT on reading comprehension of CHI.

Area of the Study

The study was conducted in Awgu and Enugu Education Zones of Enugu State. The Awgu and Enugu Education Zones were chosen because two primary schools for deaf are located in the zones.

Population

A total of all 33 children with hearing impairment in primary 5 classes in Enugu State primary school for the deaf. 17 children from primary school for the deaf from Oji (Awgu Zone) and 16 children from primary school for the deaf in Ogbete (Enugu Zone) were brought together for training in Enugu.

Sample and Sampling Technique

The sample for the study were 33 children with hearing impairment in primary 5 classes in the two primary schools for the deaf in Enugu State, 24 of the children were males while 9 were females. In their case files, 11 children had conductive hearing loss, 12 had sensory ineural hearing loss while 10 of them had mixed hearing loss. Because the population size was small and manageable, the entire population was used as the sample.

Procedure

The Ling Six Sounds Test was presented to the respondents voiced in the trainer phrase, say it again. The Ling Six Sounds Test is used purposely to ascertain the children ability to discriminate speech sounds. The six sounds were used because they have both low and high frequency speech. The six sounds used in the study were the sounds of *a* as in *bark*, *u* as in *moon*, *e* as in *we*, *week*, *sh* as in *short*, *shoe*, *s* as in *soon*, *sun*, *suck* and *m* as in *mock*, *mother* and *mom*. 12 words were practiced each day for two weeks. The children were divided into three groups for practice. Each group was given words to practice under the guidance of the researcher and three research assistants. All the words selected for practice were taken from the passages used for the actual reading. All the words were repeated for five times daily and voiced in sequential order by the trainers. The words were voiced in a normal conversational manner in frequencies of 500H₂, 1000H₂ and 2000 H₂. Repeated or say again trials occur until the respondents acknowledge understanding of the words and able to differentiate between sounds of words taught.

The actual teaching of reading comprehension began. The importance of the teaching was to ascertain if the children treated with words from the passages would comprehend texts and solve their reading problems more effectively. The researcher was not involved rather the three research assistants who were regular teachers in each of the two schools used. Before the actual study, a pretest was conducted in which Reading Comprehension Test (RCT) was administered to the subjects in the three groups. After the teaching, a post-test of RCT was administered to the three groups. The teaching was conducted in the classrooms and it was held in evening time.

Method of Analysis

The research questions stated for the study were answered through mean and standard deviation while Analysis of Covariance (ANCOVA) was used to test the hypotheses stated for the study.

Results

Research Question 1

To what extent do the mean achievement scores on reading comprehension of CHI depend on the use of AT?

Table 1. CHI Pre-Test and Post-Test Mean Scores and Standard Deviation on Reading Using AT

Experimental Groups	Pre-test	Post-test	Mean Gain Score
Group 1: Mean	6.35	12.67	5.22
N	11	11	
Standard deviation	2.44	0.78	
Group 2: Mean	6.04	13.70	7.66
N	11	11	
Standard deviation	2.50	2.25	
Groups 3: Mean	6.61	14.74	8.13
N	11	11	
Standard Deviation	2.10	2.61	
Total Mean	5.94	13.31	
N	33	33	
Standard Deviation	2.35	2.35	7.35

Note. N = 33

Table 1 above shows that CHI exposed to AT in group one had a pre-test score of 6.35 with a standard deviation of 2.44 while the post-test mean and standard deviation scores were 12.57 and 0.78. The mean gain between pre-test and post-test was 5.22. For group two, the pre-test mean score was 6.04 and a standard deviation of 2.50. While the post-test mean score was 13.70 and a standard deviation of 2.25, the gain score was 7.66. For group three, the pre-test mean score was 6.61 and a standard deviation of 2.10 while the post-test score was 14.74 and a standard deviation of 2.61. They had a mean gain score of 8.13. The results clearly showed that the three group exposed to reading comprehension through the use of AT had slight mean difference. A corresponding hypothesis to further answer this research question one is:

Ho₁: There was no statistically significant difference in the mean achievement scores on reading comprehension of CHI who were exposed to AT. This implied that all the

CHI exposed to reading through the use of AT achieved a measure of reading comprehension. The hypothesis that there is no statistically significant difference is therefore upheld.

Research Question 2

What is the interaction effect of gender and AT on reading comprehension post-test mean achievement scores of CHI?

Table 2: The Post-Test Mean Scores and Standard Deviation of Male and Female Children in Post-Test Mean Achievement Scores in RCT (Treatment X Gender Level)

Experimental Groups	Mean	Standard Deviation	N
Gender			
Group 1: Male	12.25	1.83	8
Female	11.50	1.29	3
Total	10.67	1.72	11
Group 2: Male	14.38	2.39	8
Female	12.50	1.92	3
Total	13.75	2.34	11
Group 3: Male	16.75	2.23	8
Female	13.79	1.00	3
Total	15.73	2.61	11
Total: Male	13.79	3.44	24
Female	12.27	1.49	9
Total	13.31	3.03	33

Results in Table 2 reveal that male children in group one exposed to AT had a lower post-test mean achievement score of 12.25 and a standard deviation of 1.83 than males with 14.35 and 2.39 in mean achievement score and standard deviation in group two. In group three males with a pretest score of 16.75 and standard deviation of 2.23, a little bit above the other groups for females, 11.50 and 1.29 for post-test mean scores and standard deviation lower than those in the other two groups with 12.50 and 1.92 and 13.00 and 1.00 post-test mean scores and standard deviation respectively.

A corresponding hypothesis to further explain research question two is:

There is no statistically significant interaction effect of gender and treatment on reading comprehension of CHI as measured by their post-test mean achievement score on the Reading Comprehension Test (RCT). The analysis showed there was a significant interaction. Therefore, the hypothesis of no interaction effect was rejected.

Discussion

The result of the study showed that the use of AT has a statistically significant effect on reading comprehension achievement of children with hearing impairment. Each group exposed to reading using AT performed well in reading comprehension. This result is in with some earlier findings on the efficacy of auditory training with respect to reading comprehension by CHI. Studies carried out by Tallah (2000), Battin, Young and Bums (2000), and Durkel (2013) provide empirical supports for the findings of the present study. The study carried out by Tallah (2000) conformed that using AT in reading had significant improvement on children's reading comprehension. This is because according to Battin, Young and Bums (2000) children's language acquisition increased significantly after training. For Durkel (2013) AT enable children discriminate sound in order to gain meaning from what they hear.

The findings of the study further revealed that there was a significant interaction effect of treatment and gender on reading comprehension achievement of CHI. The results of the study confirmed that findings made by Wertz and Hall (2002) who revealed significant improvement on reading comprehension of both genders.

Conclusions

From the results of the study, the following conclusions were drawn:

- (1) Teaching through the use of AT facilitated the reading comprehension achievement of children with hearing impairment.
- (2) AT would enable CHI to achieve better in reading and other related school subjects.
- (3) The interaction effect of gender and treatment on reading comprehension of CHI was significant. This implies that both genders achieved equally in reading comprehension.

Recommendations

Based on the findings of the study, the following recommendations were made.

1. Teachers of CHI should be able to use AT to teach the children reading.
2. Institutions that prepare teachers should incorporate in their course contents or units training in auditory training so as to expose both in-service teachers and regular teachers to this technique necessary for auditory training skills.
3. All the children with hearing impairment should be exposed to AT skills, it would improve their reading abilities significantly. It would also help them in reading and understanding other school subjects without much difficulty.

References

- Abang, T. B. (2005). *The exceptional children: Handbook of special education*. Jos: Fab-Anieh Educational Books.
- American Speech – Language – Hearing Association (2005). Control auditory processing disorders. Accessed from <http://www.asha.org/members/deskref-journals/deskref/DRvo12.htm> on 21/10/14.
- Battin, R. R., Young, M. & Bums, M. (2000). Use of fast forward in remediation of central auditory processing disorders. *Audiology Today*, 12(2), 3–15.
- Bellis, J. J. (2004). Redefining auditory processing disorder: An audiologist's perspective. *The ASHA Leader*, 6, 22–23.
- Davis, J.M & Hardick, E.J. (1986). *Rehabilitative audiology for children and adults*. New York: McMillan.
- Durkel, J. (2013). The importance of auditory training for children who are deaf blind. *Center for Persons with Disabilities*, 10–19.
- Eskay, M., Onu, V. C., Ugwuanyi, L. T. & Eze, M. U. (2012). Effect of training teachers on the use of sign language on the academic performance of children with hearing impairment. *The Exceptional Child*, 14(2), 169–178.
- Hallahan, D. P & Kauffman, M. J. (1997). *Exceptional children: Introduction to special education*. New Jersey: Prentice Hall.
- Hook, P., Macaruso, P. & Jones, S. (2001). Efficacy of fast forward training on facilitating acquisition of reading skills by children with reading difficulties. A longitudinal study. *Annals of Dyslexia*, 51, 75–96.
- Pokorni, J. C., Worthington, C. K. & Jamison, P. J. (2004). Phonological awareness intervention: Comparison of fast forward, Earobics and LIPS. *The Journal of Educational Research*, 97(3), 47–157.
- Tallal, P. (2000). Experimental studies of language learning impairment: From research to remediation. In D.V.M Bishop & L.B. Leonard (Eds). *Speech and language impairment in children; Causes, characteristics, intervention and outcome*. UK: Psychology Press. 131–155.
- Ty-Murray, N., Spencer, L. & Woodsworth, G. (1995). Acquisition of speech by children with prolonged cochlear implants experiment. *Journal of Speech and Hearing Research*, 38(2), 327–337.
- Ugwuanyi, L. T. & Onu, V. C. (2011). Effect of American Sign Language (ASL) and Local Sign Language (LSL) on reading comprehension of pupils with hearing impairment in Enugu. *The Exceptional Child*, 11(1), 1–11.
- Ugwuanyi, L. T. (2009). Effect of three sign language modes on reading comprehension of pupils with hearing impairment in Enugu. Ph.D Thesis submitted to University of Nigeria, Nsukka.
- Ugwuanyi, L. T., Onu, V. C., Eskay, M., Obiyo, N. O. & Igbo, J. (2012). Effect of remedial reading instruction on word recognition problem for inclusive education. *Nigeria Journal of Education and Practice*, 3(14), 110–116.
- Wertz, D & Hall, J. (2002). Treatment of children with auditory processing and language disorders using fast forward word and earobics. Poster presented at the joint conference of the IX International Congress for the study of child language and the symposium on research in child language. Disorders Madison.

EXAMINING COLLABORATION AND CONSTRAINS ON COLLABORATION BETWEEN SPECIAL AND GENERAL EDUCATION TEACHERS IN MAINSTREAM SCHOOLS IN JORDAN

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This paper examines collaboration between general and special education teachers in mainstream schools in Jordan from their own points of view. It explores the extent to which teachers work collaboratively throughout the different stages of the special educational programs of students with special needs (i.e. referral, assessment, planning, and implementing the educational program stages). It also looks at constrains that may hinder this collaboration. The study adopts a mixed method design, where teachers' views on collaboration and constrains on collaboration were first surveyed and then further examined through a series of semi-structured interviews. Both survey and interview results showed that teachers collaborate at a low level throughout the different stages of the student's special educational program. Results also showed that collaboration is constrained by different factors including: teachers' large workload; high numbers of students in the classroom; lack of awareness of the importance of collaboration; lack of pre- and in-service training in the area of inclusive education; general education teachers' negative attitudes toward working with students with special needs; and lack of support from schools administration and students' families. The results are discussed in relation to the study context: inclusive education was only recently introduced to the education system in Jordan and has therefore not yet been fully adopted or understood by the different educational parties. Also, general and special teachers education programs at both pre-service and in-service level have not updated their programs so to prepare teachers to work in inclusive educational settings and be able to collaborate with each other.

Since the declaration of Salamanca Statement and Framework for Action on Special Needs Education in 1994, many countries have been striving to improve the quality of their education systems by adopting inclusive practices to achieve equality among learners with diverse needs. Nonetheless, developing an inclusive education system requires extensive changes in the educational practices such as the encouragement of general and special education teachers to work collaboratively together (Thousand, Nevin & Villa, 2007).

Literature in inclusive education has repeatedly documented the positive impact of collaboration on the implementation of inclusion (Carter et al., 2009; Cook & Friend, 2006; Naraian, 2010; Spencer, 2005). Yeung (2012) reported that inclusive education can be successful when granted strong leadership, promoting collaborative school culture, fostering professional partnerships, and facilitating students' learning.

Teachers collaboration was broadly defined as *a style of direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal* (Cook & Friend, 1992, 5). Collaboration is also perceived as sharing information among experts; ideally, the involved parties should communicate openly, demonstrate mutual respect for one another, and work together toward the common goal of a child's educational program (Murata & Tan, 2009).

The ultimate goal of collaboration is to increase students' achievement; teachers are required to work collaboratively within inclusive settings to strengthen academic performance of children with special needs, so to close the gap between high and low achieving students (Smith & Leonard, 2005). This goal can be achieved through different models of collaboration such as collaboration consultation, co-teaching, peer coaching and Collaborative problem solving (Lingo, Barton-Arwood, & Jolivet, 2011). For instance, Thomson (2013) reported that applying collaborative problem-solving model in New Zealand has the potential to assist schools and teachers to develop and maintain inclusive classrooms, through this model of collaboration, mainstream teachers were able to learn new skills and strategies from the resource teachers, and incorporate these strategies into their teaching repertoire when consultation was faded.

In theory, collaboration between general and special education teachers is grounded in the idea that each teacher has a unique knowledge base and expertise (Cook & Friend, 2006; Garderen et al., 2009), combining both expertise would result in a successful process of collaboration. This process is not simply achieved when two people working together, liking each other or spending time on a joint activity, it rather requires effort, diligence, training (Robinson & Buly, 2007) and sharing; resources, decision-making and responsibility of the outcomes (Carter et al., 2009).

Collaboration is an on going process where teachers become involved in various educational phases that together facilitate the progress of the student with special needs. For instance, Lingo, Barton-Arwood and Jolivet (2011) recommended six steps through which collaboration between special and regular teachers can take place: (1) defining the student's behaviour to be monitored, (2) determining method for measuring progress, (3) designing data collection form, (4) determining roles, (5) collecting data, (6) analyzing data. The authors argue that if collaboration is achieved during the previous steps, decisions regarding the appropriate instructional methods can be made which leads to positive students' outcomes.

The idea of collaboration is highly recognized and valued, however, reality check seems to tell a different story. Collaboration faces various challenges and constraints that limit the implementation of a successful inclusive programs. For example, Eldar, Talmor, and Wolf-Zukerman (2010) reported that one of the different barriers toward successful inclusion was the issue of collaboration, which included imperfect relationships among professionals, lack of cooperation and disagreement among them regarding best strategies and forms of action. Similarly, Smith and Leonard (2005) reported that general and special education teachers experience intrapersonal and interpersonal value conflicts when collaborating together. Another constraint on collaboration between special and general teachers, in relation to lesson planning and instruction, is the depth of content knowledge for special education teachers. McHatton and Daniel (2008) noted that while many special education teachers in the United States are certified for K-12 grades, their preparation programs predominately focus on elementary stage. Hamilton-Jones and Vail (2013) highlighted further challenges to collaboration, including: the struggle of power within the classroom dynamics, lack of school recognition for collaboration, schedule and time allocated for collaboration and failure to share responsibility.

One logical assumption that can be drawn from research on collaboration is the necessity to prepare future teachers to embrace the idea of inclusive education and guide future teachers to act in a collaborative manner. However, teacher preparation programs are often blamed for insufficient training in collaboration skills for educators (Conderman & Johnston-Rodriguez, 2009; Laframboise et al., 2004; McKenzie, 2009; Otis-Wilborn et al., 2005). Teacher preparation programs are sometimes responsible for validating segregation phenomena; special and general education programs usually prepare teachers to fulfil their disciplinary roles and responsibilities within isolated practices prior to entering the teaching field (McKenzie, 2009), consequently, special and general education teachers become overwhelmed with the demands of collaboration later on. Some research findings supported this issue, for example, Conderman and Johnston-Rodriguez (2009) reported that general education teachers felt less prepared in areas related to curriculum and assessment, such as making accommodation and modifications to the curriculum, using individualized assessment and monitoring student progress; Meanwhile, special education teachers felt more prepared than general education teachers in areas associated with planning

instruction, pacing lessons, evaluating assignments, adapting course content, monitoring student progress, providing individualizing instruction, having appropriate expectations of students and participating in a team.

Relevant research in the Arab region shows similar concern. For instance, Bradshaw (2009) suggested that regular education teachers in the United Arab Emirates need pre and in-service training in order to foster inclusive education for students with special needs. He also called for the necessity to elucidate the innovation of Inclusion for them. Also, Khochen and Radford (2012) pointed out that inclusive education in Lebanon faces various challenges such as limited training, availability of qualified specialist teachers and the high cost of supporting inclusion. In Jordan, a review of teachers' pre-service education programs showed that these programs do not provide appropriate training on skills that are needed to work in inclusive settings (Amr, 2011).

The Current Study: Context and Rationale

The world wide movement toward inclusive education has been reflected on the educational policies of special education in Jordan. The movement toward inclusive education in Jordan was originally enforced by passing *The rights of persons with disability Act* in 1993 and renewed later in 2007. This legislation had a great impact on embracing the new ideology of inclusion. Within this law, article (2) defines inclusion as: *measures, programs, plans and policies aimed at achieving full participation of persons with disabilities in all aspects of life without discrimination and on equal basis with other*. Furthermore, Article (4) within this law insures the right to public education, vocational education and higher education to all persons with disability through inclusive means (The Higher Council for the Affairs of Persons with Disabilities, 2007).

Despite the fact that the above law puts a great emphasis on full inclusion, The Ministry of Education adopted the supportive resource program model in order to facilitate the inclusion of students with disabilities in mainstream schools in Jordan. Within this model, students with special needs receive specialized instruction for short periods of time in the resource room while they spend the majority of their time in general education classes. In this model of service delivery, collaboration between special and general education teachers is essential. Idol (2006) emphasizes that both teachers are required to collaborate in order to design the content of the individualized educational program, and to insure that special education programs support general education program. Good collaboration skills can insure that the resource room program truly supports the general education program, and is likely to help support students to transfer what they have learned in the resource room to the general education classroom.

Unfortunately, scientific data on the extent and aspects of collaboration, if existed, between general and special educators in Jordan is limited; few reports highlighted the lack of collaboration among general and special education teachers in a general manner (Al-Natour, 2008; McBride, 2007). However, these reports neither thoroughly examined the nature of collaboration nor did specify the constraints that obstruct such collaboration. Therefore, this study intends to provide some insights on the nature of collaboration in Jordan and the constraints that are limiting it.

Methodology:

Purpose of the Study

This study aims at exploring the extent of collaboration between the general education (GE) and special education (SE) teachers in Jordan. It also aims at investigating the different constraints that impede this collaboration between these teachers in mainstream schools.

Research Design

This research employed a mixed methods design where qualitative and quantitative methods were utilised. The research design encompassed two phases; the quantitative phase, which took place firstly, where quantitative data were collected with the use of a survey technique. This survey examined teachers' views of the extent and different practices of collaboration among general and special education teachers in mainstream schools. The collected data helped drawing a large picture on how collaboration is being practiced.

The qualitative part was implemented in the second phase, where the aim was to carry out an in-depth investigation of teachers' views on collaboration and its practices and constraints. To enable that, a series of individual semi-structured interviews were conducted with general and special education teachers.

Research Questions:

This research was set to answer the following questions:

- 1- To what extent do general and special education teachers in mainstream schools collaborate together?
- 2- What are the constraints that encounter regular and special education teachers to perform collaborative practices?

Participants

For the purpose of this study, three samples of teachers were selected to participate in the study's quantitative and qualitative phases. The first sample was stratified random sample of 250 special education teachers (SE) whom were selected from the original population, which consisted of 520 teachers working at The Ministry of Education's public school in the three regions of Jordan (North, middle, and south region).

The second sample was purposive and consisted of 250 general education teachers (GE). Teachers in this sample were matched with the above sample and the criterion of their selection was that both teachers teach the same student with special needs.

The final number of returning questionnaires was 368, which represent 74% of the total sample, divided equally between SE and GE teachers. The sample contained 102 males and 266 females, most participants held a bachelor degree and had more than 10 years of experience, see (Table1).

The third sample was a convenient and drawn from the original sample pool of teachers who responded earlier to the survey. A total number of 24 GE teachers and 19 SE teachers were finally individually interviewed in their schools.

Table 1. Demographic Data of the Sample

	Special education teachers N (%)	Regular education teachers N (%)
Gender		
Males	48(26.1)	54 (29.3)
Females	136(73.9)	130 (70.7)
Education level		
Diploma	13(7.2)	25(13.8)
Bachelor	99(55.0)	133(73.5)
Graduate studies	68(37.8)	23(12.7)
Years of experience		
1-2	17(9.5)	11(6.0)
3-5	41(22.9)	29(15.8)
6-10	59(33)	56(30.4)
More than 10	62(34.6)	88(47.8)
Number of students		
Less than 10	22(12.8)	11(6.0)
10-20	59(34.3)	16(8.8)
21-30	79(45.9)	72(39.6)
More than 30	12(7.0)	83(45.6)

*Instrument**Survey*

The researchers developed a survey instrument based on an extensive review of relevant literature of collaboration and its domains. This step was crucial due to the lack of guiding research in Jordan on collaboration and the need for a starting point to explore the international perspectives on the current collaboration practices and constraints.

The survey instrument consisted of three parts: The first part involved demographic data of the respondents (i.e. gender, educational qualification and teaching workload). The second part consisted of

43-items exploring collaborative practices among teachers. Participant teachers, in this part, were asked to rate each item according to a five point Likert-type scale (5=Always, 4=often, 3=usually, 2=rarely, 1=Never), where higher scores obtained represent higher level of collaboration between both general and special teachers. Previous items were grouped into four categories: 1) Collaboration in pre-referral and referral phase 2) Collaboration in evaluation and diagnosis 3) Collaboration in program planning and 4) Collaboration in program implementation. The third part of the instrument consisted of 12 items reflecting constrains to successful collaboration between special and regular education teachers. Items were rated on a two-point scale reflecting the applicability or none applicability of the item according to teachers.

To establish face validity for the instrument, a pilot version was sent to ten faculty members from the departments of; Counselling and Special Education, Curriculum and Instruction and Educational Psychology at the Faculty of Educational Sciences at the University of Jordan. Feedback was provided and comments were taken into consideration in designing the final version of the instrument. Furthermore, the instrument was piloted on a convenient sample of general and special education teachers (n=30) working in schools. Their feedback was also incorporated into the final version of the instrument. This sample was excluded from the study sample.

The reliability of the instrument was determined by using Cronbach's alpha coefficient. The coefficient alpha statistics for the second and third part were 0.96, 0.87 respectively, reflecting good levels of internal consistency.

Semi Structured Interview

Researchers developed a semi structured interview schedule based on seven guided open ended questions. The focus of those questions varied to include: teachers' perceptions on collaboration, how teachers collaborate throughout the different stages of the student's educational program, and their views on collaboration constraints. Interviews took an average time of 40 minutes for each, and took place in schools.

Procedures

In the first phase of the study, we contacted all directories of education, requesting that each provide a list of all SE teachers working within its area. This eventually enabled compiling a list of 520 teachers, from which 250 teachers were randomly selected to form the SE sample.

To solicit the participation of general and special education teachers, packets containing a cover letter, two surveys and consents were distributed to the selected sample of teachers. The cover letter addressed the purpose of the study and instruction to filling in the instrument. Teachers were assured that the study is for academic purposes only and thus their responses would be confidential. Teachers also were encouraged to respond to all items to the best of their knowledge. A total number of 195 packets were received; however, eleven packets were excluded. Therefore, a final number of 184 packets (368 surveys) were included in the final data analysis.

In the second phase, the researchers invited a sample of 24 general education teachers and 22 special education teachers for a face-to-face semi structured interview. Each teacher was interviewed in his/her school for about an hour. All interviews were tape-recorded and later transcribed. Teachers' identities are kept anonymous; therefore each teacher was given a number instead of his/her real name.

Results and Preliminary Discussion

The Extent and Domains of Collaboration

Results of survey data indicated an average level of collaboration between GE and SE teachers. The scale used to measure teachers' responses was divided into three categories; Low collaboration with a range of (1-2.33), average collaboration ranged (2.34-3.66) and high collaboration ranging (3.67-5.00). Teachers' views on collaboration, according to this scale, fell within the lower average range, where GE and SE teachers obtained an average of 2.38 (SD=0.54) and 2.40 (SD=0.48) respectively.

To further examining the extent of collaboration between SE and GE teachers, teachers' means in each domain of collaboration was calculated. The collaboration domains included: pre-referral and referral, evaluation and diagnosis, program planning and program implementation. See Table (2).

Table 2: Means and Standard Deviations of Teachers' Practices of Collaboration's Four Domains

Special Education teachers M (SD)	Regular Education teachers M (SD)	Domains
2.55(0.53)	2.54(0.59)	Pre-referral and referral
2.35(0.51)	2.31(0.58)	Evaluation and diagnosis.
2.23(0.56)	2.28(0.58)	Program planning.
2.48(0.60)	2.38(0.62)	Program implementation

The above results show that the lowest domain attained by both GE and SE teachers was the program planning domain. However, the means for remaining domains reflects a low average of collaboration between both groups of teachers.

Despite the salient indication that above results revealed on the limitedness of collaboration between teachers, the results do not show how and why this collaboration is limited. Therefore, semi structured interviews were later conducted with a sample from both groups of teachers to provide further understanding of the extent and nature of collaboration between them.

Collaboration, is it Happening? General and Special Education Teachers' Views on Collaboration

This qualitative section presents teachers views on collaboration and the extent to which they are practicing it in the different areas of their teaching job. It also aims at triangulating the above survey results and hence provides validation to the quantitative data. SE and GE teachers' views on collaboration were analysed under two main themes: first, teachers' views on the extent to which they generally work collaboratively. Second, teachers' views on collaboration's practices they undertake throughout the different educational stages (i.e. pre referral and referral, evaluation and assessment, planning and implementing the educational program).

First: The Extent of Collaboration

The results from the teachers' interviews in general support the above quantitative results of the first questions and confirmed that collaboration between both groups of teachers is limited in scope and frequency. Most teachers, when broadly asked whether they collaborate with other teachers, said that collaboration is very limited and happens at a low level. Teachers expressed their unsatisfactory with frequency and size of this collaboration describing it as insufficient and needing to be improved. For example, Special Education teacher 7 (SE7) said: 'yes there is collaboration, but it is limited'. SET6 added: 'there is very little instances of collaboration which are not sufficient at all'. Similarly, General Education Teacher 8 (GET 8) argued: 'I think collaboration happens at a satisfactory level and it needs to be improved'. GET11 also suggested: 'there is collaboration but not to a good level'.

Few teachers, on the other hand, expressed that collaboration occurs between them to a good level; however, the in-depth examination of their answers shows that their understanding of collaboration is simplistic and partial. For them, exchanging morning greetings, setting together in school's break or sending students to resource room are forms of collaboration. For example, SE14 said: 'I have a good relationship with the classroom teacher, we sometimes have coffee together at our breaks, and so we might talk about our students and their problems'. GE21 also argued: 'Of course I collaborate with the special education teacher, I always send my struggling students to her'.

Finding that collaboration is generally happening at a limited level encouraged us to further ask about the specific educational stages that teachers need to collaborate at. We thought this would show the variance (as high and low) of their collaboration level across those stages and later help providing recommendation on the stages where collaboration needs to be improved.

Second: Stages of Collaboration

This section explores the stages that expose the highest and lowest levels of collaboration. Teachers, here, were asked about how they collaborate in the following particular stages of students with special needs' educational process: the pre-referral and referral, evaluation and diagnosis, program planning and program implementation. Data related to this question were analysed at two levels: first, the macro level where we looked across all the above stages in order to determine which ones expose the highest and lowest levels of collaboration. Second, the micro level where we examined each stage separately to see what practices, from the teachers' views, are constituted as collaborative practices.

The macro level analysis shows that most teachers suggested they mostly collaborate at the pre-referral and referral stage. Their level of collaboration, nonetheless, declines after this stage as it becomes less at the diagnosis stage and even lesser at the program planning and implementation stage. This result is expected as the nature of the referral stage requires that both GE and SE teachers communicate with each other in order to identify those students who are in need to benefit from the resource room's educational services. Once the referral of the student is made, it becomes more challenging for the SE teacher to stay in contact with her/his GE teacher counterpart as the student's diagnosis, programme planning and implementing is mainly considered her/his sole responsibility.

At the micro level of analysis, we looked at what are the actual acts that teachers suggested to be reflecting their collaboration practices. The aim here was to understand what constitute as collaboration, from the teachers' views, since its notion may exposes different meanings for them and hence different practices. Teachers' views on collaboration for each stage are presented in the following subsections:

Pre-Referral and Referral

In this stage, teachers described the collaboration procedures through which they identify students whom need to be referred to the resource room. Teachers suggested different procedures that included: 1) carrying out a screening test for Arabic language and maths skills, administered usually by the general teacher, at the beginning of the school year, 2) the general educator's nomination for the students with low achievement, 3) conducting meetings between the GE and special SE teachers to discuss the case of the referred student, 4) classroom observation (this procedure was mentioned only by two SE teachers). All the above procedures are illustrated in the following teachers' quotes.

SE1: The classroom teacher carries out a screening test at the beginning of the academic year upon which she identifies those students who have academic weakness. Those students then are referred to me at the resource room for further assessment.

SE6: I meet with the classroom teacher to ask her if there are students with low achievement in her class. If there are, I visit the classroom to observe and then decide if they need to be referred to the resource room.

GE10: I collate a nomination list of the students who need to be referred to the resource room based on my observations of their poor achievement.

GE14: I carry out math and Arabic language screening tests for the entire classroom at the beginning of the year upon which I identify those students who are very weak in these two subjects.

To this end, teachers seemed to be undertaken various procedures to refer students to the resource room. However, it is of this study interest to examine the level of collaboration teachers expose when carrying out the above procedures. Therefore, we also examined whether or whether not the different procedures described above display or imply collaborative or interactive work. The results showed that, in most cases, teacher, in either group, choose and undertake the referral procedures alone with limited participation from the encounter teacher in the other group as the teachers' following quotes illustrates:

Interviewer: Do you meet with the classroom teacher to discuss the process of referring students to the resource room?

SE15: Not really, I usually give the classroom teacher a referral form where she writes down the names of students with academic difficulties and describe their problems.

Interviewer: do you discuss the problems of these students with her?

SE15: I would if I need it, but usually I just invite those students to the resource room for further assessment.

GE12: I observe the student in the classroom and review his academic records and if I conclude that s/he has academic problems I refer her/him to the resource room.

Interviewer: Do you discuss this referral procedure with the resource room teacher?

GE12: There is no need to; based on my experience this procedure has been approved to be the most convenient.

Interviewer: Do you discuss with her the student's problems and the need to refer her/him to the resource room?

GE12: I do it sometimes when I am not certain if the student is eligible to benefit from the resource room.

The above result was also evident through the little reference teachers made of each other as they were describing their referral procedures. As the above teachers' quotes show, teachers often used the singular pronoun 'I' rather than the plural 'we' when explaining how they refer students to the resource room. This indicates that the referral process is perceived as a single act rather than a teamwork job requiring collaborative effort. Nonetheless, the sole interaction that could be seen between the SE and GE teachers in this stage is, in fact, the exchange of names of those students whom need to be referred to the resource room and some information that is relevant to their problems.

The Evaluation and Assessment:

Traditionally, this phase in Jordanian schools aims at identifying students' academic difficulties in the areas of Arabic language and maths. This stage is very crucial as the information collected about students and their problems sets the foundations for the planning of their individual educational plan and any decisions relevant to their program.

In order to understand how teachers collaborate at this stage, we asked them first about the procedures they undertake when assessing students. SE teachers suggested the following procedures: 'review of the student's academic records in Arabic language and maths', (SE18), 'carrying out a case study', (SE3), 'implementing a formal Arabic language and maths test', (SE13), 'implementing curriculum based test in Arabic language and maths subjects', (SE19). Two teachers also added classroom observation as a supplementary procedure.

Nonetheless, when we asked these teachers about the role of the GE teachers in undertaking these procedures, all of them asserted that the assessment of the student is their responsibility and the role of GE teacher ends at the referral phase as they lack the knowledge and expertise in how to assess students with learning difficulties.

SE5: I assess them alone; the classroom teacher's role ends after she refers the student to me.

Interviewer: why?

SE5: because she does not know how to diagnose students with learning difficulties.

The GE teachers, in their turn, confirmed the above result. They asserted that they do not participate in the assessment of the student's difficulty whose, once referred to the resource room, becomes the responsibility of the SE teacher as GE7 denoted 'I do not collaborate with the special education teacher at this stage because it is her job to diagnose the student.

In summary, teachers in both groups seem to have low level of communication and collaboration at this stage, because they perceive the assessment of the student as the sole responsibility of the SE teacher and a knowledge that is beyond the expertise of GE teachers. Indeed this result denotes inaccurate perceptions of those teachers about the ability of GE teachers to assess student's difficulties, which, as a matter of fact, are mostly academic and thus require a form of academic evaluation, which, indeed, is not a skill that general teachers do not or cannot possess.

Planning and Implementing the Educational Program

Traditionally, this stage aims at planning and delivering the special educational program that tackles the needs of student who has joined the resource room. In this stage, we are looking at how GE and SE teachers are collaborating in order to serve the student's best interest.

Teachers in both groups asserted that they do not collaborate at this stage because the planning of student's individual plan is again a sole responsibility of the SE teacher. For example SE6 also suggested: 'there is no collaboration in planning the student's educational program'. This teacher also added: 'In fact, the planning and implementation of the student program, is a responsibility that is taken from the classroom teacher and moved to the resource room teacher'. Similarly, GE7 said: 'I do not help with the design of the student's educational plan because this is the duty of the resource room teacher'.

Nevertheless, few teachers from both groups suggested that there is some collaboration between them, but limited to planning student's lessons schedule at the resource room in order not to contradict with classroom schedule. For example, SE5 said 'we meet together to put the student's weekly lessons schedule at the resource room so it does not contradict with his Arabic and maths lessons at the classroom'. Also, GE14 'I collaborate in putting the student's lessons schedule to ensure that it does not contradict with his classroom schedule'. SE18 sees collaboration in this phase as informing the GET teachers of student's weaknesses. This teacher said: 'I explain to the classroom teacher the student's weaknesses and strengths, so she may take them into consideration while teaching the student'.

As for the implementation of the educational program, ST teachers vary in their views regarding their collaboration at this stage. About half of them suggested not having any form of collaboration with GE teachers because implementing student's program is again their responsibility. For instance, SE6 said: 'I implement the student program alone at the resource room'. Similarly, SE8 argued: 'the program implementation is individual and only carried out by the resource room teacher'.

As for the other half of the SE teachers, they argued that they collaborate with GE teachers. As they were asked to specify how and in what actions this collaboration is exhibiting, they suggested the following: following up the student in the classroom, adapting the classroom curriculum, attending some lessons at the classroom, informing the GET about the student's progress at the resource room and advising them on the best teaching strategies to use with the student.

Nonetheless, a closer scrutiny to those actions, someone could infer that they do not necessarily reflect a collaborative work. Teachers' descriptions of the above actions, though exhibiting some involvement of the GE teacher, reflect rather single actions undertaken merely by the SE teachers.

SE4: yes, I collaborate with the classroom teacher in implementing the student's educational program. I usually visit the classroom to follow up the student in some lessons. In return, I allow the classroom teacher to view the student's profile at the resource room where she can learn about his progress.

The interviewer: in case you noticed, while following up the student in the classroom, that he is not progressing or that the classroom teacher is not giving them enough attention or using appropriate teaching strategies, what do you do?

SE4: I may advise her to give him more attention or use certain strategy.

The interviewer: would she take your advice?

SE4: sometimes! It depends whether she would value my advice or she is willing to change her teaching style to accommodate the student's needs.

The interviewers: does she exchange with you any information about the strategies she thinks also useful with that student?

SE4: maybe if I ask her, but she would not usually do that voluntarily.

Clearly, teachers above fall short to demonstrate having a real collaboration with the GE teachers, but rather displayed having some contact with them represented in visiting the classroom sometimes to follow up on the student or provide information/advice regarding her/his preferable learning strategies.

As for GE teachers, most of them suggested not having collaboration with SE teachers in implementing the students' educational program. They asserted that their most contribution to this stage is following sometimes up the student in the classroom. For example, GE15 said: 'I do not help the resource room

teacher in implementing the student's program as it takes place at the resource room. I only help the student with the lessons and subjects I teach in my classroom'.

Few GE teachers, on the other hand, pointed out collaborating with the SE teachers, but only in few aspects such as: 'viewing the student's profile so to learn about his weaknesses' (GE10), 'attending some of the student's lessons at the resource room to follow up on her progress' (GE14), 'following up the student's individual learning objectives in the classroom', (GE17) and 'designate a small part of the lesson to support the students with learning difficulties in the classroom and give them some extra help and attention'(GE20).

As the discussion above revealed; collaboration between GE and SE teachers in this stage is hardly happening. Though some teachers from both groups suggested having collaboration with each other, the actions they suggested as examples of their collaboration, when closely examined, do not involve both of them working tougher and therefore can hardly be considered as collaboration.

To this end, SE and GE teachers explained their views on the nature and level of their collaboration at the different stages. Results showed that the occurrence of collaboration between them is either very limited to few instances or actions or is not happening at all. This result is consistent with the result obtained by the teachers' questionnaire where the quantitative data showed that teachers' collaboration is happening at a low level. Indeed, there are various constrains that underlie the weakness of this collaboration as the next section will reveal.

Constrains and Barriers to Collaboration

The second question of this research was set to examine constrains underlying the lack of collaboration between GE and SE teachers. Percentages for teacher ratings were calculated and presented in (Table 3). Results showed that teachers in both groups were inclined to suggest that the given constrains are applicable to them. In more details, teachers agreed that the enormous work load assigned to teachers and lack of time allocated for collaboration are respectively the biggest constrains toward achieving collaboration, while negative attitudes towards collaboration and lack of administrative support within the school system were the least

Furthermore, differences in responses were seen between both groups of teachers, for example, the item (Negative attitudes of general education teachers toward students with special needs) was considered applicable as a constrain by around three quarters of SE teachers compared to less than half of the GE teachers.

Constrains of collaboration between both groups of teachers were further examined qualitatively in the next section.

Special and General Educators' Views on Constrains to Collaboration in Mainstream Schools

In order to understand why collaboration between both groups of teachers is limited, teachers were asked about the constrains that stand in their way to collaborate more affectively and frequently. Teachers, in both groups listed different constrains which we grouped under the following five factors:

First factor; teachers' large teaching and administrative workload: Teachers pointed out that their school day schedule is busy and fully occupied with teaching and administrative duties, which does not allow allocating time to schedule regular meetings with each other:

SE3: we are loaded with teaching schedule. We have many classes everyday to teach in addition to other duties like administrative works.

GE9: I cannot collaborate with the resource teacher because of the big amount of work that each of us needs to do. She is usually required, in addition to her work in the resource room, to do some other administrative work, which makes their school day schedule full. This of course does not allow us to have time to meet with each other.

Since the high number of classes allocated daily to each teacher seems to be a big obstacle that hinders collaboration between them, we asked teachers why they have this heavy teaching workload. Not to our surprise, the reason, as they said, is 'the dense and lengthy curriculum, which must be fully covered as requested by the Ministry of Education' GE7.

Table 3. Percentages of Teachers Rating of Constrains

Item Number	Constrains	General Education Teachers N=184		Special Education Teachers N=184	
		Applicable	Not Applicable	Applicable	Not Applicable
	The enormous work load (i.e. paper work, routine work) on both general and special education teachers	79.8	20.2	71.6	28.4
	Lack of time allocated for collaboration.	78.8	21.2	68.5	31.5
	Lack of in-service training fostering collaboration	70.1	29.9	66.5	33.5
	Lack of pre-service training (university programs) regarding collaboration among teachers	68.5	31.5	62.0	38.0
	Absence of policies and regulations enforcing collaboration	67.8	32.2	58.4	41.6
	Disagreement among teachers in terms of responsibilities and roles regarding teaching students with special needs	52.2	47.8	53.3	46.7
	Lack of effective educational supervision to enforce inclusion through effective collaboration among teachers	50.5	49.5	55.1	44.9
	Lack of experience in team work and collaborative activities	47.5	52.5	43.7	56.3
	Beliefs among general education teachers that students with special needs are the sole responsibility of SPED teachers	46.4	35.6	58.2	41.8
	Negative attitudes of general education Teachers toward students with special needs	46.2	53.8	67.4	32.6
	Lack of administrative support for collaboration within the school system	39.9	60.1	35.1	64.9

Second factor; the large number of students in general classrooms: This number exceeds sometimes 50 students. Teachers' time, thus, is hardly enough to follow up on all those students. Therefore, designating time to work with students with special needs is hardly possible for those teachers:

GET24: the number of students per classroom in my school usually ranges between 40-50, which disenables me from following all the students up, and give the required attention to those students who need extra or individual help. This also disenables me from having time to collaborate with the resource room teacher in order to help the student's with learning difficulties in my class.

Third factor; the GET teachers' characteristics, personality and attitude factor: This factor has been suggested by the SE teachers only and seems to be crucial in understanding the limited collaboration between both groups of teachers. In general, SE teachers described the attitude of the GE teachers toward collaborating with them as being negative. The reasons behind such attitude vary as SE teachers offered numerous reasons. One common reason is the students with special needs who show slow progress and insignificant improvement over time, which discourage GE teachers investing time and effort to help those students as they see more value spending time helping other students or doing other issues. Accordingly, GE teachers are reluctant to spend time collaborating with SE teachers in order to help students' with special needs.

SE7: the classroom teacher does not have the motivation to work with the students with learning difficulties because of the repeated bad experience she has with them. As you know these students do not show reasonable progress in a reasonable time which makes the classroom teacher thinks that they do not improve at all and they need a lot of time and effort. Of course this generates feelings of disappointment and makes the teacher hesitant to work with the student and with me.

Another reason within the attitude factor is the GE teacher's mood and relationship with SE teacher. For example, the teacher SE8 asserted: 'there is sometimes collaboration between us but it actually depends on the GE teacher's mood to collaborate, if she is in a good mood then she is more encouraged to communicate and work with me'. SE6 added that the collaboration with GET teachers 'depends to great extent on the nature of the relationship between us; if this relationship is positive, we may collaborate then'.

Another teacher argued also that collaboration with the GE teacher is influenced with how this teacher is perceiving her and her knowledge, this teacher explained: 'the extent to which we collaborate depends on the classroom teacher, some of them make me feel that I am less knowledgeable and skilful than them, and therefore it is a waste of time to work with me', (SET5).

Fourth factor; lack of awareness among GE teachers on the importance of collaboration: SE teachers explained that some GE teachers are not aware of the importance of collaboration and unable to see how it is beneficial to the students and their progress. For instance, SE9 asserted: 'classroom teachers are unaware of the importance of collaboration. They just do not understand how collaborating with me would actually help them and help the progress of their student'.

Fifth factor; the lack of support from school administration and families: Some GE and SE teachers hold the blame on student's families and school administration for their insufficient support to the teachers and their job requirements.

SE8: the school administration forms a big obstacle for us from being able to collaborate. For example, it does not arrange any official meetings for us to discuss issues related to our work. Also, the school head teacher and the administrative staff are not aware of the job roles [in relation to special education students and his program] for each of us, and that one of the things we should do is to collaborate together in order to become more effective teachers.

GE19: the students' families are neither supportive to their children nor to us. I think our effort will become more effective if families made more effort to follow up their children at home and communicate their problems to us.

In sum, teachers in both groups suggest that collaboration is constrained by different factors such as their large workload, GE teachers' personality and attitude, GE teachers lack of awareness of collaboration importance and the lack of support received from school administration and families. These constraints do not seem to be restricting the relationship between teachers but also adversely affecting the students whom their needs can not be met without the collaboration of their GE and SE teachers.

Conclusions

To conclude, the above results showed that collaboration is arbitrary, limited and happening at a low level. Teachers perceive the concept of collaboration between each other as working separately with the same student with special needs in mainstream schools. Indeed, collaboration here is not seen as a continuous process that involve them both working interactively together in order to meet the student's special educational needs. To great extent, teachers still do not understand how to collaborate and what are the roles that each should play in this process. Moreover, collaboration encounters different constraints, as this study revealed, which included teachers large teaching and administrative workload, large number of students per classroom, teachers lack of awareness and negative attitude toward students with special needs and the lack of appropriate support from both school administration and families.

This result should be discussed within the Jordanian context where inclusive education has been recently introduced to the educational system. Accordingly, the philosophy and concept, of inclusive education have not yet been fully comprehended by all parties involved in the educational sector; consequently its aspects and skills are not effectively implemented. For instance, the Ministry of Education has not

translated the adapted philosophy of inclusion into clear and formal regulations and practices, or prepared the required educational environment for such initiative. Indeed, this rendered all educators working in inclusive settings not understanding exactly their duties and expectations when working with students with special needs in mainstream schools. This has also resulted in a lack of support from school administration in fostering a successful collaboration between teachers. Collaboration, therefore, is still seen as an individual and personal decision that a teacher may opt to make rather than a fundamental requirement.

Furthermore, despite that the educational system has moved to adopt an inclusive practice, teacher preparation programs at university level has not updated their programs to meet the requirements of this new inclusive initiative, including the concept of collaboration. Similarly, in-service preparation programs do not provide training related to how to work collaboratively in inclusive settings (Amr, 2011). This is rendered teachers lacking the necessary knowledge, pedagogies and attitudes that allow them to collaborate together and overcome any potential constraints they may face at work.

In a wider context, constraints surrounding collaboration are not unique. Literature shows that cultures, where inclusion has been long adopted, its educational system still face various problems when it comes to implementing the inclusion philosophy and pedagogies including collaboration among teachers. Collaboration, similar to Jordan, suffers several constraints including: insufficient training for both general and special education teachers (Conderman & Johnston-Rodriguez, 2009; Laframboise et al., 2004; McKenzie, 2009; Otis-Wilborn, 2005). Lack of school support for collaboration, insufficient time allocated for collaboration, power tension between teachers within the classroom and failure to share responsibilities (Hamilton-Jones & Vail, 2013).

Recommendations

As the results above unfold a lack of collaboration between teachers, which comes as a result of the ongoing struggle within the educational system in understanding, defining and planning the policies and agendas of the inclusive education, several recommendations can be suggested based on the results reported by this research and the researchers first hand field experience. Firstly, discussing and disseminating the Ministry of Education inclusive education agenda among the different parties involved in the educational system to enable reaching a mutual understanding of collaboration and its practices. Secondly, clarifying the different roles and responsibilities of educators working in inclusive schools. Thirdly, providing appropriate pre and in-service training to both general and special education teachers in the area of inclusive education in general, and collaboration in particular. Fourthly, improving school environment to enable teachers collaborate together. For example, reducing teachers' teaching and administrative workload, reducing the number of students per classroom and providing more support from school administration.

References

- The Higher Council for the Affairs of Persons with Disabilities. (2007). *Law on the Rights of Persons with Disability*. Amman: Jordan
- Al-Natour, M. (2008). *Final Report Special Needs Education, Program Development / Learning Disabilities*. Prepared for the Ministry of Education, The Hashemite Kingdom of Jordan, ERFKI 1 Project.
- Amr, M. (2011). Teacher education for inclusive education in the Arab world: The case of Jordan. *Prospects*, 41(3), 399-413.
- Bradshaw, K. (2009). Teachers' Attitudes and Concerns Towards Integrating Students with Special Needs in Regular Classrooms: A United Arab Emirates Perspective. *The Journal of the International Association of Special Education*, 49.
- Carter, N., Prater, M. A., Jackson, A., & Marchant, M. (2009). Educators' perceptions of collaborative planning processes for students with disabilities. *Preventing School Failure: Alternative Education for Children and Youth*, 54(1), 60-70.
- Conderman, G., & Johnston-Rodriguez, S. (2009). Beginning teachers' views of their collaborative roles. *Preventing School Failure: Alternative Education for Children and Youth*, 53(4), 235-244.
- Friend, M., & Cook, L. (1992). *Interactions: Collaboration skills for school professionals*. Longman Publishing Group, 95 Church Street, White Plains, NY 10601.
- Friend, M., & Cook, L. (2006). *Interactions: Collaboration skills for school professionals*. 5th ed., Allyn & Bacon, NY
- Eldar, E., Talmor, R., & Wolf-Zukerman, T. (2010). Successes and difficulties in the individual inclusion of children with autism spectrum disorder (ASD) in the eyes of their coordinators. *International Journal*

of *Inclusive Education*, 14(1), 97-114.

Garderen, D. V., Scheuermann, A., Jackson, C., & Hampton, D. (2009). Supporting the collaboration of special educators and general educators to teach students who struggle with mathematics: An overview of the research. *Psychology in the Schools*, 46(1), 56-78.

Hamilton-Jones, B., & Vail, C. O. (2013). Preparing Special Educators for Collaboration in the Classroom: Pre-Service Teachers' Beliefs and Perspectives. *International Journal of Special Education*, 28(1), 56-68.

Idol, L. (2006). Toward inclusion of special education students in general education a program evaluation of eight schools. *Remedial and Special Education*, 27(2), 77-94.

Laframboise, K. L., Epanchin, B., Colucci, K., & Hocutt, A. (2004). Working together: Emerging roles of special and general education teachers in inclusive settings. *Action in Teacher Education*, 26(3), 29-43.

Lingo, A. S., Barton-Arwood, S. M., & Jolivet, K. (2011). Teachers working together. *TEACHING Exceptional Children*, 43(3), 6-13.

McBride, S. (2007). *Final Report Review of Special Education – Grades 1-12*. Prepared for Ministry of Education, The Hashemite Kingdom of Jordan, ERFKI 1 Project.

McHatton, P. A., & Daniel, P. L. (2008). Co-teaching at the pre-service level: Special education majors collaborate with English education majors. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 31(2), 118-131.

McKenzie, R. G. (2009). A national survey of pre-service preparation for collaboration. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 32(4), 379-393.

Murata, N. M., & Tan, C. A. (2009). Collaborative teaching of motor skills for preschoolers with developmental delays. *Early Childhood Education Journal*, 36(6), 483-489.

Naraian, S. (2010). Refiguring professional identities in a collaboratively taught classroom. *Teaching and Teacher Education*, 26(8), 1677-1686.

Otis-Wilborn, A., Winn, J., Griffin, C., & Kilgore, K. (2005). Beginning special educators' forays into general education. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 28(3-4), 143-152.

Robinson, L., & Buly, M. R. (2007). Breaking the language barrier: Promoting collaboration between general and special educators. *Teacher Education Quarterly*, 83-94.

Smith, R., & Leonard, P. (2005). Collaboration for inclusion: Practitioner perspectives. *Equity & Excellence in Education*, 38(4), 269-279.

Spencer, S. A. (2005). Lynne Cook and June Downing. *Intervention in school and clinic*, 40(5), 296-300.

Thomson, C. (2013). Collaborative consultation to promote inclusion: voices from the classroom. *International Journal of Inclusive Education*, 17(8), 882-894.

Thousand, J. S., Nevin, A. I., & Villa, R. A. (2007). Collaborative teaching: Critique of the scientific evidence. *The SAGE Handbook of Special Education*, 417-428.

Yeung, A. S. (2012). Exploring organisational perspectives on implementing educational inclusion in mainstream schools. *International Journal of Inclusive Education*, 16(7), 675-690.

IEP DOCUMENTATION FOR EFFECTIVE SYSTEMATIC FACILITATION

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This paper discusses how the process for IEP documentation was used in a training program for a group of young inexperienced teachers and teaching aides to effectively address the educational needs of children with diverse disabilities. Teachers at Kianh Centre in Vietnam received explicit instructions for writing effective functional individual education plans (IEPs). The authentic evidence-based IEP pro forma presently discussed, and was made culturally appropriate after many reviews and about a year of training. IEPs written on this pro forma were used as operational reference and working documents by both classroom and physical therapy staff for six and four months, respectively. Staff feedback on use of these documents was facilitated through a questionnaire. This paper presents the outcome of how IEP was used as a functional reference to empower staff to work with students with disabilities. Despite the diversity of disabilities of the students at Kianh Centre, all staff who participated agreed that IEPs written on the pro forma empowered them with effective skills to facilitate student learning.

EP Documentation for Effective Systematic Facilitation

Vietnam, as a country, has just begun to acknowledge the needs of individuals with disabilities. Effective systematic facilitation for individuals with special educational needs is in its infancy. For the general population away from major cities, effective support services, resources and assessments for children with significant intellectual and other disabilities are wanting. As a member of Australian Volunteers for International Development (AVID), I was assigned the position of special education trainer at Kianh Centre. Located in rural central Vietnam, it is operated by a charity funded non-government organisation for children with different disabilities. My task was to train and empower a group of inexperienced teaching staff with skills to meet the educational needs of all students within the centre. Two major outcomes were identified to achieve these goals. Staff must acquire skills that will be operationally functional for facilitating all students at the centre. Skills developed have to be maintained to ensure continuation of effective facilitation over time. This paper discusses how individual education plan (IEP) documentation was developed to establish and maintain the operating educational system at Kianh Centre. Staff feedback on the skills they acquired as a result of using this authentic IEP pro forma is presently discussed.

Literature Review

Since mid-1970s (Drasgow, Yell, & Robinson, 2001) individual education plan (IEP) has been the foundation document for special needs. It helps integrate students with special needs into identified educational curriculum (Pretti-Frontczak & Bricker, 2000; Gartin & Murdick, 2005; Kurth & Mastergeorge, 2010). As a roadmap (Diliberto & Brewer, 2012) for student development, IEP identifies goals as realistic functional outcomes (Pretti-Frontczak & Bricker 2000; Grisham-Brown, Pretti-Frontczak, Hemmeter, & Ridgley, 2002; Twachtman-Cullen & Twachtman-Bassett, 2011). Based on individual's ability to acquire specified skills (Grisham-Brown & Hemmeter, 1998; Twachtman-Cullen & Twachtman-Bassett, 2011), short and long term goals are incremental progression points (Micchnowicz, McConnell, Peterson, & Odom, 1995) along developmental continuum (Notari & Bricker, 1990; Armstrong, Armstrong, & Spandaguo, 2011; Twachtman-Cullen, & Twachtman-Bassett, 2011) within the individual's zone of proximal development.

Complexities of Operationally Effective IEP

The process linking procedure and substantive requirements to accurately identifying individual needs as goals in IEP for effective delivery of appropriate services however, is complex. A review of 26 studies on intended inclusion (Boer, Pijl, & Minnaert, 2011) reflected *increased exclusionary practices* (Lloyd, 2008, p. 221). IEP as the document that links student learning to student development has fallen short of its original intent (Blackhurst & Berdine, 1993; Giangreco, Dennis, Edelman, & Cloninger, 1994; J. Grisham-Brown & Hemmeter, 1998; Huefner, 2000; Pretti-Frontczak & Bricker, 2000; Drasgow, Yell, & Robinson, 2001; Gartin & Murdick, 2005; Lloyd, 2008; Hollingsworth, Boone, & Crais, 2009; Armstrong, Armstrong, & Spandaguo, 2011; Boer, Pijl, & Minnaert, 2011; Lo, 2012;). Limitations in teacher capacity was identified as a possible cause of this (Grisham-Brown, Pretti-Frontczak, Hemmeter, & Ridgley, 2002; McSheehan, Sonnenmeier, Jorgensen, & Turner, 2006; Rehfeldt, Clark, & Lee, 2010; Doren, Flannery, Lombardi, & Kato, 2012; Shriner, Carty, Rose, Shogren, et al., 2012; Blackwell & Rossetti, 2014). This view was supported when teachers wrote more effective IEPs after receiving training (Pretti-Frontczak & Bricker, 2000; Rehfeldt, Clark, & Lee, 2010; Shriner, et al., 2012; Doren, et al., 2012).

Five criteria (Pretti-Frontczak & Bricker, 2000) have been identified for goals identified in IEP to be operational effectiveness. Goals must be observable and measurable (Micchnowicz, et al., 1995) for appropriate facilitation that targets the final observable outcome. Goals must set the ground for planning that creates opportunities for the student to learn through practice and active participation during the day (Notari & Bricker, 1990; Grisham-Brown & Hemmeter, 1998; McWilliam, et al., 1998; Grisham-Brown, et al., 2002). Goals should target functional skills (Grisham-Brown & Hemmeter, 1998; Pretti-Frontczak & Bricker, 2000; Grisham-Brown, et al., 2002; Diliberto & Brewer, 2012) that can be generalized and used across different environments (Lynch & Beare, 1990; Notari & Bricker, 1990). Goals must reflect sequential relationship for progressive development (Micchnowicz, et al., 1995; Pretti-Frontczak & Bricker, 2000; Dinnebeil, Spino, & McInerney, 2011) and functional progression so as to provide appropriate context for planning and instruction (Mager, 1997; Grisham-Brown & Hemmeter, 1998; Pretti-Frontczak & Bricker, 2000; Grisham-Brown, et al., 2002; Twachtman-Cullen & Twachtman-Bassett, 2011). Furthermore, goals set should result in functional outcomes that lead to greater independence (Lynch & Beare, 1990; McWilliam, et al., 1998).

The increased level of independence may also result from the convergence of different functional skills by functioning as the focus for pathways and direction for sequential skill developmental (Twachtman-Cullen & Twachtman-Bassett, 2011). It helps to minimize development of functionally ineffectively splinter skills.

IEP and Student Learning

Goals in IEP are identified in relation to entry skill and the level of assistance or least restrictive environment (Twachtman-Cullen & Twachtman-Bassett, 2011) required to achieve this defined outcome. Entry skill or present learning position (Bricker, Pretti-Frontczak, & McComas, 1998; Twachtman-Cullen & Twachtman-Bassett, 2011) provides the baseline for assessment (Pretti-Frontczak & Bricker, 2000; Cooney & Buchanan, 2001) . It also forms the abilities reference for lesson plans (Bricker, Pretti-Frontczak, & McComas, 1998; Grisham-Brown & Hemmeter, 1998; Twachtman-Cullen & Twachtman-Bassett, 2011). Goals as observable outcomes are measured and assessed for levels of achievement (Micchnowicz, et al., 1995; Pretti-Frontczak & Bricker, 2000; Grisham-Brown, et al., 2002; Twachtman-Cullen & Twachtman-Bassett, 2011). The assessment can be based on standardized expectations (Huefner, 2000; Gartin & Murdick, 2005; Armstrong, et al., 2011; Twachtman-Cullen & Twachtman-Bassett, 2011) or simply based on individualized abilities (Cooney & Buchanan, 2001; Hollingsworth, Boone, & Crais, 2009; Dinnebeil, Spino, & McInerney, 2011). Assessment results charted over time provides a checklist (Dinnebeil, Spino, & McInerney, 2011) that documents individual development.

IEP and Teaching

IEP with instructional contents are operationally beneficial (Mager, 1997; Grisham-Brown & Hemmeter, 1998; Pretti-Frontczak & Bricker, 2000; Grisham-Brown, et al., 2002; Twachtman-Cullen & Twachtman-Bassett, 2011) as reference for planning lessons (Grisham-Brown & Hemmeter, 1998; Grisham-Brown, et al., 2002; Hollingsworth, Boone, & Crais, 2009). The resultant organized structured approach (Bennett, Reichow, & Wolery, 2011; Murdock & Hobbs, 2011) provides for consistency from both teachers and teaching assistants (French, 2001; Hollingsworth, Boone, & Crais, 2009) . It minimizes confusion and inconsistencies that may result when oral instructions dominate (French, 2001; Hollingsworth, Boone, & Crais, 2009).

Based on above discussion, student development is determined by the quality of goal identified in the IEP. Thus the operational value of IEP is positively correlated to student learning. Hence ability to write and/or use IEP are basic skills required for effective facilitation of special educational needs. IEP documentation is the logical starting point when providing training for facilitating special educational needs.

Method

Kianh Centre enrolls students from ages three to eighteen. It provides educational programs for students with a diversity of disabilities including autism, cerebral palsy, developmental delay, Down syndrome, microcephalus, sensory impairments, and behavior issues as well as other undiagnosed disabilities. The academic year begins about August each year and ends with a one-month summer break about July.

This project started in April 2012 with 21 students, mostly from families within the immediate commune. The diversity of impairments and wide age gap posed major challenges to the committed but mostly inexperienced staff. The demand for special education was great and student number increased over time. In June 2012 there were two certified and one uncertified teacher with five teaching assistants in three classes with just over twenty students. By the end of 2013 there were three certified and one uncertified teacher with thirteen teaching assistants in four classes for just over sixty students. The project ended in March 2014 with more than seventy full time students enrolled at Kianh Centre. Except for the certified teachers all other staff did not receive formal training for special educational needs (SEN) and most had limited educational experience in the field of disability. For duration of this period three physical therapists attended to students with physical therapy needs. Training program, discussion, instructions, information and documentation were conducted in English and translated to Vietnamese and vice versa by a proficient interpreter.

The project started with identification of the level of teaching skills through observations and discussions with teachers. This was followed by analysis of the profile of student abilities and needs in relation to classroom physical and learning environments. Preliminary findings showed that effective engagement for learning was limited and skills required to address diverse needs through individualized active participation was wanting. It was noted that the entry skill of certified teachers was insufficient to enable effective facilitation for student learning.

The training program started with teachers being introduced to theoretical aspects of IEP, its functions and how IEPs were written. The first task was for teachers to recognize that students were individuals within a classroom. Teachers observed how their students with different disabilities benefited when taught as individuals with different abilities and needs. Teachers were encouraged and guided to identify individual abilities. Instead of focusing on the disabilities, they learnt to maintain and develop awareness for inherent limitations that respective disabilities have on the individual's development. These were documented in sessions when they learnt to write IEPs on given pro forma. Based on teachers' responses, modifications were made to IEP pro forma for greater efficiency and effectiveness as well as to accommodate for cultural needs.

Teachers were guided to identify the entry skill (Appendix, item 3) and the subject (Appendix) specific functional outcome (Appendix, item 2) based on student's abilities and needs. Ideally goals identified should reflect progression points over time along identified curriculum. This however was possible only for students working on the mainstream curriculum. A curriculum that effectively addresses special needs and functional outcomes has not yet been developed in Vietnam. In the absence of a reference curriculum, teachers were facilitated to view long term goals (Appendix, item 5) as progression points along sequential points towards subject specific functional outcome (Appendix, item 2). Similarly, short term goals (Appendix, item 4) were smaller steps along the same pathway towards the long term goal.

With reference to the entry skill and short term goal identified, teachers were encouraged and guided to reflect on the student's learning process. Teachers received demonstrations on how to plan their teaching strategies by defining the task analysis (Appendix, item 6) as small sequential skills to be acquired by that student to achieve the short term goal. They were facilitated to reflect on the student's abilities and needs in order to identify and document (Appendix, item 6) the type and level of assistance the student would require to complete each task documented within the task analysis.

Eventually teachers were guided to make a realistic projection for a functional outcome (Appendix, item 1) that reflected greater independence in the next two to five years, depending on student's ability. In order that student develop skills towards greater independence, teachers were assisted to view this projected functional outcome (Appendix, item 1) of improved independence as the convergent point for different subject specific functional skills (Appendix, item 2).

Over a period of about twelve months, discussions and reviews were carried out with each teacher for every IEP written. Subsequent changes made to pro forma ensured greater ease of use and uniformity in approach for writing IEPs. Familiarity in appropriate use of pro forma and practice over time saw a change in mindset towards appropriate and more effective facilitation for individualized special educational needs. Over a period of about nine months, pro forma were reviewed to facilitate a logical flow for trend of thoughts. In the finalized pro forma presently discussed (Appendix), guiding questions were posted for teachers to respond in a sequential order indicated by the numerals. This process of documentation developed an operating system that helped to minimize reversion to the original that may result from culturally ingrained habits.

Teachers wrote IEPs and trained teaching assistants to use these as references and operating documents. IEPs written for every student had goals for literacy, numeracy and communication. Based on individualized needs, other goals for physical therapy, behavior, and social and life skills were optional. Physical therapy staff received training from an Australian occupational therapist (also an AVID volunteer) after the finalized pro forma (Appendix) was prepared.

About six months after these IEPs were used in classrooms and four months by therapy staff, staff evaluated their skill levels in relation to student outcomes.

Results

About eighteen months into the training program, staff who had worked at the centre for at least six months participated in this evaluation. Staff evaluated the outcomes achieved as a result of using IEPs written on prescribed pro forma (Appendix). The results shown in Tables 1 to 5 do not reflect results for *Disagree* and *Strongly disagree* as there was no disagreement. A total of twelve staff participated. This included three teachers (T), six teaching assistants (TA) and three physical therapists (PT). Value given in () reflect per cent of sub-total and total as indicated within each table.

Table 1. Profile of Students in Classrooms over a Period of Six Months

The Classroom								
Statement		Yes			No			Comment
		T	TA	PT	T	TA	PT	
1	There are 10-15 students in my class.	3	4	*	0	2	*	
2	Students in my class usually work in small groups of 1 to 4 students per group.	2	4	*	1	1	*	1 TA did not respond.
3	There are usually 3-5 groups of students doing work in my class.	3	6	*	0	0	*	*Not relevant for PT

Note. A Total of Twelve Staff Participated - 3 Teachers (T), 6 Teaching Assistants (TA) And 3 Physical Therapists (PT).

The Classroom

The results in Table 1 show the complex dynamics within classrooms in terms of total number of students, the number of students within each group and the number of groups during classroom sessions.

Student numbers in classes vary. Two teaching staff had less than ten students (nine, not shown in table), seven had more than ten students with one classroom having sixteen students (not shown in table) at one stage. The diversity in student profile is reflected in the number of groups within each class and number of students within each group. Classroom sessions may operate with three or more small groups within each class. The class with sixteen students had as many as five and at times six separate groups. Physical therapists did not respond as therapist worked with one student at a time.

At the start of the training program, teachings staff was overwhelmed by complex educational needs and the difficulty in organizing the total of twenty odd students at the centre. Teaching and learning was very much determined by staff's personal experiences as students in mainstream schools in Vietnam. It

reflected marginal awareness for special needs and individualization. Teachers instructed from the front of the classroom while students as a group were expected to be quiet, seated and listening. The level of active participation and effective learning for most students were low. Compliance was very much equivalent to 'learning'. The general comments were that students did not 'remember' what they had 'learnt' and disruptive behavior was an issue. Subsequent to receiving professional development training and using student goals in the IEPs they wrote as a measure, staff reflected on their abilities to facilitate special educational needs (Tables 2 to 5). There was agreement for all statements except for some neutral responses. One teaching staff gave a neutral response to (Table 3, statement 6) while the other four neutral responses were given by therapy staff for Table 2, statement 5, Table 3, statement 5 and Table 4, statements 1 and 4. For purpose of present discussion, analysis and discussion of the data will focus mainly on responses that showed fifty percent or more for *strongly agree* and eighty percent or more for *agree*. Data for *disagree* and *strongly disagree* is not shown as there was no disagreement.

Table 2. Staff Evaluation on Student Development as A Result of Using IEP Written on Pro Forma

Statement	Strongly agree				Agree				Neutral		
	T	TA	PT	A	T	TA	PT	A	T	TA	PT
Individual Student Developmental Outcome Resulting From Use of IEP Pro Forma											
1 Identified long term expected functional outcome (next 2-5 years) has enabled student to focus on tasks for developing specific skills along the mapped pathway.	1 (33)	2 (3)	0	3 (25)	2 (67)	5 (83)	3 (100)	10 (83)	0	0	0
2 It has enabled student to achieve short term goal as an outcome along a sequence of steps to be acquired for the mapped pathway.	1 (33)	3 (50)	1 (33)	5 (42)	2 (67)	4 (67)	2 (67)	8 (57)	0	0	0
3 It has helped students achieve greater success in acquiring new skills.	2 (67)	2 (3)	2 (67)	6 (50)	1 (33)	5 (83)	1 (33)	7 (58)	0	0	0
4 It has resulted in student development towards acquiring functional skills.	1 (33)	1 (17)	1 (33)	3 (25)	2 (67)	6 (100)	2 (67)	10 (83)	0	0	0
5 Writing task analysis has made me reflect on the small steps within the specified short term goal.	1 (33)	2 (33)	1 (33)	4 (33)	2 (67)	5 (83)	1 (33)	8 (67)	0	0	1 (33)

Note: A Total (A) Of Twelve Staff Participated - 3 Teachers (T), 6 Teaching Assistants (TA) And 3 Physical Therapists (PT). Figure In () Reflect %.

Individual Student Development Outcome

Responses given in Table 2 demonstrates how staff felt about the way they facilitated student development (statements 3 and 4) by linking short term goals along specified pathway (statement 2) to a projected functional outcome towards greater independence (statement 1). Staff reflected on how they viewed the process of student learning as a sequence of small steps within a given task (statement 5).

In the training program for writing IEP, projection and identification of an expected functional outcome (Appendix, item 1) took place at the end after staff was able to address other aspects of IEP. Subsequently termed the projected functional outcome (PFO), this however was made the first point of contact (Appendix, item 1) when writing IEP. As the focal point for convergence of skills from different areas of development (Appendix, item 2) it required the teacher to reflect on student's inherent impairment and the implications this had on the individual's development before making a realistic projection (two to five years) for a possible outcome within his/her functional limits. All staff, except one neutral response, indicated that the PFO identified within the IEP was useful in helping students to acquire skills.

Eighty-three per cent of all staff, including all therapists and eighty-three percent of teaching assistants agreed that PFO enabled student development to be mapped along a developmental pathway over time. Fifty percent of teaching assistants strongly agreed that PFO helped them enable student to focus on tasks for developing specific skills along mapped pathways. Fifty percent of all staff, including sixty-seven percent of teachers and therapists, strongly agreed that students were better able to achieve short term goal as an outcome along a sequence of steps toward functional skill outcome identified in PFO. Eighty-three percent of teaching assistants agreed that their knowing the PFO helped enabled student

develop skills. An overwhelming eighty-three percent of classroom staff, including all teaching assistants, agreed that the having PFO identified for them helped in student development.

Table 3. Staff Evaluation on the Functions And Operational Outcomes Derived as a Result of Having the Task Analysis for the Short Term Goal Identified within IEPs

Statement		Strongly agree				Agree				Neutral			
		T	TA	PT	A	T	TA	PT	A	T	TA	PT	A
Task Analysis For Short Term Goal													
1	Writing task analysis has made me reflect on the small steps within the specified short term goal.	0 (67)	4 (33)	1 (42)	5 (100)	3 (33)	2 (67)	2 (58)	7 (58)	0	0	0	
2	Writing task analysis has made me more aware of the process of learning that the student undergo to achieve the specified goal.	1 (33)	3 (50)	1 (33)	5 (42)	2 (67)	3 (50)	2 (67)	7 (58)	0	0	0	
3	Writing task analysis has made me a better facilitator for student learning.	0 (50)	3 (50)	0 (25)	3 (100)	3 (50)	3 (50)	3 (75)	9 (75)	0	0	0	
4	The level of assistance and expected outcomes identified in the task analysis table is operationally important in the classroom.	1 (33)	4 (67)	1 (33)	6 (50)	2 (67)	2 (33)	2 (67)	6 (50)	0	0	0	
5	The task analysis table provides useful information to other teaching staff on the level of assistance the student requires to achieve the expected outcome.	1 (33)	3 (50)	0 (33)	4 (33)	2 (67)	3 (50)	2 (67)	7 (58)	0	0	1 (33)	1 (0)
6	Regular entry of dates for recording of the student's performance in the task analysis table is not difficult.	0	0	1 (33)	1 (8)	3 (100)	5 (83)	2 (67)	10 (83)	0	1 (17)	0	1 (0)
7	Classroom staff who work with the student is able to make accurate entries for charting the student's development.	1 (33)	1 (17)	1 (33)	3 (25)	2 (67)	5 (83)	2 (67)	9 (75)	0	0	0	
8	Regular entry of dates in the task analysis table has helped me to monitor progress or the lack of it towards achieving the specified short term goal.	2 (67)	3 (50)	2 (67)	7 (58)	1 (33)	3 (50)	1 (33)	5 (42)	0	0	0	
9	Regular entry of dates in the task analysis table provides me with information for future goal writing.	1 (33)	2 (33)	1 (33)	4 (33)	2 (67)	4 (67)	2 (67)	8 (67)	0	0	0	

Note. Total number of participants (A); Teachers (T), Teaching assistants (TA); Physical therapists (PT). Figure in () reflect %.

Task Analysis for Short Term Goal

Enabling learning by all students in the complex classroom environment as discussed above was further complicated by the prevalence of verbal instructions. Having identified the appropriate entry skill (Appendix, item 3) and short term goal (Appendix, item 4) the pro forma presented an avenue for reference through documentation of the task analysis (Appendix, item 6). Table 3 focuses on the result that task analysis had on staffs' ability to facilitate student learning.

When teachers and therapists write IEPs, in consultation with parents and teaching assistants, they reflect on possible and anticipated responses from students. They developed greater awareness for student as individual with abilities and needs to acquire specified skills as observable outcomes. Inclusion of the task analysis within the IEP enabled facilitators to view student acquisition of short term goal as a sequence of small steps (statement1). Based on individual student abilities and needs (Appendix, items 4b/4c), the task analysis (Appendix, item 6) identifies and documents the individual's learning process (statement 2) as a sequence of small manageable tasks/steps between entry skill (Appendix , item 3) and the final outcome as identified in the short term goal (Appendix, item 4a). The types and levels of assistance required (statement 4) to achieve outcomes identified within each task served as working reference (statement 5) and made it easier to effectively facilitate student learning (statement 3). It also presented reference points for monitoring (statement 8) when individualized assessments should be carried out. Simple regular date entries (statement 6) within the task analysis also presented useful information for planning realistic goals (statement 9). The task analysis established a document for reference and provided a working document for checking and recording individualized development over time (statement 7).

All teachers agreed and sixty seven percent of teaching assistants strongly agreed that the documented task analysis helped them reflect on small steps when assisting students to achieve specified goals. Fifty percent of teaching assistants strongly agreed that the task analysis improved their awareness on how student learnt. All teachers and physiotherapists agreed that the task analysis made them better facilitators for student learning. Fifty percent of all participants including, sixty-seven percent of teaching assistants strongly agreed that the level of assistance and expected outcomes identified in the task analysis was operationally important in the classroom. All teachers, eighty-three percent of teaching assistants and sixty-seven percent of therapists agreed that making regular entry of dates for recording student performance in the tabulated task analysis was not difficult. Fifty-eight percent of participants including, sixty-seven percent of teachers, fifty percent of teaching assistants and sixty-seven percent of therapist strongly agreed that regular entry of dates in the tabulated task analysis helped them to monitor progress towards achieving short term goals.

Table 4. Staff Evaluation on the Effect that Information Given in IEPS had on Organizing Students and Developing Lesson Plans

Statement		Strongly agree				Agree				Neutral			
		T	TA	PT	A	T	TA	PT	A	T	TA	PT	A
Lesson Plan													
1	Student diversity in my classroom makes planning lessons to address all their needs a challenge.	1 (33)	2 (33)	0	3 (25)	2 (67)	4 (67)	2 (67)	8 (67)	0	0	1 (33)	1
2	The abilities and needs information given in the IEP has helped in the grouping of students within the classroom.	1 (33)	4 (67)	1 (33)	6 (50)	2 (67)	2 (33)	2 (67)	6 (50)	0	0	0	
3	The information given in the IEP made it easier to develop lesson plans for the different groups of students in my classroom.	1 (33)	4 (67)	0	5 (42)	2 (67)	2 (33)	3 (100)	7 (58)	0	0	0	
4	Organising information in the manner required by the IEP pro forma has improved my organisational skill for teaching.	0	3 (50)	0	3 (25)	3 (100)	3 (50)	2 (67)	8 (67)	0	0	1 (33)	1

Note. Total number of participants (A); Teachers (T), Teaching assistants (TA); Physical therapists (PT). Figure in () reflect %.

Lesson Plans

Table 4 records opinions on the effect that IEP had on classroom organization and teaching. Staff reflected on the challenge (statement 1) that broad student diversity (Table 1) had on classroom management. Grouping students based on abilities and needs helped minimize the effects of differences within the classroom setting. Staff commented on how information in IEPs affected student grouping for classroom organization (statement 2) and planning lessons (statement 3). They reflected on the effect IEPs had on their organizational and management skills for effective student learning (statement 4). In any given area of development (Appendix, item 2) relevant knowledge of entry skills (Appendix, item 3), short/long term goals (Appendix, items 4/5) and learning process as given in the task analysis (Appendix, item 6) provided critical information required to organize and plan for student learning. Once grouped, lesson plans can be prepared according to needs (Appendix, items 4b/4c) of students within each group.

Sixty-seven percent of teaching assistants strongly agreed that information given in the IEP made student grouping and planning lessons easier. All therapists also agreed that the way the information was organized within IEPs assisted them to facilitate the therapy needs of their students. All teachers agreed and fifty percent of teaching assistants strongly agreed that information presented in IEP resulted in improvement in their organization skills for teaching. All teachers agreed that the need to reflect and organize the information required to fill in the IEP pro forma has improved their organizational skill for teaching. Improved ability to plan and organize may be demonstrated by the fact that only thirty-three percent of all classroom staff strongly agreed that student diversity within the classroom was a challenge for teaching.

Table 5. Staff Evaluation on Personal Skills Acquired as a Result of Writing and/or Using IEPs on Given Pro Forma

Statement		Strongly agree				Agree				Neutral			
		T	TA	PT	A	T	TA	PT	A	T	TA	PT	A
Views On The Pro Forma For IEP Writing													
1	It has made me reflect on the way I function as a teacher in a classroom for students with special needs.	1 (33)	3 (50)	0	4 (33)	2 (67)	3 (50)	3 (100)	8 (67)	0	0	0	
2	It has enabled me to recognise each student as an individual with impairment/s and still has his/her own abilities.	1 (33)	2 (33)	1 (33)	4 (33)	2 (67)	4 (67)	2 (67)	8 (67)	0	0	0	
3	It has empowered me to assist my students to develop based on their individual abilities and needs.	1 (33)	4 (67)	0	5 (42)	2 (67)	2 (33)	3 (100)	7 (58)	0	0	0	
4	It has helped me set realistic (achievable) short term goals as progressive functional skills to be acquired over time.	1 (33)	2 (33)	0	3 (25)	2 (67)	4 (67)	3 (100)	9 (75)	0	0	0	
5	It has made me a more effective teacher for students with special needs.	1 (33)	3 (50)	0	4 (33)	2 (67)	3 (50)	3 (100)	8 (67)	0	0	0	

Note. Total number of participants (A); Teachers (T), Teaching assistants (TA); Physical therapists (PT). Figure in () reflect %.

Views for the Use of IEP Forma

Table 5 presents opinions on the pro forma and how information was presented in the IEPs. Staff reflected on the way they work as facilitators (statement 1) with students as individuals (statement 2). They assessed the skills they acquired for facilitating learning (statements 3 and 5) and their ability for identifying realistic goals for students (statement 4).

All staff agreed that the way information was presented in IEPs gave them better skills to facilitate student learning. Fifty percent of teaching assistants strongly agreed it had made them more reflective of the way they functioned in classroom and that it made them better facilitators. Sixty-seven percent of teaching assistants strongly agreed that the IEP had enabled them to work with students as individuals with special needs and abilities.

Discussion

All staff found the PFO useful (Table 2). Identifying and subsequently knowing the PFO helped minimize operational complexities (Drasgow, Yell, & Robinson, 2001; Blackwell, 2014) by facilitating planning for appropriate developmental pathways (Pretti-Frontczak, 2000; Dinnebeil, Spino, & McInerney, 2011; Twachtman-Cullen & Twachtman-Bassett, 2011) towards greater independence (Pretti-Frontczak, 2000). PFO positioned students as individuals with potential and provided foreknowledge for purposeful directed (Notari & Bricker, 1990; Armstrong, Armstrong, & Spandaguo, 2011; Twachtman-Cullen, & Twachtman-Bassett, 2011) facilitation. The operational benefits (Pretti-Frontczak, 2000; Grisham-Brown, et al., 2002; Twachtman-Cullen & Twachtman-Bassett, 2011) provided by PFO empowered staff to be better facilitators (Table 2).

PFO facilitates planning for developmental pathways from entry skill to functional outcome for greater independence. It addresses issues that arise with frequent changes in goals that often accompany changes in service providers and environments, norms in educational settings, over time. PFO maintains developmental continuity. It provides direction for identification of student goals as acquisition of sequential skills (Micchnowicz, et al., 1995; Pretti-Frontczak & Bricker, 2000; Dinnebeil, Spino, & McInerney, 2011) towards the identified functional outcomes (Lynch & Beare, 1990; McWilliam, et al., 1998). Maintaining this developmental continuum is especially important for students with severe and/or multiple disabilities who often require long time to acquire skills to a functional level. PFO minimizes changes to goals that may result in acquisition of a variety of splinter skill that cannot be effectively generalized for functional use towards greater independence. It facilitates effective identification of subject specific goals (Appendix, item 2) six-month short term (Appendix, item 4) and one-year long

term (Appendix, item 5) goals as progression points from relevant entry skill (Appendix, item 3) towards outcome for PFO. PFO facilitated the convergent mapping for developmental pathways towards greater independence.

Results given in Tables 3 and 4 demonstrate the effects IEP had on levels of classroom organization and student learning. As goals are sequential steps from the entry skills along pathways for progressive development (Pretti-Frontczak, 2000; Twachtman-Cullen & Twachtman-Bassett, 2011; Diliberto & Brewer, 2012), task analysis are small sequential steps within the student's learning process for achieving the specified short term goal (Grisham-Brown & Hemmeter, 1998; Grisham-Brown, et al., 2002; Hollingsworth, Boone, & Crais, 2009; Dinnebeil, Spino, & McInerney, 2011). Documented within the IEP, task analysis provides the reference for planning and uniformity for instructions (Mager, 1997; Grisham-Brown & Hemmeter, 1998; Pretti-Frontczak & Bricker, 2000; Grisham-Brown, et al., 2002; Twachtman-Cullen & Twachtman-Bassett, 2011).

Task analysis charts the student learning process. It assists in the setting up of an environment that facilitates learning and skill acquisition (Twachtman-Cullen & Twachtman-Bassett, 2011). IEPs with task analysis facilitated planning and addressed the important factor of uniformity across team members in terms of expected outcome as well as type and level of assistance (Table 3, statement 5) to be provided for student to complete task. As an operational reference it was useful when teachers were not available to help and when students were being assisted by less familiar staff. Date check entries made in task analysis transformed IEPs into working documents that provided records of individual student development over the years. While there was general agreement that this information could be used for subsequent identification and setting of realistic future goals for students (Table 3, statement 9), only one teacher and one therapist strongly agreed. This may be indicative of the novelty of writing IEPs and using them as working and recording document. It may also reflect the absence of appropriate curricula required for reference to set goals along identified developmental pathways.

Lesson plans are operational references that document strategic needs for facilitating student learning in structured sessions. While lesson plans may be distinct from IEP, Table 4 indicates information documented in IEPs served as important references when setting up and supporting student-centered (Grisham-Brown & Hemmeter, 1998; Grisham-Brown, et al., 2002; Hollingsworth, Boone, & Crais, 2009; Dinnebeil, Spino, & McInerney, 2011) learning environments. Lesson plans together with the task analysis minimized confusion among staff members and provided consistent structures in sessions. Thus IEPs as reference resulted in improved levels of organization and planning which in turn resulted in improved levels of engagement and learning as discussed for Table 2.

The strong support given by teaching assistants for use of IEPs as reference and working documents, as shown in Table 4, is encouraging. Their ability to adapt by acquiring new skills through professional development (Doren, et al., 2012) and moving from less effective aural instructions (Hollingsworth, Boone, & Crais, 2009) are important contributors in student learning. Using IEPs written by the teachers, they became more aware of the who, how and what of each student and made significant progress in their ability to facilitate individualized special needs.

Table 5 showed all staff agreed that the professional development they underwent for writing and/or using IEP has empowered them with skills to facilitate SEN. This is supported by student development observed as discussed earlier for Table 2. By the end of this two-year project teachers writing term reports estimated goal achievement rates between seventy and one hundred per cent. Academic goals set for literacy and numeracy experienced greatest success. Behavior issues had lowest success. This is because concepts for behavior manifestation and appropriate behavior management are relatively new grounds for the staff.

While IEPs written on the authentic pro forma presently discussed has initiated a change mindset towards understanding that individuals with impairments have abilities and can acquire skills, it will be useful to assess the functional value of goals identified within these IEPs. While records of student development in the task analysis provided opportunities for assessments (Micchnowicz, et al., 1995; Huefner, 2000; Pretti-Frontczak & Bricker, 2000; Cooney & Buchanan, 2001; Grisham-Brown, et al., 2002; Gartin & Murdick, 2005; Hollingsworth, Boone, & Crais, 2009; Armstrong, Armstrong, & Spandaguo, 2011; Dinnebeil, et al., 2011; Twachtman-Cullen & Twachtman-Bassett, 2011), this was not addressed in the study.

Developing *standards-based* IEPs as identified in Shriner, et al., (2012) remains a challenge. In the absence of legal procedural requirements, this project only addressed the *substantive* educational benefits of student within Kianh Centre, a small non-government organization. More research is required to assess the feasibility of this approach for other settings with special educational needs. Furthermore over time, functional educational system can only be sustained with the support of an equally effective reference curriculum. Until such times when an effective reference curriculum for special education is made available, this effective IEP effected operating system for SEN as discussed in this paper, may only be transient.

Conclusion

The results discussed have demonstrated that in the absence of legal procedural requirement, special educational needs have been effectively addressed in Vietnam. Professional development has developed understanding for the function and use of IEP as the primary reference and working document required in special education. Logical and systematic organization of student information within an authentic IEP pro forma has empowered inexperienced staff with skills to effectively facilitate the educational, communication and physical needs of students within an environment with diverse special needs.

References

- Armstrong, D., Armstrong, A. C., & Spandaguo, I. (2011). Inclusion: by choice or chance? *International Journal of Inclusive Education*, 15(1), 29-39.
- Bennett, K., Reichow, B., & Wolery, M. (2011). Effects of structured teaching on the behavior of young children with disabilities. *Focus on Autism and Other Developmental Disabilities*, 26, 143-152.
- Blackhurst, A. E., & Berdine, W. H. (1993). Issues in special education. . In A.E.Blackhurst & W. H. Berdine (Eds.), *An Introduction to special education* (3 ed., pp. 37-75). New York: HarperCollins.
- Blackwell, W. H., & Rossetti, Z. S. (2014). The development of individualized education programs: Where have we been and where should we go now? *SAGE Open*(April-June), 1-15.
- Boer, A. d., Pijl, S. J., & Minnaert, A. (2011). Regular primary school teachers' attitudes towards inclusive education: a review of the literature. *International Journal of Inclusive Education*, 15(3), 331-353.
- Bricker, D. D., Pretti-Frontczak, K. L., & McComas, N. R. (1998). *An activity-based approach to early intervention (2nd Ed.)*. Baltimore, MD: Paul H. Brookes.
- Cooney, M. H., & Buchanan, M. (2001). Documentation: Making assessment visible. *Young Exceptional Children*, 4(3), 10-16.
- Diliberto, J. A., & Brewer, D. (2012). Six tips for successful IEP meetings. *Teaching Exceptional Children*, 44(4), 30-37.
- Dinnebeil, L., Spino, M., & McInerney, W. (2011). Using implementation checklists to reinforce the use of child-focused intervention strategies. *Young Exceptional Children*, 14(2), 22-31.
- Doren, B., Flannery, K. B., Lombardi, A. R., & Kato, M. M. (2012). The impact of professional development and student and teacher characteristics on the quality of postsecondary goals. *Remedial and Special Education*, 34(4), 215-224.
- Drasgow, E., Yell, M. L., & Robinson, T. R. (2001). Developing legally correct and educationally appropriate IEPs. *Remedial and Special Education*, 22(6), 359-373.
- French, N. K. (2001). Supervising paraprofessionals: A survey of teacher practices. *Journal of Special Education*, 35(1), 41-53.
- Gartin, B. C., & Murdick, N. L. (2005). IDEA 2004: The IEP. *Remedial and Special Education*, 26(6), 327-331.
- Giangreco, M. F., Dennis, R. E., Edelman, S. W., & Cloninger, C. J. (1994). Dressing your IEPs for the general education climate :Analysis of IEP goals and objectives for students with multiple disabilities. *Remedial and Special Education*, 15(5), 288-296.
- Grisham-Brown, J., & Hemmeter, M. L. (1998). Writing IEP goals and objectives: Reflecting an activity-based approach to instruction for young children with disabilities. . *Young Exceptional Children*, 1(3), 2-10.
- Grisham-Brown, J., Pretti-Frontczak, K., Hemmeter, M. L., & Ridgley, R. (2002). Teaching IEP goals and objectives: In the context of classroom routines and activities. *Young Exceptional Children* 6(1), 18-27.
- Hollingsworth, H. L., Boone, H. A., & Crais, E. R. (2009). Individualized inclusion plans at work in early childhood classrooms. *Young Exceptional Children* 13(1), 19-35.
- Huefner, D. S. (2000). The risks and opportunities of the IEP requirements under IDEA '97. *Journal of Special Education*, 33, 195-204.

- Kurth, J., & Mastergeorge, A. M. (2010). Individual education plan goals and services for adolescents with autism: Impact of age and educational setting. *J Spec Educ* : , 44(3), 146-160
- Lloyd, C. (2008). Removing barriers to achievement: A strategy for inclusion or exclusion? *International Journal of Inclusive Education*, 12(2), 221-236.
- Lo, L. (2012). Demystifying the IEP process for diverse parents of children with disabilities. *Teaching Exceptional Children*, 44(3), 14-20.
- Lynch, E. C., & Beare, P. L. (1990). The quality of IEP objectives and their relevance to instruction for students with mental retardation and behaviour disorders. *Remedial and Special Education*, 11(2), 48-55.
- Mager, R. F. (1997). *Preparing instructional objectives: A critical tool in the development of effective instruction* (3 ed.). Atlanta: Center for Effective Performance.
- McSheehan, M., Sonnenmeier, R. M., Jorgensen, C. M., & Turner, K. (2006). Beyond communication access: Promoting learning of the general education curriculum by students with significant disabilities. *Topics in Language Disorders*, 26(3), 266-290.
- McWilliam, R. A., Ferguson, A., Harbin, G. L., Porter, P., Munn, D., & Vandiviere, P. (1998). The family-centeredness of individualized family service plans. *Topics in Early Childhood Special Education*, 18(2), 69-82.
- Micchnowicz, L. L., McConnell, S. R., Peterson, C. A., & Odom, S. L. (1995). Social goals and objectives of preschool IEPs : A content analysis. *Journal of Early Intervention*, 19(4), 273-282.
- Murdock, L. C., & Hobbs, J. Q. (2011). Tell me what you did today: A visual cueing strategy for children with ASD. *Focus on Autism and Other Developmental Disabilities*, 26(3), 162-172.
- Notari, A. R., & Bricker, D. D. (1990). The utility of a curriculum-based assessment instrument in the development of individualized education plans for infants and young children. *Journal of Early Intervention*, 14(2), 5-11.
- Pretti-Frontczak, K., & Bricker, D. (2000). Enhancing the quality of individualized educational plan (IEP) goals and objectives. *Journal of Early Intervention*, 23(2), 92-105.
- Rehfeldt, J. D., Clark, G. M., & Lee, S. W. (2010). The effects of using the Transition Planning Inventory and a structured IEP process as a transition planning intervention in IEP meeting outcomes. *Remedial and Special Education*, 33(1), 48-58.
- Shriner, J. G., Carty, S. J., Rose, C. A., Shogren, K. A., Kim, M., & Trach, J. S. (2012). Effects of using a web-based individualized education program decision-making tutorial. *The Journal of Special Education*, 47(3), 175-185.
- Twachtman-Cullen, D., & Twachtman-Bassett, J. (2011). *The IEP from A to Z : How to create meaningful and measurable goals and objectives*. San Francisco, CA Josey-Bass.

Appendix

Individual Education Plan – pro forma

Student Name :-	Date :-
Teacher :-	

1. <i>Expected functional outcome in....years (2-5 years)</i>	Subject	2. <i>Functional skill</i>
<i>Think of THIS student (abilities and needs) what CAN the student do in the future.</i>		<i>For this subject - take one relevant skill required to achieve the projected outcome identified in 1 .</i>

3. Entry skill	3a. What can the student do or do independently or best in relation to the selected skill/s in 2 above ? 3b. What can the student do with help - what is the level of help needed ? 3c. What other skills (name a few) does the student need to learn to gain more independence for this functional skill?
4. Short term goal (eg. 6 months)	4a. What will the student learn to do? - identify from 3c above. State level of expected outcome to achieve goal eg. % success. 4b. How will I support the student to ensure that he achieves the goal/s? 4c. How will I teach so that the student can learn? – refer to this for lesson plan.
5. Long term goal (eg. 12 months)	To be related to the Functional Skill identified in 2 above.

6. Task analysis /Assessment (refer to 4a above)	(Refer to 4b/4c above)			(Refer to 4b/4c above)			Use in unstructured activity			Comment
	Fully assisted	Some assistance	Independent	Fully assisted	Some assistance	Independent	Fully assisted	Some assistance	Independent	

*(Table contents – change according to goals, abilities and needs of student)

**INSTRUCTIONAL VARIABLES OF INCLUSIVE ELEMENTARY CLASSROOMS IN
TURKEY**

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The purpose of this study is twofold: to determine the instructional variables of the inclusive classrooms in Turkey and to investigate to what extent the student behaviors change according to eco-behavioral characteristics of inclusive classrooms. The study group consisted of 44 students between the ages of six and 12 with mild disabilities who were placed in regular classrooms and their teachers. The Turkish version of the Code for Instructional Structure and Student Academic Response-Mainstream Version (MS-CISSAR) was used for data collection which was based on a momentary time-sampling. The results of molar analysis indicated that the student behaviors displayed the most were no academic response, no task management, and no competing response. Attention and academic talk were found to be the teacher behaviors displayed the most during instruction. In addition, ecological analysis showed that some student behaviors such as no academic response, no task management, writing, and self-stimulation were not affected by instructional grouping while the attention behaviors of the students were found to be affected by no instruction, no task, no activity, and paper-pen activity conditions. On the other hand, the writing behaviors of the students increased in math and decreased in the discussion condition. All the findings were discussed based on the Turkish inclusion system along with the difficulties to be encountered by students and teachers during mainstreaming implementation.

In 1983, mainstreaming was accepted as an educational model for students with disabilities in Turkey. Since then, a large number of children with disabilities have been placed in regular classrooms, and, in accordance with the latest statistics given by the Ministry of Education, approximately 70,000 students with mild mental retardation, visual or hearing impairment, and emotional and behavioral disorders have been educated in the general education system (MEB, 2010). The implementation of mainstreaming has been examined by researchers in terms of the characteristics of the children who were placed into elementary schools (Çolak, 2007; Vuran, 2005; Deretarla, 2000) and the attitudes of the teachers (Atay, 1995; Uysal, 1995; Kayaoğlu, 1999; Diken, 1998), parents (Özbaba, 2000; Öncül & Batu, 2004; Temir, 2002), students without disabilities towards mainstreaming, and children with special needs (Aral & Dikici, 1998; Turhan, 2007). Several researchers have investigated the effectiveness of mainstreaming, and their results indicate that mainstreaming had a positive effect on reading comprehension (Güldenöğlu, 2008), social skills, social status (Çolak, 2007), computational skills (Can-Çalık, 2008), and peer relationships (Batu & Uysal, 2006) of the students with disabilities who were placed in regular classrooms.

- The results of all these studies provided valuable information regarding the mainstreaming system in Turkey and also revealed that there were several problems and difficulties with the educational system in terms of implementation. Turkish teachers have limited knowledge and experience in teaching students with disabilities, and they do not know how to deal with the problem behavior displayed by the students of different ability levels during instruction. Unfortunately, the support system for teachers and students with disabilities has not yet been

well established; therefore, teachers struggle when they teach students with disabilities in general education classrooms. Although teachers believed that students with disabilities should be in regular classrooms with their peers without disabilities, they reported that these students cause many problems while teaching, and they disturb the learning environment (Uysal, 1995; Kargin, Acarlar, & Sucuoğlu, 2005). In addition, because of the fact that the preschool and elementary school curricula are not modified by the teachers to account for the needs and characteristics of students with disabilities, the students have serious difficulties in accessing the curriculum and cannot learn as much as the parents and teachers expect. On the other hand, despite the fact that the majority of parents believe that being with their peers without disabilities in general classrooms is the best opportunity for their children with disabilities to be successfully involved with the community, they are not sure that the general classrooms can provide sufficient learning opportunities for them because of the difficulties encountered during the school day (Kargin, Acarlar, Sucuoğlu, 2005).

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- Considering the studies related to mainstreaming that have been conducted in Turkey, it can be clearly seen that we implicitly know what the people involved with the mainstreaming process think about educating children with disabilities in general classrooms and to what extent the difficulties were experienced by the teachers, parents and students with disabilities during its implementation in Turkey. However, we have limited information on what is happening in the mainstream classrooms in terms of variables related to student behavior, teacher behavior, and the learning environment. It is believed that despite all the considerable efforts made by the teachers, parents, and even the policy makers to increase the quality of mainstreaming implementation, it might not be realistic to consider creating an effective learning environment in which all students can learn according to their level of development without investigating the classroom environment and the factors affecting the behavior of the students both with and without disabilities in these inclusive classrooms. In existing literature, data have been collected and highlighted related to classroom characteristics, including the behavior of teachers and the environmental variables which guide professionals and researchers in making necessary changes and modifications in instruction. This is done so that all students can achieve as much as possible in general education classrooms (Kounin, 1970; Brophy, 1985; Greenwood, Carta, 1987; McDonnell, Thorson, McQuivey, 1998; Pretti-Frontczak, McGough, Vilardo ve Tankersley 2006). In other words, when instructional variables in the inclusive classrooms are examined, the behavior of the teacher and the environmental characteristics of the classrooms that affect the behavior and achievement of the students might be determined. Thus, it would be possible to take preventive measures in order to teach all students effectively in the general education classrooms.
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- The eco-behavioral assessment (EBA) is a commonly suggested method used to evaluate the instructional characteristics of classrooms at different levels. It is described as being an alternative assessment system designed to define, evaluate, and compare the relationships between the behavior of both students and teachers as well as environmental variables (Greenwood, Carta, Kamps, Terry & Delquadri, 1994; Pretti-Frontczak, McGough, Vilardo ve Tankersley 2006). According to the eco-behavioral approach, teaching is an intersection point for all activities, stimuli, student reactions, class structure, and learning materials (Cooper, Speece, 1990). By using the EBA, it is possible to evaluate environmental and instructional variables which evoke or accelerate student behaviors. With reference to the research, the information about the necessary changes related to the learning environment or the instruction to be done in teaching can be obtained by using the EBA (Greenwood, Carta, Kamps, Terry, Delquadri, 1994). In addition, the EBA provides valuable information to the teachers for understanding the relationships between student behavior and ecological variables so that they can improve their instruction by changing their teaching methods or learning environment. In several studies, the EBA was used to investigate school effectiveness (Kamps, Leonard, Dugan, Boland & Greenwood (1991); Logan, Bakeman, & Keefe, 1997; Logan & Keefe, 1997) and student behavior in different instructional settings (Duvall, Delquadri & Ward, 2004; Woolsey, Harrison, & Gardner, 2004). Moreover, the researchers evaluated teacher behavior and performance by the usage of EBA tools (Robenson, Woolesey, Seabrooks & Williams, 2004; Ross, Singer-Dudek, Greer, 2005). Lastly, the behavior of students with and without disabilities in inclusive classrooms was compared by using the EBA (Brown, Odom, Shouming, 1999; McDonnell, Thorson & McQuivey, 2000; Wallace, Anderson, Bartholomay & Hupp, 2002).
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- Research focusing on the instructional variables of the inclusive classrooms conducted to determine whether there were differences in the behavior of students with and without disabilities. It also examined whether the behavior of the two groups of students changed according to the behavior of the teacher and ecological variables in general education classrooms. For example, in one of the early studies focusing on the instructional characteristics of inclusive classrooms, researchers (Thurlow, Ysseldyke, Graden & Algozzine, 1984) compared the ecological variables of full-time regular classrooms and full-time special education classrooms. They stated that there were minimal ecological differences at these two service levels. In another study, the amount of time allocated to instruction in subjects for students with and without disabilities in elementary classrooms was compared, and it was found that there was no difference between the amount of instruction time allocated in special education and regular education classes. In addition, the researchers determined that a greater proportion of time was allocated to academic activities in special education classes than in regular classes (Ysseldyke, Thurlow, Christenson & Weiss, 1987).

In their study concerning inclusive elementary classrooms, McDonnell and his colleagues (1998) explored all the instructional variables of these classrooms comparing the behavior of students with the behavior of teachers along with ecological variables, such as *grouping structures* and *source of instruction*. Six students with disabilities and their classes were observed individually for a minimum of 20 minutes using the Code for Instructional Structure and Student Academic Response-Mainstream Version (MS-CISSAR: Carta, Greenwood, Schulte, Arreaga-Mayer & Terry, 1988). The findings of their study showed that although support personnel such as special education teachers and paraprofessionals were available in the learning environment, the general classroom teachers were the primary source of instruction for all students in inclusive classrooms. *Whole group instruction* was mostly used during instructional grouping, and all the students were provided *one-to-one instruction* according to their academic and behavioral needs. Moreover, general education teachers spent an average of one third of the observation time with academic interaction. When they were the focus of the teaching, students with disabilities were engaged in academic tasks in approximately 30% of the observation intervals. The researchers stated that their findings could guide the teachers to design their instruction so as to increase student/teacher interaction. In addition, they emphasized that the success of inclusive education should be examined to determine the effects of the instruction used in inclusive classes on the behavior and achievement of the students with disabilities.

The instructional context of students in inclusive classrooms has been the focus of several studies in which the authors wanted to determine what level of individual instruction was provided for students with disabilities and whether the instructional contexts changed for students both with and without disabilities in preschool, elementary classrooms, special education classes, and resource rooms. EBA was used to evaluate the instructional contexts of the inclusive classrooms, and the results revealed that student behavior, activities, location for instruction, and instructional group arrangement were different in inclusive preschool classes compared with regular kindergarten classes (Carta, Atwater, Schwartz, & Miller, 1990). Also, there were a few differences between these two educational environments in terms of instructional contexts (Greenwood, 1991; Bulgren & Carta, 1993). On the other hand, different instructional contexts were found to exist for students with severe disabilities when compared with those without disabilities in elementary classrooms (Logan & Malone, 1998). In one study, the amount of time allocated for instruction in classrooms which had students with severe disabilities was compared with those that did not (Hollowood, Salisbury, Rainforth & Palomboro, 1995). It was found that the allocated times for instruction were similar between the two types of classrooms. In this research, it was emphasized that the students with severe disabilities did not detract from the allocated time in inclusive classrooms.

One study which took place in four high school classrooms compared the behavior of students with severe disabilities with the behavior of those without disabilities (Wallace, Anderson, Bartholomay & Hupe, 2002), and the researchers found that there were no significant differences in the behaviors displayed between the two groups of students in general education classrooms. In addition, the students with severe disabilities were more often the focus of the teachers' attention, and there were very few instances when the teachers showed approval or disapproval toward the students with severe disabilities during instructional time. The authors suggested that for students with disabilities to be successfully included in high school classrooms, it is important that they be actively engaged, spend little time exhibiting competing responses, and be the focus of attention. Moreover, they emphasized when the students are actively engaged in academic learning, they achieve better. Furthermore, having support

personnel in regular classrooms solves the problems related to meeting the needs of the students with disabilities.

Recently, a group of researchers investigated the variables that predict access to the curriculum in general education classrooms for students with disabilities. To collect data, Access CISSAR, an expanded version of the MS-CISSAR, was used as an eco-behavioral observation tool. The results of the studies indicated that the presence of curricular modifications was a strong predictor for determining the academic responses of the students (Lee, Wehmeyer, Soukup, Palmer, 2010). Also, the teacher's instructional behaviors and focus, the students' academic responses and competing behavior, and the classroom management styles of the teachers significantly predicted the degree of access to the general education curriculum. Moreover, it was determined that there was a negative correlation between the teacher's behavior management in the classroom and student academic responses. There was also a negative correlation between the teacher instructional behavior and the competing behavior of the students (Lee, Soukup, Little, Wehmeyer, 2008). In addition, when students with disabilities were provided with instruction in self-directed learning, they achieved goals linked to the general education curriculum at rates higher than expected (Lee, Wehmeyer, Palmer, Soukup & Little, 2008). The researchers discussed their findings mainly in terms of whether the modifications were provided in inclusive classrooms so that students with disabilities could have access to regular classroom curriculums, and they strongly emphasized that access to the curriculum for the students with disabilities was affected by instructional decisions and the actions of the teachers who are primarily responsible for academic instruction.

Considering all the information given above, it is clear that the information related to instructional variables in the general classrooms reveals a strong relationship between the behavior of the student and the behavior of the teacher along with the environmental variables. In addition, it is accepted that this information may lead the teachers, researchers, and even the policy makers to be aware of these relationships which could lead to necessary changes in instructional methods and teacher behavior as well as classroom settings so as to implement successful mainstreaming. Therefore, the current study, part of a two-year project focusing on the classroom management of inclusive classrooms, attempts to determine the instructional variables of general classrooms in which students with disabilities are placed in Turkey. Therefore, the purpose of this study is twofold: to determine the instructional variables of the inclusive classrooms in Turkey and to investigate to what extent the students' behaviors change according to the eco-behavioral characteristics of elementary classrooms.

Method

Study Participants and Settings

The data in this study were collected from 44 inclusive classrooms in 23 elementary schools established in a newly developed area in Ankara where mostly low income families live. The students were in classes ranging from grade one to grade five. All of the schools had similar characteristics in terms of resources, number of students, and socioeconomic level of their students due to being located in one of the poor districts in Ankara. According to the regulations of the Ministry of Education, all schools were mandated to accept students with disabilities who were referred by the Guidance and Counseling Centers regardless of the characteristics of the students and the level of readiness of the schools in terms of infrastructural characteristics, including teacher training, materials, physical conditions of the classrooms, etc.

The students who were placed in general classrooms were diagnosed as having mild mental retardation, learning disabilities, and emotional and behavioral disorders. Because of the fact that some of the classrooms had more than one student with disabilities (SWD), only one SWD was randomly chosen as the target child of the study from each classroom. All students with disabilities were full-time students in the general classrooms in which the number of students was between 25 to 45. The age ranges of the SWD were between six and 12, and the majority of the SWD were boys (62.8%). The SWD was placed in the regular classes based on the decision of the Guiding and Counseling Centers of the Ministry of Education. Students with severe disabilities were excluded from the study since most of them have not been accepted into the general education system in Turkey.

In this study, the participating teachers in the elementary classrooms had different educational backgrounds. Approximately half of them (59.1%) graduated from the Faculties of Education of various universities, and the remaining teachers graduated from other faculties, such as Science or Economics. However, they had the right to teach in elementary schools because they had received teacher certificates

given by the Ministry of Education after the completion of several courses. Most of the teachers (61.4%) had no training related to mainstreaming or students with special needs. However, 22.7% of the teachers had participated in two-week courses provided by the Ministry of Education, or they had one introductory course pertaining to special education during their pre-service training. In Turkey, although general classroom teachers have limited knowledge and experience related to mainstreaming and are not provided with sufficient support so that they can teach students with disabilities, they have been given the responsibility of teaching all the students in their classrooms including those with disabilities.

Observational Data System

The data of this study were gathered by means of the Demographic Information Form and the Code For Instructional Structure And Student Academic Response-Mainstreaming Version (MS-CISSAR). All information related to the characteristics of students and teachers, including the number of students in each classroom, the number of classrooms in which the students with disabilities were placed in each school, the number of students without disabilities in each classroom, and the students' diagnosis as well as the teachers' years of experience, their age, gender, and experiences with the students with special needs, was collected by using the Demographic Information Form.

Table 1. The Characteristics of the Study Groups

Variable	N	%
The students with special needs		
Age		
6	1	2.3
7	6	13.6
8	9	20.5
9	10	22.7
10	9	20.5
11	6	13.6
12	3	6.8
Gender		
Girls	14	31.8
Boys	30	68.2
Type of disability		
Speech and language disorders	7	15.9
Mild mental retardation	14	31.8
Learning disability	19	43.2
Emotional and behavioral disorders	1	2.3
Other	3	6.8
General education teachers		
Age		
Less than 25	2	4.4
26-35	10	22.7
36-45	17	38.6
More than 46	15	34.1
Education		
Faculty of Education	26	59.1
Others	18	40.9
Experience with inclusion		
Less than 10 years	22	50
More than 10 years	22	50
Education related special education		
University courses	6	13.7
In-services training	10	22.7
University + in-service training	1	2.3
No information	27	61.4

MS-CISSAR, one of the computerized observation tools included by the Eco-Behavioral Software System which assesses the environment and behavior within the same observational taxonomies, was developed in order to evaluate the instructional characteristics of inclusive classrooms (Carta, Greenwood, Schulte, Arreaga-Mayer, Terry, 1988; Carta, Greenwood, Schwartz, & Miller, 1990). The goal of the EBA is to display the interaction between the behavior of students, the behavior of teachers,

and ecological factors. The MS-CISSAR is composed of three groups of instructional variables; teacher behaviors, student behaviors, and ecological variables. The 21 student responses included in the student variables were divided into three categories: academic responses, task management responses, and competing responses. The task management responses category contains seven student behaviors that facilitate involvement with academic tasks. In addition, the competing responses category consists of eight inappropriate behaviors which can be displayed during the classroom activities.

Teacher variables included in the MS-CISSAR are used to provide information about the teacher or other people who are responsible for teaching in regular education classrooms. Five types of information related to teachers (teacher definition, teacher behavior, teacher approval, teacher focus, and teacher position during instruction) can be gathered by using the teacher codes of the instrument. All five categories are scored for the same person who is providing the cues for the target student to respond. The last variable group of the MS-CISSAR is ecological events. Five groups of ecological variables can be assessed by means of this observation tool and researchers collect data related to educational settings, activity, physical arrangement, instructional grouping, and tasks.

More than one classroom variable can be observed at the same time by using the MS-CISSAR, and information pertinent to the percentage of the variables can be obtained by recording all teacher, student, and ecological variables. In addition, it can provide information about the relationship between conditional factors and student behaviors to be observed during instruction. All data were gathered by using a 20 second momentary time-sampling recording technique. Four different types of analysis as well as the graphics of the results are provided by the software (Carta, Greenwood, Schulte, Arreaga-Mayer, Terry, 1988). By using MS-CISSAR, the researchers are able to determine the percentages of all student and teacher behaviors in the subcategories and to compare student and teacher behaviors along with classroom settings on all variables. They can determine the changes in the percentages of each variable over the time or observation occasions (Molar analysis). The ecological analysis, also known as the conditional probability analysis, is used to establish the classroom conditions in which the student behaviors are displayed. Through ecological analysis, it can be determined which ecological variables can cause the changes in student behaviors (Greenwood, Carta, Kamps, Delquadri, 1997). The third analysis is the profile analysis, which gives the information about the differences between the behaviors of two students in the same observation period, and the involvement analysis, which calculates the percentage of the academic involvement of the target student versus the other students on a minute by minute basis. In this study, only the molar analysis and ecological analysis were carried out so as to determine instructional variables in the Turkish mainstream classrooms.

Procedure

MS-CISSAR was ordered from the Juniper Garden Project, University of Kansas, and all the materials including technical and practitioner manuals and tutorial videocassettes as well as the sample classroom videos were studied to understand the ecobehavioral assessment system which was used. After that, all written materials were photocopied, and the tutorial and sample classroom videocassettes (verbal and visual definitions of the instructional variables) were copied onto compact discs. Some of the technical problems were solved through discussion with the developers of the programs and the computer technicians of the Faculty of Education.

To collect data, the elementary classrooms in which the students with disabilities were placed were determined by communicating with the school districts. Then, 51 classrooms were established from one school district (23 schools) situated in one of the lower socioeconomic areas in the city of Ankara. Having obtained permission from the Ministry of Education, the researchers visited the elementary schools, explained the purpose of the study to the principals, and made appointments with the teachers who would have the SWD in their classrooms so that a video recording could be made during one of the content-area classes. Because MS-CISSAR software would be used to collect observational data which would be collected and recorded at the same time, it was suggested that data should be gathered without video recording in order to be more accurate. However, in this study, instruction sessions were videotaped by two undergraduate students due to several characteristics of the classrooms, including the number of the students and physical arrangements.

Before video recording, all the teachers were asked to teach the subject of the day as they usually do. Because the purpose of the study was to assess the behavior of the students, the behavior of the teachers, and the ecological variables during the instruction period, all recordings were carried out in one of the content-area classes such as Turkish, math, life science, or social science in each general education

classroom. Although it was recommended that the observation periods should be long enough to observe all the variables (Dawson, 2007), in this study, because the principals would not let the observers in the classrooms for more than one teaching session and because some of the teachers did not want to be observed and recorded during instruction, the classroom observations were carried out for only 40 minutes in each classroom. The physical arrangements of the classrooms were not suitable for video recording by only one camera, so two cameras were used with one focusing on the teacher and one on the target student. This would prove to be ideal since it reduced the limitations of the video evidence (Haefner Berg & Smith, 1996; Shepherd & Hannafin, 2008). The two undergraduate students had to position themselves in different parts of each classroom, and one student recorded teacher behavior while the other recorded the student behavior in a synchronized manner. Then all the videos were transferred to compact discs, and three CD sets which included the 49 classroom videos were arranged for observers as well as for the first researcher.

While the videos were being processed, the researcher and the observers completed calibration studies of the instrument and assessed the sample classroom videos based on the standards of the MS-CISSAR. Then to collect data related to the three groups of variables, inter-observer reliability studies were done by the observers and the researchers.

The last steps of the research were monitoring all 51 classroom videos and coding all the variables to be observed. The data in the study was collected by using the MS-CISSAR on a laptop computer in three areas based on the momentary time-sampling. All variables were recorded in each 20-second interval, and at the end of each 20 seconds, the observers looked at the variables to be observed and recorded the information while they were watching the classroom videos. All data were investigated individually by the researchers. Although all effort was made to prevent missing data, it was recognized that the video tapes of two classrooms had errors, so the observers were not able to see some of the variables. Therefore, these tapes were excluded from the study which resulted in a study group consisting of 49 students with disabilities and 44 general education teachers.

Reliability Studies

Validation studies of the MS-CISSAR were conducted by several researchers (Kamps, Leonard & Greenwood, 1991; Rotholz, Kamps & Greenwood, 1989), and it was proved that the instrument was valid for collecting data related to student behaviors and ecological characteristics of inclusive classrooms. In this study, because the researchers had sufficient English, all the reliability and validity studies were carried out using the English version of the software, and translation into Turkish was performed after completion of the research.

Before the study, the three researchers learned how to use the MS-CISSAR through the verbal (practitioner manual) and visual (video-cassettes) definitions of the instructional variables included with the MS-CISSAR. Each variable of the instrument was studied separately by the researchers, and it was decided that the second and third researcher would be the independent observers in the study. Then the observers reviewed all definitions with the first researcher and discussed the definitions of the variables on which they did not agree. They continued until agreements on all definitions were established. In the next step of the study, the observers responded to the Three Step Test included on the tutorial cassette which assesses teacher behaviors, student behaviors, and ecological variables. They studied examples and events presented by the test until the criteria established by Greenwood and his colleagues (90% accuracy) was met. Then the observers assessed the instructional variables of the sample classroom provided on the tutorial cassettes and they continued to study how to code the instructional variables by using time-sampling until the standards of the software were met.

Having completed the calibration studies, the researchers planned to conduct observations and record the variables of the Turkish elementary classrooms during the teacher instruction period in one academic content-area class so that they could compare the instructional variables of the sample class with the Turkish classrooms. During the observations, the researchers recognized that some of the definitions of the instructional variables differed in Turkish classrooms from the original classroom on the tutorial cassette, and, after having discussions with the developers of the software (personal communication), it was decided that additions be made to some variables. However, none of the names of the variables were changed. For example, if the target student “looks at” and “attends” to the teacher who is verbalizing, this was coded as “listen to the teacher lecture”. In our classrooms, it was frequently observed that the target students looked at and attended to one of the students who was verbalizing (reading aloud or talking about subject). However, there was no behavioral code for this student behavior in the MS-

CISSAR. With reference to this, “looks at and attends to the student verbalizing” was added to “listen to the teacher lecture” code. The other changes made in the definitions are shown in table 2.

The four Turkish classroom video tapes that were not included in the study group were separately assessed, and data were independently recorded by each observer. Then the observers compared their results with each other and studied the classroom videos until the percentage of agreement for the three groups of variables was more than 85%. This was calculated by taking the number of agreements by interval, dividing it by the number of agreements plus disagreements, and multiplying the result by 100. The reliability of the two observers was found to be in the range of 77%-90% for student behaviors, 75%-100% for teacher behaviors, and 70%-100% for ecological variables. Having completed all calibrations and reliability studies supervised by the first author, the instructional variables of the 44 classrooms were assessed by the two observers using MS-CISSAR software.

Table 2. The Changes of Variable of the Turkish Form of the MS-CISSAR.

Changed variables		Original EBASS items	Turkish Form
Student Category	Task participation	Task participation is recorded when the student manipulates elements of an academic task individually or shared with peers.	Task participation is recorded when the student manipulates elements of an academic task individually or shared with peers. <i>Using dictionary and any kind of material according to teachers' directions is also recorded.</i>
	Silent Reading	Read silent is recorded when the students is observed looking at reading materials including books, workbooks, worksheet, computers or blackboard at 2 seconds and has eye movement indicating scanning words numbers and letters.	Silent Reading is recorded when the student is observed looking at reading materials including books, workbooks, worksheet, computers or blackboard at 2 seconds and has eye movement indicating scanning words numbers and letters. <i>Reading the words found from the dictionary is also recorded.</i>
	Moves	Move is recorded when the student is observed walking or running to a new area in the classroom. It mostly occurs during activity transition, seeking help or seeking material.	Move is recorded when the student is observed walking or running to a new area in the classroom. It mostly occurs during activity transition, seeking help or seeking material. <i>Moving to the trash basket for sharpening the pencil is also recorded.</i>
	Self stimulation	When the target student produces active and repetitive sensory-motor behaviors, self stimulation is recorded.	When the target student produces active and repetitive sensory-motor behaviors, self stimulation is recorded. <i>When the student both looks around and stimulates himself/herself at the same time, it is recorded as self stimulation.</i>
Teacher Category	Related services	The person who provides support services to the classroom such as a speech therapist, P:E. therapist, and the other related personnel	The person who provides support services to the classroom such as a speech therapist, P.E. therapist, and the other related personnel. <i>When the principal enters to classroom and gives support to the teacher, this is also recoded.</i>

	Read aloud	The instances where the teacher is reading aloud to or in concert with one or more students.	The instances where the teacher is reading aloud to or in concert with one or more students. <i>The instances where the teacher reads aloud the words / sentences while writing on the blackboard is also recorded.</i>
Ecological Category	Listen to teacher's lecture	This variable is coded when the target student looks at and attends to the teacher who is verbalizing.	This variable is coded when the target student looks at and attends to the teacher who is verbalizing. <i>When the target student looks at and attends to the one of the students who is verbalizing related to the subject is also recorded.</i>

Note: The sentences written in italics were added to the original definitions of the variables

Results

The results of this study were organized into two sections. In the first section, the researchers presented the percentages of the three groups of instructional variables in the inclusive classrooms in detail. In the second section, the results of the eco-behavioral analysis (conditional probability analysis) were presented, and the extent to which the behaviors of the students with disabilities changed across conditions which occurred during instruction were explained.

The instructional variables of the inclusive classroom

The data gathered from 44 elementary classrooms in which the SWD was placed were analyzed by using the molar analysis provided by the MS-CISSAR. Accordingly, the behaviors of the students, the behaviors of the teachers, and the ecological variables of the classrooms were determined.

The molar analysis provided the percentages of the three groups of variables in all intervals of the observation period. It allowed the researcher to assess the instructional characteristics of one classroom and also calculate the mean percentage of the variables for a group of classrooms. The instructional characteristics of the 44 classrooms were assessed by using the molar analysis and the mean percentages of each instructional variable for the study group provided by the MS-CISSAR software are presented in table 3.

As seen in table 3, with respect to the behaviors of the SWD, it was found that the behaviors displayed the most in inclusive classrooms were *no academic response* (70.1%), *no task behaviors* (50.88%), and *no competing behaviors* (62.45%). *Writing*, one of the academic behaviors, was observed in 11.18% of the observation intervals while *using material* and *attention* behaviors were observed in 10.49% and 30.29% of the intervals, respectively. The most frequently displayed competing behavior of the SWD was *no competing behaviors*, and it was observed in 62.45% of the intervals of the observation time. In addition, the two competing behaviors exhibited the most according to the results of the molar analysis were *looking around* which was coded in 20.10% of the intervals and *self stimulation* which was observed in 10.49 % of the observation time.

With respect to teacher behaviors, *attention* and *academic talk* were found to be the most frequently exhibited. *Attention* was determined to be displayed an average of 39.71 % of the time while *academic talk* was observed in an average of 25.59% of the observation intervals. *Attention* was coded when the teachers looked at the SWD or displayed any behaviors indicating that he/she paid attention to the student. *Academic talk* was coded when the teacher talked or discussed the subject or materials to be used during instruction.

In the MS-CISSAR, teacher focus is one of the teacher variables, and it indicates which student receives the teacher's focus during instruction. The four characteristics for this variable are target student, other students, target and the other students, and nobody. In this study, teachers were observed to be focused predominantly on *other students* in an average of 60.59% of the observation intervals, and *target children and others* were the focus in an average of 26.47% of the intervals during instruction. The mean percentage of the time teachers focused on *target student* (the SWD) was only an average of 5% of all intervals while the teachers were instructing.

An important variable related to the teachers assessed by the MS-CISSAR indicates whether the teachers *approve* the appropriate behaviors or *disapprove* the competing behaviors during instruction. According to the software manual, the teacher behaviors can be coded as *approval*, *disapproval*, or *neither*. The results revealed that the mean of the percentage of the *approval behaviors* and *disapproval behaviors* were 3.9% and 3.8%, respectively, and in 92.19% of the observation intervals, no approval or disapproval behaviors were coded.

Table 3: The Result of the Molar Analysis Provided by MS-CISSAR of the 44 Mainstreamed Classrooms

Variable %	%	Variable	%	Variable	%
Ecologic variables					
Setting		Activity		Task	
Regular classroom	99.41	Reading	53.43	Readers	7.35
Special ed.		Math	20.98	Workbooks	6.08
Resource room		Spelling	0.10	Worksheet	1.27
Chapt1 lab		Handwriting		Paper&pen	13.24
Library		Language		Listen lecture	8.53
Music room		Science		Other media	6.96
Art room		Social studies		Discussion	27.35
Therapy room		Prevocational		Fetch-put	2.16
Hall		Gross motor		No task	26.08
Auditorium		Daily living			
Other		Self care			
		Arts-crafts			
Physical arrangement		Free time			
Entire group	99.02	Bus management			
Divide group		Transitions	1.96		
Individual		Music			
		Time out			
Instructional grouping		No activity	18.33		
Whole class	71.08	Can't tell	0.49		
Small group	0.10	Other	0.39		
One on one	0.39				
Independent	1.57				
No instruction	25.78				
Teachers' variables					
Teacher definition		Teacher behavior		Teacher position	
Regular	99.71	Question academic	8.82	In front	33.04
Special education		Question management	0.39	At desk	18.33
Aide/paraprofessionals		Question discipline	0.20	Out of room	
Student teacher		Command academic	5.29	Side	33.14
Volunteer		Command management	1.08	Back	15.29
Related services		Command discipline	1.08	Teacher approval	%
Substitute teacher		Talk academic	25.59	Approval	3.92
Peer tutor		Talk management	0.88	Disapproval	3.82
No staff		Talk discipline	0.69	Neither	92.16
Teacher focus		Nonverbal prompt			
Target	5.49	Attention	39.71		
Target+others	26.47	Read aloud	1.67		
Other	60.59	Sing			
No one	7.35	No response	6.67		
Students' variables					
Academic responding		Task management		Competing response	
Writing	11.18	Raise hand	2.16	Aggression	
Task participation	1.18	Play appropriately		Disruption	0.10
Read aloud	1.86	Manipulating materials	10.49	Talk inappropriately	0.78
Silent Reading	8.82	Move	0.49	Look around	20.10
Talk academic	1.67	Task management	0.20	Non compliance	0.39
No academic response	70.10	Attention	30.29	Self-stimulation	10.49
		No management	50.88	Self abuse	
				No inappropriate behavior	62.45

Note. The variables observed in more than 10% of the observation intervals are written bold.

The five groups of the ecological variables in the MS-CISSAR are settings, instructional grouping, physical arrangement, task, and activities. As can be seen in figure 3, *regular classroom* was coded an average of 99.41% of the intervals. This finding showed that all instruction was carried out in general education classrooms. In addition, *whole group instruction* was carried out an average of 99.2% of the instruction time, and the observers coded *no instruction* for approximately one fourth (25.78%) of the allocated time for teaching. As for the activities variable, the most frequently carried out activities were determined to be *reading* (53.43%), *math* (20.98%), and *no activities* (18.33%). Figure 3 illustrates the ecological variables observed in more than 10% of observation time. According to this finding, in regular classrooms, individual and small group arrangements were not preferred by the teachers who have the SWD in their classrooms.

Student Behaviors Related to Ecological Variables and Teacher Behaviors

To reach the second goal of the research, an eco-behavioral analysis was carried out for the variables observed in more than 10% of intervals by the observers. In the Ecobehavioral Assessment Software Systems (EBASS) manual, Greenwood and his colleagues explained that EBASS provides two types of information for the researchers: the unconditional probability of student behaviors shows the probability of responses as a percentage of the overall behaviors and the conditional probability of student behaviors which shows the probability of response given some ecological conditions (Greenwood, Carta, Kamps & Delquadri, 1997). The eco-behavioral analysis provides information regarding the environmental explanation of the student behaviors, and it helps to determine the ecological and teacher variables that might affect the student behaviors. It also provides a statistical evaluation of the conditional probability in terms of z score and its significance. The statistical significance indicates the magnitude of the difference between the conditional probability of a tested behavior in given conditions. Thus, a researcher obtains valuable information which provides the probability of the occurrence of each behavior given specific concurrent ecological events about each student behavior. In table 4, the student behaviors and ecological factors included in the conditional probability analysis are presented. Moreover, z values for unconditional and conditional probabilities for all ecological variables are shown in the same table.

In the current study, because only *instructional grouping*, *task*, *activities*, *teacher behaviors* and *teacher focus* were observed in more than 10% of observation intervals, they were selected as ecological variables that might evoke or accelerate the student behaviors for the conditional probability analysis. The results of the analysis revealed that the conditional probabilities of the four student behaviors (*no academic response*, *no management*, *writing* and *self-stimulation*) were not affected by *instructional grouping*. That is, unconditional (percentage of the behaviors regardless of ecological variables) and conditional (percentage of the behaviors in given conditions) probability values of these behaviors were not significant in given conditions. As for the *teacher behaviors* and *teacher focus*, similar findings can be seen in table 4. Accordingly, the percentages of eight of the student behaviors included in the conditional probability analysis did not change while *teacher behaviors* and *teacher focus* changed during instruction. For example, the probability of the occurrence of *attention* behavior in the students was observed in 30% of the intervals regardless of the ecological variables (unconditional probability), and it was observed in 34% of the *academic talk* of the teacher and 27% of the *teacher attention* condition (conditional probability). Similarly, *manipulating materials* was observed in 10.49% of the observational intervals and was not affected by any of the ecological conditions included in the eco-behavioral analysis.

Attention, one of the important student behaviors included in task management, was found to be affected by the ecological variables, and it increased during the math condition. However, *attention* decreased in conditions such as *no instruction*, *no task*, *no activity*, and *paper-pen activities*. As might be predicted, the students displayed less *attention* during these conditions whereas more *attention* occurred while *discussion* was being held. In addition, the percentages of the *writing* behaviors of the students were changed according to the ecological variables. It was observed in 11.18% of the observational intervals regardless of ecological conditions (unconditional probability) while it was determined to have increased in math (17% of intervals) and in paper-pen (33% of intervals). However, it significantly decreased in the *discussion* condition (0.4% of intervals).

The eco-behavioral analysis was performed for the three competing behaviors of the students: *no competing behavior*, *looking around* and *self-stimulation*. The results indicated that *no inappropriate behavior* decreased in *no instruction*, *no activity*, and *no task management*. In addition, *looking around* was found to be affected by the conditional events, and it increased in *no instruction* (30% of intervals),

no activity (32% of intervals) and *no task* conditions (31% of intervals) while it decreased in *discussion* (14% of intervals). Finally, the probability of *self-stimulation*, the other competing behavior which occurred during instruction, was determined not to be affected by the *instructional group* and *task management*; however, it decreased during *math*.

Table 4. The Results of the Conditional Probability Analysis

Student behaviors		Teacher Behavior Conditional probabilities						
		TalkAca,	Z score	Attention	Z score	P		
Academic responding Task management	No ac. Res	0.73	0.801	0.65	-0.622			
	Writing	0.13	0.708	0.10	-0.550			
	Attention	0.34	1.049	0.27	-0.814			
	Manipulation materials	0.09	-0.530	0.11	0.411			
Competing behaviors	No management	0.50	-0.180	0.52	0.140			
	Look around	0.19	0.499	0.17	-0.387			
	Self stimulation	0.11	0.479	0.09	-0.371			
	No inappropriate behaviors	0.65	-0.101	0.66	0.079			
Student behaviors		Teacher Focus Conditional probabilities						
		Target+Oth	Z score	Other	Z score	P		
Academic responding Task management	No ac. Res	0.68	-0.344	0.71	0.202			
	Writing	0.11	-0.005	0.11	0.003			
	Attention	0.35	1.027	0.30	-0.605			
	Manipulation materials	0.09	-0.565	0.10	0.333			
Competing behaviors	No management	0.48	-0.463	0.51	0.273			
	Look around	0.17	-0.866	0.20	0.510			
	Self stimulation	0.14	1.007	0.10	-0.593			
	No inappropriate behaviors	0.63	0.140	0.62	-0.083			
Student behaviors		Instructional Grouping Conditional probabilities						
		Whole class	Z score	No inst.	Z score	P		
Academic responses Task management	No ac. Res	0.68	-0.432	0.75	0.862			
	Writing	0.12	0.036	0.11	-0.072			
	Attention	0.34	1.271	0.21	-2.53	.05		
	Manipulation materials	0.10	-0.238	0.11	0.473			
Competing behaviors	No management	0.48	-0.882	0.60	1.757			
	Look around	0.16	-1.694	0.30	3.375	.001		
	Self stimulation	0.10	-0.254	0.12	0.506			
	No inappropriate behaviors	0.69	1.336	0.49	-2.663	.01		
Student behaviors		Activity Conditional probabilities						
		Math	Z score	Reading	Z score	No Task	Z Score	P
Academic responses Task management	No ac. Res	0.58	-1.896	.73	0.621	0.76	0.868	
	Writing	0.17	2.37	0.09	-1.354	0.11	0.017	.05
	Attention	0.28	-0.804	0.37	1.854	0.19	-2.686	.01
	Manipulation materials	0.10	-0.010	0.10	-0.183	0.11	0.363	
Competing behaviors	No management	0.50	0.017	0.46	-1.104	0.62	2.102	.05
	Look around	0.15	-1.207	0.17	-1.119	0.32	3.459	.001
	Self stimulation	0.05	-2.176	0.13	1.173	0.11	0.102	.05
	No inappropriate behaviors	0.68	0.789	0.67	0.868	0.47	-2.522	.05
Student behaviors		Task Conditional probabilities						
		Discn	Z score	Paper-pen	Z score	No Task	Z score	P
Academic responding Task management	No ac. Res	0.81	1.361	0.49	-2.945	0.76	0.584	.01
	Writing	0.04	-3.258	0.33	6.081	0.11	-0.730	.001 /.001
	Attention	0.49	4.206	0.18	-2.655	0.21	-2.633	.001/ .01/ .01
	Manipulation materials	0.07	-1.015	0.11	0.520	0.11	0.719	
Competing behaviors	No management	0.33	-3.283	0.64	2.227	0.60	1.950	.001/ .05
	Look around	0.14	-2.031	0.16	-1.165	0.31	2.957	.05/ .01
	Self stimulation	0.13	0.796	0.07	-1.449	0.12	0.153	
	No inappropriate behaviors	0.67	1.058	0.72	1.510	0.48	-2.162	.05

Discussion

In this study, the Turkish version of the MS-CISSAR was introduced as an instrument used for data collection. Next, the instructional variables of the elementary classrooms in which the students with disabilities were placed were explored. The researchers studied the MS-CISSAR by using the technical and practitioner's manuals as well as the tutorial cassettes and sample videos. The first researcher visited Juniper Garden Project, Kansas University, and discussed the difficulties encountered while using this tool for assessing the Turkish classrooms with the developers of the program. After making minor changes to the definitions of the seven variables and establishing interobserver reliabilities, the software and practitioner's manual were translated into Turkish and copied for the three researchers.

Because this software was developed based on the idea that instruction is a confluence of the activity, task, structure, and teacher behaviors, it is used for assessing the instructional variables of the inclusive classrooms and it provides detailed information about student behaviors and teacher behaviors that were displayed during instruction as well as the ecological characteristics of the learning environment. Therefore, the researchers believed that it would be an important tool for the Turkish researchers to use in order to determine the effects of the ecological events and teacher behaviors on student behaviors. In addition, the researchers might develop training programs based on the information gathered by the MS-CISSAR for the pre-service and in-service teachers and make them aware of the relationship between student behaviors and instructional characteristics of the classrooms so that they can make changes in their instruction. Moreover, the effects of the teacher training programs on instructional variables or proactive classroom management can be determined by using the Turkish MS-CISSAR. Lastly, the data to be collected by the MS-CISSAR can guide the educators so as to establish effective learning settings for students with and without disabilities in general education classrooms.

The main findings of the study are related to the behaviors of the SWD and instructional variables of the mainstream elementary classrooms. The researchers found interesting results regarding the instructional variables of the mainstream classrooms in Turkey by carrying out the molar analysis provided by the MS-CISSAR software. According to the results, all instruction sessions were held in *regular classrooms* and the *whole class* was the main instructional grouping. *No instruction* was coded by the observers in approximately one fourth of the observation intervals. The teachers preferred mostly *paper-pen* or *discussion* tasks during instruction, and there was *no management* in almost one fourth of the instructional sessions. *Reading and math* were the only activities carried out in the classrooms, and almost one fifth of the instructional time passed without *any activities* for the students with disabilities. These findings should be interpreted by taking the difficulties and problems of the mainstreaming system in Turkey into account.

It is very well known that some requirements must be fulfilled for the purpose of effective mainstreaming implementation. Having support personnel such as a teacher's assistant and paraprofessional or special education teacher in the classroom, teaching in small groups, and providing individual learning opportunities to the students both with and without disabilities are very important in order to have all students benefit from the mainstreaming (McDonnell, Thorson & McQuivey, 1998; Marzano & Marzano, 2003; Soodak & Mc Charty, 2006). Moreover, whole class arrangement is consistently associated with the lowest level of academic behavior compared to one-to-one and small group instruction (Greenwood, Carta, Kamps & Arreaga-Mayer, 1990; Kamps, Leonard, Dugan, Boland, & Greenwood, 1991). However, in Turkey, because there have been a limited number of support personnel for the teachers and the SWD and because most of the teachers are not supported by special education teachers during instruction, the teachers mainly prefer *whole group* instruction regardless of the ability levels of the students. In addition, it is believed that because there are no assistant teachers or paraprofessionals in most of the mainstream classrooms and because the teachers want to provide a more controlled learning environment for all students, *paper-pen activities* and *discussion* in which the students are supposed to sit in their desks are the activities used most by the teachers.

In previous studies investigating the instructional characteristics of inclusive classrooms (Logan & Malone, 1998; McDonnell, Thorson, McQuivey, 1998; Wallace, Anderson, Bartholomay, & Hupp, 2002; Lee, 2010), it was clearly seen that although the general education teachers were the primary source of the inclusive instruction, special education teachers and paraprofessionals shared the responsibility of teaching in general education classrooms. In other words, the teachers were supported by the special education teachers and paraprofessionals during instruction so as to meet the needs of all students effectively. In addition, student peers without disabilities were a source of instruction for the SWD as well. Consequently, the students with disabilities had a substantial amount of individual attention from

all adults and some of their peers who were instructing them (Logan, Bakeman & Keefe, 1997; Logan & Malone, 1998; McDonnell, Thorson, McQuivey, 1998; Wallace, Anderson, Bartholomay & Hupp, 2002). In Lee's study investigating the impact of curriculum modifications on access to general education curriculum for the SWD (2010), it was found that the curriculum modifications were provided by the special educators in inclusive high school classrooms. The researcher strongly emphasized that for the SWD to succeed in general classrooms, it would be necessary to accept the disconnection of the presence of special educators and the provision of curriculum modifications. Therefore, according to Lee, general education teachers should be trained on how to modify the curriculum based on the needs of the SWD regardless of the presence or absence of a special educator in the classroom. This is invaluable information for the Turkish mainstreaming system in which special educators cannot be provided for each general education classroom due to the fact that the number of special education teachers is still insufficient for the whole system. Moreover, teachers who have students with disabilities in their classrooms mostly believe that if they are to be accepted in general classrooms, there should be special educators who are able to share the teaching responsibilities. They also state that the individual education plan (IEP) and curriculum modifications should be provided by the special educators (Uysal, 1995; Kargin, Acarlar, & Sucuoğlu, 2005). Based on Lee's discussion, it can be said that some of the tasks, such as modifying the curriculum and writing the IEP, can be carried out by the general education teachers if they receive training on how to perform these tasks. Thus, it seems that it would be possible for general education teachers to modify the curriculum and adapt it according to the needs of students with disabilities so that they might have the expected benefits from mainstreaming.

In the elementary classrooms in which the current study was conducted, *reading* was found to be the main activity observed during instruction regardless of the academic-content area. The researchers determined that the teachers used only *reading* and *math* activities which were observed in 53.43 % and 20.99 % of the observation intervals during instruction, respectively. In addition, it was found that *no activity* was coded in approximately 20% of the observational intervals. Therefore, in almost one fifth of the instructional time, the students were not provided with any instructional activities. In a previous study, it was found that the instructional task observed the most was *listening to the teacher lecture* (23.2% of observations) whereas *discussion and other media* were coded for 19.54% and 17.15% of the observation intervals respectively in inclusive high school classrooms (Wallace, Anderson, Bartholomay & Hupp, 2002). Moreover, Logan and Malone (1998) classified the activities carried out in classrooms as academic, nonacademic, functional skills, and transition. They determined that academic activities (reading, spelling and handwriting) were coded a significantly higher percentage of intervals (64% of observations). Furthermore, the results of Lee's study (2010) indicated that instructional activities were remarkably different in the classes in which curriculum modifications were provided versus when they were not provided. The findings of these studies reflect that both instructional tasks and instructional activities were more varied compared to the Turkish mainstream classrooms. They indicated that if the curriculum was modified based on the needs of the students, the behaviors of the students with disabilities would change, and the number of the instructional activities and instructional tasks observed in inclusive classrooms would increase. Finally, Gettinger and Kohler (2006) suggested that the quality and type of instructional activities were effective variables when applied to the academic engagement and problem behaviors of the students. Therefore, the researchers thought that these findings should be considered not only regarding the mainstreaming system in Turkey, but also the instruction in general education classrooms. Teachers should be encouraged to use various instructional activities and instructional tasks to create an effective learning environment for all students in their classrooms.

The results of the current study revealed valuable information in terms of the behavior of general education teachers. For example, the regular classroom teachers who were responsible for teaching *focused* specifically on the students with disabilities in only 5% of the observation intervals but they focused on other students, including the SWD, in 26% of the observation intervals. In addition, they focused on *no one* in 60% of the time during instruction. However, in related literature, it has been suggested that focusing on students while teaching is one of the critical variables that might affect both academic engagement and student behavior (Logan, Bakeman & Keefe, 1997; McDonnell, Thorson & McQuivey, 1998; Gettinger & Kohler, 2006) as well as the classroom management of the teachers (Kounin, 1977). Therefore, teachers should focus on all students, including students with disabilities, during instruction (McDonnell, Thorson & McQuivey, 1998; Logan & Bakeman, Keefe, 1997; Logan & Malone, 1998). Moreover, the results of the previous studies indicated that the percentage of teacher focus changed according to the source of instruction in inclusive classrooms (McDonnell, 1998; Logan & Malone, 1998), and there was a relationship between the teacher focus and the instructional groupings (Logan, Bakeman & Keefe, 1997; McDonnell, 1998; Logan, Bakeman & Keefe, 1997). For example,

when a *general education teacher* was providing the instruction, students with disabilities were the focus of the teacher an average of 29.4% of the time. Conversely, if instruction was provided by special education teachers, they focused on the student with disabilities an average of 49.2 % of all observation intervals (McDonnell, 1998). Considering all these findings related to the effects of the teachers' focus on student behavior, it would seem to be very important to find a way to increase their focus on the target student so that the students might be more engaged in inclusive classrooms.

The molar analysis indicated that a very small number of *approval* and *disapproval* responses were used by the teachers during observations. Both *approval* behaviors, such as "saying good and very good, touching, and smiling at the student", and *disapproval* behaviors, such as saying "don't or that is not right", were displayed in only 4% of the observation intervals. This finding seems to be consistent with the other studies in which *approval* and *disapproval* behaviors of the teachers were rarely observed (Wallace, Anderson, Bartholomay & Hupp, 2002; Lee, 2010). However, in classroom management literature, it has been frequently highlighted that recognizing and praising appropriate behavior and reacting effectively to competing behavior are effective ways to improve positive behavior and to prevent negative behavior displayed during instruction (Kounin, 1977; Marzano ve Marzano, 2003; Simeonsen, Fairbanks, Briesch, Myers & Sugai, 2008; Oliver & Reschly, 2010). Praising students' positive behavior is especially accepted as an important component of preventive classroom management (Murdick, ve Petch-Hogan, 1996; Marzano ve Marzano, 2003; Soodak, McCharty 2006). Therefore, the researchers think that training programs for in-service and pre-service teachers should draw attention to the importance of praising positive behavior and focus on the relationship between teacher praise and the behavior of the student. In this way, proactive discipline might be encouraged instead of reactive disciplinary methods which have generally been accepted by the Turkish teachers in elementary classrooms (Başar, 2001; Yüksel, 2005; Girmen, Anılan, Şentürk & Öztürk, 2006).

Wallace et al. (2002) grouped academic talk, academic comment and academic question variables and named them academic behaviors. They also reported that the teachers displayed academic behaviors in 40% of the observation intervals. In addition, they stated that attention was observed in 17% of the instructional time and task management behaviors, defined as prompting students to get materials ready and handing out worksheets, were coded for 20% of the instructional time. Similarly, Lee (2010) had found that *academic talk* was the teacher behavior observed the most followed by attention, academic questioning, and reading aloud. Moreover, she reported that the *task management* variable occurred two times more often in classrooms in which curriculum modifications were not provided than in classrooms in which curriculum modifications had taken place. Conversely, in the current study, *academic talk* and *attention* were the main teacher behaviors which the observers coded the most. It is believed that these findings showed that the teachers in our general classrooms exhibited very few behaviors while they were teaching, and other teacher behaviors, such as *academic questioning* and *disciplinary questioning*, rarely occurred during instruction.

With respect to the behaviors of the SWD, it was observed that *attention and writing* were coded the most by the observers during teacher lecture, and these students spend almost one fourth of the instruction time by *doing nothing*. *No task behaviors* and *no academic behaviors* were the other student behaviors observed the most. It was very interesting that even though no data was collected for the behaviors of the students without disabilities, the researchers recognized that both the SWD and the students without disabilities displayed very few academic behaviors such as *silent reading* and *academic talking* in conjunction with *task management* behaviors, such as *raising their hand* and *task participation*. Interestingly, although the elementary classroom teachers complained mostly about the problem behaviors of the students with disabilities in general education classrooms (Uysal, 1995; Kargin, Acarlar, Sucuoğlu, 2005), *no competing* behaviors were the most common competing behaviors in our classrooms. In addition, *looking around* (20.10% of observation intervals) and *self-stimulating* (10.49% of observation intervals) were found to be the main competing behaviors by the observers, which is similar to the findings in the study by Wallace et al (2002). In existing literature, it is frequently underscored that general education teachers state that they do not prefer having students with disabilities in their classrooms due to their problem behaviors displayed during instruction, and they do not know effective ways to manage these behaviors (Blanton, Blanton, & Cross, 1993; Hanrahan, Goodman & Rapagna, 1990; Marzano ve Marzano, 2003). However, the findings of the current study revealed that the competing behaviors of the study group were not as intensive as the teachers had expected. Moreover, the behaviors about which the teachers complained most, such as disruptive behaviors (Uysal, 1995; Kargin, Acarlar, & Sucuoğlu, 2005) were not observed during the data collection period. On the other hand, if we consider the percentages of the academic and task management behaviors of the SWD, it

might be reasonable to think that the occurrence of *looking around* and *self-stimulation* behaviors was unavoidable. In previous literature, Munk and Repp (1994) stated that behavior problems are related to the quality of instruction. Similarly, several researchers emphasized that active engagement toward the instruction might prevent inappropriate behavior in the classroom (Kounin, 1977; Brophy & Good, 1986; Jones & Jones, 2001; Marzano, Gaddy, Foseid, Foseid, & Marzano, 2005; Simeonsen, Fairbanks, Briesch, Myers & Sugai, 2008). In addition, a strong relationship between academic behaviors, task management behaviors, and competing behaviors of the students has been frequently reported in classroom management literature (Brophy & Good, 1986; Jones & Jones 2000; Kounin, 1970). In reference to these studies, it appears that the SWD might have displayed inappropriate behaviors due to the lack of academic and task behaviors that were observed in a limited amount in this study.

Greenwood and his colleagues underlined that the conditional probability analysis identifies materials or teacher behaviors which promote specific student behaviors during instruction, and it provides information regarding the types of teacher behaviors that might trigger inappropriate student behaviors (Greenwood, Carta, Kamps, Terry, & Delquadri, 1994). Therefore, the researchers aimed to investigate the conditioned probability of the behaviors of the students with disabilities, and they carried out ecobehavioral (conditional probability) analysis for the variables that were observed in more than 10% of the observation intervals. The results of this analysis indicated that some of the student behaviors differed relative to the changes of the instructional variables while some of them were not affected by the ecological variables. For example, *looking around* which was the most observed competing behavior of the students, increased during *no instruction* and *no activity* conditions and decreased in *discussion* condition in which the teacher and students talked about the subject matter. In contrast, *self-stimulation* was observed in 10% of the observational intervals independent from the ecological variables, and the probability of the occurrence of this behavior was found in 11% of the *academic talk* conditions of the teachers. However, it was observed in 11% of the intervals during teacher *attention*. As might be predicted, the students displayed less *attention* under the task management behaviors during the conditions of *no instruction*, *no activity*, *paper-pencil*, and *no task management*. However, more *attention* occurred while the *discussion* was being held.

These findings indicated that the student behaviors did not change according to teacher variables; in other words, *teacher attention* and teacher *academic talk* were not effective variables on the behaviors of the SWD. On the other hand, *teacher focus* was accepted as one of the important teacher behaviors in improving academic behaviors and the engagement of the students both with and without disabilities (Logan, Bakeman & Keefe, 1997; McDonnell, Thorson & McQuivey, 1998). In this study, it was found that the student behaviors did not change according to teacher focus. However, in the literature focusing on proactive classroom management, it was frequently stated that there was a strong relationship between teacher behaviors and student behaviors, and the student behaviors differentiated parallel to the changes of the teacher behaviors (Kounin, 1977; Goldstein, 1995; Marzano, Gaddy, Foseid, Foseid & Marzano, 2005).

Two limitations of this study should be taken into account. First, in the study conducted by Greenwood and his colleagues (1994), it was explained that the amount of data collected might be an important factor affecting the results of the conditional probability analysis; therefore, they suggested that researchers should collect data over longer periods and over multiple observations so as to improve the sensitivity and reliability of their findings. However, the data of the current study was gathered in one 40-minute academic class due to the problems with observations during the instruction time in each classroom. This was contrary to other research which included a longer period of observation for each student with disabilities (Carter, Sisco, Brown, Brickham & Al-Khabbaz, 2008; Hollowood, Salisbury, Rainforth, & Palombaro, 1994; McDonnell, Thorson & McQuivey, 1998).

In addition to the limited amount of data, another important point should be noted as the second constraint of the study. In previous research, it was clearly seen that comparing the behaviors of the student both with and without disabilities revealed similarities and dissimilarities between a student with disabilities compared to an average student's behavior under comparable conditions (Greenwood, Carta, Kamps & Delquadri, 1997). However, in this study, the behaviors of the students with disabilities were not compared with the behaviors of students without disabilities. All the data were analyzed based solely on the behaviors of the SWD due to the difficulties of recording the behaviors of the two student groups in a synchronized manner. Therefore, in future research, if the behaviors of the students both with and without disabilities are compared, it should be possible to determine whether the ecological variables for these two groups are similar in general education classrooms. Ecological similarity is an important

parameter for planning the observations for both groups of students. It shows not only the similarities and dissimilarities of the behaviors of the students, but the learning conditions of the two student groups as well (Greenwood, Carta, Kamps, Terry, & Delquadri, 1994). Because of this, the data showing ecological similarities might be very helpful for researchers who are striving to find effective solutions in order to create an effective learning environment in general education classrooms for all students, including those with disabilities.

In Turkey, although there have been many studies investigating the mainstreaming system, this study is the first one to focus on the inside of the classrooms and to explore the instructional characteristics of mainstream classrooms. It aimed to present the current conditions of mainstreaming in elementary classrooms in terms of teacher behaviors and ecological variables. It also aimed to call the attention of educators and policy makers to the fact that we have to focus on the classrooms instead of what teachers, principals, and parents say about the skill limitations of students with disabilities in general classrooms, that is, if we want to improve mainstreaming implementation. In addition, researchers are certain that improving the teacher behaviors and ecological conditions of the classrooms will have positive effects on the academic, task, and competing behaviors of students with disabilities, even though mainstreaming problems are mostly related to the educational system, not to the teachers or learning environments.

Implications for Practices

Although the current study has some limitations, the researchers believe that the findings have the following implications for practices. Since the general classroom teachers, who were the participants of this study, displayed a limited range of behaviors and used very few activities while teaching, our results might guide the teachers to vary their teaching behaviors by outwardly approving positive behaviors, focusing on the SWD during instruction, and making instructional adjustments in the learning environment so that all students can participate in learning actively. However, the researchers believe that if the teachers are not provided with enough support from the principals, school counselors, or special education teachers, it will not be realistic to expect that the teachers can improve their behavior. On the other hand, if we can provide support personnel who share the teaching responsibilities for each teacher who have a SWD in their classrooms, both the number of teaching behaviors and instructional activities will be varied. Having a teaching team which includes special education and general education teachers along with volunteers or paraprofessionals will not only increase the teaching activities in classrooms and improve teacher behavior during instruction, but it will also facilitate ways to meet the needs of the students with disabilities. Moreover, the teachers will be able to make changes in the curriculum according to the needs of the students with disabilities and arrange activities based on the needs of all of their students. Furthermore, meeting those needs by using different instructional methods and instructional groupings will increase the number of the behaviors of the SWD and, at the same time, prevent or eliminate competing behaviors that were observed during instruction. Consequently, the quality of mainstreaming implementation in elementary school classrooms might be improved even though there are problems and difficulties being encountered in the mainstreaming system. However, it is important to state that the researchers are very aware of the fact that providing support personnel will not be enough to increase the quality of the mainstreaming and they strongly emphasize that the teachers who will have a SWD in their classes should be extensively trained regarding the needs of the students, adaptations and modifications of the curriculum, and various instructional methods.

Implications for Research

The results of this study revealed that the Turkish version of the MS-CISSAR is a powerful instrument used to evaluate the instructional characteristics of elementary classrooms, including the SWD. Therefore, in future research, the instructional variables of mainstream junior high and high school classrooms should be investigated so as to improve the learning environment. Moreover, the effects of the training programs developed for the teachers who teach in heterogeneous classrooms could be assessed in terms of the student and teacher behaviors by using the MS-CISSAR as well. Furthermore, the behaviors of the students both with and without disabilities can be compared, and the similarities and dissimilarities between the behaviors of the two groups of students can be determined in order to make arrangements in classrooms for all the students. It is believed that the data collected by using the MS-CISSAR will shed light on this important topic and encourage further research in the field of mainstreaming and inclusion.

References

- Aral, N., & Dikici, A. (1998). Normal gelişim gösteren çocukların özel gereksinimi olan akranları hakkındaki görüşlerinin incelenmesi (*The opinions of typically developing children about their peers with disabilities*). 8. National Special Education Conference Proceeding, pp: 49-58, Turkey.
- Atay, M. (1995). Özürlü çocukların normal yaşlıları ile birlikte eğitim aldıkları kaynaştırma programlarına karşı öğretmen tutumları üzerine bir inceleme (Doctoral dissertation, Hacettepe University, Turkey).
- Başar, H. (2001). *Sınıf yönetimi (Classroom Management)*. (5. Edition) Ankara, PeGema Yayıncılık.
- Batu, S., & Uysal, A. (2006). Teaching typically developing children to help their peers with special needs via simulation activities. *Eurasian Journal of Educational Research*, 22, 12-25.
- Brophy, J., (1983). Classroom Organization and Management. *The Elementary School Journal*, Vol.83, No.4, pp265–285, (1983).
- Brophy, J. (1985). Teacher's expectations, motives, and goals for working with problem students. In C.Ames, R.E. Ames (Eds.) *Research on motivation in education: Classroom milieu* (Vol.2, pp. 175-212). Orlando, FL: Academic Press.
- Brophy, J. (1988). Educating Teachers About Managing Classrooms and Students. *Teaching and Teacher Education*. Vol.4, No1, pp1–18.
- Brophy, J., & Good, T. L. (1986). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 328-375). New York: Macmillan.
- Brown, W.H., Odom, S.L., Shouming, L., & Zercher, C. (1999). Ecobehavioral assessment in early childhood programs: A portrait of preschool inclusion. *The Journal of Special Education*, 33(3), 138-153.
- Blanton, L.P., Blanton, W.E. & Cross L.E. (1994). An exploratory study of how general and special education teachers think and make instructional decisions about students with special needs. *Teacher Education and Special education*, 17, 62-74.
- Bulgren, J.A., & Carta, J.J. (1993). Examining the instructional contexts of students with learning disabilities. *Exceptional Children*, 59(3), 182-191.
- Can-Çalık, N., & Kargin, T. (2010). Effectiveness of the touch math technique in teaching addition skills to students with intellectual disabilities. *International Journal of Special Education*, 25(1), 194-203.
- Carta, J.J., Atwater, J.B., Schwartz, I.S., & Miller, P. (1990). Applications of ecobehavioral analysis to the study of transitions across early education settings. *Education and Treatment of Children*, 13(4), 298-315.
- Carta, J.J., Greenwood, C.R., Schulte, D., Arreaga-Mayer, C., Terry, B. (1988) Code For Instructional Structure And Academic Response: Mainstreaming Version (MS-CISSAR). Kansas City, Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas.
- Carta, J. J., Greenwood, C. R., Schwartz, I. S., & Miller, P. A. (1990). *Code for instructional structure and student academic response: Mainstream Version (MS-CISSAR)*. Kansas City KS: Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas.
- Carter, E. W., Sisco, L. G., Brown, L., Brickham, D., & Al-Khabbaz, Z. A. (2008). Peer interactions and academic engagement of youth with developmental disabilities in inclusive middle and high school classrooms. *American Journal on Mental Retardation*, 113, 479-494.
- Cooper, D.H., & Speece, D.L. (1990). Maintaining at-risk children in regular education setting: Initial effects of individual differences and classroom environments. *Exceptional Children*, 57(2), 117-126.
- Çolak, A. (2007). Kaynaştırma uygulanan bir ilköğretim sınıfındaki sosyal yeterlilik düzeylerinin belirlenmesi ve iyileştirme çalışmaları (Master thesis, Anadolu University, Turkey).
- Dawson, H. (2007). The Characteristics And The Usage Of The MS-CISSAR Software. Kişisel konuşma. Juniper Garden project, Kansas, U.S.A.
- Deretarla, E. (2000). Kaynaştırma uygulaması yapan ilköğretim okullarının 3. sınıfına devam eden normal işiten ve işitme engelli öğrencilerin okuduğunu anlama becerilerinin incelenmesi (Master thesis, HHacettepe University, Turkey)
- Diken, İ. H. (1998). *Sınıfta zihinsel engelli çocuk bulunan ve bulunmayan sınıf öğretmenlerinin zihinsel engelli çocukların kaynaştırılmasına yönelik tutumlarının karşılaştırılması* (Master Thesis, Abant İzzet Baysal University, Turkey).
- Duvall, S. E, Delquadri, J. C., & Ward, D. L. (2004). A preliminary investigation of the effectiveness of homeschool instructional environments for students with attention deficit/hyperactivity disorder. *School Psychology Review*, 33, 140-158.
- Gettlinger, M., & Kohler, K.M. (2006). Process-outcome approaches to classroom management and effective teaching. In C.M. Evertson & C.S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 73-95). Mahwah, NJ : Lawrence Erlbaum.

- Girmen, P., Anılan, H., Sentürk, 1. ve Öztürk, A. (2006) Sınıf Öğretmenlerinin istenmeyen öğrenci davranışlarına gösterdikleri tepkiler (*Teacher reactions to inappropriate behaviors of students*), *Manas Üniversitesi, Sosyal Bilimler Dergisi*, ISBN: 9967-20-615-2; ISSN: 1694-5093, Cilt: 15, Sayı: 2, 235-244.
- Goldstein, S. (1995). *Understanding and Managing Children's Classroom Behavior*. New York: John Wiley & Sons, Inc.
- Greenwood, R.C. (1991). Longitudinal analysis of time, engagement, and achievement in at-risk versus non-risk students. *Exceptional Children*, Vol. 57, 1991
- Greenwood, C.R., & Carta, J.J. (1987). An ecobehavioral analysis of instruction within special education. *Focus on Exceptional Children*, 19 (9), 1-12.
- Greenwood, C.R., Carta, J.J., Kamps, D., & Arreaga-Mayer, C., (1990). Ecobehavioral analysis of classroom instruction. In S. Schroder (ed.). *Ecobehavioral analysis and developmental disabilities* (pp.33-63). Baltimore, MD: Paul H. Brookes.
- Greenwood, C. R., Carta, J. J., Kamps, D., & Delquadri, J. (1997). *Ecobehavioral Assessment Systems Software (EBASS Version 3.0): Practitioners manual*. Kansas City, KS: The Juniper Gardens Children's Project, University of Kansas.
- Greenwood, C.R., Carta, J.J., Kamps, D., Terry, B., & Delquadri, J. (1994). Development and validation of standart classroom observation systems for school practitioners. *Ecobehavioral assessment system software (EBASS)*. *Exceptional Children*, 61 (2), 197-210.
- Güldenöğlü, B. (2008). Zihinsel yetersizliği olan öğrencilerde okuduğunu anlama becerilerinin desteklenmesi (*Supporting comprehension skills of children with mental disabilities*). *Özel Eğitim Dergisi*, 9 (2), 51-63
- Hanrahan, J., Goodman, W. & Rapagna, S. (1990). Preparing mentally retarded students for mainstreaming: Priorities of regular class and special school teachers. *American Journal on Mental Retardation*, 94(5), 470-474.
- Haefner Berg, M., & Smith, J.P. (1996). Using videotapes to improve teaching. *Music Educators Journal*, 82(4), 31-37.
- Hollowood, T.M., Salisbury, C.L., Rainforth, B., Palamboro, M.M. (1995). Use of instructional time in classrooms serving students with and without severe disabilities. *Exceptional Children*, 61, 242-253.
- Jones, V. & Jones, L. (2001). *Comprehensive classroom management creating communities of support and solving problems*. (7th Edition). Pearson Education, Inc.
- Kamps, D. M., Leonard, B. R., & Greenwood, C. R. (1991). Ecobehavioral assessment of students with autism and developmental disabilities. In R. J., Prinz (Ed.). *Advances in Behavioral Assessment of Children and Families*. (pp. 201-237). New York: Jessica Kingsley.
- Kamps, D. M, Leonard, B. R., Dugan, E. P., Boland, B., & Greenwood, C. R. (1991). The use of ecobehavioral assessment to identify naturally occurring effective procedures in classrooms serving children with autism and other developmental disabilities. *Journal of Special Education*, 1, 367-397.
- Kargin, T., Acarlar, F. ve Sucuoğlu, B. (2005). Öğretmen, yönetici ve anne babaların kaynaştırma uygulamalarına ilişkin görüşlerinin belirlenmesi (*Parents' teachers and administrators's opinions regarding inclusion practices*) *Özel Eğitim Dergisi*, 4(2), 55-76.
- Kayaoğlu, H. (1999). Bilgilendirme programının normal sınıf öğretmenlerinin kaynaştırma ortamındaki işitme engelli çocuklara yönelik tutumlarına etkisi (Doctoral dissertation, Ankara Üniversitesi, Turkey).
- Kounin, J. (1970). *Discipline and group management in classrooms*. Holt, Reinhardt and Winston, NY, NY. 1970
- Kounin, J. (1977). *Discipline and group management in classrooms*. (rev. Ed.) New York: Holt, Rinehart& Winston.
- Lee, S.H. (2010). Impact of curriculum modifications on access to the general education curriculum for students with disabilities. *Exceptional Children*. 76 (2), 213-234.
- Lee, S.H., Soukup, J.H., Little, T. D. & Wehmeyer, M. L. (2008). Student and teacher variables contributing to access to the general education curriculum for students with intellectual and developmental disabilities, *The Journal of Special Education*, 43(1), 29-44
- Lee, S.H., Wehmeyer, M.L., Palmer, S.B., Soukup, J.H., & Little, T. D. (2008). Self-determination and access to the general education curriculum. *The Journal of Special Education*, 42, 91-107.
- Lee, S.H., Wehmeyer, M.L., Soukup, J.H., & Palmer, S.B. (2010). Impact of curriculum modifications on access to the general education curriculum for students with disabilities. *Exceptional Children*, 76 (2), 213-233.
- Logan, K.R., & Keefe, E. (1997). A comparison of instructional context, teacher behavior, and engaged behavior for student with severe disabilities in general education and self contained elementary classroom. *Journal of the Association for Person with Severe Disabilities*. 22, 16-27.

- Logan, K.R., & Malone, D.M. (1998). Comparing instructional context of students with and without disabilities in general education classrooms. *Exceptional Children*, 64 (3), 343-358.
- Logan, K.R., Bakeman, R., & Keefe, E.B. (1997). Effects of instructional variables on engaged behavior of students with disabilities in general education classrooms. *Exceptional Children*, 63 (4), 481-497.
- Marzano, R. J, Gaddy, B. B, and Foseid, M.C. Marzano, J. (2005). *Handbook for classroom management that works*. Merrill Publishing Company,
- Marzano, R.J., & Marzano, J.S. (2003). The key to classroom management. *Educational Leadership*, 61(1), 6-17.
- McDonnell, J. (1998). Instruction for students with severe disabilities in general education settings. *Education and Training in Mental Retardation and Developmental Disabilities*, 33, 199-215.
- McDonnell, J., Thorson, N., & McQuivey, C. (1998). The instructional characteristics of inclusive classes for elementary students with severe disabilities: An exploratory. *Journal of Behavioral Education*, 8(4), 415-437.
- McDonnell, J., Thorson, N., & McQuivey, C. (2000). Comparison of the instructional contexts of students with severe disabilities and their peers in general education classes. *Journal of the Association for Persons with Severe Handicaps*, 25, 54-58.
- MEB (2010). 2009-2010 Yılı Özel Eğitim Rehberlik ve Danışma Hizmetleri Genel Müdürlüğü Kurum ve Öğrenci Sayıları. Retrieved from http://orgm.meb.gov.tr/Istatistikler/2009-2010_GENEL_SONUC.pdf in November, 2010.
- Munk, D. D., Repp, A. C. (1994). The relationship between instructional variables and problem behavior: A review. *Exceptional Children*, 60, 390-401.
- Murdick, N.L., ve Petch-Hogan, B. (1996). Inclusive classroom management: Using preintervention strategies. *Intervention in School & Clinic*, 31(3), 172-181.
- Oliver, R.M., Reschly, D.J. (2010). Special Education Teacher Preparation in Classroom Management: Implications for Students With Emotional and Behavioral Disorders. *Behavioral Disorders*, 35 (3), 188-199
- Öncül, N. ve Batu, S. (2004). Kaynaştırma uygulaması yapılan bir ilköğretim okulunda normal çocuk annelerinin kaynaştırma uygulamasına ilişkin görüşleri (*The opinions of the mothers of children without disabilities towards inclusive practices*). *Özel Eğitim Dergisi*, 6(2), 37-55, 2005.
- Özbaba, N. (2000). Normal çocuk annelerinin kaynaştırma uygulamasına ilişkin görüşleri (Master Thesis Marmara University, Turkey).
- Pretti-Frontczak K.L., McGough S.M. Vilardo, L., & Tankersley, M. (2006). Examination of eco-behavioral assessments designed for understanding complex behaviors and environments. *Journal of Early and Intensive Behavior Intervention*, 3(1), 81-102.
- Roberson, L., Woolsey, M. L., Seabrooks, J., & Williams, G. (2004). An ecobehavioral assessment of the teaching behaviors of teacher candidates during their special education internship experiences. *Teacher Education and Special Education*, 27, 264-275.
- Ross, D. E., Singer-Dudek, J., & Greer, R. D. (2005). The teacher performance rate accuracy scale (TPRA): Training as evaluation. *Education and Training in Developmental Disabilities*, 40, 411-423.
- Rotholz, D.A, Kamps, D.M., & Greenwood, C.R. (1989). Ecobehavioral assessment and analysis in special education settings for students with autism. *The Journal of Special Education*. 23(1), 59-81
- Sfeperd, C.E., & Hannafin, M.J. (2008). Examining pre-service teacher inquiry through video-based, formative assessment e-portfolios. *Journal of Computing in Teacher Education*. 25(1), 31-37.
- Soodak, L.C., McCharty, M.R. (2006) Classroom Management in Inclusive Classrooms. In C.M. Evertson ve C. Weinstein (Eds.) *Handbook of classroom management: Research, practice and contemporary issues*. Lawrence Erlbaum Asc., NJ.
- Simonsen, B., Fairbanks, S., Briesch, A., Myers, D. & Sugai, G. (2008). Evidence-based practices in classroom management: Considerations for Research to practice. *Education and Treatment of Children*, 31(3), pp. 351-380.
- Temir, D. (2002). Normal çocuk annelerinin kaynaştırma uygulamasına ilişkin görüşleri (Master Thesis, Hacettepe University, Turkey).
- Turhan, C. (2007). Kaynaştırma uygulaması yapılan ilköğretim okuluna devam eden normal gelişim gösteren öğrencilerin kaynaştırma uygulamasına ilişkin görüşleri (Master Thesis, Anadolu University, Turkey).
- Thurlow, M., Ysseldyke, J., Graden, J., & Algozzine, B. (1984). What's "special" about the special education resource room for learning disabled students? *Learning Disabilities Quarterly*, 6, 283-288.
- Uysal, A. (1995). Öğretmen ve okul yöneticilerin zihin engelli çocukların kaynaştırılmasında karşılaşılan sorunlara ilişkin görüşleri (Master Thesis, Anadolu University, Turkey).
- Vuran, S. (2005). The sociometric status of students with disabilities in elementary level integration classes in Turkey. *Eurasian Journal of Educational Research*. 5(18), 217-235

- Yüksel, G. (2005). Sınıf Yönetimi ve Disiplinle İlgili Kurallar Geliştirme ve Uygulama. In L. Küçükahmet (ed.). Sınıf Yönetimi. Ankara: Nobel Yayın Dağıtım.
- Ysseldyke, J. E., Thurlow, M. L., Christenson, S. L., & Weiss, J. (1987). Time allocated to instruction of mentally retarded, learning disabled, emotionally disturbed, and non-handicapped elementary students. (Report No. 1). Minneapolis: University of Minnesota, Instructional Alternatives Project. (ERIC Document Reproduction No. ED 293 261).
- Wallace, T., Reschly- Anderson, A., Bartolomy, T., & Hupp, S. (2002). An eco-behavioral examination of high school classrooms that include students with disabilities. *Exceptional Children*, 68(3), 345-359.
- Woolsey, M. L., Harrison, T. J., & Gardner, R. (2004). A preliminary examination of instructional arrangements, teaching behaviors, levels of academic responding of deaf middle school students in three different educational settings. *Education and Treatment of Children*, 27, 263-279.

**SHOULD INCLUSIVE EDUCATION BE MADE COMPULSORY IN SCHOOLS?: A STUDY OF
SELF-EFFICACY AND ATTITUDES REGARDING INCLUSIVE EDUCATION AMONG A
DIVERSE GROUP OF SENA (SPECIAL NEEDS ASSISTANCE) TEACHERS**

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This paper reports a survey conducted with the intention of responding to recent calls for more evidence on the experiences of SENA teachers since implementation of policies around inclusive education. The data provide a tentative information about perceptions among teachers currently employed by the Ministry of Education as SENA teachers. The data were collected through the use of questionnaires distributed during a series of professional development workshops held with SENA teachers throughout the country.

On the global front, at the heart of education policy and planning (Savolainen, Engelbrecht, Nell & Malinen, 2012), is a concern with inclusion of students with different needs in mainstream schooling. This emphasis is no different in Brunei Darussalam, where *inclusive education* policies were introduced in 1994. The new policies led to the establishment of the Special Education Unit (SEU) of the Ministry of Education and a major turning point in the development of special education in Brunei Darussalam away from segregation of children with disabilities towards a focus on inclusive education (Koay et al., 1996; 2006).

As part of its inclusive education initiative, whose primary goal is to support the success in school of struggling students by providing needed assistance, the Ministry of Education has in place *special education* support in mainstream regular schools (Csapo & Omar, 1996, cited by Koay et al., 2006). Support for children with additional needs in mainstream settings is provided by SENA (Special Educational Needs Assistance) teachers with specialist education in catering for additional needs and inclusive education.

Studies of student teachers suggest somewhat ambivalent attitudes towards inclusion among *mainstream* teachers (Bradshaw & Mundia, 2006; Koay, 2003) and among teachers who have received training in special education in Brunei Darussalam (Tate & Mundia, 2010). An historical time line of developments in *inclusive* and *special* education since 1994 also indicates a level of fluidity in the education and preparation of professionals working in inclusive education, due to qualification upgrading efforts and to changes in teacher training generally (Koay, 2007).

As in most parts of the world, there is debate around the nature and relevance of *inclusiveness* in education in Brunei Darussalam (Fitzgerald, 2010). Indeed, the situation in Brunei Darussalam reflects what Armstrong, Armstrong and Spandagou (2011) refer to as the necessary contextualisation of *inclusivity* in education. While there is a body of evidence, centred largely around comparison between specialist and non-specialist (or mainstream) teachers, that points to some perceived benefits associated with education in inclusive practices (Koay, 2006; Bradshaw & Mundia, 2006). Recent discussions have therefore called for more in-depth research into the situation of SENA teachers in Brunei Darussalam. The research reported here was designed to shed some light on SENA teacher experiences in the country, by gathering information related to teacher self-efficacy and attitudes towards inclusive education among practising SENA teachers, with a focus on comparisons across years of experience and qualification.

Inclusive Education in Brunei Darussalam

According to Kozleski et al., (2007), inclusive education is all about schools ensuring that every student

member, regardless of social, physical and economic differences, receive learning experiences that include a non-differentiated sense of belonging, nurturing and education. In the mid-1990s, the Ministry of Education introduced several key educational reforms including the development of specialized teacher education programs at certificate level, in line with recognized mainstream teacher-training qualification levels, to help prepare and train teachers for inclusive education.

Besides preparing schools for the recommended changes, the initiatives served to generate interest and support for developing a new core of personnel – known as Special Educational Needs Assistance (SENA) teachers – to assist regular teachers to support children with additional learning needs. This certification of a new category of teachers was the result of a joint collaboration between the Sultan Hassanali Bolkiah Institute of Education at Universiti Brunei Darussalam (UBD) and the Special Education Unit at the Ministry of Education. The new SENAs were awarded a Certificate in Special Education, and their roles were to administer screening tests to identify students with special needs, develop individualized educational plans (IEPs), and collaborate with regular teachers in helping them implement IEPs for individual students. In Brunei Darussalam, the special education program implemented in regular schools is based on the Learning Assistance Teacher (LAT) model, with SENAs providing support in *special education* within the regular education system. By the end of January 2002, 1,303 students across the primary and secondary school system with IEPs were receiving assistance from SENAs in regular school settings. In addition, for students who achieved a score within a particular range in screening tests at their respective grade levels but were without IEPs, SENAs play an important role in supporting their learning by sharing and demonstrating appropriate teaching strategies for regular teachers (Koay, 2004).

There have been a number of developments in teacher preparation programmes since the first programmes for SENAs were introduced. According to Koay (2007), 1995 marked the first intake of candidates for the Certificate of Special Education. Following the distribution of Special Education Handbooks for Headmasters, teachers and SENAs in 1998, a core course on *Inclusive Education* was introduced to the BEd preparation programmes for all mainstream primary teacher candidates. In the same year, UBD received its first intake of BEd (Special Education) and MEd (Special Education) teacher candidates. Most recently, in line with broader developments in teacher preparation in the country, undergraduate teacher preparation programs have been replaced by multi-disciplinary undergraduate degrees, after completion of which teacher candidates are required to obtain a Masters in Teaching qualification. Implications of these developments are discussed in detail by Koay (2012). For the purposes of this article, attention is drawn to the changes for purposes of contextualisation and in order to highlight the importance of better understanding possible variations in SENAs' perceptions related to years of service in the field and level of qualification / type of preparation programme attended.

To date, since implementation of the learning assistance programme, not much research has been conducted on practising SENAs' views or perceptions of inclusive education. This is especially pertinent given the sizeable number of SENAs who have been providing support in regular schools for almost two decades and a valid number of them having the intention to or currently undergoing further training and upgrading. SENAs are an important group of teachers who, having received comprehensive training in special needs education, have the potential to be strong advocates for inclusive education compared with their counterparts, mainstream teachers. However, little is known about the extent to which this group of practitioners as a whole feels empowered to promote inclusive education, particularly given the contextual characteristics of their working environments and changes to their education and training since programmes were first offered at UBD. Their views or perceptions towards inclusive education, as well as their feelings of empowerment and efficacy, must be considered so that they can, through their work with regular teachers and in classrooms, influence the degree to which students with additional learning needs are accepted and accommodated within regular schools (Koay et al. 2006).

The Need for Self-Efficacy

Among the areas of concern for inclusive education that have been expressed recently, is a need for shared understandings and community-wide commitment to inclusive practices (Fitzgerald, 2010). Several studies, both recent and dated, on teachers' beliefs about inclusive education and special education (Savolainen, Engelbrecht, Nell & Malinen et al., 2012), provide evidence to support the idea of a positive relationship between teacher self-efficacy and attitudes towards inclusive education (Weisel and Dror 2006). In order for inclusive education to be successfully implemented, research has shown

that the teacher plays a critical role (Forlin et al., 2010). Teachers, according to Oswald (2007) are at the forefront of the schools' transformation to embrace being inclusive or not.

According to Bandura (1995) self-efficacy refers to *the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations*. The theory of self-efficacy has been applied to education systems generally, teachers' perceptions about their efficacy are important to consider, given established correlations between teaching efficacy and students' learning outcomes in the past three decades (Tschannen-Moran & Woolfolk Hoy, 2001; Woolfson & Brady, 2009). Teachers with higher levels of self-efficacy experience lower levels of perceived feelings of burnout (Viel-Ruma, Houchins,

Jolivet & Benson, 2010). Teacher efficacy is related to a teacher's degree of persistence, enthusiasm, commitment, willingness to vary instruction techniques, and motivation to reach all students. Each of these traits is necessary for practising inclusive education. Teachers with a high sense of efficacy are also more likely to feel personal accomplishment, have high expectations for students, feel responsibility for student learning, have strategies for achieving objectives, a positive attitude about teaching and believe they can influence student learning. Teachers who perceive themselves efficacious will spend more time on student learning, support students in their goals and reinforce intrinsic motivation (Bandura, 1993, p. 140). Teacher efficacy has a significant impact on students and is one variable often associated with student achievement, student engagement, and student motivation.

Given the evident importance of teacher-self-efficacy in terms of self-esteem, impact on students and attitude towards inclusive practice, and the need for more in-depth understandings of SENA teachers and their work in order to enhance current service provision, the goal of the research reported here is to examine the interrelations among teacher self-efficacy, number of years in the profession and certification/qualification levels among SENA teachers in Brunei Darussalam.

Research Questions and Design

This research was conducted with the intention of responding to recent calls in Brunei Darussalam for more evidence on the experiences of SENA teachers since implementation of policies around inclusive education in Brunei Darussalam (Koay, 2006; Fitzgerald, 2010; Bradshaw & Mundia, 2012). The data provides a tentative set of data providing information about perceptions among teachers currently employed by the Ministry of Education in Brunei Darussalam as SENA teachers. The data was collected through the use of questionnaires distributed during a series of professional development workshops held with SENA teachers throughout the country.

Given the contemporary focus on self-efficacy in understanding attitudes of teachers towards inclusion in education (Savolainen et al. 2012) as an important factor in effective implementation of inclusive education, the research was designed to investigate interrelations among attitudes towards inclusive education, teacher self-efficacy, number of years in the profession and certification/qualification levels in the area of special education. In line with the fluidity of SENA teacher preparation cited earlier and the fact that many in-service teachers received their certification close to 20 years ago, the study addressed the following research questions:

- i. Do levels of self-efficacy vary across the 5 key districts of Brunei Darussalam?
- ii. Are levels of self-efficacy associated with years of work experience and/or qualification levels?
- iii. How are scores on the self-efficacy scales statistically related to reported attitudes towards inclusion?

Method

Data Collection Method

Data for this research was collected as part of a series of in-service workshops conducted at the request of the Special Education Unit at the Ministry of Education. Two-hour workshops were conducted in four key districts of Brunei Darussalam (Brunei-Muara I and II; Kuala Belait and Tutong), as part of a professional development programme for all SENA (Special Educational Needs Assistant) teachers working in primary schools across Brunei Darussalam.

The workshops were designed to promote the importance of self-efficacy for teachers working in inclusive education settings. Following a brief introduction to key concepts underpinning self-efficacy,

teachers participated in group activities focussed on challenges faced in their respective contexts and possible solutions offered by the range of resources available. A questionnaire consisting of the short form of the Teacher Sense of Self Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001) and three additional open-ended questions on challenges; solutions and personal opinions regarding inclusive education was also distributed to participants as part of a post-workshop activity. Data from the questionnaires, including demographic information for each participant, was analysed using the statistical package SPSS Version 20.

Participants - Demographic Information

Of the 114 teachers currently registered with the government's Special Education Unit, 76 attended the workshops and completed the shortened version of the self-efficacy questionnaire (Tschannen-Moran, & Woolfolk Hoy, 2001). A summary of key demographic data from the sample is provided in Tables 1 and 2.

Table 1. Demographic Information on Participating Bruneian SENA Teachers

Demographic	
Gender (female / male)	69 / 6
(Missing data)	1
Years of teaching experience as a Special Educational Needs Assistant (SENA)	32
1-5 years	9
6-10 years	18
11-15 years	15
16+ years	
(Missing data)	2
Highest Qualification (Specialist qualification as SENA)	
Certificate	26
Degree	21
Masters	16
(Missing data)	13
Location in Brunei Darussalam	
Kuala Belait	10
Brunei Muara I & Temburong	17
Brunei MuaraII	31
Tutong	18

As indicated in Table 1, this cohort of teachers includes a wide range of qualifications and years of work experience, supporting the need for insights into the similarities and differences in their perceptions and experiences. The years of teaching experience reported ranged from less than one to over 25. The majority of participants held either a certificate or degree-level specialized qualifications, with a smaller number holding masters-level qualifications. There was missing data on qualifications for 13 out of our 76 participants, meaning that the sample size was reduced for analyses related to teacher qualifications. There was also missing survey data on two further cases, further reducing the number of participants whose data was included in analyses.

Questionnaire

SENA teachers' self-efficacy was measured using the short form of the Teachers' Sense of Efficacy Scale developed by Tschannen-Moran and Woolfolk Hoy (2001). The scale consists of 12 statements designed to assess self-efficacy in three key areas: Classroom Management; Student Engagement and Instructional Strategies. The Classroom Management statements focus on management of disruptive behaviour; the Student Engagement scale focuses on promoting student confidence and motivation in learning, and the Instructional Strategies scale measures teachers' efficacy in relation to using a variety of *tools* and strategies for teaching. The statements, which measure *how much* teachers feel they can respond to challenges and/or achieve goals, are measured using a Likert-type scale with a 9-point response range, from 1 for *Nothing*, to 9 for *A Great Deal*. The sum score of the scale has also been used to provide a measure of Overall Self-Efficacy (Tschannen-Moran, M. & Woolfolk Hoy, 2001).

In addition to the scale, we included a second section designed to collect open-ended responses regarding challenges and strategies used by SENA teachers in Brunei Darussalam. As part of this section, an item gauging perspectives on inclusive education was included. Responses to this item (*In your personal opinion, do you think inclusive education should be made compulsory in the school system?*) were used to explore links between self-efficacy and attitudes towards inclusion.

The questionnaire was presented to participants at the workshops in English. Since English is the primary medium of instruction in Brunei schools, levels of English fluency are relatively high in the nation and we assumed that, since the workshops were being conducted in English, participants would have proficiency in the language. However, as one of the authors speaks Bahasa Melayu (the official language of Brunei Darussalam) we invited participants to approach her with any queries related to language / translation.

Findings

Our intention in collecting this data was to investigate whether levels of self-efficacy vary across the 5 key districts of Brunei Darussalam; whether levels of self-efficacy are associated with years of work experience and / or qualification levels, and whether scores on the self-efficacy scales are statistically related to reported attitudes towards inclusion. Our analyses also included examination of the relevance and appropriateness of the short version of the self-efficacy measure developed by Tschannen-Moran and Woolfolk Hoy (2001) for assessing self-efficacy among SENA teachers in Brunei Darussalam

Preparation of the data involved coding the demographic data and assessing applicability of the questionnaire in the Brunei Darussalam context through factor analysis of the Teacher Sense of Self Efficacy Scale. Table 1 reflects the range of years of teaching experience included in this sample. The range was coded as follows: 1 = 1-5 years; 2 = 6-10 years = 3 = 11-5 years, and 4 = 16+ years. Specialist qualifications were coded as 1 = certificate; 2 = degree, and 3 = masters level.

Factor Analysis

To establish structural validity and reliability of the three self-efficacy scales (Classroom Management; Instructional Strategies and Student Engagement), a Principal Components Analysis (PCA) retaining items with minimum eigenvalues of one and employing varimax rotation was conducted. Three factors were generated, closely reflecting the structure outlined by Tschannen-Moran and Woolfolk Hoy (2001), with eigenvalues of 6.365, 1.254 and 1.085 for Classroom Management; Student Engagement and Instructional Strategies, respectively. Reliabilities for the sub-scales ranged from 0.83- 0.89 (see table 2).

Table 2: Factor Structure, Loadings and Reliability of the Classroom Management; Student Engagement and Instructional Strategies Sub-Scales of the Teachers' Sense of Efficacy Scale (Tschannen-Moran, M. & Woolfolk Hoy, 2001)

Item description	Classroom management	Student engagement	Instructional Strategies
How much can you do to control disruptive behaviour in the classroom?	0.80		
How much can you do to get children to follow classroom rules?	0.73		
How much can you do to calm a student who is disruptive or noisy?	0.83		
How much can you do to motivate students who show low interest in school work?		0.71	
How much can you do to get students to believe they can do well in school work?		0.83	
How much can you do to help your students to value learning?		0.71	
To what extent can you craft good questions for your students?		0.57	
			0.70
How well can you establish a classroom management system with each group of students?			0.74
How much can you use a variety of assessment strategies?			0.75
To what extent can you provide an alternative explanation or example when students are confused?			0.76
How much can you assist families in helping their children do well in school?			0.81
How well can you implement alternative strategies in your classroom?			
<i>Cronbach's alpha for sub-scale</i>	0.83	0.84	

Two variations to the original structure are noted: the item *How well can you establish a classroom*

management system with each group of students loads on the Classroom Management scale in the original factor structure. For our sample of Bruneian teachers, this item loads clearly on the Instructional Strategies factor, indicating that classroom management may be associated more closely with teaching strategies than with mechanisms of control among this group of teachers. The second variation concerns the item *How much can you assist families in helping their children do well in school?*, which in our sample, again, loaded on the Instructional Strategies scale, whereas it loads on the *Student Engagement* scale in the original version.

Profile of SENA Teachers in Brunei Darussalam

Bruneian SENA teachers report generally high levels of self-efficacy across all three factors measured by the Teacher Sense of Self-Efficacy scale (out of a high possible score of 9, scores of 6.5, 6.6 and 6.7 were generated for the Instructional Strategies; Classroom Management and Student Engagement scales, respectively). A mean of 6.6 for Overall Self-Efficacy was reported for the whole sample, with no significant differences in scores for the whole sample across the three factors.

Do levels of self-efficacy vary across the 4 key districts of Brunei Darussalam?

No significant differences in mean scores for any of the three sub-scales or the Overall Self-Efficacy scale were found across the four district groups who participated in the workshops and associated research. Mean scores on the Overall Self-Efficacy scale ranged from a high of 6.66 (SD = 1.20) for Brunei Muara II to a low mean of 6.50 (SD = .92) for Kuala Belait. Subsequent analyses therefore examined variations based on other factors, such as qualification and years of working experience.

Variations in Self-Efficacy Levels Based on Years of Experience and Qualification Levels

In order to test for differences in reported self-efficacy attributable to years of working experience, a one-way ANOVA was conducted on the three sub-scales, as well as the Overall Self-Efficacy scale, with years of experience as the between groups factor. Scores on the Student Engagement scale differed significantly across the categories of years of work experience, $F(3, 67) = 3.043$, $p = .035$. However, Tukey post-hoc comparisons of the 4 years of experience groups indicated only a marginally significant difference between participants with 1-5 years of experience ($M = 6.23$, 95% CI [5.78, 6.69]) and those with 16+ years, scoring higher on the Student Engagement sub-scale ($M = 7.17$, 95% CI [6.55, 7.78]), $p = .051$.

A one-way ANOVA was also used to test for differences in scores on the sub-scales and overall scales based on qualification levels. Significant differences were generated for the Student Engagement sub-scale ($F(2, 61) = 3.72$, $p = .030$) and the Overall Self-Efficacy scale ($F(2, 61) = 3.30$, $p = .044$) across the three levels of qualification. Tukey post-hoc comparisons of the three qualification groups for self-efficacy scores in Student Engagement indicated that participants with certificates ($M = 6.27$, 95% CI [5.83, 6.71]) were significantly less likely to report high levels of self-efficacy on this sub-scale than participants with degrees ($M = 7.15$, 95% CI [6.68, 7.62]), $p = .012$. A similar pattern was found between certificate holders ($M = 6.24$, 95% CI [5.81, 6.68]) and degree holders ($M = 7.00$, 95% CI [6.56, 7.45]), $p = .034$ in Overall scores on the Self-Efficacy Scale.

Are scores on the self-efficacy scales statistically related to attitudes towards inclusion?

The intention of this research was to conduct preliminary investigations into levels of self-efficacy among SENA teachers working in Brunei Darussalam, and to explore whether self-efficacy levels among Bruneian SENA teachers may be, as reported in previous studies, related to attitudes towards inclusive education. Although the level of analysis available to us is restricted by our method in collecting this data (we included the following question in Section B of the questionnaire: *In your opinion, should inclusive education be made compulsory in the school system?*), there are noteworthy findings to report, which indicate that further research in this area would be valuable. Responses to the question, for the purposes of quantitative analysis, were coded according to whether they indicated agreement with the idea that inclusive education should be compulsory (Yes), disagreement (No), neither agreement nor disagreement (Maybe), or no answer (No answer).

Initially, our interest was primarily in understanding the nature of self-efficacy among SENA teachers in Brunei, as we assumed that previous findings relating to links between self-efficacy and positive sentiments towards inclusion reported in the Introduction section would be replicated in our sample. However, the data from this group of SENA teachers suggests that the positive association between self-efficacy and attitudes towards inclusive education is not straightforward. Unexpectedly, the data suggest that participants with high levels of self-efficacy, across all aspects of teaching, are not in favour of

compulsory inclusive education. In attempting to shed light on this finding, we turn later in this discussion to some recent work that highlights the complexities of *inclusion*.

Discussion

Our findings indicate that there is quantitative support for the validity of the original Teacher Sense of Self-Efficacy Scale (Tschannen-Moran, M. & Woolfolk Hoy, 2001) among SENA teachers in Brunei Darussalam. In terms of the slight variations to the three sub-scales, with two items shifting to the Instructional Strategies factor, this difference might be explained by the unique position of *teachers* in our sample. It is perhaps not surprising that teachers who are focused specifically on providing intervention for children attending a mainstream school who have been identified as having *special needs* see classroom management and working with families as *instructional strategies*. Anecdotally, many of the teachers that attended the workshops that formed part of this research referred to pressure on them to *manage* children's behaviour by working with parents. This feeling reflects what Harvey-Koelpin (2006, cited in Armstrong) identifies as a major challenge of inclusive education, which is that the particular academic goals of *mainstream* education preclude inclusive practice as the focus tends to be on *reforming* children with disabilities to perform in class, rather than the converse.

We had expected, in preparing for the workshops, that there might be variations in self-efficacy among SENA teachers in Brunei Darussalam based on location. We had assumed that resources might be more plentiful in Brunei Muara I and II, which are more located nearer to the nation's capital and ministry offices. However, in conducting the workshops, we discovered a strong network of SENA teachers within each location, which might account for the lack of variation. Labone (2004, cited in Tschannen-Moran & Woolfolk Hoy, 2006) suggests a need for greater understanding about the kinds of context variables linked to high self-efficacy and Tschannen-Moran et al. (1998) included contextual variables in their model of teachers' self-efficacy.

We expected, on the basis of previous research on self-efficacy (Klassen & Chiu, 2010) that practitioners with more years of experience in the field would report higher levels of self-efficacy. However, previous research also indicates that experience may not necessarily enhance self-efficacy. Hoy and Woolfolk (1990) and Spector (1990), for example, noted that for pre-service teachers, general teaching efficacy appears to increase during college coursework, then decline during student teaching. Both studies seem to suggest that the optimism of young teachers may be somewhat tarnished when confronted with the realities and complexities of *real-life* teaching tasks. This assumption was partially supported by our data, with an indication of significant differences across groups with varying levels of experience, specifically on the Student Engagement sub-scale of self-efficacy. The fact that less-experienced SENA teachers might feel less confident about being able to motivate and build self-confidence in their students' learning could be explained by the greater length of time that these goals take to achieve, in comparison with classroom management and the use of strategies, which are more immediate. However, the findings suggest that this pattern is not linear, which also fits with a previously reported possibility that self-efficacy may peak at mid-career, with a plateau and reduction towards late career.

The finding that self-efficacy levels were influenced by qualification was not unexpected either, based on previously reported findings (Williams, 2009). A significant difference in levels of self-efficacy for both the Student Engagement and Overall Teacher Sense of Self-efficacy Scale were found between degree and certificate holders, with degree holders reporting higher levels of self-efficacy. However, again, there were unexpected patterns in this data. No significant differences between the most highly qualified Masters degree holders and Certificate holders were found. Descriptive data on each of the groups indicates that both the Certificate- and Masters degree-holders belong to the group with the least amount of experience working in the field, suggesting an interaction between qualifications and experience. While regression analyses revealed no significant patterns to this effect, this finding is worthy of further exploration, either through qualitative investigation or further surveys that involve all 114 SENA teachers in the country.

The most surprising and, perhaps, noteworthy finding was the apparent link between self-efficacy and negative response to the item *In your opinion, should inclusive education be made compulsory in the school system?*. Based on data from this sample of SENA teachers, it appears that high self-efficacy may not, as widely assumed, necessarily result in a positive outlook on inclusive education. In order to shed further light on this finding, we turned to some of the descriptive data emerging from our survey and to the context. We also looked in more depth at some of the literature emerging in this area and found possible explanations for this pattern.

The statistical analyses that we were able to perform were limited due to the nature of our *measure* of attitudes towards inclusion: an open-ended question that asked for personal opinions about whether inclusive education should be made compulsory in the school system. Notwithstanding this drawback, some explicable and potentially interesting findings emerged. For example, given that degree holders in our sample generated the highest scores on the Overall Self-Efficacy scale and high scores on this scale were associated with negative responses to the item on inclusive education, there may be unique characteristics among degree holders that are worthy of investigation.

Crosstabs analyses revealed that the degree holders in this sample are, predominantly, also the most experienced teachers (out of 25 teachers who reported having more than 11 years of experience working in schools, 14 were Degree holders, 10 were Certificate holders and 1 held a Masters degree). In a cross-cultural study of self-efficacy and attitudes towards inclusion among Finnish and South African teachers, Savolainen, Engelbrecht, Nell & Malinen, (2012) found that, in both cultural groups, more teaching experience predicted negative attitudes towards inclusion. As these authors suggest, it is important that programmes preparing teachers for work in inclusive education settings provide sufficient support in development of knowledge and skills that empower them to act as effective practitioners in inclusive practice.

It is also important to note that the *teachers* represented in our research are unique as they have been working as special educational needs assistants in mainstream settings, in the case of degree holders for ten years or more, since the inception of the LAT programme that was highlighted in our Introduction. The LAT programme, implemented in response to Brunei Darussalam's acknowledgement of *inclusive education* at the level of policy, represents a unique approach to involving children who are identified as having particular learning needs in mainstream school settings. The particular context within which experienced SENA teachers with high levels of self-efficacy in our study have been working is important to highlight in understanding possible explanations for their apparent caution about inclusive education.

Armstrong et al (2011) detail the various challenges associated with conceptualising and implementing *inclusive education*, particularly across diverse social and cultural contexts. As these authors point out, there are variations in perspective on *inclusive* practice based often on the concept of *need*: often the school's *need* for order is translated into the *needs* of individual children with *difficult* or *disruptive* behaviour. As Armstrong and colleagues (p. 102) suggest, this approach results in *additional support (which) may diversify in alternative paths of provision that take the student outside the mainstream classroom and school, removing in the process the need or problem of the student*. The difficulty with this approach, while it does serve to address both the needs of schools and children who have difficulty adjusting to formal study, is that in some cases classrooms are insufficiently equipped to cope with students who are removed for intervention and then returned. This challenge was highlighted in the 1990's by Moeller and Ishi-Jordan (1996, p.2) in a review of similar systems in the United States:

The basic premise of inclusion was evident in LRE (Least Restrictive Environment), but the motivation seemed more solidly based on first segregating students for necessary special service, then allowing those who could learn in the same manner as their nondisabled peers to enter classrooms without the special services.

Working within such a system is likely to prove challenging in terms of convincing teachers of the value of a model of inclusion that promotes full immersion of children with disabilities and diverse needs into the mainstream, regardless of their education and training. Anecdotally, during our workshops, many of the daily challenges that were referred to revolved around disruptive behaviour in mainstream classrooms and returning children from the SEN centres into mainstream classrooms. Perhaps the indication that teachers with high self-efficacy and more years of work experience in the field are less likely to be supportive of *compulsory* inclusive education reflects their clear understanding of *inclusive education* and implications associated with its full implementation in the current system.

It is important to re-iterate Armstrong et al. (2011) assertion that contextual variations in approaches to including children with disabilities will and should exist and that no single *model* should be viewed as ideal. What is important, however, as the findings reported here suggest, is that the goals of any particular model are shared amongst stakeholders and that the vision, or interpretation, of *inclusion* is clear. Much has, and is being done in Brunei Darussalam to promote inclusive practice in educational settings. These efforts will be enhanced by current moves towards coherence and shared understanding

between educational providers (both at the level of schools and tertiary institutions) about the nature and purpose of *inclusive* education. The findings reported here provide some answers, in terms of levels of self-efficacy among SENA teachers in the nation. They also point to the considerable need for further research that seeks to better understand perceptions of, attitudes towards and barriers posed in working towards fulfilment of the nation's inclusive education policies.

References

- Armstrong, D., Armstrong, C., & Spandagou, E. (2011). Inclusion: by choice or by chance? *International Journal of Inclusive Education* 15(1), 29-39.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning [Electronic Version]. *Educational Psychologist* 28(2), 117-148.
- Fitzgerald, K. W. (2010). Enhancing inclusive educational practices within secondary schools in Brunei Darussalam. *The Journal of International Association of Special Education*. 11(1) 48-55.
- Klassen, R. M. & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology*, 102(3), 741-756.
- Koay, T. L. (2007). Inclusive education in Brunei Darussalam. Commonwealth Education Partnerships 2007. <http://www.cedol.org/wp-content/uploads/2012/02/197-202-2007.pdf>
- Labone, E. (2004) Teacher efficacy: Maturing the construct through research in alternative paradigms *Teaching and Teacher Education*, 20, 341-359.
- Milner, R. & Woolfolk Hoy, A. (2003) A case study of an African American Teacher's self-efficacy, stereotype threat, and persistence. *Teaching and Teacher Education* 19, 263-276.
- Podell, D., & Soodak, L. (1993). Teacher efficacy and bias in special education referrals. *Journal of Educational Research*, 86(4), 247-253.
- Sari, H., Celikoz, N., & Secer, Z. (2009). An Analysis of Pre-School Teachers' and Student Teachers' Attitudes to Inclusion and Their Self-Efficacy. *International Journal Of Special Education*, 24(3), 29-44.
- Savolainen, H., Engelbrecht, P., Nell, M. & Malinen, O. (2012). Understanding teachers' attitudes and self-efficacy in inclusive education: implications for pre-service and inservice teacher education. *European Journal of Special Needs Education*, 27(1), 51-68.
- Soodak, L., & Podell, D. (1993). Teacher efficacy and student problem as factors in special education referral. *Journal of Special Education*, 27, 66-81.
- Spector, J. E. (1990). Efficacy for teaching in preservice teachers. Paper presented at the Annual Meeting of the American Educational Research Association, Boston, MA.
- Tate, K. & Mundia, L. 2010. Preparing teachers to meet the challenges of inclusive education in Negara Brunei Darussalam. In *Future directions for inclusive teacher education: An international perspective*, ed. C. Forlin, 61-70. Oxon, UK: Routledge.
- Tschannen-Moran, M & Woolfolk Hoy, A. (2006) The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*. 23 (6), 944-956.
- Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.
- Kim Viel-Rumal, David Houchinsl, Kristine Jolivetlel, and Gwen Benson (2010). Efficacy Beliefs of Special Educators: The Relationships Among Collective Efficacy, Teacher Self-Efficacy, and Job Satisfaction. *Teacher Education and Special Education* 33(3), 225-233.
- Whittington, M. S., McConnell, E. A., & Knobloch, N. A. (2003). Teacher efficacy of novice teachers in agricultural education at the end of the school year. *Proceedings of the 30th Annual National Agricultural Education Research Conference*, Orlando, FL, 204-215.
- Williams, R. (2009). Gaining a degree: the effect on teacher self-efficacy and emotions. *Professional Development in Education*. 35(4).
- Woolfolk, A. E., & Hoy, W. K. (1990). Prospective teachers' sense of efficacy and beliefs about control. *Journal of Educational Psychology*, 82, 81-91.
- Woolfson, L. M., & Brady, K. (2009). An investigation of factors impacting on mainstream teachers' beliefs about teaching students with learning difficulties. *Educational Psychology*, 29, 221-238.

STRESS LEVELS OF KUWAITI MOTHERS OF CHILDREN WITH SLD: DOES WORK AND EDUCATIONAL STATUS MATTER?**Saad S. Alazemi***Ministry of Education, Kuwait***Azar Hadadian****John B. Merbler***Ball State University***Cen Wang***Charles Stuart University*

Existing research literature indicates that parents of children with disabilities have higher stress. The purpose of this study was to examine differences in stress levels between mothers in relation to their children with specific learning disabilities (SLD). A sub sample of 91 mothers participated in the study. The outcome of the research revealed that there were significant differences in stress levels of mothers of children with SLD as it related to employment and educational status. The findings of this study indicated that mothers with a higher education degree had lower stress levels. In contrast, employed mothers had higher stress levels as related to their children with SLD.

Existing research indicates that parents of children with disabilities are under high stress levels. Similarly existing research literature has shown that parental stress increases when support services are not readily available, creating the need for the parent to search for appropriate services (Chichevska- Jovanova & Dimitrova -Radojichikj, 2012; Dyson, 1991; Dyson, 1996; Floyd & Gallagher, 1997; Lardieri, Blacher, & Swanson, 2000). Pattison (2005) reported that *a large proportion of individuals who have learning disabilities have co-existing mental health problems (known as dual diagnosis) and there are few services available to provide the required psychological support* (p. 121). Further, parents may experience anxiety related to the uncertainty about their child's future. Lack of external supports, such as the support of friends, family, schools, communities, and professional organizations, can be a contributing source of stress for parents of children with SLD (Arnold, Michael, Hosley, & Miller, 1994; Hassal, Rose, & McDonald, 2005; Wehman & Gilkerson, 1999).

Parents of children with SLD may also experience negative attitudes toward their child and low expectations for the academic achievement of their children. The inability of the child to meet academic requirements may contribute to the negative attitude of the parent, who can experience stress, frustration, and disappointment as a result of what they perceive as their child's academic inadequacies (Chapman & Boersma, 1979; Karande & Kulkarni, 2009; Klein, Altman, Dreizen, Friedman, & Power, 1981). In addition, children with SLD need additional assistance from their parents as well as special educational services to meet their needs (Bryan, Burstein, & Bryan, 2001; Hallahan, Kauffman, Weiss & Martinez, 2005). Helping children with SLD may result in the need for increased support from the parents, consuming their time and increasing parents' level of stress (Waggoner & Wilgosh, 1990).

Having a child with SLD often puts pressure on the family dynamic and can lead to physical and emotional exhaustion (Chang & Hsu, 2007; Faerstein, 1981; Kenny & McGilloway, 2007; Lardieri et al., 2000; Waggoner & Wilgosh, 1990). The negative impact of the experience of having a child with SLD can result in untenable relationships within the family, subsequently resulting in conflict that remains unresolved. Families of children with SLD may experience emotional, physical, and social stress (Chang & Hsu, 2007; Lardieri et al., 2000), which can result in heightened levels of marital issues and

even lead to failed marriages (Margalit & Heiman, 1988). Dysfunctional patterns of behavior among family members can manifest during normal life events, such as when the child with SLD begins school or moves away from home (Wilchesky & Reynolds, 1986). Expectations are placed on the parents to assist their child in transitioning to life beyond public school education (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990). Parents face difficult situations that require serious and permanent involvement as they help their child with SLD overcome their learning difficulties and achieve success in their academic and post academic careers (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990). This stress is pervasive, as the parent must gain knowledge and assist their child in making decisions about appropriate vocational training, community employment opportunities, and independent living options (Brotherson, Berdine & Sartini, 1993; Wilgosh, 1990).

Several studies have shown that mothers and fathers experience different levels of stress related to their children with SLD (e.g., Chapman & Boersma, 1979; Essex, 2002; Hadadian & Merbler, 1995; Kaslow & Cooper, 1978; Kazak & Marvin, 1984). Mothers of children with SLD may experience more depression and greater levels of stress than fathers. Kaslow and Cooper (1978), for example, found that mothers of children with SLD have more depression than fathers. In a study by Floyd and Gallagher (1997), mothers of children with SLD exhibited more stress than fathers due to increased responsibility. Mothers of children with SLD also demonstrated greater levels of negative reactions to their children as opposed to fathers. According to measurements of performance expectations for academic achievement of the child with SLD, more mothers than fathers expected their children to experience failure. Further, mothers as opposed to fathers assume more responsibility for their child with SLD (Essex, 2002; Hadadian & Merbler, 1995; Wilgosh, 1990), and social stigma for the child with SLD is of greater concern to mothers than fathers (Chang & Hsu, 2007). Marital harmony is of concern for mothers of children with SLD, and they may become more anxious than fathers when considering their child's success in life (Kazak & Marvin, 1984).

Specific learning disabilities are not like some other obvious disabilities, such as blindness and deafness that parents can notice and treat early. It is a hidden disability; parents often may not be able to notice its symptoms prior to early grade school (Dyson, 1996; Faerstein, 1981). Specific learning disabilities create obvious difficulties when the child enters the later grades that emphasize writing, reading, spelling, comprehension, and math (Faerstein, 1981; Hallahan et al., 2005). Bear, Kortering, & Brazziel, (2006) stated, *students with LD demonstrate low academic achievement—a feature that generally worsens as they get older* (p.293). Having a child with SLD, because it is a hidden disability, makes it difficult for parents to understand their child's learning dysfunction (Faerstein, 1981; Hallahan et al., 2005). Thus, guilt is a common feeling that parents of children with SLD could develop because such disabilities could go undetected for so long (Hallahan et al., 2005; Faerstein, 1981). Also, specific learning disabilities may overlap or coexist with many factors that cause parents of children with SLD to have higher stress levels than parents of children without SLD. These factors include the visibility of the disability, the educational placement, difficulty in securing babysitters, and lack of support and coping interventions (Chang & McConkey, 2008; Fitzpatrick & Dowling, 2007).

There is abundant evidence that shows that having a child with learning disabilities could increase parents' stress levels (Dyson, 1996; Dyson, 2003; Floyd & Gallagher, 1997; Fuller & Rankin, 1994; Hallahan et al., 2005; Kazak & Marvin, 1984; Lardieri et al., 2000; Margalit & Heiman, 1986; Saloviita, Italinna, & Leinonen, 2003). Parents of SLD children are at increased risk for stress and other mental health problems, such as depression—more so than parents of children without disabilities (Chang & McConkey, 2008; Emerson, 2003; Hasting & Beck, 2004).

Other factors in parents' stress are also emerging as the result of the lack of external sources of support that these parents need to provide a normal life and effective educational services for their children. Limited external sources of support, for example support from friends, school, and professional organizations, can increase parents' frustration and anxiety (Arnold, Michael, Hosley & Miller, 1994; Chang & McConkey, 2008; John, 2012, Redmond & Richardson, 2003; Sajjad, 2011 Waggoner & Wilgosh, 1990). A study by Hassal, Rose, and McDonald (2005) demonstrated a negative correlation between family support and parental stress. This finding indicates that parents with high levels of support from others have lower levels of stress about their children's disabilities.

Parents show frustration and anxiety while they are trying to help their children with SLD complete homework, make decisions, and understand parents' instructions about the household chores that they have to finish (Lardieri et al., 2000). Parents attribute their stress and depression to having to work

constantly and having little time left for themselves (Olsson & Hwang, 2003). Some studies showed that parents' stress comes from confusion about how to help their children and from the lack of information that provided more details about vocational services, work training, community employment, and independent living opportunities that are suitable for their children with SLD (Brotherson, Berdine, & Sartini, 1993; Chang & McConkey, 2008; Hanline & Halvorsen, 1989). Hasting and Beck (2004) stated that *conflicting advice from a range of professionals and agencies is likely to be a source of stress for parents* (p. 1345). Redmond and Richardson (2003) reported that the difficulty of accessing services and inadequate and uncoordinated services are the greatest factors that contribute to SLD mothers' stress. The mothers in this study indicated that they need to be supported with reliable, flexible, and responsive services (Redmond & Richardson, 2003). Parents need information that facilitates the transition to integrated educational settings for their children in the future (Brotherson et al., 1993; Chang & McConkey, 2008; Hanline & Halvorsen, 1989; Wilchesky & Reynolds, 1986; Wilgosh, 1990). Minimal information about special education services may make parents with children with SLD have more stress, low expectations, and less optimism about the effectiveness of these services (Chang & McConkey, 2008; Orlowska, 1995). Russell (2003) reported that research shows that there are few support services that can meet the needs of parents of children with SLD. Thus, these needs frequently remain unmet.

The research literature also suggests that parental stress is not limited to only Western countries. Cho and Hong (2013) have reported high stress among Korean mothers of children with disabilities; they further reported a relationship between family income and mothers' stress level. Chang and Hsu (2007) and Chang and McCaskey's (2008) studies suggested that SLD parents' stress in Taiwan is caused by two factors: 1) the social stigma that their children can experience from society and 2) the lack of support services and resources that can facilitate their children's learning. SLD parents' anxiety can also come from the negative attitude that the parents have toward their children's abilities to accomplish the required academic achievement in their grades (Klein, Altman, Dreizen, Friedman, & Power, 1981). Parents' preoccupation with their children's future increases the parents' anxiety (Chang & Hsu, 2007; Tood, Shearm, Beyer, & Felce, 1993). Rojewski (1996) stated that *youth with learning disabilities are less likely to aspire to high-prestige occupations and more likely to be indecisive about future occupational alternatives* (p. 99). Also, the chronic poor academic performance of students with SLD causes significant stress for the parents (Karande & Kulkarni, 2009). On the other hand, a Waggoner and Wilgosh (1990) study showed that some educators did not have enough experience with children with SLD. The parents in this study had a negative experience with teachers who were not realizing the difficulties that children with SLD face in school (Studer & Quigney, 2005; Taub, 2006). In addition, some educators, such as teachers and counselors, have negative attitudes toward teaching and serving children with disabilities (Gaad, 2004; Tarver-Behring & Spagna, 2004; Taub, 2006).

Nevertheless, many studies also demonstrate that some parents of children with disabilities have positive views about their children (Donenberg & Baker, 1993; Haldy & Hanzlik, 1990; Hastings et al., 2002; Flaherty & Glidden, 2000; Olsson & Hwang, 2003; Redmond & Richardson, 2003; Trute, Hiebert-Murphy, Levine 2007). Having a child with a disability can be a source of happiness, fulfillment, greater coping skills, spiritual growth, and also a source of strength and family closeness (Ferguson, 2002; Hastings et al., 2002; Knox, Parmenter, Atkinson, & Yazbeck, 2000; Trute et al., 2007). Personal growth, family cohesion, sensitivity to others, and an expansion in one's social contacts are positive impacts that some parents have experienced while caring for children with special needs (Grant, Ramcharan, McGrath, Nolan, & Keady, 1998; Slainton & Besser, 1998; Scorgie, Welgosh, & McDonald, 1999; Scorgie & Sobsey, 2000). Keating (1997) reported that some parents of children with disabilities mention that these children had a positive impact on them and other members of the family. Some parents in this study demonstrated that they became less selfish, developed a more tolerant perspective, and had been taught how to love unconditionally. Also many parents had benefited from the disability of their children by increasing the family's cohesion (Grant & Whittell, 2000).

The existing literature suggests that there are few studies specifically related to stress levels of mothers of children with disability regarding a number of variables including employment and educational status. Also, there appears to be limited research on the cross-cultural aspects of parental stress-- especially regarding SLD. Therefore the purpose of this study is to examine Kuwaiti's mother's stress, as measured by a score on the Parenting Stress Index (PSI), 3rd ed. The hypothesis of this study is that there is a difference in the level of stress between employment and educational status of Kuwaitis' mothers. The assumption is that work duties outside of the home increase maternal stress level. We also hypothesize that higher education may decrease stress level due to a number of factors including an improved ability to navigate a complex system of services.

Method

Participants

The population ($n=91$) for this study was a sub - sample of 91 mothers from a larger study drawn from the Center for Child Evaluation and Teaching in Kuwait. This Center is a non-profit organization that was established in 1984. It provides specialized diagnostic, remedial, and teaching services in both English and Arabic in the field of learning disabilities. This Center is the only educational institution in Kuwait that exclusively educates and serves children with specific learning disabilities from third grade until twelfth grade. The Center for Child Evaluation and Teaching has 152 students (128 boys and 24 girls).

Since the Parent Stress Index (PSI) is standardized and valid for use with parents of children up to 13 years of age, the researchers only asked the mothers who had a child in the Center in third grade through eighth grade (students around 8-13 years old) to participate in this study. Therefore, total of 91 mothers were included in this study. A total of 91 surveys (91 mothers) were included for the final analysis in this study ($n=91$) and there were no missing cases among these 91 surveys.

Within the survey sample, 39.5% of the mothers were between the ages of 25-40, and 61.5% were older than 40 years. Of the mothers included in the sample, 46.1% of the mothers had at least a four-year college degree. Finally, 49.4% of the mothers did not work outside the home and 50.5% of them did work outside the home.

Survey Instruments

A survey research design was selected as the best model to conduct this study. The researcher used the Parenting Stress Index (PSI; Abidin, 1995), 3rd ed. which is used with parents of children up to 13 years of age (Fuller & Rankin, 1994; Reitman, Currier, & Stickler, 2002; Whiteside-Mansell et al., 2007). Also PSI has been widely used for individuals with disabilities (more than 85 studies) as it is referenced in the PSI Manual (e.g., Beckman, 1991; Boyce, White, & Kerr, 1993; Fisman, Wolf, & Noh, 1989; Fitzgerald, Butler, & Kinsella, 1990; Fuller & Rankin, 1994; Hanson & Hanline, 1990; Krauss, Hauser-Cram, Upshur, & Shonkoff, 1989; Mott, Fewell, Lewis, Meisels, Shonkoff, & Simeonsson, 1986; Pearson & Chan, 1993; Sexton, Burrell, Thompson, & Sharpton, 1992). Use of the PSI with parents of children with disabilities has shown a relationship between child functioning and stress (Barkley, Fischer, Newby & Breen 1988; Cameron & Orr, 1989). The PSI takes approximately 30-60 minutes for the parent to complete.

The PSI is a screening and diagnostic instrument designed to identify the relative amount of stress in the parent-child system. The PSI is a 120-item scale with an optional 19-item Life Stress scale, which the researcher excluded from the questionnaire to make the questionnaire shorter for the parent to answer. Parents responded using a 5-point Likert Scale (1=strongly agree; 5=strongly disagree) with higher scores representing more stress about their children with SLD. Also, the scale includes some multiple-choice items. The 101 items in the PSI are divided into two domains, the child domain (child's behavioral characteristics) and the parent domain (parent's characteristics/parent's personality/parenting). These domains work in combination to provide a comprehensive, multidimensional measure that collectively measures parenting stress. Each domain has also sub domains that provide a breakdown of the intensity of stress in each area. This allows the researcher to investigate in which domain stress may be greater (Fuller & Rankin, 1994).

The Child Domain includes the following sub-domains (Abidin, 1995):

1. Distractibility/hyperactivity. This sub-scale is related to children that demonstrate a number of the behaviors that relate to Attention Deficit Disorder with hyperactivity. The behaviors include over-activity, restlessness, distractibility, short attention span, seeming inability to listen, and failure to finish things they start.
2. Adaptability. Adaptability is associated with the characteristics that show the child's inability to adapt to changes in the physical or social environment, makes the parenting task more difficult.
3. Reinforces parent. This sub-scale demonstrates if the child represents a source of positive reinforcement or not for the parent.
4. Demandingness. This area demonstrates the parent's stress that comes from his/her child's demands. These demands may come from different causes, such as clinging to

5. the parent, continually asking for help, or a high level of trivial problem behavior.
6. Mood. This sub domain is related to the child's dysfunction in emotional functioning.
6. Acceptability. This area demonstrates the contrast between the child's characteristics and what the parents had expected for their children. In other words, the child's attractiveness, intellect, and/or demeanor do not meet parental expectations.

On the other hand, the Parent Domain, or parent-related stress, is a scale that is reflective of the parents' functioning. Parent Domain includes the following sub-domains (Abidin, 1995):

1. Competence. This sub-scale is related to the parenting skills that are necessary for effective management of the child and their development.
2. Isolation. This area examines the support systems that the parent has in place. Lack of spousal support and external supports such as parent support groups or extended family can lead to isolation and high levels of stress.
3. Attachment. Attachment is related to the parent's ability to bond with their child and understand and interpret their child's emotional needs.
4. Health. This area looks at the health of the parent as it relates to their level of stress. A correlation has been noted between high levels of stress and frequent complaints of health issues by the parent.
5. Role restriction. A high score in role restriction indicates a parent's frustration with their perceived lack of freedom and inability to maintain their individuality.
6. Depression. Feelings of unhappiness and dissatisfaction can result in the parent experiencing depression.
7. Spouse. High scores in this sub domain would indicate a lack of support from the spouse. A breakdown in the marital relationship can result from the stress created through this lack of support.

Whiteside-Mansell et al., (2007) stated that *parenting stress is a complex construct that involves behavioral, cognitive, and affective components and is a combination of child and parent characteristics, as well as family situational components as they relate to the person's appraisal of his or her role as a parent* (p. 27). The PSI can be a helpful scale for determining the levels of parental stress because the proposed domains explain relations between parent and child outcomes and specific aspects of stress related to parenting (Whiteside-Mansell et al., 2007).

Apart from extensive validity research data reported in the PSI manual, the author of the PSI scale noted that *the PSI has been validated not only in a variety of U.S. samples, but also in trans-cultural research involving populations as diverse as Chinese* (Pearson & Chan, 1993), *Italian* (Forgays, 1992), *Portuguese* (Santos, 1992), and *Latin American Hispanic* (Solis and Abidin, 1991, p. 3). Many studies have demonstrated that the PSI is a robust diagnostic measure that preserves its validity with diverse non-English-speaking cultures. Thus, validity is likely to be maintained by the PSI with a variety of different U.S. populations (Abidin, 1995). Also, many studies have shown strong evidence of PSI content validity, concurrent and construct validities, and discriminant and factorial validities (Fuller & Rankin, 1994). Scheel and Rieckmann (1998) stated, *the PSI possesses good construct validity based on factor analysis and discrimination between groups of parents* (p. 20).

Moreover, many studies indicated that the PSI is sufficiently robust as a measure for different populations. These studies showed that there were no differences in its reliability across cultures (Abidin, 1995). In general, the author of the scale reported more than 90 measures that have correlated with the PSI that provide more confirmation for the construct and predictive validity of the PSI (1995).

Data Collection Procedures

The lead researcher requested from director of the Center for Child Evaluation and Teaching to conduct the survey study. Upon agreement of the director of the Center, the researcher mailed the cover letter and informed consent document to the parents. The cover letter included all the information regarding the lead researcher and his study such as contact information, objectives of the study, responsibilities of the participant, etc. It also confirmed that participation was voluntary and that the participant could withdraw from the study at any time. The informed consent document allowed the participants to decide whether to participate or not. They were requested to sign the informed consent document to confirm their participation. All the parents who agreed to participate in the study were invited by the lead researcher to come to the Center to fill out the study questionnaires. The lead researcher was present at that date to

distribute, collect, and make sure the study questionnaires were given only to those who had signed the informed consent document.

Data collecting procedures also ensured that no personally identifiable information would be associated with the survey questionnaire. The survey questionnaires were kept in a locked file cabinet. All materials were destroyed after they were no longer needed for analysis.

Results

The researchers used descriptive statistics to analyze the demographical data and inferential statistics were used to answer research questions. A (2 X 2), MANOVA was conducted using SPSS to investigate the influence of mothers' education (less than four years college vs. four years college and graduate studies) and working status (working vs. not working) on mothers' stress level in the child and parental domain of PSI. Specifically, the Child domain asks questions about their children and is comprised of six subscales, namely Distractibility/Hyperactivity (DI), Adaptability (AD), Reinforces Parent (RE), Demandingness (DE), Mood (MO), Acceptability (AC). The Parental domain asks questions about the parents themselves and is comprised of seven sub-scales, namely Competence (CO), Isolation (IS), Attachment (AT), Health (HE), Role Restriction (RO), Depression (DP), Spouse (SP).

Data Analysis

Prior to the analysis, assumptions for MANOVA were checked. First, the assumption of homogeneity of variance was met as Box's M test was not significant ($p = .309$ for the child domain and $p = .247$ for the parental domain). This indicates that the covariance matrices of the group of mothers with less than four years college and the group of mothers with four years college and graduate studies are equal for both child and parental domain of PSI. Similarly, the covariance matrices of working mother group and not working mother group are equal for both child and parental domain of PSI. Second, the assumption of multivariate normality was also checked using Mardia's test in SAS. The multivariate normality was met for child domain as Henze-Zirkler T test was insignificant, $p = .124$. Henze-Zirkler T Test is significant for parental domain, $p < .001$. However, the sample size is adequate for purpose of this study. Furthermore, MANOVA is robust to the normality assumption violation when there is a fairly large sample size.

Results showed that there were no significant group differences of mothers' educational status on mothers' stress levels in the child domain, $p = .858$, ns; neither were there significant group differences of working status on mothers' stress levels in the child domain, $p = .113$, ns. However, the overall multivariate test showed that mothers' educational status had a significant influence over their stress level in the parental domain of PSI, Wilks' Lambda = .809, $F(7, 81) = 2.732$, $p = .013$. Working status was also shown to have a significant influence over mothers' stress level in the parental domain of PSI, Wilks' Lambda = .785, $F(7, 81) = 3.162$, $p = .005$ (see Table 1).

Table1. Multivariate Tests of the Effects of Mother Education, Working Status and the Interaction on Parental Domain of PSI

Working	Working mother		Not working mother	
	M	SD	M	
RO	2.72	.94	2.22	
SP	2.39	.02	2.34	
HE	3.00	.90	2.53	

Note. MEdu=mother's education; Working=working status; df1=Hypothesis df; df2=Error df.

To further understand the nature of the influence of mothers' educational and working status, discriminant function analysis was conducted. The structure matrix for the variable of educational status showed the sub-scale of CO (competence) contributed most to the group differences in terms of mother stress level (see Table 2).

Table2. Canonical Discriminant Functions Structure Matrix for the variable of Mother Education

Subscales within Parental domain	Function
Competence (CO)	.615
Role Restriction (RO)	-.148
Attachment (AT)	.131
Spouse (SP)	-.089
Depression (DP)	-.083
Health (HE)	.054
Isolation (IS)	.006

Note. .4 was used as the cut-off values for important contributors.

As shown from the descriptive statistics, mothers who had 4 or more years of college had lower stress level than mothers who had less than 4 years college in the CO sub-domain (see Table 3).

Table 3. Descriptive Statistics on Mothers' Stress for the CO Sub-Domain for the Variable of Mother Education

MEdu	less than 4 years college		4 years college and graduate studies
	M	SD	M
CO	2.52	.53	2.21

Note. MEdu=Mother's education; CO=Competence.

The structure matrix for the variable of working status indicated that the subscales of RO (role restriction) contributed most to the group differences in terms of mother stress level, followed by SP (spouse) as the second most important contributor and HE (health) as the third most important contributor (see table 4).

Table 4. Canonical Discriminant Functions Structure Matrix for the variable of Working Status

Subscales within Parental domain	Function
Role Restriction (RO)	.608
Spouse (SP)	.581
Health (HE)	.536
Depression (DP)	.258
Competence (CO)	.243
Isolation (IS)	.117
Attachment (AT)	.078

Note. .4 was used as the cut-off values for important contributors.

As shown from the descriptive statistics, mothers who work have higher stress level than mothers who do not work in the RO, SP and HE sub—domains (see Table 5).

Table 5. Descriptive Statistics on Mothers' Stress for RO, SP and HE Sub-Domains for the Variable of Working Status

Working	Working mother		Not working mother
	M	SD	M
RO	2.72	.94	2.22
SP	2.39	.02	2.34
HE	3.00	.90	2.53

Note. Working=Working status; RO=Role Restriction; SP=Spouse; HE=Health.

Finally, the interaction effect of mother education and working status were examined. As shown in Table 1, there was no interaction effect between mother education and working status, $p=.809$, ns, indicating

that the pattern of the effect of mother education on mothers' stress level is the same across working status.

Limitations of the Research Study

The study was limited by a number of variables including the sample size and selection, location, and the survey instrument that required further discussion. First, this study was conducted solely in the only institution in Kuwait that is serving SLD students. The Center for Child Evaluation and Teaching is located in one city in Kuwait and there are no other branches of the Center in other cities in Kuwait. Therefore, the sample in this study may not represent the broader group of mothers of SLD children. Second, the sample was voluntary; consequently, there were approximately 60 parents who chose not to participate in this study. Third, the study was only conducted in Kuwait and it only targeted Kuwaiti's mothers. Therefore, the sample in this study did not include mothers from other countries in the Gulf Area or from the Middle East. Although Kuwait and other Gulf countries have the same culture and religion, the education services and resources that these countries provide for their citizens vary. Thus, the results from this study may only be applicable to Kuwaiti parents of children with SLD. Replication of this study in different Middle East countries may increase the generalizability of the study. Fourth, this study focused only on parents of children with SLD. The representation of this study may not be applicable to parents of children with different disabilities. Therefore, replications and/or focusing on other disabilities may increase the representative validity of this study. Finally, The Parent Stress Index (PSI), which is a standardized test, was the major questionnaire for this study. Although the lead researcher followed a professional procedure in order to guarantee an accurate translation of the PSI, nevertheless is not normed on Kuwaiti's mothers and was translated from English to Arabic.

Implications for Future Research

In order to support many of the implications of this study that motivate stakeholders to establish effective programs for supporting mothers of children with disabilities, researchers, especially in the Gulf Area and the Middle East, need to conduct studies that compare the stress levels between mothers of children with disabilities and parents of non-disabled children. Also, replication of this study with a larger sample as well as other disabilities in Kuwait, the Gulf Area, and the Middle East may confirm and increase the generalizability of this study and promote the study's findings, which may enhance the services for children with disabilities and their families.

Researchers may need to investigate other variables that may play a significant role in parental stress levels. Researchers may investigate variables such as the severity of the disability, child's age, parents' age, parents' education status, parents' income, the number of children, or mother's work outside the home. Innocenti, Huh, & Boyce (1992) reported that *stress is not an easy concept to assess because it involves both the occurrence of events and the individuals' perception of these events* (p. 424). Also, the lead author had excluded 19 items related to specific life stressors such as divorce, death in the family, legal problems, and pregnancy in order to make the questionnaire shorter and to encourage the participants to complete it. Thus, replication of this study adding these 19 items may provide a bigger picture of parental stress and clarify some variables that affect this important emotion.

Moreover, since this study was predominantly quantitative, there was little time to elaborate on the issues cited by the mothers in the qualitative part of the survey study. For future research, the mothers indicated a need to discuss the issues further through a more in-depth qualitative study, such as individual interviews, to better understand the existing and emerging issues. Therefore, a replication of this study using a qualitative approach or a mixed method will be essential for further exploration of the issues cited by mothers.

Conclusion

Consistent with many research studies that found differences in stress levels between parents of children with disabilities; this study showed that there were significant differences in stress levels between Kuwaiti's working and non-working mothers about their children with SLD. The present study revealed that Kuwaiti's working mothers had significantly higher stress levels.

Given the available research literature and the results of this study, it is essential and urgent that stakeholders, especially in Kuwait and the Gulf countries, start to establish effective programs that meet the needs of mothers of children with disabilities. These mothers need effective support that enhances parents' efforts regarding their children with disabilities and that improves the quality of life for both parents and their children. In addition, the differences in stress levels based on educational attainment

suggest the importance of parent training. It is recommended that stakeholders facilitate further education of mothers of children with SLD whenever possible. Also, replication of this study in the same area of disability (learning disabilities) and other disabilities in Kuwait, the Gulf Area, and the Middle East may confirm and increase the generalizability of this study and promote the study's implications, which may enhance the services for children with disabilities and their families.

The findings of this study reaffirm the existence of high stress for mothers of children with disabilities. However, the level of stress is affected by at least some potentially controllable factors. First, not working appears to help mitigate some maternal stress. Also, while increasing the formal educational level of parents may not be feasible, providing at least some training on how to locate and use appropriate services could help reduce overall stress. Finally, it can be concluded that parental stress induced by having a child with a disability is indeed a cross-cultural occurrence.

References

- Abidin, R. R. (1995). Parenting stress index. Lutz, FL: Psychological Assessment Resources, Inc.
- Arnold, K. D., Michael, M. G., Hosley, C. A., & Miller, S. (1994). Factors influencing attitudes about family-school communication for parents of children with mild learning problems: Preliminary findings. *Journal of Educational and Psychological Consultation*, 5, 257-267.
- Barkley, R. A., Fischer, M., Newby, R. F., & Breen, M. J. (1988). Development of a multimethod clinical protocol for assessing stimulant drug response in children with attention deficit disorder. *Journal of Clinical Child Psychology*, 17, 14-24.
- Bear, G. G., Kortering, L. J., & Braziel, P. (2006). School completers and noncompleters with learning disabilities: Similarities in academic achievement and perceptions of self and teachers. *Remedial and Special Education*, 27, 293-300.
- Beckman, P. J. (1991). Comparison of mothers and fathers' perceptions of the effect of young children with and without disabilities. *American Journal on Mental Retardation*, 95, 585-595.
- Boyce, G. C., White, K. R., & Kerr, B. (1993). The effectiveness of adding a parent involvement component to an existing center-based program for children with disabilities and their families. *Early Education and Development*, 4, 327-345.
- Brotherson, M., Berdine, M., & Sartini, V. (1993). Transition to adult services—support for ongoing parent participation. *Remedial and Special Education*, 14, 44-51.
- Bryan, T., Burstein, K., & Bryan, J. (2001). Students with learning disabilities: Homework problems and promising practices. *Educational Psychologist*, 36, 167-180.
- Cameron, S. J., & Orr, R. R. (1989). Stress in families of school-aged children with delayed mental development. *Canadian Journal of Rehabilitation*, 2, 134-144.
- Chang, M., & Hsu, L. (2007). The perceptions of Taiwanese families who have children with learning disability. *Journal of Clinical Nursing*, 16, 2349-2356.
- Chang, M., & McConkey, R. (2008). The perception and experiences of Taiwanese parents who have children with an intellectual disability. *International Journal of Disability, Development and Education*, 55, 27-41.
- Chapman, J. W., & Boersma, F. J. (1979). Learning disabilities, locus of control, and mother attitudes. *Journal of Educational Psychology*, 71, 250-258.
- Chichevska- Jovanova, N. & Dimitrova -Radojichikj, D. (2012). Parents of children with developmental disabilities: Stress and support. *Journal of Special Education and Rehabilitation*, 14 (1-2), 7-19.
- Cho, K. S. & Hong E. J. (2013). A path analysis of the variables related to the quality of life of mothers with disabled children in Korea. *Stress and Health*, 29(2), 29-239.
- Donenberg G. & Baker B. L. (1993). The impact of young children with externalizing behaviors on their families. *Journal of Abnormal Child Psychology* 21, 179-198.
- Dyson, L. L. (1991). Families of young children with handicaps: Parental stress and family functioning. *American Journal on Mental Retardation*, 95, 623-629.
- Dyson, L. L. (1996). The experiences of families of children with learning disabilities: parental stress, family functioning, and sibling self-concept. *Journal of Learning Disabilities*, 29, 280-286.
- Dyson, L. L. (2003). Children with learning disabilities within the family context: A comparison with sibling in global self-concept, academic self-perception, and social competence. *Learning Disabilities Research & practice*, 18, (1), 1-9.
- Emerson, E. (2003). Mothers of children and adolescent with intellectual disability: Social and economic situation, mental health status, and the self-assessed social and psychological impact of the child's difficulties. *Journal of Intellectual Disability Research*, 47, 385-399.
- Essex, E. L. (2002). Mothers and fathers of adults with mental retardation: Feeling of inter-generational closeness. *Family Relations*, 51, 156-165.

- Faerstein, L. M. (1981). Stress and coping in families of learning disabled children: A literature review. *Journal of Learning Disabilities*, 14, 420-423.
- Ferguson, P. M. (2002). A place in the family: An historical interpretation of research on parental reactions to having a child with a disability. *The Journal of Special Education*, 36, 124-130.
- Fisman, S. N., Wolf, L. C., & Noh, S. (1989). Marital intimacy in parents of exceptional children. *Canadian Journal of Psychiatry*, 34, 519-525.
- Fitzgerald, M., Butler, B., & Kinsella, A. (1990). The burden on a family having a child with special needs. *Irish Journal of Psychological Medicine*, 7, 109-113.
- Fitzpatrick, A., & Dowling, M. (2007). Supporting parents caring for a child with a learning disability. *Art & Science*, 22, 35-39.
- Flaherty, E. M. & Glidden, L. M. (2000). Positive adjustment in parents rearing children with Down syndrome. *Early Education and Development*, 11, 407-422.
- Floyd, F. J., & Gallagher, E. M. (1997). Parents stress, care demands, and use of support services for school-age children with disabilities and behavior problems. *Family Relationship*, 46, 359-371.
- Forgays, D.K. (1992). Type A behavior and parenting stress in mothers with young children. *Current Psychology Research & Reviews*, 11, 3-19.
- Fuller, G. B., & Rankin, R. (1994). Differences in levels of parental stress among mothers of learning disabled, emotionally impaired, and regular school children. *Perceptual and Motor Skills*, 78, 583-592.
- Gaad, E. (2004). Cross-cultural perspectives on the effect of cultural attitudes towards inclusion for children with intellectual disabilities. *International Journal of Inclusive Education*, 8, 311-328.
- Grant, G., Ramcharan, p., McGrath, M., Nolan, M, & Keady, J. (1998). Rewards and gratifications among family caregivers: towards a refined model of caring and coping. *Journal of Intellectual Disability Research*, 42, 58-71.
- Grant, G., & Whittell, B. (2000). Differentiated coping strategies in families with children or adult with intellectual disabilities: The relevance of gender, family composition and the life span. *Journal of Applied Research in Intellectual Disabilities*, 13, 256-275.
- Hadadian, A., & Merbler, J. (1995). Parents of infants and toddlers with special needs: Sharing views of desired services. *Infant-Toddler Intervention*, 5, 141-152.
- Haldy, M. B., & Hanzlik, J. R. (1990). A comparison of perceived competence in child-rearing between mothers of children with down syndrome and mothers of children without delay. *Education and Training in Mental Retardation*, 24, 132-141.
- Hallahan, D. P., Lloyd, J. W., Kauffman, J. M., Weiss, M. P., & Martinez, E, A. (2005). *Learning disabilities, foundation, characteristics, and effective teaching*. Boston, MA: Allyn and Bacon.
- Hanline, M., & Halvorsen, A. (1989). Parent perceptions on the integration transition process: overcoming artificial barriers. *Exceptional Children*, 55, 487-492.
- Hanson, M. J., & Hanline, M. F. (1990). Parenting a child with a disability: A longitudinal study of parental stress and adaptation. *Journal of Early Intervention*, 14, 234-248.
- Hassall, R., Rose, J., & McDonald, J. (2005). Parenting stress in mothers of children with an intellectual disability: The effects of parental cognitions in relation to child characteristics and family support. *Journal of Intellectual Disability Research*, 49, 405-418.
- Hastings, R. P., Allen, R., McDermott, K., & Still D. (2002). Factors related to positive perceptions in mothers of children with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 15, 269-275.
- Hastings, R. P. & Beck, A. (2004). Practitioner review: Stress intervention for parents of children with intellectual disabilities. *Journal of Child Psychology and Psychiatry*, 45, 1338-1349.
- John, A. (2012). Stress among mothers of children with intellectual disabilities in urban India: Role of gender in maternal copying. *Journal of Applied Research in Intellectual Disabilities*, 25, 372-382.
- Innocenti, M. S., Huh, K., & Boyce, G. C. (1992). Families of children with disabilities: Normative data and other considerations on parenting stress. *Topics in Early Childhood Special Education*, 12, 403-427.
- Karande, S., & Kulkarni, S. (2009). Quality of life of parents of children with newly diagnosed specific learning disability. *J Postgrad Med*, 55, 97-103.
- Kaslow, F. W., & Cooper, B. (1978). Family therapy with the learning disability and his/her family. *Journal of Marriage and Family Counseling*, 4, 41-50.
- Kazak, A. E., & Marvin, R. S. (1984). Differences, difficulties and adaption: Stress and social network in families with a handicapped child. *Family Relations*, 33, 67-77.
- Keating, M. (1997). Caring for the carer: Enhancing the health and well-being of parents of children with multiple special needs. Unpublished Master's thesis. University College Galway. Ireland.
- Kenny, K., & McGilloway, S. (2007). Caring for children with learning disabilities: An exploratory study of parental strain and coping. *British Journal of Learning Disabilities*, 35, 221-228.

- Klein, R. S., Altman, S. D., Dreizen, K., Friedman, R., & Power, L. (1981). Restructuring dysfunctional parental attitudes toward children's learning and behavior in school: Family-oriented psychoeducational therapy part II. *Journal of Learning Disabilities*, 14, 99-101.
- Knox, M., Parmenter, T. R., Atkinson, N., & Yazbeck, M. (2000). Family control: The views of families who have a child with an intellectual disability. *Journal of Applied Research in Intellectual Disability*, 13, 17-28.
- Krauss, M. W., Hauser-Cram, P., Upshur, C. C., & Shonkoff, J. P. (1989, April). Parenting a child with disabilities: Differences between mothers and fathers in reported stress. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO.
- Lardieri, L. A., Blacher, J., & Swanson, H. L. (2000). Sibling relationships and parent stress in families of children with and without learning disabilities. *Learning Disabilities Quarterly*, 23, 105-116.
- Margalit, M., & Heiman, T. (1986). Family climate and anxiety in families with learning disabled boys. *Journal of the American Academy of Child Psychiatry*, 25, 841-846.
- Mott, S. E., Fewell, R. R., Lewis, M., Meisels, S. J., Shonkoff, J. P., & Simeonsson, R. J. (1986). Methods for assessing child and family outcomes in early childhood special education programs: Some views from the field. *Topics in Early Childhood Special Education*, 6, 1-15.
- Olsson, M. B., & Hwang, P. C. (2003). Influence of macrostructure of society on the life situation of families with a child with intellectual disability: Sweden as an example. *Journal of Intellectual Disability Research*, 47, 328-341.
- Orlowska, D. (1995). Parental participation in issues concerning their sons and daughters with learning disabilities. *Disability & Society*, 10, 437-456.
- Pattison, S. (2005). Making a difference for young people with learning disabilities: A model for inclusive counseling practice. *Counseling and Psychotherapy Research*, 5, 120-130.
- Pearson, V., & Chan, T. W. L. (1993). The relationship between parenting stress and social support in mothers of children with learning disabilities: A Chinese experience. *Social Science & Medicine*, 37, 267-274.
- Redmond, B., & Richardson, V. (2003). Just getting on with it: Exploring the service needs of mothers who care for young children with severe/profound and life-threatening intellectual disability. *Journal of Applied research in Intellectual Disabilities*, 16, 205-218.
- Reitman, D., Currier, R. O., & Stickler, T. R. (2002). A critical evaluation of the Parenting Stress Index-Short Form (PSI-SF) in a Head Start Population. *Journal of Clinical Child and adolescent Psychology*, 31, 84-92.
- Rojewski, J. W. (1996). Occupational aspirations and early career-choice patterns of adolescents with and without learning disabilities. *Learning Disability Quarterly*, 19, 99-116.
- Russel, F. (2003). The expectations of parents of disabled children. *British Journal of Special Education*, 30, 144-149.
- Sajjad, S. (2011). Stressed faced by Pakistani mothers of children with intellectual disabilities and its impact on their family life. *Journal of International Associating of Special Education*, 12 (1), 71-78.
- Saloviita, T., Itälä, M., & Leinonen, E. (2003). Explaining the parental stress of fathers and mothers caring for a child with intellectual disability: A Double ABCX Model. *Journal of Intellectual Disability Research*, 47, 300-312.
- Santos, S. (1992). Adaptação Portuguesa para crianças em idade escolar, do parenting stress index (PSI): Resultados preliminares. *Revista Portuguesa de psicologia*, 28, 115-132.
- Scheel, M. J., & Rieckmann, T. (1998). An empirically derived description of self-efficacy and empowerment for parents of children identified as psychologically disordered. *The American Journal of Family Therapy*, 26, 15-27.
- Scorgie, K., & Sobsey, D. (2000). Transformational outcomes associated with parenting children who have disabilities. *Mental Retardation*, 38, 195-206.
- Scorgie, K., Wilgosh, L., & McDonald, L. (1999). Transforming partnerships: Parents life management issues when a child has mental retardation. *Education and Training in Mental Retardation and Developmental disabilities*, 38, 195-206.
- Sexton, D., Burrell, B., Thompson, B., Sharpton, W. (1992). Measuring stress in families of children with disabilities. *Early Education and Development*, 3, 60-66.
- Slainton, T., & Besser, H. (1998). The positive impact of children with an intellectual disability on the family. *Journal of Intellectual and Developmental Disability*, 23, 57-70.
- Solis, M. L. & Abidin, R. R. (1991). The Spanish version parenting stress index: A psychometric study. *Journal of Clinical Child Psychology*, 20, 372-378.
- Studer, J. R. & Quigney, T. A. (2005). The need to integrate more special education content into preservice preparation programs for school counselors, *Guidance & Counseling*, 20(2), 56-63.

- Tarver-Behring, S., & Spagna, M. E. (2004). Counseling with exceptional children. *Focus on Exceptional Children*, 36 (8), 1-12.
- Taub, D. J. (2006). Understanding the concerns of parents of students with disabilities: Challenges and roles for school counselors. *Professional School Counseling*, 10, 52-75.
- Tood, S., Shearm, J., Beyer, S., & Felce, D. (1993). Careers in caring: The changing situations of parents caring for an offspring with learning difficulties. *The Irish Journal of Psychology*, 14, 130-153.
- Trute, B., Hiebert-Murphy, D., & Levine, K. (2007). Parental appraisal of the family impact of childhood developmental disability: Times of sadness and times of joy. *Journal of Intellectual & Developmental Disability*, 32 (1), 1-9.
- Waggoner, K., & Wilgosh, L. (1990). Concerns of families of children with learning disabilities. *Journal of Learning Disabilities*, 23, 97-113.
- Wehman, T., & Gilkerson, L. (1999). Parents of young children with special needs speak out: Perceptions of early intervention services. *Infant-Toddler Intervention*, 9, 137-167.
- Whiteside-Mansell, L., Ayoub, C., McKelvey, L., Faldowski, R. A., Hart, A., & Shears, J. (2007). Parenting stress of low-income parents of toddlers and preschoolers: Psychometric properties of a short form of the Parenting Stress Index. *Parenting: Science and Practice*, 7, 27-56.
- Wilchesky, M., & Reynolds, T. (1986). The socially deficient LD child in context: A system approach to assessment and treatment. *Journal of Learning Disabilities*, 19, 411-415.
- Wilgosh, L. (1990). Issues in education and daily living for families of children with disabilities. *The Alberta Journal of Educational Research*, 36, 299-309.

THE EDUCATIONAL, SOCIAL AND EMOTIONAL EXPERIENCES OF STUDENTS WITH DYSLEXIA: THE PERSPECTIVE OF POSTSECONDARY EDUCATION STUDENTS

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The present study aimed at exploring the educational, social and emotional experiences of individuals with dyslexia both during school and tertiary education. For this purpose, semi-structured interviews were conducted with ten Greek students with dyslexia who were enrolled in higher education institutions. The data analysis was carried out with the use of qualitative content analysis. The findings reveal that the students had developed positive as well as negative coping strategies to deal with their learning disabilities. The teachers' attitudes and behaviour were mostly perceived as negative. These attitudes coupled with the lack of explanations about dyslexia following diagnosis and teasing on the part of the peers caused feelings of inferiority and anxiety to the interviewees. However, dyslexia contributed to the enhancement of the participants' self-understanding and the development of their strengths. Implications with respect to the provision of emotional and social support and implementation of appropriate interventions are discussed.

Introduction

Dyslexia is a condition which may affect the individual's academic attainments and psychosocial development negatively. Children with dyslexia encounter specific literacy difficulties which persist during adolescence and adult life (Nalavany, Carawan, & Brown, 2011; Stampoltzis & Polychronopoulou, 2009). Research indicates that pupils with dyslexia drop out of high school more often compared to the general population and are less likely to graduate from higher education departments (Skinner, 2007). To manage their difficulties a considerable number of students with learning disabilities develop positive behavioural or emotional coping strategies, such as seeking help and support from their parents, teachers or peers, employing learning strategies and study skills and/or disclosing and compensating for their disabilities. However, in many cases they adopt negative coping (e.g. avoidance of disclosure of learning disabilities, avoidance of use of accommodations, unwillingness to receive special help) (Givon & Court, 2010; Heiman & Kariv, 2004).

Research findings suggest that learning disabilities may constitute a risk factor for the occurrence of emotional, social or behavioural difficulties (Martinez & Semrud-Clikeman, 2004; Wong, 2003). Pupils with dyslexia are more likely to experience feelings of inferiority and emotional insecurity due to labelling and stigmatisation (Mc Nulty, 2003) and to have more negative academic self-concept (Burden, 2008; Polychroni, Koukoura, & Anagnostou, 2006) and lower academic and general self-esteem than their non-dyslexic peers (Alexander-Passe, 2006; Terras, Thompson, & Minnis, 2009). In addition, children with learning disabilities are reported to have more negative self-concept with respect to their intellectual ability and their behaviour in comparison with their peers without learning disabilities (Al Zyoudi, 2010). Children and adolescents with learning disabilities or dyslexia are also more likely to exhibit symptoms of anxiety, social anxiety and depression and to get involved in violent and delinquent behaviours than their peers without learning disabilities (Eissa, 2010; Gallegos, Langley, & Villegas, 2012; Maag & Reid, 2006; Peleg, 2011; Svetaz, Ireland, & Blum, 2000).

Pupils with learning disabilities may encounter difficulties in social interaction and in social relationships with peers (Terras et al., 2009; Wiener, 2004) and have lower social status than pupils without learning disabilities when they are integrated in general education classrooms for several hours a day (Meadan & Halle, 2004). Research reveals that pupils with learning disabilities exhibit poor social skills (Kavale & Mostert, 2004; Martinez & Semrud-Clikeman, 2004) with respect to non-verbal initiations (Agaliotis &

Kalyva, 2008), interpretation of non-verbal information, communication and emotion regulation (Wiener & Tardif, 2004). Difficulties in interpretation of social situations and low self-control are related to the low social status of pupils with learning disabilities and to the feelings of loneliness they often experience (Al-Yagon & Margalit, 2006; Meadan & Halle, 2004). However, children with learning disabilities who receive in-class support or participate in inclusive programmes are more accepted by their peers and report lower levels of loneliness than those who receive special support in self-contained special education classes or in resource rooms (Wiener & Tardif, 2004).

Some of the problems mentioned above persist during adulthood. Research demonstrates that adults with dyslexia often face problems in relation to their vocational training and their careers due to stress and insecurity stemming from their learning disabilities. In addition, they are more dependent on members of their family, they experience feelings of inferiority, uncertainty and anxiety and they continue to encounter difficulties with social contacts (Hellendoorn & Ruijsenaars, 2000). According to research findings, adults with dyslexia are also considered to be at risk of low self-esteem (Burden, 2008), particularly in cases they had attended mainstream schools where they do not usually receive academic, emotional and social support (Nalavany et al., 2011).

Nevertheless, in several studies it has been documented that an increasing number of students with learning disabilities pursue studies in tertiary education and graduate from university or college due to their hard work and their determination (Bacon & Benett, 2013; Skinner, 2007). Many individuals with learning disabilities do not present negative outcomes with regard to psychosocial development (Margalit, 2003). During the last decades, a risk and resilience perspective has been adopted in the research of learning disabilities. In this context, it has been suggested that the occurrence of social and emotional difficulties of individuals with learning disabilities and negative self-concept may be associated with the presence of several factors such as full or partial attendance in inclusive classrooms or placement in special classes; Ntshangase, Mdikana, & Cronk, 2009; Peleg, 2011). A study carried out by Svetaz and her colleagues (2000) revealed that religious identity and family and school connectedness constitute protective factors for the emotional well-being of students with learning disabilities. The protective role of acceptance of learning disabilities and self-understanding, parental and teacher support, and existence of close friendships has also been established in the literature (Wong, 2003). Margalit (2003) underlined that early life experiences may influence the meaning that individuals with learning disabilities attribute to current events, which in turn may affect their behaviour. Terras and her colleagues (2009) argued that it is not dyslexia in itself that constitutes a risk factor but rather its interaction with other factors related to the individual (such as personal characteristics or self-esteem) and/or his environment (e.g. provision of educational or social support) that may cause adverse outcomes.

Studies which have investigated the issues of academic progress and social and emotional experiences of individuals with dyslexia from the perspective of young adults are relatively few (Burden, 2008; McNulty, 2003) - particularly in Greece (Stampoltzis & Polychronopoulou, 2009). Nevertheless, investigation of these issues may provide a better understanding of the difficulties experienced by the individuals with dyslexia and therefore turn out to be useful for the development of appropriate prevention or intervention programmes (Terras et al., 2009). The present study aimed at investigating the educational experiences of young adults with dyslexia and their relationships with peers during school years and during higher education studies. Another goal of the study was to explore how dyslexia had affected their emotional life.

Method

Participants

Participants were recruited by means of an announcement which was placed on the Website of the Association of Parents and Guardians with Children with Dyslexia and Learning Difficulties of Thessaloniki and Northern Greece. In addition, announcements concerning the study were made at the researcher's courses. Following this procedure, 13 students with dyslexia were recruited and were first contacted by phone. The researcher explained the purpose of the study. Ten students (seven males and three females) consented to participate in it.

The participants were enrolled in higher education institutions. Five of them were enrolled in various departments of a big university in a city of northern Greece and four students were enrolled in Technological Education Institutions (TEI) situated in small towns in the same region. One student was a graduate of the university and was continuing his studies at a post-graduate level in a town of southern

Greece. The students ranged in age from 18 to 27 years. All students had a formal diagnosis of dyslexia by authorised centers (Centers of Diagnosis, Differential Diagnosis and Support or Mental Health Services). Half of them had been diagnosed as having dyslexia when they were attending secondary school (Table 1).

Table 1: Participants' Characteristics

Name (pseudonym)	Age	School (University/TEI)	Diagnosis of dyslexia by authorised assessment centre	Academic support by
Nikitas	21	School of History and Archaeology (U)	High school (10 th grade)	-
Kyriakos	22	School of Physical Education and Sport Sciences (U)	High school (11 th grade)	private tutor
Stella	20	School of Philosophy and Pedagogy (U)	Kindergarten	psychologist (EE), and private tutor
Dionysis	22	School of Law (U)	High school (12 th grade)	private tutor
Grigoris	27	School of Physics (U)	High school (9 th grade)	-
Kimón	18	School of Technological Applications (TEI)	Elementary school (2 nd grade)	speech therapist (EE)
Martha	20	School of Business Administration (TEI)	High school (11 th grade)	-
Domna	21	School of Geoinformatics and Surveying (TEI)	Middle school (6 th grade)	psychologist and speech therapist (EE)
Dinos	21	School of Psychology (U)	Elementary school (4 th grade)	speech therapist (EE)
Haris	22	School of Electrical Engineering (TEI)	Middle school (6 th grade)	private tutor

Note. U: University; TEI: Technological Education Institutions; EE: academic support during elementary education.

At this point, it should be mentioned that in accordance with the most recent law (3966/2008), the diagnosis for dyslexia is conducted in the Centres of Diagnosis, Differential Diagnosis and Support. The diagnostic assessment is carried out by a multi-disciplinary team (a school psychologist, a special educator, a psychiatrist, a social worker and a speech therapist). The diagnosis relies mainly on an IQ-achievement discrepancy approach and is based on the assessment of intelligence with the use of the Greek standardised version of WISC-III and on an educational assessment which is carried out with the use of standardised tests (assessment of oral reading, reading comprehension, mathematics, writing and free writing). Students who are diagnosed with dyslexia have the right to take written examinations instead of written ones in secondary and tertiary education.

Data Collection

A qualitative approach was adopted to address the goals of the study. Qualitative studies may contribute to the better understanding of the experiences of the individuals in question and reveal issues that need further research (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005; Goldberg, Higgins, Raskind, & Herman, 2003; McNulty, 2003).

The study was conducted with the use of semi-structured interviews. The interview guide included questions concerning the diagnosis of dyslexia, the academic experiences of the participants, their teachers' and their peers' reactions to their learning disability as well as the impact of dyslexia on their life.

The interviews took place in the researcher's office. They lasted from 27 to 96 minutes (average duration: 50 minutes).

Data Analysis

The interviews were tape-recorded and transcribed verbatim. The data analysis was carried out with the use of qualitative content analysis. An inductive approach was adopted in order to gain a better understanding of the topic under study (Mayring, 2000; Hsieh & Shannon, 2005). Therefore the creation of categories was derived from the data. The theme was used as the coding unit of analysis. The data were read several times and codes were noted. Subsequently, the similarities and differences between the

codes were examined and similar codes were grouped, which resulted to the formation of categories and sub-categories (Hsieh & Shannon, 2005; Graneheim & Lundman, 2004). The categories were then refined and reorganised into more general categories and were checked so that it could be established and that they were mutually exclusive (Burla et al., 2008; Cho & Lee, 2014; Thomas, 2006). By this process seven main categories, which are presented below, were created (Table 2).

Table 2: Categories and Subcategories

Main categories	CR	Subcategories
Diagnosis	0.88	- the detection of the learning disability - the diagnostic procedure
Dealing with learning disabilities at school	0.81	- difficulties in learning and study skills - ways of coping with learning disabilities - parental support
Academic experiences in higher education	0.83	- transition to tertiary education - coping with learning disabilities - students' suggestions for possible accommodations - future plans
Teachers' and academic staff members' attitudes	0.70	- teachers' and professors' reactions upon disclosure of dyslexia - teachers' and professors' attitudes - social support by teachers
Peer relations	0.75	- disclosure of dyslexia to peers - peers' attitudes and behaviour - friendships
Emotional experiences	0.67	- participants' feelings upon the diagnosis of dyslexia - acceptance of dyslexia - impact of dyslexia on emotional life
Self-concept	0.70	- self-perceptions - self-awareness and self-empowerment - self-esteem

The trustworthiness of qualitative content analysis is evaluated with the use of the same techniques that are applied in other types of qualitative research (Cho & Lee, 2014; Thomas, 2006). Therefore, credibility, transferability, dependability and confirmability are used to establish the trustworthiness of the research (Graneheim & Lundman, 2004; Thomas, 2006). In the present study, the indicators of the trustworthiness of the research were credibility and transferability. Credibility was enhanced by checking that the categories cover data and by providing representative quotations from the interviews' text (Cho & Lee, 2014; Graneheim & Lundman, 2004). Moreover, intercoder reliability was estimated (Brantlinger et al., 2005; Burla et al., 2008). More specifically, another researcher who had been working in the field of learning disabilities and had experience in qualitative analysis (Mayring, 2000) was asked to code a subset of the data. For this purpose, the coder was given the categories that had been created and their description and was asked to assign segments of the interviews' text to the categories (Thomas, 2006). The researcher and the second coder discussed their disagreements, which resulted in a rearrangement of some codes a refinement of the categories as well as in changes in the wording of the labels of some categories and in the formulation of their descriptions. Subsequently, the intercoder reliability (Holsti, 1969) was again assessed and the level of agreement was found to be satisfactory (Table 2). Transferability is enhanced by reporting the participants' characteristics as well as the procedures of data collection and analysis and by presenting sufficient quotations from the participants (Brantlinger et al., 2005; Ponterotto, 2006).

Findings

Diagnosis

Most participants mentioned that it was their teacher(s) who first noticed their learning difficulties and referred the parents to an authorised assessment centre. However, in four cases the parents, especially the mother, were concerned about their child's difficulties at school and contacted professionals working in the field of learning disabilities in private practice. In two of these cases dyslexia was not diagnosed. Therefore, after a period of time, the parents consulted professionals in authorised assessment centres.

The participants' accounts concerning the procedure of assessment revealed that they were provided with little and rather general information upon the announcement of the diagnosis since the professionals didn't explain the specific nature of their difficulties to them. As a result, the students tried to learn more about dyslexia by themselves.

...there was a kind lady who made the examination and the diagnosis, who told me that *what you are is not something bad, that you are not different from everybody else*. That's all. That is, she didn't give details, that a dyslexic has this and that. I myself searched for it and learned (Kyriakos)¹.

They said that I must read twice as others do so that I can be half effective or a bit more, compared to others, and that this occurs once every ten cases (Haris).

Dealing with Learning Disabilities at School

The participants described their difficulties in reading, reading comprehension, writing and spelling; in mathematics; and in memorising as well as their problems with organisation and concentration. Doing their homework was tiresome and very time consuming. They were also feeling frustrated because, despite their efforts, their academic achievement was low or average. In a few cases school grades improved after the identification of dyslexia, which may be attributed to the fact that the students used to take oral exams thereafter. Nevertheless, not all students were examined orally during the school years; some of them were taking a combination of written and oral examinations or continued to take only written examinations.

The main difficulties were that I couldn't memorise a text, I couldn't remember the formula for the exercises and the problems. I had to generate by myself the formula from what I knew and then use it (Kimon).

In the way I used to write, I could not express what I wanted to or I used to forget what I wanted to write. In oral I was doing better. In reading, I needed very much time in order to read, in theory lessons I might even need twice as much time as others needed (Nikitas).

First I was taking a written exam and then an oral one. The teacher used to take me at recess and he/she examined me or we used to arrange it for another day (Stella).

None of the participants had attended special education classes. Four students had received special support outside school by speech therapists or psychologists for one or two years. However, this was not considered as particularly helpful. On the contrary, several participants who had been taking private lessons with Greek language teachers during secondary education thought that they very beneficial (see Table 1). As to their homework, in order to learn the lesson the participants used to listen to their mother reading it and/or tried to be very attentive at class. They also developed other techniques they found to be useful such as grouping different elements of the text by highlighting them with markers of different colours; writing down the whole text; and mentally visualising the content of the text.

My Greek language teacher with whom I had been taking private lessons, since he knew some things about dyslexia, he helped me very much in spelling. He was patient and taught me to improve my spelling little by little (Kyriakos).

The highlighting markers in the text, for example, in history the dates were in green, the names were in yellow, that is, I had made a grouping, I used to recall directly the page photographically (Dionysis).

The students received a lot of support from their parents. The latter tried to get informed about dyslexia and used to help the participants do their homework. They also expressed their confidence in the students' strengths and encouraged them to reach their potential. However, in a few cases a lack of understanding on the part of the parents was reported.

I got much help from my parents. My mother who, especially at elementary school, we studied a lot, I think that if I hadn't studied so much, I wouldn't have been able to read and write as I do now, I had enormous difficulties...this helped me a lot, it's my mother who mainly helped me (Kimon).

Academic Experiences in Higher Education

All participants were highly motivated to pursue their studies either because they had a strong interest in acquiring knowledge and skills in a specific scientific field or because they thought that having a degree could provide them with more chances to find a good job.

During the examinations for tertiary education the participants experienced particularly intense feelings of stress, anxiety and even anger because of the negative attitudes of the examiners or the inappropriate ways the latter adopted to examine them, which indicated a lack of knowledge and experience with regard to dyslexia. Only a few examiners were encouraging and understanding. Some students felt isolated from their peer group since the oral entrance examinations for the students with dyslexia take place in other school settings. A few also pointed out the lack of explanations regarding the procedure of oral examinations.

Eh, my family, since neither my mother nor my father pursued university studies, I see how he labours and besides, I had goals and I had persistence, so I was saying *I will pass and enter the school, no matter what*, so I was and I still am even now sure that I'll make it (Martha).

The exams were awful! That is I want to find the teachers and to smash their head. Literally. But the issue is that, when I went to take the oral exam in composition and I asked questions to understand what I was supposed to say, they told me *say whatever you want*, that is the examiners were indifferent ... they behaved in a way that I was telling to myself *just finish and leave*, that is, I was very stressed because those people stood in front of me, I wanted to leave. They were ignorant of what learning disabilities, dyslexia etc are (Grigoris).

During higher education the students continued encountering difficulties in reading, reading comprehension and spelling; and in memorising and concentration. To deal with the above difficulties, they developed a number of coping techniques such as tape recording the content of the book and learning by listening to it; taking notes while studying; highlighting, selecting and grouping the main ideas of the text; writing down the text many times in order to be able to learn it; and taking frequent breaks when studying. A few students thought that their coping strategies improved since high school whereas almost all of them seemed satisfied with their academic achievements.

The issue of examinations had frequently been troublesome. In several cases the participants were taking written examinations since some members of the academic staff refused to carry out an oral examination. Nevertheless, a few students preferred to take written examinations either because they thought they would have more time to process the questions or because they did not wish to change their examination schedule.

There is no way for me to learn the theory as it is, I learn it in my own words; and I listen to it many times when I am reading, I cannot remember it, I must listen to it, I am an auditory learner, with my own words to remember it. Either I tape it or someone else reads it to me (Kimon).

I can not read so easily so I can't pass all my courses because there are some courses where they don't let me take an oral exam and so I fail and fail again (Domna).

In general, the students were satisfied with their studies. However, a few expressed their dissatisfaction with the negative attitudes and inappropriate teaching methods of academic staff members, the lack of infrastructure and the large amount of the material to be examined. They all made suggestions concerning possible accommodations for students with dyslexia, which included reduction of the courses' syllabus; better organisation of the curriculum; easy-to-understand books; alternative ways of academic assessment; provision of academic support; and provision of information to the members of academic staff on the part of the Schools' Secretariat regarding the needs of students with dyslexia.

In the courses where I have many difficulties, if I had a teacher who knows the course content and the case of the dyslexics, so that we can have, the two of us or in a group, if he could tell us how we must study the course and what exactly the content of the course is about, it would be better this way (Kyriakos).

Half of the students were willing to continue their studies at a post-graduate level, although they acknowledged that the latter would be very demanding. The rest of the students intended to search for a job though they were aware of the difficulties they would have to face.

Difficult, much more difficult. They [the post-graduate studies] are more demanding. Certainly, the difficulties do not scare me so much compared to the pleasure I will have, what interests me more is to have an interest in what I am doing, as a man. So, regarding the studies, I think it will be difficult but pleasantly difficult. As to employment, I don't think that I have any special chances (Dinos).

Teachers' and Academic Staff Members' Attitudes

When the participants were going to school, some teachers and even a headmaster expressed doubts as to the presence of the learning disability although the parents had presented the diagnostic report to school. In many cases the teachers did not have any specific knowledge about dyslexia. In higher education, the members of the academic staff were informed by the School Secretariat or by the student advisor (depending on the School's policy) or by the students themselves. However, in many cases the students did not disclose their learning disability to the academic staff members either because they felt embarrassed or because they had faced negative reactions on the part of some professors in the past. Besides, many members of the academic staff were not knowledgeable about dyslexia.

When I gave the diagnostic report to the headmaster, she denied it; she turned a blind eye to the existence of the report. We threatened her that what she does is illegal; finally she accepted it (Dionysis).

With regard to the academic staff, I could say that I am dissatisfied to a great degree. There are very few professors who, *even the psychologists*, you say that *I have dyslexia and I take oral examinations* and the answer is *me, I don't care about this, I don't believe in this* (Dinos).

Teachers who were knowledgeable about dyslexia or had experience with pupils with dyslexia were more understanding and willing to help. Nevertheless the students encountered negative attitudes on the part of their teachers such as lack of interest and understanding, lack of differentiated assessment and stigmatising behaviour much more often. In tertiary education, some professors refused to carry out oral examinations, which led the students opt for other courses. Besides, a number of professors were very strict or, conversely, too indulgent during examinations.

At 10th grade, there was a teacher of religion and I went to take an oral exam and he turns to me and says *now, let's have the dyslexic*. It was so...in front of the whole class! (Domna).

Eh, there were some professors who thought of me as a stupid, that I am a fool, that I shouldn't enter the university, I've heard all this from a professor saying *you people, you shouldn't be allowed to enter the university*. In this way. As clear as that. From some of them (Grigoris).

However, more than half of the participants also had teachers who provided support to them, mainly during secondary education. They described these teachers as patient, open-minded, encouraging, understanding, and/or willing to listen to the students and showing respect for them. The above mentioned qualities and attitudes of these teachers helped some participants deal with their learning disabilities and maintain their self-esteem.

It was my teacher from high school, who made me understand many things about my life, she helped me in the lessons, I understood things that I had never understood. That is, I don't know, she was godsend for our life! (Stella).

Peer Relations

Throughout all levels of education and especially during secondary and higher education, the disclosure of dyslexia to the students' peers was occasioned by the different way of taking examinations. However, a few participants avoided to disclose their learning disabilities to their peers because they were concerned about the possible negative attitudes the latter could exhibit. Usually, the other students' reactions at disclosure of dyslexia were positive or neutral. Nevertheless, reactions of astonishment and curiosity about dyslexia as well as teasing on the part of other students were also reported.

[At university] I was feeling a bit bad; I don't know, the fact that they don't know so much, they comment on this in a different way, they think that oral exams are something easy and they don't know what dyslexia is, the difficulties, so rather than discussing the issue, that I take oral exams because I am dyslexic and have them say *ah! Okay, that's easy – which is not the case - eh, I didn't want to enter in such a situation* (Nikitas).

Don't say! You have dyslexia? You? Just like this, let's say they didn't imagine this (Martha).

Some participants commented on the acceptance and friendly behaviour on the part of their peers at school. Nevertheless, more than half of the participants were teased by some of their classmates and felt rejected. In the context of higher education, the only negative attitude the participants encountered was the distorted view of some of their fellow students that students with dyslexia were given preferential treatment during oral examinations.

I think I was one of the luckiest people who didn't encounter any problems. I don't know why but the children didn't tell me, they didn't tease me, they didn't isolate me, they didn't tell me *you have a problem*. I was lucky from this point of view, very lucky (Grigoris).

They wouldn't say anything in front of me but behind my back, some kids were saying; or in front of me they were saying *Ah! she has dyslexia! Ha, ha! They were laughing* (Stella).

All participants reported having close friends. However, several students admitted that making friends was sometimes difficult, especially during school years. The insecurity they felt because of their learning disabilities and the rejection they had experienced led them to become withdrawn at school and inhibited them from taking the initiative to make new friends, even after they had graduated from school. The formation or the maintenance of friendships was also hindered by the students' impulsivity and poor social skills.

On the contrary, being accepted by peers and sharing a common experience such as learning disabilities contributed to the development of friendships at school. At tertiary education, the formation of new friendships was also attributed to the students' personal development and qualities as well as to the increasing opportunities to make new acquaintances. Several participants underlined that their close friends were very understanding and used to encourage them and help them in homework or in assignments.

It was rather difficult. Now, I wouldn't know how to explain it. I was experiencing a generalised feeling of rejection, if I could call it this way, which was the factor that inhibited me the most in approaching others [at university] (Dinos).

I wanted to say other things, as I do not think very much, I think more in an emotional way, not logically, so, I said things that I hadn't thought about. And others were hurt. I didn't do it on purpose; it simply came up to me spontaneously. Or, we quarrelled [with her classmates] because I used to say things that I wouldn't have said, if I had thought about them (Stella).

He [his friend] is dyslexic too.... and I had another one who I knew had the same...let's say the same problem as me, so we knew; this was something which I

think helped me because if I was the only one who had dyslexia in the school or in the class, it would have been worse for me, I think. But since I knew, we were saying *we'll go take the entrance exams together, we will be together* (Nikitas).

Emotional Experiences

With regard to the feelings the participants experienced when they were diagnosed with dyslexia, two students reported that they didn't feel something in particular since they had not quite understood what dyslexia was about or, conversely, they already knew about dyslexia. Several participants experienced feelings of frustration whereas others felt relieved because the diagnosis of dyslexia reassured them with regard to their intellectual capacity.

A few students commented on the issue of acceptance of dyslexia. The emotional support from their parents, as well as the acquisition of knowledge about the nature of their learning disability constituted the main factors that led them to realise that dyslexia could not inhibit their self-development.

It was a relief to me because I had been thinking that, if I am not dyslexic, I am stupid, that's it, so there is no point. And so, it was a relief to me because it explained some things (Nikitas).

But in the course of time, as I looked into dyslexia, I read and I learned exactly what dyslexia is and what being dyslexic is about...and then I realised that in fact it's not something bad and I simply accepted it (Kyriakos).

Dyslexia gave rise to negative feelings throughout all levels of education. The students experienced feelings of inferiority and lack of assertiveness both prior to and after the diagnosis of dyslexia. They also felt stressed and frustrated because of the discrepancy between their effort and their academic achievement. Moreover, the inappropriate practices of some teachers made them feel humiliated and different from their classmates. As a result a few students lost their motivation or became isolated or aggressive.

...for a long time I dramatised the whole thing and I made it oh!, let's say, when I was younger I was telling my mum *am I retarded?* (Domna).

I suppose that, if I hadn't dyslexia, I would have entered the School I wanted to. I suppose that I could understand mathematics, I would get a pass. There was nothing else I wanted but get a pass in mathematics (Haris).

The Impact of Dyslexia on the Self-Concept

The participants referred both to their good and poor qualities. They pointed out their difficulties with memory, critical thinking and organising and in learning foreign languages, which often affected their daily life. Nevertheless, they mentioned their strengths mainly in non-academic areas (e.g. art, sports, communication) and their positive personality traits (e.g. being hard working, creative, eager to learn new things).

My ability, if I might say, is communication, the fact that I can communicate with others no matter what their age is (Martha).

Most of the participants found that dyslexia contributed to the enhancement of their self-awareness, which helped them acknowledge their abilities and cope with their difficulties. Dyslexia had also contributed to their self-empowerment. As they noted, they became more self-confident given that they succeeded in their studies and/or felt stronger because they managed to deal with the difficulties they encountered in their social contacts. Empowerment was also attributed to the fact that the students compensated for their learning disabilities by developing their skills and abilities in other areas.

...perhaps this [dyslexia] had a positive aspect too because I finally understood enough things about myself and how I can improve them, how I can make them better (Dinos).

When you have to confront other people's criticisms, then, you learn to protect yourself, you become stronger, and you know how to handle it, besides, you grow up.

Because, if everybody has turned against you since your childhood, even your girlfriend who knew how you were taking exams etc, then, there's nothing else left for you to be afraid of when you are nineteen or twenty-two years old, as I am now (Dionysis).

Then I started reading, I was sharper than my friends, not more clever, at school others did better than me but when we discussed, no one would disagree with me, I read so much and I could be effective in a conversation. So, then I had no problem. Regardless of whether others did better than me at school, they couldn't put their points across as well as I did (Haris).

Nevertheless, several students pointed out the negative effects of dyslexia on the development of their self-esteem. The negative attitudes of their teachers and their peers had led them to perceive themselves as less competent and to feel insecure. In addition, they talked about the embarrassment they continue to feel as a result of their difficulties in social situations such as filling an application form or giving somebody directions to a place.

I always say *Okay, I'll do it, and if it works, it works*. And I never say *Okay, I succeeded because I deserved it. It just happened*. I always say *it just happened*. In general, I put it down to luck, not to an ability of mine. And whatever I do, I will not credit myself with it, I will talk about someone else, that someone else helped me (Nikitas).

Discussion

Throughout all levels of education the students who participated in the present study encountered literacy difficulties and problems with concentration, memory and organisation. Difficulties with spelling, reading comprehension, memory and concentration were the most persistent during tertiary education. To deal with these difficulties the students developed a number of positive coping techniques (i.e. selecting and grouping the main ideas, mentally visualising the content of the text etc) (Heiman & Kariv, 2004; Stampoltzis & Polychronopoulou, 2009). It was mainly the students' parents who encouraged them and assisted them with their schoolwork. Parents constitute an important source of support for pupils with dyslexia, a fact that affects positively the development of positive coping and the acceptance of the learning disability (Hellendoorn & Ruijsenaars, 2000; Stampoltzis & Polychronopoulou, 2009).

The participants also employed negative coping strategies (e.g. avoidance of disclosure of dyslexia or quitting courses at university) (Givon & Court, 2010; Heiman & Kariv, 2004; Hellendoorn & Ruijsenaars, 2000; Ingesson, 2007), which were often related to the teachers' or professors' negative attitudes. They frequently faced the teachers' stigmatising behaviour and lack of understanding. In higher education, the students often encountered the professors' reluctance to conduct oral examinations. Postsecondary instructors are less willing to provide the opportunity of oral examinations compared to other examination accommodations (e.g. extended time on tests) because the former are more time consuming and imply more effort on their part (Skinner, 2007). The lack of provision of accommodations and support may lead the students to avoid disclosing their learning disability (Madriaga, 2007).

The above findings converge to those reported in other studies (Bacon & Bennett, 2013; Givon & Court, 2010; Madriaga, 2007; Stampoltzis & Polychronopoulou, 2009). In the present study the participants also underscored the important role of the assistance of some of their teachers who were willing to provide accommodations, recognised the pupils' difficulties, tried to support them and exhibited an attitude of respect and understanding. Teacher's support and acceptance are considered as protective factors (Margalit, 2003; Svetaz et al., 2000; Wong, 2003) and contribute to the enhancement of self-esteem (Long., MacBlain, & MacBlain, 2007).

Concerning social relationships, more than half of the students mentioned that they were teased by some of their peers and felt rejected, a finding frequently reported in the literature (Ingesson, 2007; Singer, 2005). The students considered that teasing as well as their feelings of insecurity because of the learning disability and their poor social skills were the main factors that hindered the development of close friendships with their peers. These findings are consistent with those of other studies (Goldberg et al., 2003; Hellendoorn & Ruijsenaars, 2000). However, the studies of Ingesson (2007) and Stampoltzis and Polychronopoulou (2009) did not reveal a negative impact of dyslexia on the formation or the

maintenance of friendships. On the other hand, the development of friendships of students with dyslexia with their peers depends on a variety of factors such as personal characteristics, opportunities to socialise and the presence of similar difficulties in learning (Wiener, 2004; Wiener & Tardif, 2004). Moreover, the participants of this study referred to these factors. Besides, they mentioned that nonetheless they had close friends who supported them both in the academic and the emotional domain. The protective role of the support from peers and friends has been underlined in the literature (Ingesson, 2007; Wiener, 2004). It is noteworthy that two participants mentioned that having a close friend with dyslexia constituted an important source of support. Sharing a common experience (i.e. learning disabilities) may be reassuring for students with dyslexia and promotes cooperation and mutual help (Roer-Strier, 2002).

With regard to the emotional domain, during school years, dyslexia caused feelings of inferiority and anxiety and stress to the participants. These feelings were reported even by the students who had been diagnosed with dyslexia at a relatively early age, and were often exacerbated by the teachers' negative attitudes. In addition, the students continued to have doubts about their abilities even in the cases they had gained more self-confidence over the years. Similar findings are reported in other studies (Hellendoorn & Ruijsenaars, 2000; Singer, 2005; Roer-Strier, 2002). However, Ingesson (2007) found that the teenagers and young adults who participated in her study felt that their self-esteem was enhanced with age. The findings of the present study may be attributed to the little information that was provided to the participants as to the specific nature of dyslexia, which is considered as a critical factor for the development of positive self-esteem (McNulty, 2003; Terras et al., 2009). They may also denote the lack of provision of appropriate academic and emotional support after the diagnosis of dyslexia.

For some students, being diagnosed with dyslexia was a relief since their intellectual capacity could no longer be called into question. Nevertheless, the identification of dyslexia made some participants feel frustrated and less competent than their peers. These findings are consistent with evidence from qualitative studies, which indicate that children with dyslexia think of labelling as something helpful at a private level because it helps them understand their difficulties and prevents them from *feeling stupid* (Stampoltzis & Polychronopoulou, 2009). However, labelling is often viewed as a negative experience with regard to social relationships because it may give rise to negative comments or behaviors on the part of the children's peers (Long et al., 2007; Singer, 2005). Moreover, it was for this reason that the participants of the present study often avoided to disclose their learning disability to their peers.

Acceptance of dyslexia was related to the acquisition of knowledge about the nature of the learning disability and awareness of one's own abilities and weaknesses. Besides, emotional support and positive relationships with parents and peers enabled the students to accept their learning disability. These factors help the individuals manage the negative feelings they experience because of the learning disability and maintain a positive self-esteem (Goldberg et al., 2003; McNulty, 2003; Terras et al., 2009).

Acceptance of the learning disability is considered as a protective factor (see Wong, 2003) and constitutes a key component of self-awareness (Higgins et al. 2002). They are both considered as attributes which play an important role in the individual's success in life (Goldberg et al. 2003; Higgins, Raskind, Goldberg, & Herman, 2002). Higgins and her colleagues (2002) described the stages that individuals who have come to terms with a learning disability go through. These include a) a period of awareness of the fact of being different b) a process of identification of the learning disability which often causes confusion about its real nature c) a period of understanding (i.e. specifying the exact meaning of the label) d) a process of compartmentalisation (i.e. making distinctions between one's specific difficulties and strengths and optimising possible talents) and e) a stage where the learning disability is viewed as a positive force in the individual's life. In a similar vein, Reiff (2004) described a *reframing* process that leads to the reconceptualisation of the learning disabilities as only one characteristic of the individual that does not define the whole person. This process includes the following stages: recognition of the existing differences from others, acceptance (i.e. acknowledgement of the difficulties associated with the learning disability), understanding (becoming aware of one's strengths and weaknesses), and development of a plan of action by using the strategies that may help to deal with academic or other challenges in a functional and successful way.

Despite their differences, the above mentioned approaches converge as to the important role of the recognition and the acknowledgement of the learning disability and suggest that viewing difficulties stemming from dyslexia as one aspect of oneself and becoming aware of, valuing and optimising one's strengths may affect positively the self-development and success in life. The findings of the present study are in line with the approaches cited above. The participants referred to their sense of being different

from others because of their learning disabilities; reported that dyslexia coupled with their personal quest for more information made them gain knowledge about themselves; and pointed out that they recognised, developed and made use of their strengths and felt empowered because they managed to cope with their difficulties either in the academic or in the social domain.

Although the findings of the present study have derived from the accounts of students coming from a different cultural and schooling context, they converge to a great extent with those of studies conducted in other countries. In addition, they reveal that despite the fact that the participants had developed some positive coping strategies to deal with their learning disabilities – which was mainly attributed to parental support and their own perseverance – and had succeeded to pursue studies in tertiary education, they nevertheless had negative experiences both in the academic and in the social-emotional domain.

The above findings suggest the need to implement in-service training for general education teachers and academic staff so that they acquire knowledge about dyslexia; help students employ appropriate coping strategies and provide them with appropriate accommodations. Teachers' in-service training should also address the possible emotional and behavioural difficulties of the pupils with dyslexia. The participants' accounts regarding the qualities of those teachers who had been supportive reveal the need to provide teachers with the opportunity to develop counselling skills through adequate training. Further research is needed regarding this issue since there is a dearth of evidence concerning the use and the impact of a counselling approach at school on the academic attainments and the psychosocial development of pupils with learning disabilities (Alexander-Passe, 2006).

The conditions of entrance examinations to tertiary education for candidates with dyslexia in Greece could be reconsidered. The examiners frequently exhibit negative attitudes and inappropriate ways of examining which cause particularly intense feelings of anxiety and stress to pupils with dyslexia, not to mention that the examinations take place in schools other than their own school. Adequate preparation of the examiners and the implementation of more inclusive practices during entrance examinations could be of assistance for these candidates.

Finally, the findings of the study reveal the importance of emotional and social support and of the development of self-awareness for individuals with dyslexia. This implies a need to provide adequate explanations about dyslexia to children following their diagnosis. Intervention and prevention programmes aiming to the promotion of resilience (Margalit, 2003) and to the enhancement of these children's self-esteem (Ntshangase, Mdikana, & Cronk, 2008) and self-awareness (Reiff, 2004) can also be particularly beneficial for these pupils.

Due to the small number of participants and to the sole use of self-reports the findings of the present study should be interpreted with caution. The fact that the participants were successful adults (i.e. students in higher education institutions) should also be taken into consideration since, as suggested by Reiff (2004), it may have helped them to reconstruct their negative experiences and perceive them as a basis for success.

References

- Agaliotis, I. & Kalyva, E. (2008). Nonverbal social interaction skills of children with learning disabilities. *Research in Developmental Disabilities*, 29, 1–10.
- Alexander-Passe, N. (2006). How dyslexic teenagers cope: An investigation of self-esteem coping and depression. *Dyslexia*, 12, 257–275.
- Al-Yagon M., & Margalit, M. (2006). Loneliness, sense of coherence and perception of teachers as a secure base among children with reading difficulties. *European Journal of Special Needs Education*, 21(1), 21–37.
- Al Zyoudi, M. (2010). Differences in self-concept among student with and without learning disabilities in Al Karak District in Jordan. *International Journal of Special Education*, 25(2), 72–77.
- Bacon, A. M., & Bennett, S. (2013). Dyslexia in higher education: the decision to study art. *European Journal of Special Needs Education*, 28(1), 19–32.
- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children*, 71(2), 195–207.
- Burden, R. (2008). Is dyslexia necessarily associated with negative feelings of self-worth? A review and implications for future research. *Dyslexia*, 14, 188–196.
- Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings: intercoder reliability assessment in qualitative content analysis. *Nursing Research*, 57(2), 113–117.

- Cho, J. Y., & Lee, E. H. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *The Qualitative Report*, 19(32), 1-20.
- Eissa, M. (2010). Behavioral and emotional problems associated with dyslexia in adolescence. *Current Psychiatry*, 17(1), 39-47.
- Gallegos, J., Langley, A., & Villegas, D. (2012). Anxiety, depression, and coping skills among Mexican school children: A comparison of students with and without learning disabilities. *Learning Disability Quarterly*, 35(1), 54-61.
- Givon, S., & Court, D. (2010). Coping strategies of high school students with learning disabilities: a longitudinal qualitative study and grounded theory. *International Journal of Qualitative Studies in Education*, 23(3), 283- 303.
- Goldberg, R. J., Higgins, E. L., Raskind, M. H., & Herman, K. L. (2003). Predictors of success in individuals with learning disabilities: A qualitative analysis of a 20-year longitudinal study. *Learning Disabilities Research and Practice*, 18(4), 222-236.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24, 105-112.
- Heiman, T., & Kariv, D. (2004). Manifestations of learning disabilities in university students: Implications for coping and adjustment. *Education*, 125(2), 313-324.
- Hellendoorn, J., & Ruijsenaars, W. (2000). Personal experiences and adjustment of Dutch adults with dyslexia. *Remedial and Special Education*, 21(4), 227-239.
- Higgins, E. L., Raskind, M. H., Goldberg, R. J., & Herman, K. L. (2002). Stages of acceptance of a learning disability: The impact of labelling. *Learning Disability Quarterly*, 25(1), 3-18.
- Holsti, O. (1969). *Content analysis for the social sciences and humanities*. London: Heinemann.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Ingesson, S. G. (2007). Growing up with dyslexia: Interviews with teenagers and young adults. *School Psychology International*, 28(5), 574-591.
- Kavale K. A., & Mostert, M. P. (2004). Social skills interventions for individuals with learning disabilities. *Learning Disability Quarterly*, 27(1), 31-43
- Long, L., MacBlain, S., & MacBlain, M. (2007). Supporting students with dyslexia at the secondary level: An emotional model of literacy. *Journal of Adolescent & Adult Literacy*, 51(2), 124-134.
- Maag, W. J., & Reid, R. (2006). Depression among students with learning disabilities: Assessing the risk. *Journal of Learning Disabilities*, 39(1), 3-10.
- Margalit, M. (2003). Resilience model among individuals with learning disabilities: Proximal and distal influences. *Learning Disabilities Research and Practice*, 18(2), 82-86.
- Martínez, R. S., & Semrud-Clikeman, M. (2004). Emotional adjustment and school functioning of young adolescents with multiple versus single learning disabilities. *Journal of Learning Disabilities*, 37(5), 411-420.
- Mayring, Ph. (2000). Qualitative content analysis. *Forum: Qualitative Social Research*, 1(2), Art. 20, <http://nbnresolving.de/urn:nbn:de:0114-fqs0002204>.
- McNulty, M. A. (2003). Dyslexia and the life course. *Journal of Learning Disabilities*, 36(4), 363-381.
- Meadan, H., & Halle, J. W. (2004). Social perceptions of students with learning disabilities who differ in social status. *Learning Disabilities Research and Practice*, 19(2), 71-82.
- Nalavany, B. A., Carawan, L. W., & Brown, L. J. (2011). Considering the role of traditional and specialist schools: do school experiences impact the emotional well-being and self-esteem of adults with dyslexia? *British Journal of Special Education*, 38(4), 191-200.
- Ntshangase, S., Mdikana, A. & Cronk, C. (2008). A comparative study of the self-esteem of adolescent boys with and without learning disabilities in an inclusive school. *International Journal of Special Education*, 38(8), 75-84.
- Peleg, O. (2011). Social anxiety among Arab adolescents with and without learning disabilities in various educational frameworks. *British Journal of Guidance and Counselling*, 39(2), 161-177.
- Polychroni, F., Koukoura, K., & Anagnostou, I. (2006). Academic self-concept, reading attitudes and approaches to learning of children with dyslexia: do they differ from their peers? *European Journal of Special Needs Education*, 21(4), 415-430.
- Ponterotto, J. G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept "thick description". *The Qualitative Report*, 11(3), 538-549.
- Reiff, H. B. (2004). Reframing the learning disabilities experience redux. *Learning Disabilities Research and Practice*, 19(3), 185-198.
- Roer-Strier, D. (2002). University students with learning disabilities advocating for change. *Disability and Rehabilitation*, 24(17), 914-924.

- Singer, E. (2005). The strategies adopted by Dutch children with dyslexia to maintain their self-esteem when teased at school. *Journal of Learning Disabilities*, 38(5), 411-423.
- Skinner, M. E. (2007). Faculty willingness to provide accommodations and course alternatives to postsecondary students with learning disabilities. *International Journal of Special Education*, 22(2), 32-45.
- Stampoltzis, A., & Polychronopoulou, S. (2009). Greek university students with dyslexia: An interview study. *European Journal of Special Needs Education*, 24(3), 307-321.
- Svetaz, M. V., Ireland, M., & Blum, R. (2000). Adolescents with learning disabilities: Risk and protective factors associated with emotional well-being: Findings from the national longitudinal study of adolescent health. *Journal of Adolescent Health*, 27(5), 340-348.
- Terras, M., Thompson, L. C., & Minnis, H. (2009). Dyslexia and psycho-social functioning: An exploratory study of the role of self-esteem and understanding. *Dyslexia*, 15(4): 304-327.
- Thomas, D. R. (2006). A General inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246.
- Wiener, J. (2004). Do peer relationships foster behavioral adjustment in children with learning disabilities? *Learning Disability Quarterly*, 27(1), 21-30.
- Wiener, J., & Tardif, C. (2004). Social and emotional functioning of children with learning disabilities: Does special education placement make a difference? *Learning Disabilities Research and Practice*, 19(2), 20-32.
- Wong, B. Y. (2003). General and specific issues for researchers' consideration in applying the risk and resilience framework to the social domain of learning disabilities. *Learning Disabilities Research and Practice*, 18(2), 68-76.