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Table of Contents

Exploring the Meta-Comprehension Abilities of Students with Intellectual Disabilities
School-less or Out-of-school? Re-thinking Special Needs Education and Practice in Baluchistan,Pakistan248
Schoolwork of Adolescents with Dyslexia: Comparison of Adolescents' Mothers' and Teachers' Perspectives
Factors which Enhance or Hinder Meeting the Educational Needs of Autistic Children in Western Cape Province, South Africa: A Parents' Perspective
A Survey of Alternative and Traditional Special Education Teachers' Perception of Preparedness
Factors Influencing Parents' Selection of Schools for Children with Disabilities: A Systematic Review of the Literature
Social Acceptance and Paraprofessional Support for Students with Severe Disabilities
Teachers' Concerns about Inclusion in Mainstream Early Childhood Development in Zimbabwe343
Readiness of General Elementary Schools to Become Inclusive Elementary Schools: A Preliminary Study in Indonesia

Development and Standardization of Mental Health Battery for Visually Impaired
Twice-Exceptionality in the Kingdom of Saudi Arabia: Policy Recommendations for Advances in Special Education
Should Teachers Learn how to Formally Assess Behavior? Three Educators' Perspectives416
Including all? Perceptions of Mainstream Teachers on Inclusive Education in the Western Province of Sri Lanka427
Culture-based Intervention Strategies for Bedouin Parents of Children with ASD - Identification and Conceptualization448
Pedagogy of New Materialism: Advancing the Educational Inclusion Agenda for Children and Youth with Disabilities465
Teaching Elementary-Aged Students with Autism Spectrum Disorder to Give Compliments Using a Social Story Delivered through an iPad
Application
Participation and Interaction of Deaf and Hard-of-Hearing Students in Inclusion Classroom

Exploring the Meta-Comprehension Abilities of Students with Intellectual Disabilities

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Abstract

The purpose of this investigation was to explore the importance of different meta-comprehension aspects in students with intellectual disabilities, and to determine which one of them can best explain their performance on reading comprehension. For this purpose, metacognitive measurement instruments, an inconsistency detection tasks, and confidence in performance judgments on reading performance were applied together with a reading comprehension standardized test (LECTUM). By means of regression analyses of the data, results revealed that the detection of inconsistencies as a meta-comprehension monitoring measure, more specifically the detection of internal inconsistencies, some dimensions of the meta-comprehension inventory as a measure of metacognitive skills (planning, evaluation of the reading process, regulation of comprehension/incomprehension) and absolute calibration accuracy were the best predictors of performance of the participants on reading comprehension. It is of importance to understand the nature of the problems presented by the students when facing a text in order to develop adequate approaches to reading comprehension according to the needs of learners with intellectual disabilities. According to the results, we concluded that theoretically-relevant metacognitive elements significantly predicted the performance of reading comprehension. Implications for learning and instruction are discussed.

Keywords: reading comprehension, intellectual disabilities, metacognition.

Introduction

From the first studies on metamemory in the seventies (Flavell, 1971; Flavell, Friedrichs & Hoyt, 1970), scientists and researchers have been particularly interested in metacognition, its components, and how it is used in different cognitive processes such as attention, learning and memory. Reading comprehension is among them as well. Such interest has been the impetus for an important number of studies in the field, and thus, it has been one of the most productive subject matters in the last twenty years (Martí, 1995).

This interest has also lead to investigations on the metacognitive processes in specific groups, such as students with special needs, as there is a general consensus regarding metacognition in which metacognition has a significant impact on students' achievement (Garcia & Pintrich, 1994; Metcalfe, 1998; Verschaffel, 1999; Wong, 1996). However, such studies have focused on children with learning disabilities (LD) more than on those with intellectual disabilities (ID). The difference between these two diagnostics is that in LD the dysfunction affects one or more cognitive processes and there exist a discrepancy between their measured potential (e.g., on a standardized IQ test) and their actual performance on academic tasks, instead of limiting overall intellectual ability, as is the case with ID (Wong, 1985). Therefore, the results obtained with studies that recruited samples of students with LDs are not necessarily applicable to learners with IDs. The working definition of intellectual disability and its diagnostic criteria that will be used as reference in the present study is the latest version of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (DSM-V). Thus, "intellectual disability" is understood as a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains.

The purpose of comprehension is to build a coherent mental representation, called situation model, from the knowledge of the reader and the information in the text (Gernsbacher, 1990; Kintsch, 1988). And supporting the ongoing cognitive process is metacognition, which was defined by the pioneer in the area, Flavell (1976), as the knowledge of one's cognitive processes. When facing a text, students with intellectual disabilities experience many difficulties. For instance, for these students the processing of information is slower, and they frequently fail at establishing meaningful relationships among a set of ideas (Banikowski & Mehring 1999; Guzel-Ozman, 2006). They also show limitations using effective memory and rehearsal strategies and they do not spontaneously organize, chunk, or elaborate in ways that facilitate the learning process (Belmont & Butterfield 1971; Turner, Dofny & Durka, 1994). Finally, they exhibit little use of metacognitive processes such as control, monitoring, planning, or awareness of their own cognitive processes (Erez & Peled, 2001). Blackorby and colleagues (2010) conducted a study with students who met the criteria of the Individuals with Disabilities Education Act (IDEA), which is a federal law in the U.S. that requires schools to serve the educational needs of eligible students with disabilities. They compared the outcomes of children identified for services under IDEA and, as appropriate, in comparison with the outcomes of samples including their non-disabled peers, and found that on measures of letter-word recognition the mean standard score was 83.2 for typical students, but for students with IDs, the mean standard score was 61.7. A similar pattern exists for text comprehension in which the average scores were 100 for the population, 82.9 for special education and 62.4 for students with IDs. Regarding graduation rates, across disability categories, students with IDs are least likely to receive a diploma (37%), and they have the fourth highest rate (5%) of aging out of the public school system without some form of certificate or diploma. Therefore, under this scenario the teaching of literacy becomes a challenge for educators.

The World Health Organization in the International Classification of Functioning, Disability and Health (ICF) states that the promotion of social participation of all human beings is encouraged and that the ability to read and comprehend a text is as a necessary prerequisite for full participation in modern society. Taking this into account, the purpose of this investigation was to explore the importance of different meta-comprehension aspects in students with intellectual disabilities and to determine which of these can best explain their performance on reading comprehension in order to generate knowledge which could more effectively guide the training on reading comprehension of this particular group of learners.

When discussing metacognition, one must understand that there is no general consensus among researchers regarding its components. In order to avoid any complications, however, the initial definition by Flavell (1976) and Brown (1978) will be used. We distinguish between knowledge of cognitive processes and their regulation. That is to say, that there is one part of knowledge that is more static and one part that constantly monitors and regulates one's ongoing cognitive process.

Metacognitive knowledge

Within the label "metacognitive knowledge" there are three sub-procedures. First, declarative knowledge (to know what), which includes notions of the reader, the task and comprehension strategies. Second, there is procedural knowledge (to know how), which entails the knowledge of strategic processes and actions to perform. Third, conditional knowledge (to know when, why, and where to apply), which involves the recognition of when to use a specific strategy given task demands (Brown, 1980, 1987; Jacobs & Paris, 1987). This has been closely related to successful learning (Baker & Bell, 2009; Schraw & Dennison, 1994). One implication of this process is that a person who is acquainted with the use of strategies will be more likely to use them than someone who is not. This is demonstrated in research studies in which metacognitively aware learners are more strategic and perform better than unaware learners (Garner & Alexander, 1989; Pressley & Ghatala, 1990). A reason for this would be that metacognitive knowledge allows individuals to plan, sequence, and monitor their learning process so that they can improve their performance (Schraw & Dennison, 1994). Furthermore, metacognitive knowledge is related to learning transfer (i.e., that the acquired knowledge is used within a context different from that in which it was originally learned; Bransford, Brown, & Cocking, 2000). In this way, conditional knowledge is considered to be fundamental for the acquisition of this ability. Finally, McNamara (2004), who has deeply studied the training of reading comprehension strategies, argues that reading strategies can help the reader who has little knowledge to use logic and common sense instead of prior knowledge to fill conceptual gaps.

Regarding metacognitive knowledge in students with intellectual disabilities, Erez and Peled (2001) found less awareness of their own cognitive strategies or strategy implementation

in this population of learners. On the other hand, in students with learning disabilities, it has been shown that they have difficulties in thinking about their thoughts (Wiens, 1983) and a deficit in self-knowledge which leads to difficulties in learning (Vaidya, 1999). They also apply metacognitive strategies ineffectively compared to typically developing peers at a similar age (Butler, 1998; Desoete & Roeyers, 2002), possibly due to the lack of strategy transfer (Moreno & Saldana, 2005).

Monitoring and Regulation and its Relation to Reading Comprehension Performance

In order to achieve coherence within the situation model, the inference creation process is regarded as fundamental (Graesser, Singer, & Trabasso, 1994; van Dijk & Kitsch, 1983; Vieiro & Gómez, 2004). The metacognitive aspect directly related to the search of meaning of the text is the working part of metacognition: monitoring and regulation. These processes are related yet distinct. Monitoring is the process by which an individual evaluates the state of his/her understanding of information (Oakhill, Hartt & Samols, 2005) while regulation is the process used to achieve cognitive consistency in the knowledge elements of a text when they appear to be inconsistent (Otero, 2002). In spite of this, to proceed with the text and establish a coherent model, it is necessary that both processes occur concurrently. That is to say, if an inconsistency is detected, it must be solved in order to continue reading for comprehension (Hacker, 1998).

To evaluate and access the monitoring processes, the inconsistencies detection paradigm has been broadly used (Baker, 1984; Otero & Campanario, 1990; Ruffman, 1999; Oakhill, 2005; Kim & Phillips, 2014; Helder, Van Leijenhorst & van den Broek, 2016). This has been made under the assumption that detecting an error intentionally introduced into the text could be a way of accessing the evaluation performed by the readers of their own understanding of the text during the construction of meaning. According to the model of G>MAL by Otero (2002), the evaluation of the coherence standard must satisfy certain constraints in which the value of G (i.e., coherence index, the goodness of the representation) must be superior to the MAL (i.e., minimum acceptable level). If not followed, and the result of the evaluation is unsatisfactory (for instance, when detecting an inconsistency), the regulatory process is activated. According to this model, the regulation process consists of generating new inferences, which allows the coherence to increase, and the minimum acceptable level to be reached. Previous research has investigated the relation between monitoring, regulation, and reading comprehension performance, in which the performance of inconsistencies detection of proficient and poor comprehenders was compared (Paris & Myers, 1981; Long & Chong, 2001; Cain, Oakhill, & Lemmon, 2004). This led to the conclusion that proficient comprehenders show better performance in inconsistencies detection tasks compared to poor comprehenders. Nevertheless, little research exists regarding monitoring skills in students with special needs and no research was found on children with intellectual disabilities. Kotsonis and Patterson (1980) compared comprehension monitoring skills of students with LDs and typically-developing students in the context of a game-learning task where they found that there was a deficiency in comprehension monitoring skills in students with LDs. Bos and Filip (1982) noticed that students with LDs only detected inconsistencies under a cued condition, interpreting this as supporting the conceptualization of students with LDs as inactive learners.

Metacognitive Accuracy and its Relation to Reading Comprehension Performance

To calculate meta-comprehension accuracy the performance judgment of the readers is compared with their comprehension of the text. Therefore, proficient meta-comprehension accuracy entails a high relation between the performance judgment on reading comprehension and actual performance. Poor meta-comprehension accuracy entails an inconsistency between judgments about learners' understanding and actual performance as such. This measure is a link between metacognitive aspects and text comprehension. It is also regarded as a meta-comprehension monitoring measure, and thus, when students successfully evaluate their level of comprehension they should be quite accurate in their predictions (Soto, Jacovina, Gutierrez de Blume, McNamara, Benson, & Riffo, 2017).

As for the calibration applied to reading comprehension, no research was found that applied to students with intellectual disabilities. According to the research of Klassen (2002), students with LDs have a tendency to underestimate their performance in different academic tasks (e.g., writing, reading, arithmetic). More specifically, regarding reading comprehension tasks, it can be argued that even though students with learning disabilities displayed lower levels of metacognitive knowledge and reading comprehension, they did not differ from the students without learning disabilities on self-efficacy judgments (Pintrich, Anderman, & Klobucar, 1994).

The Present Study

Predicated on the previous literature reviewed, we sought to answer the following research questions in the present investigation.

Research Questions and Hypotheses

1. To what degree do aspects of meta-comprehension knowledge (knowledge about cognition, planning, evaluation during reading, evaluation after reading, regulation after problematic understanding, regulation to deepen comprehension), inconsistency detection tasks performance (low frequency words, internal inconsistencies, and external inconsistencies), and absolute calibration accuracy predict the reading comprehension performance of students with intellectual disabilities?

H₁: We predicted that, according to theory and extant research, specific aspects of metacomprehension would significantly predict the reading comprehension performance of students with intellectual disabilities. More specifically, we believe that inconsistency detection as a meta-comprehension monitoring measure, the subscales of the metacomprehension inventory as a measure of metacognitive knowledge, and absolute calibration accuracy would significantly predict reading comprehension performance.

2. To what degree do the three types of inconsistency detection tasks (low frequency words, internal inconsistencies, and external inconsistencies) predict the absolute calibration accuracy of students with intellectual disabilities? Do the dimensions of meta-comprehension (awareness of comprehension, planning, evaluation of learning outcomes, evaluation of the learning process, regulation of comprehension, regulation of incomprehension) provide incremental variance to the prediction of absolute calibration accuracy after controlling for the effect of the three types of inconsistencies?

H₂: We hypothesized that the three inconsistency detection tasks would significantly positively predict absolute calibration accuracy and that the dimensions of meta-

comprehension would significantly positively predict absolute calibration accuracy and account for incremental variance after controlling for the effect of inconsistency detection performance.

Method

Participants

The participants were 15 special education students who attended a public special education school in San Pedro de la Paz, Chile. Eight of the participants were female (7 males). The students' age ranged from 10 years and 10 months to 16 years and 5 months. All participants have been diagnosed with a mild or moderate intellectual disability, albeit they have literacy skills which allow them to read sentences fluently.

Materials

LECTUM. LECTUM is an instrument developed by Riffo, Véliz, Castro, Reyes, Figueroa, Salazar, and Herrera. (2011) to evaluate reading comprehension in Chilean students. LECTUM evaluates the textual, pragmatic and critical aspects involved in reading comprehension. Each student must answer 32 multiple-choice questions from four different texts. The scores in the measure are coded as correct (1) or incorrect (0) and are added together to obtain a total score. Scores are transformed to percentiles, based on raw score performance, to facilitate interpretation. The internal consistency reliability coefficient, Kuder-Richardson (KR) 20, for this measure was adequate, KR-20 = .74.

Confidence in performance judgments. Confidence in performance judgments were collected locally (i.e., item-by-item) by asking students to complete a question regarding their confidence in whether they felt they answered the item correctly. A "yes" response indicated that the participants felt confident they answered the item incorrectly whereas a "no" response indicated they felt confident they answered the item incorrectly. The "yes" responses were coded as "1" and no responses were coded as "0" to match the coding scheme for the performance measure. Responses were then summed across all items and subsequently transformed to percentiles, as with performance, to more readily compare the two.

Calibration accuracy. Absolute accuracy scores were calculated by comparing participants' confidence in performance against their actual assessment percent correct score—that is, the *residual score approach*. Raw scores were converted to a proportion and subtracted from the composite confidence in performance ratings to calculate absolute accuracy. Comparing confidence in performance against actual performance yielded continuous, *absolute* calibration accuracy scores, as described by Schraw (2009). A score of "0" indicates perfect calibration; on the other hand, the higher the value, and thus the farther away from "0", the greater the inaccuracy. In essence, the higher the accuracy scores, the greater the *miscalibration* exhibited by the participant.

Inconsistency detection tasks. The text "Las Ballenas" (The Whales) was presented to the students. It was previously manipulated with the introduction of errors of internal consistency, external consistency and, additionally, words of low frequency use. They were instructed to highlight every part of the text that seemed difficult or confusing. The text had a total of four paragraphs that were placed alternately, meaning that if one presented inconsistencies the

following did not. Each paragraph with inconsistencies had one external inconsistency, one internal inconsistency and two words of low frequency use. This produced a total of eight inconsistencies within the entire text, across the three types of inconsistencies (low frequency words, internal inconsistencies, and external inconsistencies).

By "external inconsistency" it is understood that there is a cognitive conflict between the information in the text and the participant's knowledge of the concept. By "internal inconsistency" it is understood that there is conflict between the elements of the text. Even though low frequency use words are not considered as inconsistencies per se, they do hinder the optimal comprehension of the text, activating, as a consequence, a possible strategy to compensate for the incomprehension. This measure is scored according to the number of inconsistencies detected and, therefore, the higher the score, the more inconsistencies the student detects.

Meta-comprehension Inventory (MI). The MI is comprised of 23 Likert-type items, originally developed by Soto, Gutierrez de Blume, Asún, Jacovina, and Vasquéz (2018). It explores the following six metacognitive dimensions: knowledge about cognition, planning, evaluation during reading, evaluation after reading, regulation after problematic understanding, and regulation to deepen comprehension. All items of *knowledge of cognition* were answered using a response format from *strongly disagree* to *strongly agree*. In contrast, the *control of cognition* items employed a format from *never* to *always*. Considering the characteristics of the participants, we used an adapted inventory where the vocabulary was simplified and the Likert scale was reduced from 5 to 3 options.

Procedure

University IRB approval was obtained prior to the commencement of any data collection activities. Informed consent was secured according to the policies and procedures outlined by the Universidad de Concepcion. Data collection was divided into two parts: first, the reading comprehension test LECTUM was applied as a group instead of individually. In tandem, students were asked about their confidence in performance judgments in relation to each of their answers. This first part was conducted without interruption and lasted one hour and thirty minutes.

Next, all students were examined individually and asked to answer the MI and the inconsistency detection task. This second part was conducted without interruption as well and lasted about twenty to forty minutes, depending on the participant. Once all the data were collected, they were transferred to an EXCEL file for further statistical analysis.

Data Analysis

Prior to data analysis, data were first screened for univariate outliers and evaluated against requisite statistical assumptions according to the procedures outlined by Tabachnick and Fidell (2013) via the Statistical Package for the Social Sciences (SPSS) version 23. No extreme outliers that would otherwise undermine the trustworthiness of the data were detected for the outcome variables. Data were also tested for univariate normality using histograms with the normal curve overlay and skewness and kurtosis statistics. Data approximated a normal distribution. Furthermore, data were evaluated for assumptions including multicollinearity (all

correlations were < r = .85) and linearity. All of the aforementioned assumptions were met, and thus, data analysis proceeded without making any adjustments to the data.

The first research question was answered by conducting a simultaneous/standard ordinary least squares (OLS) regression. In this analysis, the different aspects of meta-comprehension knowledge (knowledge about cognition, planning, evaluation during reading, evaluation after reading, regulation after problematic understanding, and regulation to deepen comprehension), inconsistency detection tasks (low frequency words, internal inconsistencies, and external inconsistencies) performance, and absolute calibration accuracy served as predictors and reading comprehension performance served as the criterion. The second research question was answered by conducting a hierarchical linear regression in which the MI dimensions were entered in the first Block and the different types of inconsistencies were entered in the second Block, with absolute calibration accuracy as the criterion. We used the adjusted squared multiple correlation coefficient ($R^2_{adjusted}$) as measure of effect because this value corrects the observed effect based on criteria such as sample size and sampling error. Cohen (1988) specified the following interpretive guidelines for R^2 : .010-.299 as small; .300-.499 as medium; and \geq .500 as large. We adjusted the *p*-value to account for the multiple ordinary least squares regressions using the Bonferroni adjustment to obviate Type I error rate inflation (i.e., our new actual a priori p-value was .025 [.05/2]).

Results

Results of the standard regression with the meta-comprehension knowledge dimensions (knowledge about cognition, planning, evaluation during reading, evaluation after reading, regulation after problematic understanding, and regulation to deepen comprehension), inconsistencies detection task (low frequency words, internal inconsistencies, and external inconsistencies), and absolute calibration accuracy as predictors revealed that the model with ten predictors was unnecessarily complex, as awareness of comprehension, evaluation of learning outcomes, external inconsistencies, and detection of low frequency words were not significant predictors (all *p*-values \geq .32). Thus, to simplify the model and make it more meaningful and considering the small sample size, we removed these non-significant predictors from the model. The final model with six predictors—planning, evaluation of the learning process, regulation of comprehension, regulation of incomprehension, internal inconsistencies, and absolute calibration accuracy was statistically significant, $F_{(6,8)} = 9.95$, p = .002, $R^2_{adjusted} = .79$. All six predictors significantly predicted reading comprehension performance: planning (b = 4.19 [CI_{95%} = .02, 8.37]; $\beta = .47$); evaluation of the learning process (b = -21.88 [CI_{95%} = -35.62, -8.14]; $\beta = -.89$); regulation of comprehension (b = 6.35 [CI_{95%} = 1.64, 14.35]; $\beta = .49$); regulation of incomprehension (b = -7.62 [CI_{95%} = -15.96, -1.71]; $\beta = -.35$); internal inconsistencies (b = 37.56 $[CI_{95\%} = 7.90, 67.52]; \beta = .71);$ and absolute calibration accuracy $(b = -.53 [CI_{95\%} = -.91, -.15]; \beta$ = -.67).

With respect to interpreting positive regression coefficients, for every one unit increase in the predictor, reading comprehension increases by the value of the standardized regression coefficients (β) associated with each predictor. The negative coefficients bear further explanation, however. The negative regression coefficient of evaluation of the learning process suggest that for every one unit increase in students' proficiency in evaluating their learning process, reading comprehension decreases by .89 of one standard deviation. Because of the way the items for this scale are worded this indicates that students appropriately adjust confidence and performance when they realize they do not know or understand the topic particularly well, which necessarily undermines performance. The negative regression coefficient of regulation of incomprehension suggests that as students' incomprehension decreases due to increased regulation and monitoring, their reading comprehension increases. As to absolute calibration accuracy, because these scores were calculated such that higher values signify greater *miss-calibration* and lower values indicate increased accuracy, the negative association indicates that as *mis-calibration* increases, and thus inaccuracy, reading comprehension performance decreases by a sizable amount, .67 of one standard deviation, which makes theoretical sense.

Initial findings of the hierarchical linear regression indicated that, as with the previous results, the model was overly saturated with predictors, as planning, evaluation of learning outcomes, evaluation of the learning process, external inconsistencies, and detection of low frequency words were not significant predictors (all p-values \geq .46). As with the previous analysis, we simplified the model and improved its fit by removing these non-significant predictors. The final model revealed that awareness of comprehension, regulation of comprehension, regulation of incomprehension, and internal inconsistencies significantly predicted absolute calibration accuracy, $F_{(4,10)} = 5.34$, p = .01, $R^2_{adjusted} = .55$. Results of the first block, in which the three inconsistency detection tasks were added as predictors, showed that only internal inconsistency detection was a significant negative predictor of *mis-calibration*, ΔF $(1,10) = 3.98, p = .02, \Delta R^2_{adjusted} = .11, (b = -34.31 [CI_{95\%} = -75.92, -27.91]; \beta = -.51).$ The three meta-comprehension dimensions provided significant incremental variance to the prediction of absolute calibration accuracy, $\Delta F_{(3,11)} = 4.95$, p = .01, $\Delta R^2_{adjusted} = .44$: awareness of comprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$); regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15 [CI_{95%} = -20.80, -3.50]; $\beta = -.76$]; regulation of incomprehension (b = -12.15]; regulation (b = -1216.99 [CI_{95%} = 2.28, 31.79]; β = .62); and regulation of comprehension (b = -15.11 [CI_{95%} = -24.35, -5.87]; $\beta = -.92$) were statistically significant predictors.

The negative regression coefficients of internal inconsistency detection and regulation of comprehension suggest that for every one unit increase in internal inconsistency detection and regulation of comprehension, *mis-calibration* decreases by .51 and .92 of one standard deviation respectively. Stated differently, for every one unit increase in internal inconsistency detection and regulation of comprehension, absolute calibration accuracy increases by .51 and .92 of one standard deviation respectively. With respect to regulation of incomprehension, the positive regression coefficient indicates that as students' ability to regulate and monitor their incomprehension increases calibration accuracy increases as well (by .62 of one standard deviation).

Discussion

The results of this study suggest that meta-comprehension skills effectively predict reading comprehension performance of students with intellectual disabilities. Although both static (knowledge) and dynamic (monitoring/regulation) aspects of meta-comprehension have a significant effect, not all skills evaluated have the same impact.

Metacognitive knowledge was expected to be a relevant variable. We speculated that the explicit knowledge of strategies and processes could compensate for the different cognitive difficulties presented by this group of students when presented with a text, such as difficulties in linking ideas, abstract thinking and learning through experience. As Schraw and Dennison

(1994) asserted, metacognitive knowledge plays a compensatory role in cognitive performance by means of the encouragement of the use of strategies. As observed in the results of this study, by itself, only the dimension of regulation of reading (understanding) of the MI had a significant effect on reading performance. However, when combining meta-comprehension skills with inconsistency detection tasks, in the search for a more comprehensive explanatory model, other dimensions of metacognitive knowledge take relevance: planning, evaluation of the reading process and regulation of incomprehension.

As observed in other research, we also expected that meta-comprehension monitoring would have a significant effect on reader performance, and so it was. An innovative finding supported by our study is what happens to the type of inconsistency that best predicts performance in reading comprehension. In this investigation, only internal inconsistencies had a significant effect. This highlights the importance of coherence relationships established within the text as a key factor in achieving the overall meaning of the text.

A surprising result was the significant effect achieved by absolute calibration accuracy. While in other research the tendency of students with LD was to underestimate their performance and, therefore, to show *mis-calibration*, here we see that this variable had a moderate impact on reading comprehension performance. Therefore, it could be an aspect to be considered when developing innovative educational interventions.

It is worth highlighting the results obtained when looking for a model that integrates the different metacognitive aspects to explain the performance in reading comprehension of these students. Here we see that it is possible to explain 79% of the reading comprehension performance of students with intellectual disabilities due to the combination of the metacognitive abilities with greater impact by themselves, that is to say: detection of internal inconsistencies, calibration accuracy and MI dimensions related to reading planning, process evaluation, regulation of understanding and misunderstanding. Although this result should be analyzed with discretion due to the size of the sample, it does provide a ripe avenue for additional inquiry that should not be overlooked.

Implication for Special Education Practice and Avenues for Future Research

The written language allows us to overcome the barriers of oral media of communication and to transmit messages despite the distance or the time in which the orators are. In a person, their development extends the possibilities of future progress in school life, as well as their potential for progress in working life (OECD, 2013), but also allows proper, more integrated participation in the literate societies in which we live today.

The teaching of literacy is a major challenge for those who work with students with intellectual disabilities. According to the student and the methodology used, learning the conversion of phonemes to graphemes can take a while. However, we must not forget that literacy does not end when the student learns to read a text fluently, but he/she also must understand what he reads.

Unfortunately, this aspect has not been the subject of in-depth research. So, there is still much to know about how students with intellectual disabilities read and which methodologies or

strategies can improve their reading performance. Thus, additional research should be conducted on how certain strategies that align to specific dimensions of metacognition influence reading comprehension and metacognitive monitoring in this population of students, especially through rigorous experimental studies.

The results of this exploratory research demonstrate that meta-comprehension skills have a high impact on reading comprehension performance. Therefore, these results have direct educational implications, such as an intervention approach that incorporates the training of metacomprehension abilities to compensate for the cognitive deficit and improve performance in reading comprehension must be adopted.

Leaning on metacognitive knowledge for teaching comprehension strategies that fit with the characteristics and motivations of learners may be an interesting option. For this, one should not forget the three sub-processes of knowledge, that is, the declarative, procedural and conditional knowledge. Therefore, to explain what the strategy is about, how and when to use it, and then put it into practice in several texts to promote its generalization need to be considered when developing new strategy training interventions.

In addition, the monitoring of understanding is possible to be worked through playful activities such as, for example, games of detection of inconsistencies. Here the student should evaluate the coherence of the mental model, according to his/her knowledge of the world and the information contained in the text. In the same way, the generation of questions to the text or to the author, promotes the critical reading and, at the same time, the monitoring of what is being read.

In this way, the student will be able to face a text with better tools, promoting their motivation for reading and allowing him/her to carry out daily activities like ordering in a restaurant, taking the right bus, to entertain and discover fictional worlds, but also to learn new academic content, among others.

Limitations

In interpreting the findings of this study, there are several limitations that must be considered. First, the small sample size and lack of definitive research with this population of students regarding meta-comprehension of reading makes this study exploratory (i.e., a feasibility/pilot study). Nevertheless, the innovative character of this research should be emphasized because no similar studies were found. One of the reasons for the limited number of participants was the exclusion criteria related to students' reading fluency.

It should also be considered as a limitation the fact of not having similar studies among this population of students, making it impossible to find comparative studies with which to compare the stability of the results obtained. Finally, there is a conceptual limitation related to the metacognition construct. As has been pointed out, there is currently no consensus among researchers on the components of metacognition. Thus, when assessing the metacognitive aspects considered in this research, researchers could be evaluating different metacognitive constructs or the same construct but from different perspectives. In any case, this research helps to clarify these differences and helps us to better understand how higher-order thinking skills such as those needed in metacognition operate in learners with intellectual disabilities.

Conclusion

It is important for researchers and educators to better understand how metacomprehension and metacognitive monitoring in reading comprehension operate for all learners. However, most of the research on this topic involves samples of typically-developing learners or learners with learning disabilities which, as we have demonstrated, differ from learners with an intellectual disability. Our study, however exploratory, reveals four main conclusions. The first is that, even among learners with intellectual disabilities, various aspects of meta-comprehension of reading and metacognitive monitoring, as higher-order thinking skills, significantly predict reading comprehension performance. The second is that proficiency in inconsistency detection more specifically, internal inconsistency detection—also predicts reading comprehension performance. The third is that specific dimensions of meta-comprehension in reading and proficient inconsistency detection uniquely predict metacognitive monitoring skill (i.e., absolute calibration accuracy) among learners with intellectual disabilities. The fourth and final conclusion is that the fact that the effect sizes were so robust in spite of the small sample size warrant further research in these topics among this understudied population of learners.

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School-less or Out-of-school? Re-thinking Special Needs Education and Practice in Baluchistan, Pakistan

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Abstract

School absenteeism is oftentimes couched in Pakistan's local media and reports of development agencies in terms of "ghost schools" and "ghost teachers." Little has been written in the scholarly literature of the universal right to education about how this phenomenon is affecting the school attendance of primary and secondary school students with physical disabilities and learning difficulties. We propose the qualitative distinction between being school-less and being out-of-school as a conceptual tool to encourage fresh thinking about special needs education and teacher training in places, where public education is understaffed and underfunded, as in the politically unstable and impoverished province of Baluchistan bordering on Iran to the West and Afghanistan to the North. Instead of critiquing the lagging reform process and lack of service provision for children with special educational needs, we make this theoretical intervention to illuminate opportunities for curricular innovation in this under-researched segment of South Asia's evolving educational landscape. On-site observations at two schools for children with disabilities in Quetta complemented the questionnaires that inform this social analysis. In spite of the limitations of the linear regression model's findings draw into the discussion attitudinal differences vis-à-vis boys and girls with disabilities and fears of child abuse.

Keywords: special needs education training and practice, children with physical and learning disabilities, school absenteeism, Baluchistan, South Asia

Introduction

In the Media: "The Richest Province with the Poorest Literacy Rate"

The gas- and mineral-rich province of Baluchistan¹ is reported the lowest rate of children completing their primary and secondary education in Pakistan (Abbasi, 2014). The "Right to Education" has its roots in Article 37-A of the Constitution of 1973: "*The State shall remove illiteracy and provide free and compulsory primary and secondary education within the minimum possible period*" (Government of Pakistan, 2003). Article 25-B of the Constitution strengthened these legal provisions, created after the government ratified the United Nations (UN) Convention on the Rights of the Child (1989) in 1990 (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2011; Waqar, 2014). It decrees: "*The State shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law*" (Government of Pakistan, 2010).

After Pakistan ratified the UN Convention on the Rights of Persons with Disabilities (2006) in 2011, the notion of "all" in the constitutional right to free and compulsory education increased in weight and pressure (Ahmad & Yousaf, 2011; Ahmed, Khan, & Nasem, 2011). While the articles of international conventions are not legally binding, the two articles on universal education are constitutional obligations. As such, the provision of special needs teachers and teaching assistants warranted swift interventions on the ground where they apply (Government of Pakistan, Education Department, 2011). Baluchistan responded to the nationwide education reform process with its own policy strategies and plan (Government of Balochistan, Education Department, Policy Planning and Implementation Unit (PPIU), 2013).

The news article entitled "*The richest province with the poorest literacy rate*" paints a gloomy picture of the provincial educational reform and curriculum process in Baluchistan (Zaman, 2017). How to explain this seemingly odd situation? as the local news editor poignantly asks in the *Baloch News*. Fida Zaman's astute observation defies the ideological precept of progress, according to which socioeconomic development rolls back illiteracy (Rehman, Luan, & Hussain, 2015). Why does the wealthiest region of Pakistan register the lowest literacy rate? "*The overall literacy rate of Baluchistan is 46 per cent*," Zaman reports, revealing that illiteracy is nearly as widespread as poverty in this mineral-rich land which attracts investors and mining geologists from near and far. Where do the challenges lie in getting *all* children between five and 16 years of age to stay in school? "*Baluchistan is rich enough in minerals production, but it suffers from multiple problems such as healthcare and other social problems*," explains Zaman. What are these "other social problems" troubling the southwestern province bordering on Afghanistan to the north, the Arabian Sea to the south, and Iran to the west?

¹ To retain the authenticity of local text resources, we write "Balochistan" and "Baloch," while using the internationally standardized "Baluchistan" and "Baluch" in our own writing.

"Education," writes Zaman (2017) "is one of the biggest problems in Baluchistan." How "big" is big? Does it amount to a crisis or even an emergency, in this little-researched corner of South Asia's evolving educational landscape (Chopra & Jeffrey, 2005; Thapan, 2015)? "Out of 3.6 million, only 1.3 million children go to school," the Baloch News editor reports. And what about the remaining 2.3 million children; where are they? They are "out of school," which gives us "food for thought," Zaman suggests. We have given thought to the qualitative distinction that the news editor draws between out-of-school children and the approximately 2.5 million children that reportedly are "school-less." Why this subtle and yet powerful nuance matters become apparent as soon as we narrow our analytic focus to examine the special educational needs of children with disabilities.

Providing education for children with disabilities is a global concern (Winzer & Mazurek, 2005). Building inclusive school models to prevent children with disabilities from dropping out of school, however, places additional demands on the often underfunded government budget for education in low- and middle-income countries (Lari, 2006; Rieser, 2012; Farooq, 2013; Singal & Muthukrishna, 2014). In Pakistan, 1.4 million physically impaired children are missing out on free and compulsory education (Helping Hand for Relief and Development, 2012; Waqar, 2014). Yet the needs of children whose mobility and/or learning ability is constrained because of an inherited or acquired illness, such as blindness, deafness, poliomyelitis, injury due to accident, civil strife, insurgency, or any other health-related issue, tend to be marginalized in educational financing plans and neglected in the immediate environment of the family (Singal, Bhatti, & Malik, 2011).

When we pause to contemplate the distinction, Zaman draws between school-less and out-of-school children in relation to those girls and boys who need special and additional educational support and assistance devices, we can better grasp the underlying dynamics between the supply and demand sides of free compulsory education in Baluchistan. The ensuing excerpts from reporters' accounts will bring into text and context the current state of affairs in the province, on which Zaheer Ahmad Babar's article "*Balochistan: Still a land of ghost schools, ghost teachers*" (2017) expounds. Zaman's report on the dysfunctional public school apparatus in the country's Southwest, and also puts numbers to the phantom phenomenon.

"There is no record of 150,000 teachers." Reportedly there were "900 ghost schools with almost 300,000 fake registrations of students." Placed in the national context, one fourth of these so-called "ghost schools" are in Baluchistan, meaning that 15 per cent of the schools in Pakistan's richest province are in the official record, but nonexistent, meaning abandoned, or yet to be built. When Baluchistan's education minister revealed to lawmakers the enormity of the "ghost" haunting the public school apparatus in 2016, the *Express Tribune* quoted Abdul Rahim Ziaratwal as saying "out of 60,000, 15,000 teachers' records" were unknown (Zafar, 2016). While Zaman's approximation of absentee teachers is out of touch with social reality (and may well be a typographical error, since 15,000 rather than 150,000 teachers in the school records are unknown), it does not lessen the total problem of absenteeism among school-age children and teachers.

Ziaratwal's revelations on the poor progress in hunting down phantom schools and phantom teachers since the phenomenon appeared in the early 2000s caused sensational hype in the mass media world. "Ghost schools' haunt Pakistan despite budget boost" announced an Agence France-Presse (AFP) communiqué (2016) to international and local news outlets. The first reaction was of surprise; then, anger mixed with shame. Recommendations followed, and new promises were made. The provincial government was "making efforts for improvement in

the education sector," and was presently running an enrollment campaign "*to bring out-of-school children into the fold*," according to the provincial education minister (Zafar, 2016), who is a member of the finance and public accounts committees.

The visual aids provided by local and foreign newspapers on this topic tell their own, and at the same time, inconsistent story of the situation on the ground. The photograph illustrating an opinion piece by Ubaid Zehri (2017) in the *Balochistan Point* entitled "*Ghost schools and teachers in Balochistan*" shows an abandoned school building. Neither teachers nor schoolchildren are in the picture, only a flock of sheep, grazing on the veranda of the dilapidated school building. A slightly different scenario in which teachers and children are absent from the school can be found in *The News International*, which circulates in Pakistan as well as among expatriate Pakistani communities in the West, and in the depressing black-and-white photograph in Amin Ahmed's (2013) article "*Ghost schools' haunt Pakistan despite budget boost*" (AFP 2016) in *Dawn*. Both images show a deserted classroom. Whether we are dealing here with a supply-based problem (teacher absenteeism) or a demand-based problem (student absenteeism) is impossible to infer from the scenes captured here.

For analytical purposes, we shall use the descriptive term "school absenteeism" to refer to situations where teachers and students are absent from the classroom, and hence, are not school-less. The picture used to illustrate an AFP communiqué of 2015 in the earlier-quoted *Express Tribune* article, reporting that "hundreds of teachers" were "sacked from 'ghost schools' in Balochistan" (2015), lies somewhere in between these earlier scenarios and the one in Zaman's article, which complicates matters further. The classroom is empty and rubble litters the floor. The readers may assume that the school building is unsafe and thus no longer in use. Where are the teachers and students? Did they move the lessons outside, as in the picture Zaman used to evoke the gravity of the school crisis in the province? This shows a group of children of various ages ranging from toddlers to pubescent girls. The pupils sit together on mats on the unpaved floor in front of the female teacher inside a roofless area demarcated by several layers of stone. Are they school-less? No, without a doubt, they are in class. Probably they are learning English since the Latin, and not the Urdu, alphabet is written in white chalk on the blackboard which leans against the surrounding wall marking the inside and the outside of the school.

These stones, figuratively speaking, recall the stumbling block that we set out to analyze by mobilizing the qualitative distinction between being school-less and being out-of-school, in the above-described circumstances. What difference does it make? Not much, judging by the visual and verbal narratives that we used to situate and contextualize school absenteeism in the sociocultural milieu of Pakistan's Southwest. Before we enter into the supply side of special education teaching and practice in Baluchistan, we need to say a little about the recommendation and actions that followed the provincial education minister's public undertaking to straighten out the government education records and thereby smooth the course of the reform process. These interventions, as we shall see, targeted primary and secondary school teachers, dysfunctional and derelict schools, and school-age children. Cracking down on absentee teachers has taken the form of a witch-hunt in parts of the country. Ziaratwal's address, which would make national and international headlines in the summer of 2016, specified that the salaries of absentee teachers caught in the purge had already been withheld.

There were other such reports detailing the numbers of teachers and schools, both in the years before this announcement was made and at the time of writing. Some commentators,

among them Zehri (2017), viewed the teachers and schools as the root cause of the "educational crisis of the Province." His opinion article argues that they must be eliminated. "Start crackdown on emergency basis without any delay to remove ghost schools and dismiss ghost teachers," he writes in the Balochistan Point. The cyclical reappearance of "the phantom" in the public discourse year after year gives this crisis a perpetual character, suggesting that reprimanding and punishing school administrators and teachers is unlikely to have lasting impact. In lieu of fomenting this vicious circle, but rather circumnavigating the need for curricular innovation at the tertiary level, we try to detect a spot within this synergetic loop that binds school-less and out-of-school children and teachers together. By examining the social relationality between the status and condition of being school-less and out-of-school, or not, we begin to see the contours of possible interventions leading to an environment more conducive to learning and teaching in the future.

Where does the shoe pinch in the ongoing professionalization of special education in this neglected domain of universal education in Pakistan? A cursory look at international reports engaging with the slow uptake of Pakistan's school reform, which promotes the education of all children in the country, gives the impression that it is related to the distribution of the government's budget for universalizing education. Is the national education budget chronically underfunded, as is the case in countries of the "*Global South*," with similar high school dropout rates and widespread illiteracy among the population? The author of the Wilson Center report *Pakistan's Education Crisis: The Real Story* (Naviwala, 2016, quoted by AFP in the 2016 communiqué published in the UK-based newspaper *The Guardian* and the Pakistan has tripled, and the public education budget (USD 7.5 billion) doubled over the past few years, so that it now rivals the budget of the military.

A little over a year since the release of the findings of the survey study, which did not cover the largest province in terms of territory, Nadia Naviwala (2017) repeats her earlier observation in a recent op-ed in *The New York Times*. "Pakistan's education crisis is a supply-side problem," she concludes in "*What's really keeping Pakistan's children out of school?*" If, as the Wilson Center Global Fellow reports, "*the teaching force is as big as the armed forces*," why is the school crisis, or educational crisis, as she refers to the current state of affairs, a supply-side problem? To approach this question, one may cast an eye on Baluchistan, which, following the author's note, "*is at a nascent stage in reforms, and a core challenge is the uneven development between ethnic Pashtun and Baloch populations, due to an insurgency there*" (Naviwala, 2016, 1). We shall ask again, why is what one may call the "phantom phenomenon" not a demand-side problem?

Referring to a Pew survey of 2014, Naviwala's article reports that "86 per cent of *Pakistanis believe that education is equally important for boys and girls, while another five per cent said it was more important for girls*" (2017). Hence, the poor performance of children in global rankings was attributable to the supply of, and not the demand for, free and compulsory schooling. Government resources were channeled into enrollment campaigns to promote "*education for all*" rather than into improvement of the teaching and learning environment of government-run schools, she stated. Unless the schools developed into places congenial to learning, parents would not send their children to them (Naviwala, 2016, 24–25). A statement that the AFP interpreted to mean "many parents see little use in putting their children in school" (2016) would, if so intended, be a gross simplification, according to which policy makers and

donors mistook the crisis for a demand-side problem, while, in her view, it stems from the supply side.

A possible way out of this supply-demand conundrum, which has given rise to a naming and shaming practice in the public and policy spheres, would be to distinguish between a school crisis and an educational crisis: terms which the Wilson Center Global Fellow uses interchangeably. They may well be cousins, or brothers, if you will, depending on the strength of the link between the two concepts of being school-less and being out-of-school, which we decided to use as a theoretical and methodological tool for researching school absenteeism at the "street level." That they are not one and the same becomes apparent when we think of government provision for schoolchildren with special educational needs. With a view to detecting ways of grafting opportunities for school-aged children onto existing structures to "ensure that persons with disabilities receive the support required, within the general education system, to facilitate their effective education"—as specified in the UN Convention on the Rights of Persons with Disabilities—we propose considering the developmental potential of the human and infrastructural resources that are there.

Leaving the "scapegoating" of absentee teachers and school administrators to the mass media, and their hunting down to the authorities, donor organizations, and countries contributing to Pakistan's education budget, we cast our eyes forward to ongoing and planned initiatives seeking to spur the educational reform in Baluchistan. Among these interventions are the province-wide primary school enrollment campaign, which the provincial government sees as a necessity, and the plan to establish six additional institutions of higher learning and teaching in the province, including three medical colleges in Khuzdar, Turbat, and Loralai, a technical university in Quetta, and two universities in Zhob and Gwadar. Considering that the provincial educational authority acknowledged the importance of creating a physical and social environment conducive to learning and study for all children (Government of Balochistan, Education Department, PPIU, 2013), we see opportunities for retrofitting the socio-technical infrastructure of special education in the province and further afield (Fontana & Lari, 2002; Mukhtar-Mujahid, 2013; de Talancé, 2016).

At the outset of our independent inquiry we must clarify that we refrain from using the notion of "*ghost*" as a descriptor, or worse, as a label, for children and teachers who are unaccounted for in school records and the public schools providing special needs education. Such labeling, we understand, makes matters worse and does not help the cause of improving their lot. Indeed, we borrowed the language of these quite coarse portrayals, painted in broad strokes and in various shades of gray, to emphasize the need to investigate the finer nuances of school absenteeism, which the local writers have elicited from their panoramic, and yet astute observations of school absenteeism as it manifests itself in educational and school practice in Baluchistan.

"School-less" or "Out-of-school": Why this Qualitative Distinction Matters

The initiatives that the provincial education minister communicated serve our study as a practiceoriented platform for elucidating special needs education and practice from the side of public education providers. Borrowing Fida Zaman's spectrum of school absenteeism, where would one place them? Are they school-less or "*simply*" out-of-school? Even if the end result remains the same, distinguishing between the two makes analytical sense when describing and examining the social relationality between absentee teachers and absentee students, apart from the children having disabilities. Focusing on physically disabled girls and boys, however, eases the task at hand. This qualitative distinction, in fact, serves our independent inquiry as an instrumental tool to rethink special education needs and practice in places where school absenteeism is diffused. We use the distinctiveness of being school-less and being out-of-school as an instrument to think *with*; as something usable for scratching the surface of the numbers that tell the reader how well or badly a country fares in keeping children in school, and for integrating children with disabilities into the social fabric of poverty-stricken nations.

Casting our research question in the mould of the *Baloch News* editor who made this distinction immediately brings into view the wide and deep ramifications of asking: Where do children with special educational needs go to school in Baluchistan? A short answer to this pragmatic question would be: They matriculate at either the Chiltan Special Education for Physically Handicapped Children in Sariab Road, the Education Complex for Special Children in Brewery Road, or the other four provincial schools for disabled children listed in the government school record. However, this does not tell us much about the dynamics between the supply and demand sides of special education provision at government-run schools. A thought experiment, followed by an ethnographic vignette, can introduce the discursive force-field of school absenteeism in which our epistemological vantage point is grounded.

Imagine a new batch of special needs teachers or teaching assistants who graduated from a college in Pakistan or overseas. Are there enough schools for special needs children across the country to absorb them? Where can they apply their specialized knowledge and develop their practical skills, if not at one of the primary and secondary schools for children with disabilities in Mastung, Khuzdar, and Turbat, and in Quetta; and then perhaps at a provincial teacher's college? Are there sufficient study places for aspiring special needs teachers to meet the demand for specialized pedagogical programs? Let us now turn from the supply side to the demand side in this imaginary scenario. Here there are no buyers and sellers in the conventional sense of neoliberal market transactions driving the private education industry within the region's developing knowledge economy.

Think of a Baluchi girl who was born blind. Where would her caretaker, who refutes the generalizing observation that many parents are indifferent to their children's education, enroll the child if she dropped out of any of the six provincial schools for children with disabilities listed in the provincial records? Imagine a Baluchi schoolboy, maimed in a suicide attack on a hospital or a place of worship in town. Will he be able to enroll in Sariab or Brewery Road, or are these schools filled beyond their capacity to take in new students? On reading the introspective account of Omar (not his real name), ask yourself whether this boy is school-less or out-of-school.

You know, I used to go to school until I was in fifth grade. As I could not walk, my father carried me on his shoulders. He took me to school and then from school to home. Since I am grown up now, he cannot do so any longer. My father is poor, poor enough that he cannot afford to arrange a wheelchair for me to go to school. He also cannot afford to pay for books, stationery, school uniform and medicine so that I may continue my studies at school and complete my education [...]. You see, it is very boring to be at home all the time. There, I am alone and nobody is willing to play with me. I ask my father to allow me to go into the street. At least, here I can see students going to school and college. People try to ignore me, but I try to draw their attention towards me. I ask them for goods and money. In all earnest, I have a strong desire to get educated but it is not possible. [Fieldwork archive 2016].

"But it is not possible," said Omar. Why? Why was it not possible for him to go back to school? He looked up and asked bluntly, "Do you know somebody to help me get education?" We placed his question within the immediate milieu that produced it, using the subtle distinction between being school-less and being out-of-school that shines through the boy's narrative. His actual name is in the records of one of the two schools that supported our study, as we "sniffed out" possibilities for fortifying the special education apparatus within existing educational and school structures. What are the opportunities for school-leavers to return to school? Technically, going back to school is possible, but in the social reality of everyday education and teaching practice, it is revealed as difficult.

Our face-to-face interactions with teachers, parents, educators, policy advisors and reformers in Quetta with whom we raised the integration and reintegration of disabled children in the universal education system exposed the difficulties of returning to school. By combining the question of *where* children with physical impairments and learning difficulties go to school with the question of *why*, at some point, they discontinued their education, we find ourselves in the midst of the conundrum elucidated by the kind of reports used in the funding deliberations of transnational organizations, international and national donors, non-government organizations, and government agencies. Not long after setting out to identify key factors and forces that keep the school enrollment rate of children with disabilities low and their dropout rate high in Baluchistan, we stumbled over an issue that is constitutive of the subject under investigation.

In the Southwest, as well as in other parts of Pakistan, it is not uncommon that parents feel shame, suffer acute stress, and respond with violence when their daughters and sons underperform at school (Farooq, 2003). Through our participatory study that was collaborative in the strict sense of the term, we gradually apprehended the extent to which the cognitive, behavioral, and social attitudes towards children with disabilities affected their enrollment and dropout rate. Attitudinal differences compromised not just ongoing efforts to build an inclusive school system (UNESCO 2006), but also the professionalization of special education training and practice. Since the outlined course of primary and secondary education at the provincial level is geared towards wider enrollment of children, we may well envision a wider enrollment of aspiring teachers in specialized pedagogical education and training programs.

Raising this matter in the current climate that resembles an educational spring is both topical and timely, considering the provincial education minister's plan to establish additional colleges and universities for specialized professions. Unless the quality of teaching and the attendance of teachers improve, many parents in Pakistan see little use in enrolling their children in school. Furthermore, "if schools act as daycares, where children face the risk of sexual and physical abuse from adults, especially girls at the hands of male teachers, then working or staying at home can make more sense," one of the two interlocutors remarked.

While awareness campaigns are one possible means of sensitizing parents and the wider population about the importance of enrolling all children in school, we learned from parents of children with disabilities that their integration into the public school system (Peters, 2013; Malik & Umi Binti Abdul Manaf, 2015) caused them concern. Without being unduly judgmental, we considered this attitudinal bias in our questionnaire. We did not anticipate that questions related

to the level of satisfaction with the school would bring into focus the perception of children with special educational needs. By no means did we include this culturally sensitive matter in our field-based survey in order to single out ill-treatment of schoolchildren; rather it was to draw attention to unchanged and changing attitudes of parents, teachers, educators, and educational policy reformers and advisors towards the schooling of children with disabilities.

Situating the cybernetic loop between being school-less and being out-of-school in the province of human rights discourse brings up the question of how children in Baluch townships, villages, and hamlets are perceived in comparison to healthy children. Zaman (2017) observed that "Out of school children are mostly forced to work as laborers and are the victim of child abuse," thus splitting one and the same problem into two (since child labor is a form of child abuse). His observation on children without disabilities being abused prompts the question of how boys and girls who are unfit to work in the fields, orchards, households, businesses, and the construction, mining, manufacturing, and garment industries are treated by their peers, siblings, parents, and other adults. Do they face hostility? Are they harassed because of a visible and otherwise noticeable health condition that sets them apart? As the statistical analysis of our primary data set would reveal, attitudinal differences and satisfaction with school were among the hypothesized factors of our survey that correlated positively with the school dropout rate (besides the professional occupation and educational level of the household head, the annual income, and the number of dependents).

A Case Study

Two of the six schools for children with disabilities established in the province participated in a survey of one hundred households, each with a disabled child. They were drawn randomly from the school records of Chiltan Special Education for Physically Handicapped Children in Sariab Road and the Education Complex for Special Children in Brewery Road in the district of Quetta. Although we did not group the households into linguistic, ethnic, and religious clusters, the survey sample is inclusive and in that it reflects the heterogeneous composition of the population, comprising members of the Baluch, Pashtun, Sindhi, Panjabi, and Hazera communities. This paper, as has already been indicated, results from an independent interrogation of school absenteeism and was a collaborative undertaking with the two schools that participated in this case study.

A group of teachers and other members of staff contributed to the data elevation in more than one way. They contacted 50 of the 100 surveyed households, while we reached out to the other half. The caregivers of the children in the school records compiled the questionnaires, containing both open-ended and closed-ended questions, at these two schools. For the quantitative data analysis, we consulted secondary data on the net enrollment of children, the dropout rate, the number of teachers and schools, and demographic data of persons with disabilities. In order to generate a *relational* understanding of the demand side and the supply side of special education, we formed two focus groups with teachers and educators, and two groups with the principal caretakers of the children. Each of the four focus groups comprised six to eight members.

The aim and objective of discussing school enrollment and the dropout rate of physically impaired children primarily served to compensate for the statistical abstraction and rigidity of the linear regression model that revealed a 61 percent variation. We used the software program Statistical Package for Social Sciences (SPSS), and the specifications of the model for which we selected "best fit" as the "Enter Method" are the following:

 $Y = b_{0+} b_{1}x_{1+} b_{2}x_{2+...+}b_{n}x_{n} + u_{i}$ Y = dropout rate of physically disabled children (at household level) b_{0} = constant b_{1}-b_{n} = Coefficient of the independent variables $u_{i} = random term$ $\Sigma_{n=100} = Households$

Table 1. The regression coefficients of variables influencing the dropout of children with disabilities based on the field survey conducted in 2017

Variables	Description	Non-standardized		Standardized		
		coefficients		coefficients		
			Std.			
		В	Error	Beta	Т	Sig.
Constant		15.802	3.154		5.011	.000
x_1 . Age of the household	Scale data	024	.045	134	543	.593
head						
x _{2.} Educational level	1 literate;	2.565	.959	.551	2.674	.014
	0 illiterate					
x _{3.} Principal occupation	1 waged; 0	-2.302	1.086	505	-2.119	.046
	salaried					
x _{4.} Household size	Number	-2.226E-6	.000	209	850	.405
x _{5.} Family type	1 nuclear;	1.204	.844	.244	1.426	.169
	0 joint					
x _{6.} Breadwinner/s	Number	-2.068	1.697	269	-1.219	.237
x _{7.} Annual income	Number	3.819	1.423	5.867	2.684	.014
x _{8.} Dependent/s	Number	-3.602	1.404	-5.515	-2.565	.018
x_{9} Distance to school	Kilometers (km)	286	.116	558	-2.475	.022
x_{10} . General attitude to	1 friendly;	3 533	805	750	4 380	000
disabled children	0 hostile	-3.333	.805	739	-4.369	.000
x _{11.} Scholarships	1 awarded; 0	1.651	1.030	.373	1.604	.124
	absent					
x_{12} . Satisfaction with the	1 satisfied;	- 780	811	- 152	- 961	347
school	0 dissatisfied	.700	.011	.132	.701	

The survey findings summarized in Table 1 show that six factors increase the risk of special needs children interrupting their studies before reaching the age of sixteen. Whether the head of the household is literate or illiterate (x_2) was revealed as affecting the number of years the child spent in school. Fifty-two percent of the household heads were literate. This is six percent higher than the overall literacy rate of Baluchistan. Fifteen percent of the respondents affirmed that the household head held a secondary school certificate (14 years of education). Twelve percent had completed their primary education, whereas 14 percent left education at an intermediate level, and the remaining 11 percent abandoned school before attaining this level.

The annual household income (x_3) proved a decisive factor. Most dropout cases occurred in illiterate and poor households. Households with a low income and with the main breadwinner

earning wages showed a propensity to rate schooling for their physically disabled child as "not very important." Unsurprisingly then, a lower household income heightened the risk that the child would terminate his/her education prematurely. Even though lower-income households assigned less importance to their disabled child's education, they worried about the child's future. Forty-eight percent of the respondents with a low income and additional dependents (seven or more people) reported that their household budget prevented them from sending their child to school. Even though compulsory education is technically free, there are associated costs, such as the school uniform and, pre-eminently, assistive devices that the child needs to go to school. Thirteen percent of the surveyed households acknowledged that they could not afford wheelchairs, crutches, sticks, and the like, let alone hearing aids or books in Braille.

Caregivers achieving a higher annual income fared better in ensuring that the child went to school, compared to households headed by an unschooled or poorly schooled person earning wages. Parents with higher qualifications and a larger income significantly prevented their child from dropping out of school. Children living in households with self-employed and salaried breadwinners improved their circumstances. Over half of the sampled households, however, relied on daily wages. Households with an unstable income and primary reliance on wages doubled the risk of the child leaving school early in life. Forty-three per cent of the households recorded a stable income (x_3). Households in which the head attained a higher level of education (x_2), households with fewer members (x_4), and nuclear families (x_5) were shown to be more attentive to the child's school performance and more likely to prevent the child from missing out on primary and secondary education.

Large family size and high dependency rates were shown to augment the likelihood of a child dropping out of school. The increasing number of household members due to birth and marriage was revealed as adding to the pressure on low-income households. In some cases, family growth pushed parents to take the child out of school and opt out of re-enrollment schemes. The overall attitude of the household members to the child's disability (x_{10}) was shown to affect the length of a child's education and to correlate with the level of satisfaction with the school, as well as with the distance to the school. The distance between the school and the child's home (x_9) are negatively correlated. The farther away the school, the more likely the child was to drop out of school. Five kilometers was the average distance to the two schools. Parents remarked that the long distance, made worse by the dense traffic during rush hours, exhausted the children. Another stress factor was the physical hurdles that hindered the mobility of the children and even imperiled them.

Step-free access to buildings and ramps, sanitary facilities for disabled people, as well as well-maintained and managed playgrounds, were pivotal for creating a safe environment for children and minimizing accidents and injuries, according to focus group participants. The overall safety of the child on the way to school and inside it is a source of concern for parents. They wish that their child had shorter distances to travel. Ninety-eight percent of the children used the free school bus, while the remaining two percent were either boarders or walked to school. Fifty-one households asserted that they were extremely dissatisfied with the availability of assistive devices at the schools. While the presence of physiotherapists was appreciated by many respondents, they were dissatisfied with the equipment used during physiotherapy. Hygiene and food safety were reported as major concerns. Sixty-nine per cent of the respondents acknowledged dissatisfaction with the quality of the drinking water.

Responding to the question of how satisfied they are with the school, 14 percent of the households expressed dissatisfaction. They voiced their disappointment at hearing that their

daughter or son had reported instances of discrimination and even harm done them by teachers and supporting staff. These harsh encounters affected the children's attitude to going to school, leading them to ask their parents to let them opt out of schooling.

With regard to the affective, cognitive, and behavioral attitudes towards the education of children with disabilities, our survey showed that a considerable share of the interviewed parents cared about their offspring's schooling. Twenty-five percent of the surveyed households worried about what happened after matriculation, and especially about what would happen if the child dropped out. Could their daughter or son be re-enrolled? they asked. Omar's father may have contemplated that same question. If he had the means for a wheelchair, would his son return to his old school on Brewery Road?

When asked about their attitude to coeducation, 68 percent of the respondents replied that they would rather not enroll their child in a regular school. In their view and as they understood it, boys and girls with special educational needs would not adapt easily to studying among children without disabilities. They might feel inferior in the latter's presence, the parents reasoned. During the focus group discussions with teachers, we learned that the older girls had to leave school because of the school's coeducation system and the recruitment of male staff. While we did not observe abusive behavior towards the children by schoolteachers and staff, parents told us that it had occurred.

In their accounts, there were a few staff members causing female students distress during physiotherapy. Such reports inevitably fuel the negative attitudes of parents and students towards physical exercise and rehabilitation. Indeed, 31 percent of the parents said that they were unwilling to send their daughters to school because they feared male staff could take advantage of the situation and abuse the girls. Even though these statistically-derived insights, including those related to attitudes and satisfaction, are unspectacular in that they echo the situation analysis of universal education in Pakistan (Memon, 2007; Tahir, Akhter, Azam & Saeed, 2012), they drew our attention to the need for surveys written at eye level.

The limitations of this statistical approach emerged as we noticed that the information we could extract from the survey data were insufficient for expounding on the correlation between the attitudes of the household members and the dropout rate, and between the latter and the level of satisfaction with the provision of special need education. The binary opposites we used, namely friendly and hostile, and satisfied and dissatisfied, did not produce the fine-grained picture of school absenteeism that an ethnographic research approach would deliver. Notwithstanding these shortcomings that relate to the choice of method, our interactions in the field were invaluable insofar as they allowed us to point out the need for a detailed and nuanced descriptions of people's attitudes, which statistical approaches and abstractions capture poorly.

Looking into the Future

Bringing children with disabilities and special educational needs into the fold of the primary and secondary school apparatus requires retrofitting the socio-technical infrastructure of special education. As previously explained, we sought possibilities for grafting opportunities for school-aged children onto existing structures to "ensure that persons with disabilities receive the support required, within the general education system, to facilitate their effective education," as specified in the UN Convention on the Rights of Persons with Disabilities. With this in view, we proposed considering the developmental potential of the available resources through this theoretical intervention that mobilized the qualitative distinction between being out-of-school and schoolless. Against the backdrop of our empirical study findings, and despite the limitations of our

statistical analysis for capturing attitudinal differences in greater depth and detail, we understand that there is a sense of urgency about intensifying the professionalization of teaching children with disabilities in Baluchistan.

In order to develop socially, culturally, and locally relevant special education programs at the undergraduate and postgraduate level, a deeper understanding of the attitudinal differences through ethnographic inquiry into schooling in the South Asia region (Thapan, 2014; Bhatia 2015) would be useful and meaningful. In particular, we see curricular innovation and diversification at tertiary educational institutions, and professional training for special needs teachers, physiotherapists, community nurses, nutritional advisors, and other support staff at schools for disabled children as means of embarking on the path charted in Baluchistan's latest educational policy plan. Such steps may awaken this dormant and neglected domain in the growing education industry of Pakistan and of the wider South Asia region.

The accumulation of news reports about absentee teachers, abandoned and dilapidated schools, and high numbers of school-less and out-of-school children in the national and international media adds a sense of urgency to the problem of school absenteeism that seems to have developed a life of its own in the Southwest of the country. We understand that the plan announced by Baluchistan's education minister to establish new colleges and universities will stand special education training and practice in good stead. What could be involved in the potential transactions between provincial teacher colleges and the six established schools for children with physical impairments, of which two schools participated in our survey, is worth pondering at this time of renewed interest in the educational reform process.

Rather than seeing children with disabilities as a burden for society, we proposed a conceptual shift. Instead of bemoaning the special educational needs of children and viewing them as an impediment, or worse, as a burden, we like to see them as a valuable human resource for developing a niche market in Pakistan's evolving education industry. The fact that teaching children with disabilities requires specialized knowledge and specific training creates hidden opportunities that warrant closer examination. Although our study's findings confirmed that infrastructural and socioeconomic factors—such as the school distance, parents' educational level and occupation, and household income (Khatoon 2003; Ahmed, 2011; Badini, 2011; Khan & Nasem, 2011; Abbasi, 2012; Singal, 2016)—are slowing the uptake of universal education and thus the reform process, we paid attention to new apertures in the evolving educational landscape of this lesser researched region.

We looked for signs indicating fresh prospects in this poorly developed service sector in lieu of casting our eyes backwards to assess the implementation of constitutional articles 25-B and 37-A (Khatoon, 2003; Singal, 2016). The individual and social attitudes hovering over the supply and demand sides of schooling children who require additional educational support, assistive devices, physiotherapy, and medication (Haider, 2008) gave us good reason to argue for innovations in special education training. Such measures would create, besides additional study places for aspiring teachers, incentives for the present generation of primary and secondary school teachers to support international efforts to improve the human resource pool and the physical infrastructure from below. Without curricular innovation and new partnerships and alliances in this public domain (the health sector, as a possibility), where business activities are not aligned with neoliberal principles and yet can be entrepreneurial, the educational reform process will remain stuck.

This stumbling block, which adds weight to the cybernetic loop that we have presented by considering the interrelationship between being school-less and being out-of-school, became apparent when teachers and parents elaborated on their dissatisfaction with the current state of affairs at schools for children with disabilities. Our proposal to fortify the special education apparatus at the provincial level buys into the increasing awareness on the part of educational policy makers and administrators of teachers' colleges, teachers and support staff, of the need to diversify and broaden the methodological toolkit for teaching special needs children; to develop analytical and creative approaches with which to respond to the additional educational requirements of physically impaired pupils; and to understand why and how modifying teaching, communication, and leadership styles and techniques can help in dealing more effectively with distressing and frustrating situations.

With a view to turning the inadequate supply of pedagogical courses into an opportunity, our survey elucidated why we argue for intensifying the professionalization of special education, while distancing ourselves from the ways the school crisis has been dealt with, pictured, and conceptualized in the media. Rather than elaborating on the infrastructural, institutional, and socioeconomic constraints associated with schooling physically and mentally impaired children in Pakistan, we reiterate, and put on the map of this roughly chartered territory of South Asia's educational landscape, the relationality between being school-less and being out-of-school.

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Schoolwork of Adolescents with Dyslexia: Comparison of Adolescents', Mothers' and Teachers' Perspectives

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Abstract

In the rare qualitative studies of the experience of adolescents with dyslexia in the school context, the authors looked at the perspectives of the adolescents themselves. Attention is rarely focused on the perspectives of mothers and teachers, which are also important in order for the adolescent to cope successfully with challenges in the school context. In the present research, twelve semi-structured interviews were conducted with four adolescents with dyslexia, as well as their mothers and class teachers. The study used interpretative phenomenological analysis (IPA), which focused on the adolescents' experiences of dealing with schoolwork. Three themes emerged from the interviews: the sources of distress in school situations, response to problems, and expectations regarding the provision of assistance. The comparison of the adolescents', mothers' and teachers' perspectives has shown that the individual groups of participants have quite different ways to approach difficulties and to offering the support that is required. These

findings suggest a need for greater understanding and partnership in the cooperation between adolescents, mothers and teachers when it comes to planning the support the adolescent needs to deal with schoolwork difficulties.

Keywords: adolescents, dyslexia, experiences of schooling, teachers, mothers, qualitative research

Introduction

The authors begin by discussing *ways of perceiving the adolescent in relation to schoolwork, the way he or she responds* using the characteristics of adolescents with dyslexia and examining the five-stage model that has been established in Slovenian schools for working with students with learning disabilities. The introduction provides an overview of previous qualitative research findings that focus on the experiences of adolescents with dyslexia within the school context. The research available to us primarily concentrated on the individual perspectives of specific groups, for example, adolescents, parents or teachers; however, we have not come across research that compares and contrasts these perspectives, which we wish to make the central focus of our article.

Characteristic of students with dyslexia

Dyslexia is reflected in the individual's characteristic inabilities or deficits in areas of learning, such as, reading, writing and spelling, unexpected at the individual's age, grade, social and cultural background, and level of intellectual ability (IDA - International Dyslexia Association, 2012; Kavkler, Košak Babuder, & Magajna, 2015). Adolescents with dyslexia are often unsuccessful in dealing with primary difficulties in reading, writing and spelling. The demands of school can, therefore, be particularly stressful for them. Students with specific learning disabilities, including dyslexia, often use less efficient ways of coping with schoolwork, such as strategies of cognitive withdrawal, social isolation and ignoring problems (Kavale & Forness, 1996; Firth, Greaves, & Frydenberg, 2010). This way of coping with problems often result in various forms of emotional distress, low self-esteem, and a lack of interest in schoolwork (Alexander-Passe, 2007; Beck & Clark, 2009; Leite, 2012). In spite of those consequences, most interventions for students with dyslexia focused on assistance in dealing with learning difficulties – reading and/or writing, while other areas are often overlooked (Singer, 2005; Macdonald, 2010).

In Slovenia, experts in the field drew up a comprehensive model for working with students with learning disabilities in 2007 (Magajna, Kavkler, & Košir, 2011). The model is presented below.

The five-stage model for working with students with learning disabilities in Slovenia

The model for working with students with learning disabilities includes five stages, each indicating who provides and what kind of help is provided (Magajna et al., 2011). It was developed based on the characteristics of Slovenia's existing school system. At the first stage, teachers offer additional help to a student, especially during lessons and remedial lessons, because at school, teachers are the ones who spend the most time with the students, should know them well, and be the first to recognize their difficulties. Teachers report their observations to the parents and other professional workers at school, who cooperate with each other to help the

student surmount his/her difficulties. At the second stage, the student is offered additional help by the school's counseling service (e.g., a psychologist, special education teacher or social pedagogue), which works at a deeper level to discover the weaknesses and strengths of both the student and his or her environment. The school's counseling service works with the student, the parents and the teachers, offering guidance and advice. At the third stage, the school's counseling service conducts additional help, more thorough diagnostic procedures to determine the student's strengths and deficits, based on which it formulates an individual and group assistance plan. This assistance is provided by teachers, a mobile service of special education teachers or by school counselors in a more regular and intensive manner than at the previous stage. At stage four, the school can request an additional expert opinion from an appropriate specialized institution (e.g., a counseling center), and at stage five, a program with adapted implementation and additional help from experts is prepared for the individual student. It is carried out by special education teachers or teachers of specific subjects, who have additional competences for working with special needs students.

The authors believe that the effectiveness of the help given the adolescent depends on coordinating the perspectives of everyone involved in the process of support and assistance. They should cooperate with each other as closely as possible, both when it comes to planning and execution. Some qualitative research findings show the perspectives of those involved in the process of assisting an adolescent with dyslexia during schooling.

Different perspectives on the schoolwork of adolescents with dyslexia

From an examination of the rare qualitative studies (e.g., Hellendoorn & Ruijssenaars, 2000; Kenyon, Beail, & Jackson, 2014; Singer, 2005) of adolescents with dyslexia, it is evident that authors are mainly interested in the adolescents' perspective on adverse experiences in the school context. Some studies include analysis of the adverse experiences of adolescents with dyslexia in the current period, while others undertake this analysis retrospectively, with adults with dyslexia reporting on their experience with dyslexia during schooling.

A study by Hellendoorn and Ruijssenaars (2000) included adults with dyslexia, who described the entire period of schooling as being very unpleasant, particularly with regard to dealing with school obligations. The respondents reported being perceived as less capable of learning than their classmates, and therefore invested a great deal of effort in schoolwork in order to avoid ridicule from classmates due to their learning difficulties. Similarly, in a survey by Kenyon et al. (2014) in which adults with dyslexia also retrospectively reported on their experience of schooling, the participants recounted that it was important for them to maintain a positive self-esteem in the presence of others, and to be seen as "normal". The children and adolescents with dyslexia studied by Singer (2005) reported their adverse experiences of being exposed before classmates. Reading aloud and situations in which teachers announced their poor grades in front of classmates were highlighted as being particularly unfavourable. From these studies, it is clear that adolescents with dyslexia are more vulnerable than their peers in the school context (Macdonald, 2010), and therefore find it more difficult to deal with a variety of problems without the social support of parents and teachers. The study by Hellendoorn and Ruijssenaars (2000) found that the majority of children and adolescents with dyslexia confided their school-related problems to their parents, who often supported them in dealing with these problems. Only a minority sought the support of teachers in solving their problems.

Silva (2009, as quoted in Leite, 2012) found that most teachers did not understand the difficulties faced by the students with dyslexia and did not know how to respond, which led to
uncertainty and anxiety on the part of the teachers. Other studies (Bingol, 2003, as quoted in Yildiz, <u>Yildirim</u>, Ates, 2012) observed that some teachers associated the failure of children with dyslexia with a lack of interest by their parents in their problems.

Some authors (e.g., Karande, Kumbhare, Kulkarni, & Shan, 2009; Yildiz et al., 2012) studied the perspective of parents of children with dyslexia. In interviews, parents often emphasized the negative attitudes of teachers towards children with dyslexia and the failure of teachers to adapt schoolwork to such students (Yildiz et al., 2012). In interviews with mothers of children with dyslexia, Karande et al. (2009) found that, on learning of the diagnosis, mothers are most worried about their child's lack of success in education and about his or her future in general. Also Diakogiorgi and Tsiligirian (2016) found that parents of children with specific learning disabilities had high expectations with regard to their children's academic achievement, and believed that their children could improve their learning achievements if they invested more effort in schoolwork.

Studies on the subject have mainly concentrated on the adolescents' perspective on dealing with adverse experiences in the school context, while less attention has been paid to comparing and contrasting the perspectives of all the various individuals involved in the process. These represent a valuable foundation for providing functional assistance in schools. The present study attempted to shed light on the responses of adolescents not only from their own perspective, but also from the perspectives of their mothers and teachers.

Research questions

This study explored in more depth which experiences and responses of dealing with schoolwork – defined as anything that children do for school learning, both in the classroom and at home – were regarded as important by adolescents with dyslexia, as well as by their mothers and teachers. The themes reported by the participants emerged as common, and which are specific to each group of participants. Adolescents' experiences and responses were compared from different perspectives. This facilitated the planning of comprehensive assistance and the preparation of more effective interventions to help adolescents deal with distress in the school context.

Method

Design

Semi-structured interviews were used to investigate the experiences of adolescents in dealing with schoolwork. Interviews were conducted with three groups of participants: the adolescents themselves, their mothers and their class teachers. Reporting from the perspective of different sources can deepen the understanding of the topic treated (Flere, 2000). The research was approved by the expert committee for postgraduate studies at the Faculty of Education, University of Ljubljana, Slovenia, which took into account the ethical dimensions of the planning and execution of the study.

Participants

Four adolescents were selected for the sample, along with their mothers and class teachers. The inclusion criteria for the selection of the adolescents were: a diagnosis of specific learning disabilities characteristic of dyslexia, the absence of other major additional disabilities, and attendance of the higher grades of primary school.

In working with the adolescents, their schools used the five-stage model for discovering, monitoring progress and providing learning assistance to children with learning disabilities (Magajna et al., 2011). In accordance with Slovenian legislation (Placement of Children with Special Needs Act, 2011), all four adolescents had been diagnosed by a team of experts as students with specific learning disabilities characteristic of dyslexia.

Dyslexia was diagnosed in the adolescents based on the following five criteria (Magajna et al., 2008): 1. discrepancy between the student's general intellectual abilities and actual academic achievement in specific areas (reading, writing and spelling); 2. extensive and distinct difficulties in reading, writing and spelling to the extent that these impeded the student's learning progress; 3. a lower level of learning efficiency due to deficient cognitive and/or metacognitive strategies or disrupted tempo of learning; 4. disruption to one or more psychological processes for processing information, such as attention, memory, language processing, social cognition, perception, coordination, orientation in space and time, and organization of information; 5. exclusion of sensory impairment, impaired mental development, emotional and behavioral disorders, cultural differences and unsuitable teaching as the main causes of learning difficulties.

Based on their guidance orders, a program with adapted implementation and additional help from experts was drawn up for each of the students (one girl and three boys). They were all found to have severe specific learning disabilities – they met all five of the diagnostic criteria for dyslexia listed above. Anja, aged thirteen, was an 8th grade student. She had significant difficulties reading and writing, trouble spelling words when reading, confused sounds with one another had a resistance to reading and a notably slower reading speed compared to her peers. The guidance order enabled her to have an additional lesson once a week from both a Slovenian and a foreign language (English) teacher.

Twelve-year-old Anej was in 6^{th} grade. He had difficulties reading and writing, as well as problems relating to his working memory, paying attention and concentrating. The guidance order provided him with four additional lessons: one with a special education teacher, one with a social pedagogue and two with a foreign language (English), a Math and a Slovenian teacher.

Klas, also twelve, was in 7th grade. He had significant problems reading and writing, with organization and study planning. The guidance order enabled him to have three lessons of additional help a week: one with a special education teacher and two with a foreign language (English) and a Math teacher.

Twelve-year-old Ron was in 7th grade and struggled with the characteristic reading and writing difficulties, as well as problems to do with paying attention and concentrating, socialemotional problems, difficulties with organizing his studying, independence and motivation for learning. The guidance order provided him with three lessons of additional help a week, two with a special education teacher and one with a teacher.

As mentioned before, the study also included the mothers of the adolescents and four female class teachers of the students. It was decided to select mothers to report on the adolescents' experiences with schoolwork because research shows that, compared with fathers, mothers are more familiar with adolescents and maintain closer relationships with them (Laursen, Wilder, Noack, & Williams, 2000; Ule, 1995).

Procedure

Prior to commencing data collection, the adolescents, mothers and teachers were familiarised with the purpose and content of the research and assured of the anonymity of the data obtained. All of those invited to participate in the survey consented to do so. Interviews lasting 45–60

minutes were conducted with the adolescents, mothers and teachers in April 2015. The interviews with the adolescents and teachers were held in schools, while mothers were interviewed in their own homes.

Measures

All of the participants were asked about the characteristics of the adolescents' experiences with schoolwork (e.g., how the adolescents felt in the classroom, how they coped with schoolwork, which situations they recognized as difficult, how they resolved these situations, how adults supported the adolescents). The questions served as a guide for the interviewees and more depth was sought in those parts where the answers indicated that the topic was important for the participants.

Data analysis

The data were analyzed using interpretative phenomenological analysis (IPA), following the guidelines of Smith, Flowers and Larkin (2009). IPA was chosen because it was decided to be the best way to research the experiences of the participants in the study and analyze them meaningfully. The interviews were audio-recorded and transcribed. All of the transcripts were analyzed by the authors of the paper. After reading the individual interviews several times and writing out the comments, the key themes and subthemes of each interview were identified and discussed with reference to the research questions. In the final part of the analysis, themes and subthemes were illustrated with concrete statements by the participants.

Results

Three themes with eleven subthemes were identified in the qualitative analysis procedure; the frequency of the subthemes was also identified for the individual groups of participants (see Table 1).

Themes	Subthemes	Adol. (<i>f</i>)	Moth. (<i>f</i>)	Teach. (f)
1. Sources of	Learning activities and assessment	4	4	4
	Teachers' lack of understanding	4	3	0
school situations	Acceptance by classmates	3	2	1
	Mothers' high expectations	3	3	2
2. Response to problems	Adolescents' experience of intensive distress	4	2	0
	Mothers take on learning obligations	3	3	2
3. Expectations regarding the provision of assistance	More understanding of emotional distress	4	2	1
	Greater independence of the adolescent	0	3	4
	More adaptation of teaching	4	4	0
	More guidance of special	1	2	3

Table 1. Themes and subthemes

education teacher		
<i>Note</i> . Adol. = adolescents: Moth. = mothers: Te	$ach_{.} = teachers_{.}$	

The first theme demonstrated the sources of distress in school situations, the second response to problems and the third expectations regarding the provision of assistance. In the following section, the themes are analyzed through subthemes and illustrated with statements from the participants.

1. Sources of distress in school situations

Learning activities and assessment

All adolescents, mothers and teachers highlighted and described the adverse experiences of adolescents in various school subjects, most frequently in Slovenian and foreign language (English). As expected, the adolescents experienced the most distress due to reading and writing.

"At school, it's reading that causes her the greatest discomfort, especially reading an unknown text, as she needs a lot of time to read. This puts her under stress." (Anja's teacher)

The participants mentioned specific learning activities as triggers of adverse experiences, with most of them highlighting required home reading. The mothers and adolescents also emphasized the problems associated with homework, while some teachers and mothers mentioned copying material from the board, as well.

"From the very beginning, Anja resisted reading at home. She knew she had to read. She cried and complained." (Anja's mother)

"From the start, he did not make any effort with mathematics homework. He regarded it as unnecessary." (Ron's mother)

"I think even copying from the board is difficult for him. He turns around, looking for help from classmates ... he diverts attention from what he should be doing." (Anej's teacher)

The adolescents, mothers and teachers also highlighted assessment as a source of stress for the adolescents, who were afraid of receiving bad grades.

"I always think that the test will be tough. It really stuck in my mind when I got a bad grade in science. I studied a lot. I was questioned and I received the grade 'satisfactory'." (Klas)

"He's afraid that he won't be able to do it, that he will be get a low grade. He says 'Oh no, what if I get a grade of two [satisfactory]'. He's afraid of the grade ... He's afraid of failure." (Klas's teacher)

Unlike the mothers and teachers, the adolescents reported the greatest difficulty in the assessment of reading or knowledge in front of their peers, e.g., if they had to read aloud in front of classmates, or when the teacher asked them questions in front of the entire class. They worried that their classmates would notice their lack of knowledge and laugh at them.

"When my classmates start laughing I feel embarrassed ... But I laughed back at those who said something to me ... If I read in front of the whole class I get nervous, I'm worried that I might mix the letters, and that they will laugh at me." (Ron)

The teachers recognized the adolescents' distress when reading aloud in front of their peers, but often associated it with poorer understanding of what is being read, and consequently with an inability to meet the learning requirements.

"It's most difficult for him when he reads, as there are a lot of things he doesn't understand." (Anej's Teacher)

Certain mothers pointed out that the time the teacher allowed the adolescents for completing learning tasks was too short, adding that teachers often do not respect the principle of providing additional time for writing tests.

"The teachers dictated too fast. He didn't manage to write everything. After class, we had to get the material from his classmates and copy it out." (Klas's mother)

The teachers' lack of understanding

All of the adolescents and certain mothers provided an extensive description of the dimension of the teachers' relationship, while the teachers did not mention their role in relation to the adolescents in adverse situations. The adolescents and mothers also pointed out the teachers' lack of understanding and consideration of the specificity of the adolescents' problems.

"One teacher doesn't understand my problems. If you get a bad grade, she accuses you of not studying ... I think it's because no one has told her anything. I would like her to understand me when I have oral assessment. In tests I have adaptations, but in the oral assessment she doesn't understand." (Klas)

"Not all teachers understand his problems ... Legally everything is taken into account, everyone allows adaptations ..." (Klas's mother)

Certain mothers also recognized problems in the adolescents' conflictive relationships with teachers. Conflicts ar ose due to the high demands that the teachers place on the adolescents, the lack of appropriate adaptation of teaching, and discrepancies in the working relationship.

"If there is someone who is disorderly, who doesn't place clear demands on him, who has no rules, Ron doesn't function with such people ... he misbehaves. They don't know how to motivate him, how to calm him down, he causes trouble." (Ron's mother)

Acceptance by classmates

Fear of not being accepted by peers in the classroom was sensitively emphasized by the majority of adolescents and by certain mothers, but was not mentioned by most of the teachers. Only one of the teachers highlighted the adolescents' unease in the classroom.

"I was afraid of not having any friends. No one stood by me, I didn't trust anyone." (Klas)

"He wants to be friends with everyone. He says that they're all his friends. Anyway, you can't be friends with everyone. He would like to be everyone's friend." (Ron's mother)

Mothers' high expectations

The statements of the participants indicated the high expectations of the adolescents' mothers regarding schoolwork and showed how this is reflected in the adolescents' experience. Most of the adolescents were concerned about the high demands of their mothers. Even the mothers described themselves as demanding and persistent in meeting the adolescents' school obligations, and regarded this as appropriate. In two cases, the teachers also highlighted the adolescents' fear of disappointing their mothers with a low grade, or their anxiety about being punished by their mothers.

"The hardest thing for me was that I really tried, but my mother didn't see that." (Anja)

"I insist that he does it. He has to be told ten times, until I get mad, then he does it. With or without tears. He has to do what he's told. That's that! I'm not going to change this. If his homework isn't done as it should be, I tear out the page ... Sometimes he even cries because of this. He's angry because he has to do it again. Then he does it the way he should." (Klas's mother)

"He's afraid of the grade. His mother has told him that he mustn't get less than three [good]." (Klas's teacher)

"Anej didn't want to copy. He got a signature, but he didn't show it to his mother. I think it's because he didn't want to disappoint his mother." (Anej's teacher)

The sources of distress can be summarized in the following way: all adolescents, mothers and teachers highlighted learning activities and assessment as a significant source of adverse school experiences for the adolescents. Participants often attributed the causes of the adolescents' negative experiences to other people (e.g., the mothers to the teachers, the teachers to the students etc.). Comparison of the individual groups had shown that adolescents and mothers pointed out the teacher's lack of understanding for the student, the adolescents laid more emphasis on being accepted by their peers than the mothers or the teachers, while all three groups agreed that the mothers' expectations for the adolescents are (too) high.

2. Response to problems

Adolescents' experience of intensive distress

All adolescents primarily provided a detailed description of the experiential aspect of their experiences, whereas the majority of their mothers and teachers focused on behavioral responses. Both mothers and teachers reported on insisting that the adolescent changed his/her behavior, which gave rise to feelings of rejection in the adolescent, as well as triggering rebellion or reinforcing the adverse experience. Some adolescents told their mothers about their distress, while others talked to their classmates, but none of them confided in their teachers.

"I was nervous, my heart was pounding and I felt flushed. The teacher noticed, but didn't say anything." (Anja)

"I felt get angry, I tell her that I got a bad grade because the teacher turned the questions around, that I don't understand her." (Klas)

Some mothers and teachers reported that the adolescents seek to conceal adverse experiences or divert them elsewhere.

"Anej isn't approaching his problems in the right way. He withdraws ... I think that Anej doesn't show his distress at school ... When he's under stress, he doesn't do the tasks at school, he draws instead doing the task, he looks out the window." (Anej's mother)

"He's disruptive in subjects in which he isn't successful. He gives the impression that he doesn't have problems. He withdraws, he's quiet ... I think he avoids things." (Ron's teacher)

Mothers take on learning obligations

Most of the mothers take on the entire organization of the course of learning. They reported widely of reading and working through the learning material with their adolescents. This learning assistance represented a considerable burden for mothers and took a great deal of their time; they reported fatigue and mental burnout. Often, they were uncertain about their choice of approach. In providing learning assistance, the mothers focused mainly on the results of learning. Two teachers also observed that mothers tooe on the adolescents' learning obligations, which in their view further compounded the adolescents' dependency, lack of will, indecision, and fear of poor grades. The adolescents also reported that their mothers helped them with their schoolwork; however, they did not describe it as the mother taking over their responsibilities, but that they usually turned to their mothers in case of learning disabilities.

"At home, I ask my mother for help with reading. At school, I don't ask anyone. I think this is right." (Anej)

"When I see he is suffering, I feel sad, distressed, I want us to try to get a grade of two [satisfactory] together. We study together. I read the material aloud and we work through the questions together, finding answers to them." (Anej's mother)

"When I ask him: 'When will you improve? When will you be asked?', he answers 'I'll work it out with Mum.' He relies on his mother. This is one part of his fear, he's very compliant, and he lacks independence." (Klas's teacher)

When it came to responses to problems, adolescents, mothers and teachers all recognized that the adolescents experience intense distress regarding schoolwork. In describing these stressful situations, the adolescents focused on their negative experiential nature, while mothers and teachers focused more on the adolescent's behavioral response. Most of the mothers and teachers, but not the adolescents, reported that the mothers excessively took on the adolescents' learning obligations.

3. Expectations regarding the provision of assistance More understanding of emotional distress

In their descriptions of stressful situations, all the adolescents expressed a desire for understanding and relief from emotional distress.

"Before an English test, I had the feeling that I hadn't studied enough.... I would have liked the teacher to tell me to calm down, to think positively about doing well." (Anja)

When things were difficult for the adolescents, it was important for them to be able to tell someone about their distress.

"If things are really bad, I would like be able to tell someone ... I studied science really hard, but when I was tested I got a grade of two [satisfactory]. I thought I deserved more. I was angry. I didn't tell the teacher that, I didn't say anything to her. I told my mother that I deserved more, that the teacher wasn't fair. I told my best friend at school, too." (Klas)

In their statements, two mothers and one teacher did not focus on the emotional understanding of adolescents who found themselves in distress. They primarily understood the problems of adolescents related to the learning material. One of the teachers pointed out that teachers in general lacked an understanding of adolescents' emotional distress associated with their schoolwork. The two statements below from an adolescent and a teacher indicated their recognition of the lack of sensitivity amongst teachers towards the plight of adolescents.

"In tests I have fewer tasks, instead of listening tasks I have different tasks, a shorter text. I would like teachers to understand me better when I don't understand the material." (Ron)

"You have to feel that there is a problem, not just pretend to understand the student. Generally, teachers don't understand that there is one student who doesn't understand. Help is always connected only to the learning material." (Klas's teacher)

Greater independence of the adolescent

Most of the mothers expected their adolescents to put more effort into learning and to be more successful academically.

"I tell her: 'The sooner we put pressure on, the sooner it'll come right. You have to try.' I teach her to be independent, to seek help herself. I tell her again and again: 'Just don't be lazy!'" (Anja's mother)

All the teachers expected the adolescents to show more responsibility and independence in learning. They believed that the students themselves could ask for help with schoolwork when required.

"Specialized words create problems for her. She reads them wrongly and pronounces them incorrectly, without knowing that this is a problem. She never asks for help with reading. It would be better if she asked for help." (Anja's teacher)

More adaptation of teaching

All the adolescents expect teachers to explain the learning material in more detail. Their mothers also expected teachers to offer the adolescents more learning assistance, while both the adolescents and the mothers believed that teachers could better adapt assessment.

"I'm under stress when the teacher doesn't explain the material and just 'shouts something' in English." (Ron)

"Except for in English, he has had only one test adapted this year. He needs more adaptation. That's all I expect from teachers." (Klas' mother)

More guidance of special education teacher

Most of the teachers and two mothers pointed to a lack of cooperation with the special education teacher, whom they expected to provide specific guidance in adapting instruction and working with the adolescents.

"We have an agreement with the special education teacher to give her the specific questions that Anja could be asked. I'm not sure, but I think the special education teacher also teaches Anja organization – how to study at home. Personally, I would like more advice from the special education teacher." (Anja's teacher)

"I asked the special education teacher to work with him more on his English. I've only been told that they go through the required subject matter during the additional help lessons. The special education teacher hasn't given me any advice on how to work with Klas at home." (Klas' mother)

When it came to expectations regarding the provision of assistance, we have found that our research subjects' expectations concerned the following areas: understanding the adolescent's emotions and independence, adapting the teaching and finding concrete guidelines for teaching the adolescent and for the adolescent's own learning. Comparison of the individual groups' perspectives had shown that it was especially the adolescents (in contrast with the mothers and teachers) who wished for more understanding of their emotional distress. Particularly the teachers and mothers emphasized the need for the adolescents to be more independent in their schoolwork, and only the adolescents and mothers wished to see the teachers provide more adjustments to schoolwork. Meanwhile, the teachers were the ones who most often pointed out that they wished they received more instructions from special education teachers.

Discussion

The experience of adolescents with dyslexia in the school context was analyzed from the perspectives of the adolescents, as well as their mothers and teachers. Adolescents with dyslexia, mothers and teachers all recognized the difficultly of learning situations related to reading and writing, which is in line with other studies (e.g., Singer, 2005; Hellendoorn & Ruijssenaars, 2000). In addition to reading and writing, the participants in our research also regarded assessment as a difficult school situation, highlighting particularly the fear of receiving a poor grade. Unlike mothers and teachers, however, adolescents worried about how their inability to learn would be perceived by their classmates, particularly in situations involving reading and

assessment in the classroom. Similar findings have been noted in research by Singer (2005), with adolescents reporting experiencing distress in situations in which their lack of learning ability could be recognized by classmates, who might make fun of them. The findings of the present study also indicated that adolescents and some mothers worry about the acceptance of the adolescents in the classroom.

Adolescents and some mothers were concerned about teachers' relationships with the adolescents. Mothers expected teachers to show the adolescents more understanding and personal sensitivity in difficult situations. Similar findings were noted in research by Hellendoorn and Ruijssenaars (2000), who reported that the majority of the adolescents involved in their study did not confide in teachers about their problems during schooling.

The present study revealed that adolescents' stress due to schoolwork was often triggered by the high expectations of their mothers, whom the adolescents did not want to disappoint with bad grades. Diakogiorgi and Tsiligirian (2016) also reported about the high expectations of parents regarding the academic performance of their children with dyslexia. Some authors (e.g., Firth et al., 2010; Heiman & Kariv, 2004) found that students with specific learning disabilities frequently used less effective coping strategies, such as withdrawal from the situation and ignoring the problem. From the statements by some of the adolescents included the present research, wanted more understanding and more opportunities to share their distress with others. They could confide some of their experiences in their mothers or selected classmates, but not in teachers. The study by Hellendoorn and Ruijssenaars (2000) also found that adolescents with dyslexia mainly confided their distress in parents, and rarely in teachers. In providing support and assistance to adolescents, mothers and teachers focused primarily on the area of learning and adolescent's behavior, while the experiential aspect was overlooked. This finding is crucial in planning work with adolescents, as the experiential aspect of distress is very important to them.

Mothers viewed their role in helping adolescents to cope with the difficulties of schoolwork as the consistent monitoring, control and organization of school obligations. Despite engaging intensively with their children's schoolwork, mothers had doubts as to whether their assistance was appropriate. Learning assistance represents a burden for mothers, as it required a great deal of time. In providing assistance, they were focused on good learning outcomes, which were difficult for the adolescents to achieve. Other studies also indicated that mothers of children with specific learning disabilities had relatively high expectations regarding academic achievement (Diakogiorgi & Tsiligirian, 2016; Yildiz et al., 2012).

The teachers and the majority of mothers included in the present study often described adolescents with dyslexia as lacking independence. Both mothers and teachers reported that the adolescents tried to avoid schoolwork, and that they were passive and lacked ambition. From the perspective of adolescents, research by Hellendoorn and Ruijssenaars (2000) also found that some teachers labeled adolescents with specific learning disabilities as lazy and less capable.

In terms of the expected provision of assistance, the adolescents and the mothers expressed a desire to see more extensive adjustments in the teaching process; meanwhile, particularly the teachers reported that special education teachers could provide more guidance for working with adolescents with dyslexia. Yildiz et al. (2012) also found that teachers lamented not having sufficient information on how to teach students with dyslexia.

The adolescents included in our research went through all five stages of the model that we presented in our introduction. The model calls for a systematic diagnostic assessment and monitoring of the student's progress, as well as efficient treatment and an evaluation of its success (Magajna et al., 2008). The teacher is a key individual in the five-stage model/process of

providing assistance and support for the student, and it is important that he or she cooperates with parents and counselors in this (Magajna et al., 2011). The results of our research show that teachers focused primarily on the narrower field of teaching, where they emphasized the need for closer cooperation with special education teachers, but they appeared to be less oriented towards cooperating with the adolescent and the parents. According to the adolescents, teachers often did not understand their difficulties. This makes it possible to conclude that in carrying out the assistance program, the teachers work less reciprocally with the adolescents and the parents because they did not report on these experiences. It is clear from the perspectives of the adolescents and the parents that they wish teachers would show more understanding, consideration and cooperation. The latter raises the question of how cooperation between all the participants involved in the planning and execution of an assistance program for a student with dyslexia actually happens in practice. The results of our research indicate that it is necessary to encourage more dialogue amongst everyone involved to establish better conditions in which to help and support the adolescent. It is vital that everyone who works with adolescents with dyslexia together in partnership share their worries, responsibilities and activities and skills, and thus supports each other.

Conclusions

In our study we have compared the perspectives of adolescents, mothers and teachers concerning the schoolwork of adolescents with dyslexia. The overall results of our research revealed that the participants reported on three themes (with subthemes): (1) the sources of distress in school situations (learning activities and assessment, teachers' lack of understanding, acceptance by classmates, mothers' high expectations), (2) response to problems (adolescents' experience of intensive distress, mothers take on learning obligations), and (3) expectations regarding the provision of assistance (more understanding of emotional distress, greater independence of the adolescent, more adaptation of teaching, more guidance of special education teacher). The qualitative analysis of the results has shown that the perspectives of the participants were similar when it came to certain subthemes (e.g., about schoolwork being stressful), but differed quite substantially in others (e.g., the adolescents find peer acceptance far more significant than mothers or teachers). The considerable disparity in the perspectives in the planning and execution stages of assistance may reduce the effectiveness of the support for adolescents with dyslexia. Our findings show that content-wise it would also make sense to steer the study towards identifying the ways for a better cooperation between the adolescent, school professionals and parents. In assisting adolescents, it would therefore be useful to primarily take the adolescents' understanding and experience of distress in their schoolwork as the starting point. It would be desirable for teachers to take a more active role in relieving adolescents' distress. Additionally, school counselors could provide more guidance to students and their families in the common search for appropriate assistance for the adolescents, teachers and their parents. Given that the family, particularly mothers, provide significant support to help adolescents with dyslexia deal with schoolwork, it would be sensible to provide mothers with more support and professional guidance.

The limitations of this study concern the study sample, which consists of selected adolescents, their mothers and teachers. In any future studies it would be interesting to determine experiences with dyslexia in the school context for young and older children/adolescents and how an adolescent's coping with dyslexia is seen by other persons of importance for the adolescent, such as peers.

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Factors which Enhance or Hinder Meeting the Educational Needs of Autistic Children in Western Cape Province, South Africa: A Parents' Perspective

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Abstract

There is growing interest in autism spectrum disorder (ASD) as a result of the increasing prevalence rates, and because children with ASD find it particularly challenging to enter the educational system. The present study explored the perceptions of parents of ASD children by identifying the factors which enhanced or hindered their children in receiving quality education. Four focus group discussions (FGDs) were conducted with 10 purposively selected participants per discussion group. A semi-structured interview guide was used to collect data. Data were analysed using ATLAS.ti. The key themes which evolved were: developmental and educational awareness and support (enhancement); the education system (hindrance); developing the capacities of teachers with specialised training (hindrance); and financial needs (hindrance). The present study recognizes that there are enhancements and hindrances that affect children with ASD and their educational development. **Keywords:** autism spectrum disorder, parent's perceptions, educational needs, barriers to learning.

Introduction

Autism spectrum disorder (ASD) affects 1 in 88 children globally and is 4 times more common in boys than in girls (Centers for Disease Control and Prevention, 2012). A similar finding by Baio (2012) was that boys were 5 times more likely than girls to be diagnosed with ASD. The aetiology of ASD is still unknown and the present increase in the number of diagnoses is concerning (Cannell, 2017). In addition, South Africa's prevalence of ASD is unknown due to a lack of research conducted in the country and Africa in general (Ametepee & Chitiyo, 2009). However, Autism South Africa (2012) has predicted that 933 new cases of children with ASD would be diagnosed each month, i.e. 216 cases per week and 31 cases per day (Autism South Africa, 2012). Meanwhile, in Western Cape Province, South Africa, there are currently 1 684 children diagnosed with ASD (Pillay, Duncan & de Vries, 2017).

Given the global statistics, it is evident that many parents will be faced with challenges related to their children's educational development. Therefore, parents should aim to teach their child from an early age and start by teaching them the basics. However, many parents are challenged and find it difficult to teach a child diagnosed with ASD. Teaching basic skills such as communication to a child with ASD is not easy for parents to do and can be rather stressful (Altiere & von Kluge, 2009). Therefore, it is best that children with ASD should be in a schooling environment and taught by an appropriately trained teacher. Parents are faced with various issues surrounding education, and experience many challenges in placing their child in the most suitable school. Parents face the reality of knowing that their child is 'different' and that meeting their needs will not be easy compared to a child with no special needs (Carlsson, Miniscalco, Kadesjö & Laakso, 2016). As a result, in South Africa, special needs education and inclusion has been made a priority, with the education department guided by the White Paper 6 policy developed in 2001 which promotes children's basic right to education and allows them to exercise this right. Countries such as Australia, and many European countries, have identified the need to accommodate all learners with special needs and consequently they have implemented inclusion within the classroom. This approach indicates that South Africa is not the only country striving for an inclusive education system. South Africa is working towards providing education in the least restrictive manner, the right to access public education, and with proper instruction. This expectation is intended to meet the international standards set by many countries for achieving the inclusion criteria (Srivastava, de Boer & Pijl, 2015).

However, in South Africa, special needs education of disadvantaged children from low-income communities has tended to exclude the black majority. South Africa's history of apartheid had an influence on the accessibility of special needs education. According to apartheid policy, white learners with special needs had access to schools that were well-resourced, whereas black learners with special needs were systematically under-resourced. Therefore, it became imperative for the South African education system to change this situation, especially post-apartheid, as equal opportunities should be available to all children with and without special needs. The White Paper 6 addresses the need for more inclusive education, with the lack of schooling and resources having been identified (Lomofsky & Lazarus, 2001). The White Paper implementation was put in place 20 years ago, but the landscape of special needs has not changed much

(Engelbrecht, 2006). In Western Cape Province, many schools suitable for special needs learners have been identified, but a study by Mthimunye (2014) found that not all schools accommodate learners with ASD. Furthermore, parents are weighed down by many factors that affect their children's educational needs.

Aim of the study

The aim of the study was to explore parents' perceptions of the factors which enhance or hinder the educational needs of autistic children.

Research question

What are the factors that enhance or hinder the educational needs of autistic children?

Methodology

Participants

The study was conducted in Cape Town, in the Western Cape Province of South Africa. Those who participated in the study came from both low and middle socio-economic conditions. Four focus group discussions (FGDs) were conducted, with 10 purposively selected participants per discussion group. Participants were either the mother, father or guardian of a child of school-going age who had been diagnosed with ASD. Purposive sampling allowed for participants to be recruited who were knowledgeable and able to contribute meaningfully toward the area of interest (Bernard, Wutich & Ryan, 2016). This was a heterogeneous sample, with the majority being of black, coloured and white ethnicity. FGDs continued until data saturation was reached, which was indicated when repetitive themes kept emerging (Turner III, 2010). Participants were recruited through special needs schools within the four Cape Town Metropolitan Districts, as illustrated in Figure 1 (Metro North, Metro Central, Metro South and Metro East).



Figure 1. Map of the four urban districts in the Western Cape

(Source: Western Cape Education Department, 2007)

Data collection

Permission was requested from, and granted by, the University of the Western Cape to conduct the study. Approval was then received upon request from the Western Cape Education Department (WCED) to access parents through various special needs school. Letters were sent out, inviting parents to participate in the study. Information sheets were provided and participants had a choice as to whether they would like to participate in the research study. An information session was held prior to conducting the focus groups to discuss the purpose of the research study. Focus group interviews were scheduled for parents who agreed to participate in the study. Upon meeting with the participants, they were handed a consent form for completion. The focus group interviews ranged from 45 minutes to 60 minutes in length. Table 1 comprises the focus group interview guide. Probing questions were asked throughout the FGDs to gain more insight, as the interview questions served as guide.

No.	Question
1	What would you say was the biggest challenge after the diagnosis?
2	How did you deal with the diagnosis? Were their key role players within Society?
3	What was your experience finding school placement for your child diagnosed with autism?
4	Is the school addressing your child's needs and do you see improvement?
5	What are your current challenges ?
6	Have your challenges been addressed? How?
7	Are there resources and services in the community that serve as a support to both you and your child?
	Accessibility to these services?
8	What would you like to see implemented/changed? To benefit your child?

Table 1: Focus group interview guide

Data analysis

Focus group interviews were transcribed verbatim and analysed using thematic analysis, following the six steps outlined by Braun and Clarke (2006): (1) familiarising oneself with the data and transcribing, (2) codes were generated; (3) search for themes by collating codes into themes; (4) review the themes in relation to the codes extracted; (5) define and name the themes as part of the ongoing analysis; and lastly (6) generate the final report. ATLAS.ti. was used following the analysis steps. ATLAS.ti. Mac Version 1.6. software was useful for organizing the text and coding the data (Creswell, 2009).

Trustworthiness

According to Lincoln and Guba (1985) trustworthiness is a pivotal when conducting research to maintain rigor. Trustworthiness is ensured by ensuring the following is maintained the credibility, confirmability, dependability and transferability of the study. Credibility was ensured by using purposive sampling and this eliminates the bias factor in the selection process. Participants were informed that they could exist the process at any time should they feel they no

longer want to participate in the study, leaving participants that are wanting to add value to participate. Transferability was maintained by ensuring full understanding of the research setting and context in which the research was conducted, thus the study included multiple districts. Dependability and credibility has close ties, the study is presented in a detailed manner should the research be conducted similar results will be obtained, all details pertaining to the study was closely examined and documented. Conformability in this study was maintained throughout conducting and keeping audit trails of and revisiting the audio tapes and transcriptions ensuring the participants views are being uttered in the most accurate way possible.

Results

Four main themes emerged from the analysis: developmental and educational awareness and support; the education system; developing the capacities of teachers by means of specialised training; and financial needs. Table 2 presents the themes including the categories.

Themes	Sub-themes
1. Developmental and educational awareness and support 2. The education system	 Lack of community awareness Lack of parental knowledge and support Family and community support Accessibility to schooling
	 Alternative schooling Waiting list for school placement The need for more schooling facilities
3. Capabilities of teachers with	Adequate teacher training
specialised training	 Teachers' negative approach
4. Financial needs	 Finding it difficult to cope financially
	 Private schooling/interventions/special crèches are expensive
	 Reducing the cost of schooling for children with ASD
	 Financial sacrifices

Table 2: Themes and sub-themes

Developmental and educational awareness and support

Parents maintain that the development of their child is imperative and their educational needs must be met. However, there are factors that concern parents that serve as a hindrance. These include lack of community awareness, and lack of parental knowledge and support and family and community support. The lack of autism awareness among parents, family members and the community as a whole is imperative to be turned around, to allow development of the autistic child and to prevent labelling and stigmatizing. Community support and educational initiatives can make a difference in the development of the affected children.

Lack of community awareness

The need for more awareness initiatives for the broader community will minimize stigmatizing and labelling. Parents commented on perceptions that the community have of children with autism. For instance, one parent said:

'I think that's where everybody's perception comes in. When a child is autistic, it is Down syndrome. That is what everybody thinks.' (FG2 participant 3).

Furthermore, parents expressed their concerns about the lack of community awareness:

'Then most people couldn't understand the child again. You go to church, he is running up and down. People are, like, is this child naughty? Is the child crazy? What's wrong?' (FG4 participant 2)

'So, when I initially told my whole family, they just told me, say Down syndrome, not autistic. The child is not Down syndrome, but I didn't say it was Down syndrome.' (FG3 participant 6)

'And even if you are walking in the mall, at church or anywhere, other people will know about it. Then they're not judging misbehaviour but that they have autism, something like that.' (FG1 participant 2)

Lack of parental knowledge and support

Parents are in need of more knowledge, insight and skills to assist their child at home, thus letting parents feel more empowered. One parent had the following to share:

'There is of course this assistance should help us how to help our children, at the school also, it is important. The school also, because it is important for the parents to know how to be with the child at home.' (FG3 participant 8)

There is a lack of information for parents regarding the options available to them for educational and development support:

'Another thing is information. I think if you want to look for information on the internet, it is so limited.' (FG3 participant 1).

Participants commented and voiced their desire for more training and development to assist their children with their various needs. Participants agreed that they were not adequately equipped with the skills needed to ensure successful interventions:

'Yes, we really need support, we need to have somebody to talk with, maybe first on phone and maybe sometimes we have a physical assistance. Maybe come home. Maybe talk with us. Because for example, as I was saying, we have to self-organise. That means we must know from morning to night this will be our plan.' (FG3 participant 6)

'A lot of parents are not as clued up as we are. What about parents that don't have the resources available to them? That just rely on a system; that cannot challenge; that cannot make the efforts that we can because we are in a more privileged situation to have access to information? Or try things or speak or drive to different schools? What about the parents that don't have access to all of that stuff?' (FG1 participant 7)

'I mean when I find out, at that time I was clueless about autism, I knew about special needs, but it was a first for me and how do I deal with it. I actually went to go and do an autism course so I can be clued up with signs and symptoms.' (FG3 participant 1)

Family and community support

Parents are in need of family and community support as this has a positive impact on parents who need such help and support. The support identified by participants was provided by family members:

'Like my sister them, once a month my son goes for haircuts with my brother and daddy is not involved in the picture. So, then my brother takes him once a month for a haircut. He spends the day. He sleeps over.' (FG4 participant 6).

The contributions and support from various organizations (hospitals and support groups) keeps parents encouraged and up to date with matters pertaining to their child and the larger community services available:

'For me, at the moment, I go to the public nurse. I go to the clinics and everything and get the therapy, we went to House of Hope. So, it is not affecting me so much. All the tablets are all included, I am very happy with this service.' (FG4 participant 1).

Participants reported that this support has a positive impact on the development of the child and ultimately promotes learning and educational development:

'I got my leave day every month. There were no hassles at all. The boss I had back then was also autistic so he was very, how can I say, understanding. I could see he's got a touch of autism because you just know it. [laughter] And then they were very understanding. When it is Autism Day there is a few people there that also have autism, so Autism Day, if you're at work the theme is blue.' (FG2 participant 2)

'Everything is here. So, all the OT is done at school. The speech therapy is done here as well, this is helpful and convenient.' (FG4 participant 3)

'We have hope that they can do better because for us we at least can go to the Western Cape because here we get a lot of assistance here for early intervention and like I personally I can say Autism Western Cape helped me a lot.' (FG3 participant 2)

The education system

Under this theme, parents identified various barriers they experienced related to the current education system. The need for more inclusive schooling and learner support in mainstream schooling will allow more learners to access education and address the waiting period, which will minimize the need for alternative schooling arrangements. Parents mentioned barriers to accessibility to schooling, having to make alternative schooling arrangements, waiting lists for school placement, and the need for more schooling facilities.

Accessibility to schooling

Parents are concerned about many children who struggle to gain access, which ultimately affects the children's development. One parent mentioned:

'So, it wasn't very difficult but I think it was some kind of chance because to find a school because we see now that it is a problem for Max to find a school which we didn't have in Pretoria without knowing anybody just like that.' (FG2 participant 5).

Children are expected to fit particular criteria before gaining access to schooling:

'It took me a while to find an actual placement for him at a school.' (FG4 participant 3)

'But if your child is diagnosed at age four, if you're lucky they will get in at age seven/eight and the reality is if they're 12 and they're not in school then you are not going to get them in school anymore. They're deemed too old.' (FG2 participant 7)

'So, parents and some kids are getting to the school-going age and some kids are getting to the top of the waiting list finally to be told that they don't have the skills to be in school.' (FG2 participant 5)

Parents indicated that the area where they lived had no special needs schools, and they had to search for schools in other communities far away from where they were living:

'Just to add on the school the first question you asked, like on our side in Muizenberg there are no special schools like the one that was there now moved to Durbanville.' (FG4 participant 7).

'Like I said, my son is still on the waiting list at the WCED and I was also given only one school; not [xyz] school, and therefore I took it upon myself to go around to these different special needs schools only to find out that he needed to be at a certain IQ or it was and that really is frustrating.' (FG1 participant 5)

Alternative schooling

Making alternative schooling arrangements is becoming a normal practice for parents as they cannot find a school placement for their child. Learner support in mainstream education will reduce the need for alternative schooling. Participants raised a high level of concern, as they are forced to seek alternative schooling to ensure their child receives the necessary education and meets the developmental and educational milestones.

'So, parents are going the private route because they're desperate to get those skills in place.' (FG3 participant 8)

'It is not that they can't do the mainstream curriculums, it is just that they cannot learn in a mainstream educational setting without learning support.' (FG1 participant 6)

'I managed to stand alone and just took my chance by myself to home school him.' (FG1 participant 2)

Placed on a waiting list for schooling

Children are being placed on waiting lists for school placement, and the waiting periods tend to become lengthy.

'He was on the waiting list two, three, four years – I don't know. They spent a long time like this at home waiting.' (FG4 participant 10).

Participants added that the wait equates to years and, in some instances, they had to make other provisions to ensure no further developmental delays:

'We waited three to six years for a school.' (FG4 participant 10) 'On the waiting list, nothing has happened, had to apply for another place. I was actually told wouldn't it be best for him to be placed in a Montessori School but had no choice.' (FG2 participant 7)

Need for more schooling facilities

Parents need more facilities that can accommodate learners with special needs, and particularly for children with ASD. Parents are frustrated with the lack of schooling facilities and resources within their communities. A child not having access to schooling or who has to wait for a prolonged period could suffer developmental delays, and the educational needs of the child will not be met.

'There's not enough schools. The fact that generally speaking, if we look at autism that's on the rise, one out of three kids now lately, one out of eight kids are on the spectrum, how can it possibly be that the Department of Education is not making provision within mainstream schools for kids who are differently abled?' (FG1 participant 2)

'Like I was saying, we were not going to leave it or remain silent or private. We just want that awareness that at least the society will see a need for those schools.' (FG3 participant 7)

'And I think because there's a limited number of schools, it is also a strain as well. It is difficult to get a school as well. It is a challenge out there but there is no immediate solution that you can help your child.' (FG4 participant 4)

Developing the capacities of teachers by means of specialised training

The importance of training specialised teachers to educate and support learners with ASD is pivotal for the development of every child. Teachers who are trained adequately will know how to deal with the various challenges. A teacher should create a safe and supportive environment and eliminate any negative responses towards learners. Parents identified a lack of adequate teacher training and also teachers' negative behaviour.

Adequate teacher training

Parents mentioned that there is a need for teacher support to equip teachers with classroom skills to ensure quality education. Parents reported that there are teachers who do not know what they are doing, as the following quotes suggest:

'And also, more training to the so-called teachers who are keen to play with these children. Because these children, remember these children are difficult with their own parent. Imagine somebody who is just looking for money.' (F2 participant 6)

'The other school again they didn't know how to handle him. It was like nobody knew how to handle the child.' (FG2 participant 1)

'And also, I think that with saying all of this, that special needs should actually be a priority subject when studying education.' (FG2 participant 7).

Teachers' negative approach

Parents in the present study indicated that some teachers displayed neglectful, maltreating and aggressive behaviour towards children in the classroom. Parents felts that this was due to a lack of training and skills within the profession:

'So, the teacher who replaced her, we don't know if she was really a teacher. She was a bit aggressive and the situation is worse since. So the situation goes these very last months.' (FG4 participant 1)

'The one school actually also ill-treated him in a way, so to speak. Because Ethan kept coming home to say, Mommy, please ask teacher to stop hitting me.' (FG5 participant 7)

'So obviously, if the teacher is going to neglect my child because I mean I went to confront them. We had issues, me myself and my mother. They were very rude.' (FG3 participant 1)

Financial needs

Raising a child with ASD can be very costly, and parents are constantly challenged financially owing to the cost of schools and private schooling and medical consultations. Parents are forced to make sacrifices to ensure the development of their child's education. The obstacles experienced by parents, and the difficulties in coping financially, are because private schooling/interventions and special crèches are expensive; there is a need to reduce the cost of schooling for children with ASD and the related financial sacrifices.

Finding it difficult to cope financially

Parents have had to relocate to a different community or country to seek schooling for their ASD child. Professional healthcare help is needed for guidance and support in meeting the needs of their child:

'Remember, if you have a child with autism, it also puts strain on your finances because you have to be selective on where you stay. There was a time we stayed in a flat. It was upstairs. But the person who was staying downstairs was not happy because of our son's noise and was complaining every day. It ended up getting to you, like you don't want to be in such kind of environment. Then we had to move to a place that is more expensive because we want our son to be safe. We also want him to be happy.' (FG1 participant 5).

'Like for me, he doesn't speak right. He struggles with his speech. I want to take him to the speech therapist, but there's no money.' (FG1 participant 8)

'My pocket says no. My mind, my heart says take him there but the pocket says no.' (FG4 participant 4)

Private and government schooling/interventions/special needs crèches are expensive

The high cost of children with special needs allows only those who can afford it to benefit from these services. Parents are aware of the importance of schooling but feel that they are simply unable to provide this for their child. Participants raised great concern regarding the costs involved, as schooling is an important part of a child's development but the cost is a barrier:

'For us, we were used to it but it is not that easy to get in a special crèche, pre-school. It is really expensive, especially private schooling and interventions. So, it is not that easy, it is so expensive. It is more like out of budget.' (FG5 participant 8)

'The least that they charge is three point six, if I can say that. Per month. So, let's say R3 600 per month for fees. Then there's extra lessons per hour at R30. So, per month we're talking about R8 000. You need R10 000, anything from about R7 000 to about R22 000 per month. That is very expensive.' (FG5 participant 2)

'Schooling is very expensive. Because I remember when we were going to kick start so you pay like about R5 000 just like your normal school fees. And now you have for him it is just R5 000 for him to be there and not having any lessons or anything.' (FG3 participant 7)

Reducing the cost of schooling

The cost of schooling is beyond many parents' budgets and they are unable to afford it. For children with ASD, bursaries could be made available for schooling or subsidising its cost. One parent stated:

'Like in terms of finances, I try to look for finances like maybe bursaries or some kind of assistance. But it seems there is nothing. You can't get any financial assistance. And to

make matters worse, you are also a foreigner as well. It becomes worse because you don't get any support that you can get from anywhere. So, it is just out of your own pocket of which it is difficult as well.' (FG3 participant 1).

Bursaries could give many ASD children the opportunity to gain from the education system.

'Or reduce the prices. If the prices are subsidised, then we don't need cash to take care of our children. But we need a reasonable payment. Just a reasonable payment like for a normal child.' (FG2 participant 5)

'Even if they can do like bursaries, then you just go straight to the school.' (FG5 participant 1)

Financial sacrifice

Parents are forced to make financial sacrifices to ensure their children receive some form of education. Some parents reported having to quit their full-time employment so as to put their own needs aside to ensure that the needs of their child are met.

'It was tough, we just have to sacrifice. We just have to say okay, this is what we have so let's do it. The first priority is our child. We give our child the priority. Then we live without. That is all we do.' (FG4 participant 5)

'You are in debt but that's what we do because it is your child.' (FG2 participant 1)

'Then I couldn't stay at home anymore. I had to go and work. I stayed at home for a year.' (FG1 participant 9)

'That's why I say three different schools and it was up till this point I thought, you know what, I'm going to stay at home and that is what I did last year.' (FG3 participant 5)

Discussion

This study explored the factors which enhance or hinder the educational needs of children with ASD. The findings of the study identified the education system, enhancing teachers' skills by means of specialised training, and financial needs as factors that hindered the educational development of children with ASD. Among the four themes that emerged, developmental and educational awareness and support was identified as an enhancement.

Developmental and educational awareness and support

According to Zuckerman, Sinche, Mejia, Cobian, Becker & Nicolaidis (2014), lack of knowledge is a concern raised globally as parents and the broader community are not well-informed about ASD. Parents were concerned about the limited level of knowledge that they have acquired, as well as the community and indeed teachers. Parents expressed their appreciation for the support provided by the community and, even though there is a lack of knowledge and awareness, family and friends strive to support the ASD-affected family. A study conducted by Dillenburger, McKerr, Jordan, Devine & Keenan (2015) revealed that educating society would reduce the likelihood of misdiagnosis and stigmatisation, and improve the quality

of life for the ASD child, thus promoting social inclusion. Parents reported on the support groups available and the affect these have on their well-being by providing coping strategies. Furthermore, Jones, Hastings, Totsika, Keane & Rhule (2014) found that parental support assists with the psychological processing and coping on a day-to-day basis. Support groups provide general emotional support and validate their feelings, thus providing them with a support network so that they feel they are not alone.

The education system

The results of the study reveal that parents found the education system to be inadequate and flawed. Access to schooling is an enormous hurdle, as there are insufficient schools in nearby areas and children have to be placed on extensive waiting lists; this is a global phenomenon (Naicker, 2005). According to Pillay, Duncan and de Vries (2017), there are 1 684 children diagnosed with ASD of whom only 940 have been placed in schools, whereas 744 children are currently still on waiting lists in Western Cape Province, South Africa. Parents expressed the need for more schools, as many children are at home and unable to find placement. According to the study by Pillay, Duncan and de Vries (2017), there are not sufficient schools available for children with ASD, and many children are placed on waiting lists. Ninety per cent of children are placed in special needs schools and the remaining 10% in mainstream schools. Many parents are forced to seek private schooling or make alternative arrangements for their children to receive educational intervention, such as home facilitation (McMenamin, 2017). However, private schooling and home facilitation is very costly and parents invariably find it difficult to sustain.

Developing the capacities of teachers by means of specialised training

In addition to the above difficulties, parents suggest that teachers are not adequately trained to instruct children with ASD, and that the need for suitable specialised training is essential. The lack of knowledge and training ultimately affects the ASD child's ability to develop and learn. Developing countries such as Uganda and Zambia are faced with a similar challenge of teachers not receiving adequate training (Silupya, 2003). The quality of education is compromised as children with ASD require special attention, and training is needed to up-skill teachers so that effective teaching may be implemented. Furthermore, the literature suggests that teacher training has a direct influence on the way they teach and also influences their beliefs and intentions in relation to teaching children with special needs (MacFarlane & Woolfson, 2013). Parents reported on the negative approach that teachers had towards the children they were teaching: neglecting and ill-treating and displaying aggressive behaviour towards them in class. Parents associated this negative behaviour with a lack of training and that teachers are not passionate about what they are doing.

Financial needs

The study results indicated that parents face financial problems and find it difficult to cope with the costs involved, such as for private schooling/interventions and health care. The cost of private schooling for learners with ASD is expensive, and countries such as the United States, Europe and India view the costs as a challenge (Leigh & Du, 2015; Johansson, 2016). The high costs are prohibitive and discourage parents as they may feel coerced to make sacrifices that will make it possible for their child to receive and achieve their educational needs. Research indicates that the costs involved are wide-ranging and high, and include social care, healthcare, education, leisure and housing (Knapp, Romeo & Beecham, 2009). Children with ASD attract higher costs

than those of a child with other disorders, because they incur additional costs for behavioural and communication difficulties (Bebbington & Beecham, 2007). The expenses associated with schooling are a hindrance and burden that parents have to bear.

Furthermore, Bronfenbrenner's (2006) ecological model of human development proposes that modification in a child has an influence on other individuals. The lack of ASD knowledge ranging from the parents to the broader community, the flawed education system, the lack of finances and inadequate teacher training have a direct impact on the child as a whole. The child's development is compromised, and these findings suggest that the child is affected by the influence of the microsystem, mesosystem, exosystem and the macrosystem, as described in Bronfenbrenner's systems theory (Bush, Eisenhower, Cohen & Blacher, 2017). Parent have identified their barriers and they involve all systems identified by Bronfenbrenner, and one cannot address only one system but all of them as they have a direct impact on one another. Therefore, for a child with ASD who wants to excel and achieve the goals set out for them, one would have to employ a holistic approach involving all systems that have an effect on the child's development.

Limitations

This study had the following limitations:

1. The study conducted focus group discussions, and these might have lead to participants not sharing their thoughts and not feeling comfortable about speaking in a group (Rabiee, 2004).

2. The study was conducted in Western Cape Province, which is only one of nine provinces in SA, and therefore the generalizability might be limited to the study context.

Conclusion

The study clearly demonstrates the barriers to education for children with ASD. The need for more awareness and community engagement on matters pertaining to ASD is pivotal. Meeting the need for more schools to address the large number of learners placed on waiting lists will improve the child/learner's opportunity for growth and development and, financially, this will relieve many parents of the excessive costs of private schooling and extra interventions. Teacher training is essential, with up-to-date workshops for both teachers and parents. The insights gained from conducting this study can be applied to the development of intervention strategies to enhance the implementation of inclusive education and address current barriers that are faced in the education system.

Recommendations for future studies

- 1. Future studies should focus on the quality of training that teachers receive while undertaking their undergraduate teaching qualification. Special needs education is a growing area in the field of education, and the training of teachers should be comprehensive.
- 2. The study included four urban districts in the Western Cape Metropole; future studies should include rural districts that form part of the Western Cape Metropole for a more generalizable population group.

Declaration of conflicting interests

The author(s) declare that there are no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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A Survey of Alternative and Traditional Special Education Teachers' Perception of Preparedness

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Abstract

The purpose of this study was to survey the perception of alternate route and traditional route special education teachers, particularly as it relates to their training received in their teacher preparation programs to meet standards intended to prepare effective special education teachers. The study examined the perceptions of 465 pre-and in-service special education teachers nationwide. The analysis revealed that teachers in alternate route programs and traditional route programs both perceive that teacher preparation programs are providing training toward meeting professional preparation standards. Furthermore, satisfactions with teacher preparation programs are reported. Limitations of the study are described along with implications for education practice and further research on the preparation of alternate route special education teachers.

Keywords: teacher preparation, alternate certification

Introduction

As demand for special education teachers increased, university programs worked to produce more teachers (Boe, 2014). Alternative route programs (ARPs) were created to meet the demands for special education teachers (SETs) in the field; being generally shorter in duration, ARPs characteristically involves candidates in teaching immediately or shortly after beginning the program, have an emphasis on field-based training, and are extended to a more diverse candidate population (Connelly, Rosenberg & Larson, 2014; Rosenberg & Sindelar, 2005). "ARPs leading to licensure and certification in special education emerged as significant and viable supplements to traditional teacher preparation programs" (Connelly, Rosenberg & Larson, 2014, p. 216) in order to meet demands to have more qualified teachers in the classroom to teach students with disabilities. Conversely, due to the proliferation of ARPs, studies show that the quality of SETs trained in ARPs have been raised (Nougaret, Scruggs, & Mastropieri, 2005; Robertson & Singleton, 2010).

Sindelar and Marks (1993) assert that ARPs were also created to address shortage areas as well as to attract people who may not have considered teaching as a profession. ARPs give scholars the opportunity to teach while becoming certified before taking education coursework (Rosenberg, Boyer, Sindelar & Misra, 2007). Traditional route programs differ because candidates only teach after coursework has been completed (Greenberg & McKee, 2013). This difference creates questions around the idea of effectiveness and quality of alternative teacher preparation programs compared to those traditional programs. Some studies found that ARPs were either equal or better than traditional route programs, whereas others tended to favor the traditional programs (Benedict et al., 2013; Nougaret, Scruggs, & Mastropieri, 2005; Robertson & Singleton, 2010). Roberston and Singleton (2010) compared teacher retention rates of ARPs to a traditional route program at University of Memphis, which holds a 14-year old alternative Special Education certification program. Since the program began 14-years ago, 50% of teachers from the alternative program were employed compared to 33% of those from the traditional preparation program. A higher number of alternatively trained teachers remained in the field compared to traditional graduates; however, those prepared in the traditional program were more likely to be employed longer than those in the alternatively certified program. It also appeared that more African American students were more likely to enroll in ARPs than traditional route programs; impacting the need to bring forth a more diverse teaching force. This study showed that ARPs can meet the demands of the field as well as produce a more diverse teaching force; though questions still remain about the quality of preparation.

Special Education Teacher Perceptions of Program Preparation

The Council for Exceptional Children (CEC) standards provides direction from the field focusing on what knowledge and skills special educators must have (Griffin, Garderen & Ulrich, 2014 in Sindelar, McCray, Brownell, & Kraft, 2014). While special educators are being prepared to teach students across a variety of disability categories, grade levels and ability levels; they also must be prepared to provide accommodations/modifications to students across all academic subject areas as well. A lack of personnel prepared to provide quality inclusive services to students with disabilities and their families is one of the primary barriers to serving students in the least restrictive, most inclusive environments (Buell, Hallam, Gamel-Mccormick, & Scheer,

1999). Therefore, with the demand for more special education teachers, plus the need to hold teachers to higher standards to address greater accountability for student learning, it is increasingly important that special educators in ARPs and traditional route programs are prepared to meet the competencies to serve students in a variety of different ways within the school settings.

In a study of special educators' perceptions of CEC standards, special educators reported the competencies outlined in these standards are "somewhat important" to important (Othman, Kieran, & Anderson, 2015; Zionts, Shellady, & Zionts, 2006). The standards special educators found to be the most important included instruction and professional development required by law of students with disabilities; understanding students disabilities based on cognitive, physical, cultural social and emotional conditions; collaboration with parents and other professionals in the assessments of students with disabilities; preparing appropriate lesson plans; behavior management techniques; communication with team members; and establishing a rapport with the learner (Zionts, Shellady, & Zionts, 2006). Some of the areas special educators wrote were important but difficult to implement included: developing a comprehensive, individualized student program; selecting, adapting and using instructional strategies and materials according to the characteristics of the learner; using instructional time appropriately; teaching students to use thinking and problem solving to meet their needs; incorporating evaluation, planning and management that match students' needs; and designing, structuring and managing daily classroom routines (Zionts, Shellady, & Zionts, 2006). Although educators found most of the standards to be important; many felt that it was "difficult to implement them, therefore seeing those standards as impractical" (Zionts, Shellady, & Zionts, 2006, p. 10). However, no reports of whether they believed that training on these standards were provided in their TPPs; and there was no distinction made between the perceptions of teachers prepared through ARPs and traditional route programs.

A similar study was conducted to evaluate educator's perspectives on the 2009 CEC advanced content standards; specifically focusing on educator's knowledge, practice and beliefs. The results showed that many teachers agreed or strongly agreed that they possessed the skills outlined in the CEC's six advanced content standards. Sample standards included: teachers were aware of research-based practices; belief that special education programs should include a range of settings and services; possess the knowledge necessary for effective collaboration; and use current assessment methods and tools to evaluate students with exceptional learning needs. There were a total of 24 questions on the survey; and only 83 participants. Although these participants reported they possessed the skills outlined by CEC, the author suggests "investigating further to understand special educators' current status and training needs" (Othman, Kieran, & Anderson, 2015, page 39). The findings from the aforementioned studies indicate that teachers feel the standards set by CEC are important, but subsequent research is needed to understand whether they feel that they are being adequately prepared to meet these standards.

The push for greater accountability to achieve positive student outcomes has led to evaluating teachers from a set of standards. Benedict and colleagues (2013) argue that in order for special educators to meet these standards, they must be exposed to or told ahead of time what they are being assessed on. There are a variety of tools used to evaluate teachers; most of which are evaluated on their performance using an observation checklist (Benedict et al., 2013) that is the same for all teachers; however, "few address the unique challenges associated with evaluating special educators" (Holdheide, Goe, Croft, & Reschly, 2010, p. 4). Other methods include peer-review, CEC standards, Praxis Exams, Portfolios, and value-added modeling.

Nougaret, Scruggs and Mastropieri (2005) used the observation tool to evaluate 40 first year special educators; half were traditionally licensed and the other half were emergency provisionally licensed. Using observations based off of CEC standards and teacher self-assessments, the findings suggested that teachers who were trained traditionally outperformed the emergency licensed teachers; however, teachers rated themselves similarly on the self-assessment scales, indicating teachers are not aware of their strengths and weaknesses. The scant findings between special education teachers in ARPs and traditional programs raise concerns about preparation and whether both groups truly are being trained to effectively meet the knowledge and skills covered in the standards. Therefore, the purpose of this study was to gain information about ARPs and traditionally trained special education teachers' perception of their training on professional preparation standards targeted at what effective special education teachers should know, and the extent of their training on these skills in their teacher preparation programs. Three research questions were developed to guide this study:

- 1. To what extent do ARP and traditionally prepared special educators feel that their preparation program prepared them with the skills to meet the special education professional standards?
- 2. Is there a difference in the level of perceived preparedness between special educators who earned an alternative license versus traditionally prepared teachers?
- 3. To what extent do special education teachers feel satisfied with the training received in their preparation program and, is there a difference in satisfaction of teachers in ARP's and traditional route programs?

Method

The *Special Education Teacher Preparation Toward Standards* (SETPT) survey was developed to collect data from teachers to gain an understanding of the preparation of SETs on preparation standards. The survey was focused on exploring the relationships between those that are trained through ARPs versus those trained through traditional route programs. A descriptive research design was utilized for this study to collect and analyze the data.

Instrumentation

Survey development. The survey was developed based off three sets of standards: (1) national standards from The Council for Exceptional Children's (CEC) Initial Specialty Set for Individualized General Curriculum National Standards, (2) Virginia Standards for the Professional Practice of Teachers of Special Education, and (3) the Standards for the VA Standards for the Professional Practice for All Teachers. The CEC standards are based off of peer reviews and therefore are a comprehensive representation of what teachers need to use. However, to ensure consistency on what states required, Virginia standards were selected as well to identify if state's standards for special education certification aligned with the national standards. VA standards were chosen based on the researchers' familiarity with the state and certification of special education teachers. A matrix was developed to see how CEC and Virginia standards aligned to guide the preparation of special education teachers. To see if the CEC and Virginia standards aligned, the first author used the matrix to align the CEC six CEC Standard Sections (Learning Development and Individual Learning Differences, Learning Environments, Assessment, Instructional Planning and Strategies, Professional Learning and Ethical Practice,

and Collaboration) with the six VA State Standards (Professional Knowledge, Instructional Planning, Instructional Delivery, Assessment of and for Student Learning, Learning Environment, and Professionalism). Standards were compared across all areas using the matrix (see Figure 1). Survey questions were created from commonalities between national and state standards, as well as further incorporating national standards not addressed in VA standards. The end result was 55 competencies across 6 competency areas: Knowledge, Planning, Delivery, Assessment, Environment, and Professionalism.

	VA Standards for All Teachers						
CEC Core Concepts	VA Special Educator Core Concepts						
	1	2	3	4	5	6	7
Learner Development and Individual Learning Differences							
Etiology/Causes							
Characteristics	•			•			
Effects of Disabilities	•				•		1
Communication deficits							1
Levels of support	•			•	• •	•	
Learning Environments							
Barriers	•	•	•	•			
Adaptation	•		• •		•		
Methods			•		•		
Variety of settings	•		•		•		_
Routine					•		
Assessment							
Procedures for assessing and reporting behaviors				•	•		
Specific assessment instruments	•	•		••			
Select, adapt, modify assessments	•	•	•	••			
Early identification of students who may be at risk							
Instructional Planning & Strategies							
Research supported methods	•					•	
Subject specific methods	•	••		•			
Methods for increasing accuracy and proficiency in math							
calculations and application							
Methods for guiding individuals in identifying and							
organizing content							_
Interpret sensory, mobility and perceptual information to							
Understand how design and implement instruction							_
strategies for medical self-management							
Adaptations and technology	•	•				-	+
Use information to guide instructional decisions	•	••	•	••	•	-	+
Teach strategies for varying content areas		•	•		•		+
Specialized instructional and assessment strategies		-	••		•	1	+
Age & Ability appropriate instruction		•	•	•	•	-	+
Select, design and use technology and materials		, ,	•	•	Ť	+	+
Curriculum & Instruction that address independent living		•		1		1	+
and career education							
Understand prevention and intervention strategies for				1			



Figure 1. Matrix Comparison of all National and Virginia Standards.

A draft of the survey was sent to 3 experts in the field familiar with teacher preparation standards and to 5 doctoral candidates to help establish content validity. The survey was pilot tested by 28 students enrolled in one of the researchers graduate-level special education course in order to minimize error in survey implementation. The expert reviewers, doctoral candidates, and students enrolled in the researchers' course provided feedback about the clarity of each question and each section of the survey, length of the survey, and how to get potential participants motivated to take part in the survey. Three other questions were removed from the final survey and several questions were refined or re-grouped based on the feedback from the reviewers. The final survey consisted of 26 questions, with many questions having multiple sub-questions.

Survey. The final survey instrument for this study consisted of two sections. The first section (a) gathered demographic characteristics of the participants (e.g., age, gender, education level) and included the (b) route sought to complete teacher license, (c) overall satisfaction with their teacher preparation program, and (d) the courses participants found most useful in their teacher preparation programs. The second section of the survey was entitled Preparation Standards and documented the sets of standards that were derived from the Virginia and CEC standards described earlier. This section consisted of only 6 subsections that had multiple questions that was categorized by each standard. The rating scale for questions in the second section of the survey ranged from 1 to 5 with 1 representing "strongly disagree" and 5 representing "strongly agree." The first subsection was entitled "Knowledge" and focused on the ability of participants to understanding curriculum, content, and developmental needs of students with disabilities. For example, the first question in this section asked participants' agreement level with whether their teacher preparation program prepared them with the skills to understand how students with disabilities learn and develop. The second subsection was entitled "Planning" and focused on participants' ability to use state standards, school's curriculum, and using effective strategies, resources and data to make decisions and meet students' needs. The third subsection was "Delivery" and focused on instructional strategies to meet students' needs. The fourth subsection was "Assessment" and focused on participants' ability to gather and analyze data to track academic progress, guide instructional content and delivery methods, and provide feedback to teachers and families. The fifth subsection was "Environment" and focused on participants' ability to use provide a safe, productive, and student-centered learning environment. The final subsection was "Professionalism" and focused on participants' ability to provide professional practice and collaboration (e.g., ethics, communication, responsibility) to enhance student learning.

Procedures

The survey was sent electronically to special education teachers between November and December of 2016. Participants were recruited nationally through a two-step process. First, the survey was posted to two active social media groups on Facebook for special education teachers. The groups, which has over 1,000 members collectively, also provided a representative sample of special educators working in K-12, in public and private school settings. Secondly, we forwarded the survey to several coordinators of special education programs at higher education institutes and requested that they forward the survey to in-service and pre-service teachers. These schools were purposefully selected based on the types of programs that are offered, to provide a comprehensive sample of participants. The author requested that program coordinators send a reply email to the second author with the approximate number of students the email was forwarded to in order to help with calculating the return rate of the survey; no responses were received. Along with the questions, the survey included a brief introduction message that explained the IRB approval and intent of the study. Approximately 14 days after the initial survey was disseminated, an email was sent as a reminder to those individuals that did not have a chance to participate in the study. A second reminder notice was sent approximately 30 days after the initial survey. Roughly, two months following the initial dissemination a final request was sent to hopeful participants.

Data Analysis

Descriptive statistics were used to analyze the demographic content of the survey, as well as for rankings for perceptions of preparation on standards, satisfaction, and frequency. In particular, means and standard deviations were analyzed from the quantitative data. Pearson's correlation (correlation coefficients) statistic was used to evaluate the relationship between variables addressed in the related research questions. In addition, a two-sample *t*-test was used to determine whether difference existed between teacher groups in alternative and traditional licensure programs as it relates to the standards. Finally, analysis of variance (ANOVA) was used to determine differences between teacher perceptions based on program and additional variables.

Results

There were 491 surveys returned in the original sample of which 26 were unusable. Unusable surveys were those that were only partially completed by the respondent. As a result, the final sample consisted of 465 fully completed surveys. While it is difficult to calculate the response-rate based on the recruitment through social media, and e-mails sent; a representative sample from across the nation was provided.

Characteristics of Participants

The demographic results from the survey are presented in Table 1. From the pool of 465 respondents, there was representation from all 50 states with large majority being from VA (64%). In all, the majority of the respondents in this study identified that they were female (91.2%) and males represented 8.8% of the pool. Overall, respondents were majority White (83.8%) and between the ages of 41-50 (27.5%). For those who indicated they were alternatively trained, 82% of respondents were white, 15% were black, and 3% were Hispanic or Other. Comparatively, 83% of respondents who were traditionally prepared were white, 10% were black, and 7% were Hispanic, Asian, or Other. 92% of traditionally prepared teachers were females, which is similar to that of alternatively prepared teachers. In terms of the educational background of the respondents, nearly 68.9% held bachelor's degrees and 64.1% indicated earning a master's degree (respondents were able to mark all levels of education completed). The majority of respondents (55%) indicated they completed all of the requirements for a full license in special education at the time they were hired to teach. And, a majority of respondents (73.7%) indicated that they now hold a full license to teach special education.

Type of Program

Respondents were asked to describe the type and format of their teacher licensure program and what type of training and courses were experiences of the program. Overall, nearly half of the respondents (42.8%) completed a fifth year or master's degree program that led to certification in special education, while 18.9% indicated they completed an alternative license (non-traditional) program. Respondents were asked in what format was their preparation program delivered. Of those who indicated they were prepared traditionally, 11% of the responded their program was delivered in a hybrid format; 14% indicated their program was delivered online and 73% indicated the program was delivered in person. For those who indicated they were a hybrid program, 25% were instructed face-to-face, and a majority of 43% indicated the program was delivered online. One hundred and three respondents (about 22% of the total respondents) described their program.

Respondents were asked which disability category they were certified or certifying to teach after program completion. Over two-thirds of the respondents indicated preparation to teach students identified with a specific learning disability (80.2%), intellectual disability (64.6%) and emotional disturbance (62.5%). Finally, respondents were asked about courses in their teacher preparation program that they found more useful in their training to meet the challenges they face as special education teachers. There were a wide range of responses, however characteristics of students with disabilities (70%), behavior and classroom management (62.3%), and assessment and evaluation of students with disabilities (60.7%) received higher than 50% average from respondents. A complete list of the demographic and teaching background findings can be found in Table 1.

Table 1	Demogra	phic Data	Results
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Demographic	n	%
Age Under 30 30-40	87 122	18.7 26.2
41-50 51-60	128 191	27.5 21.7
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61-70	27	5.8
Gender	423	91.2
Male	41	8.8
Ethnicity		
White, Non-Hispanic	378	82.5
Black, Non-Hispanic	50	10.9
Hispanic	4	.8
Native American	1	.2
Asian/Pacific Islander	11	2.4
Other	14	3.1
When hired, did you meet all requirements for a full teaching license?		
Yes	252	54.9
No	207	45.1
Certification Route		
Bachelor's	133	28.6
Fifth-year or Master's	196	43.2
Alternative	84	18.1
Other	47	10.1
Format of Licensure Program Delivery		
Hybrid	71	15.3
In person	300	64.7
Online	93	20
Currently Teaching		
Yes	418	91.9
No	37	8.1
Number of years as a Special Educator		
1-5 years	197	42.9
6-10 years	84	18.3
10 years+	178	38.7

Notes: n = Number of Participants, % = Percentage of Total Answers

Extent to which TPP Prepared SETs to Meet the Special Education Professional Preparation Standards

Table 2 displays the means and standard deviation for each standard and how respondents reacted to whether their program prepared them to meet the standard. On average, respondents indicated that they *agree* (M = 3.93, SD = .04) that TPP's provide overall training that prepares SET's with *Professional Knowledge* of curriculum and development practices to meet the needs of students with disabilities. In the next section we asked whether respondents perceived their TPP prepared them with the skills to use effective strategies to *Plan Instruction* to meet the needs of students. These results revealed respondents agree (M = 3.69, SD = .05) that TPP's are providing this training. In the next section, respondents were asked about their preparation to *Deliver* a variety of instructional strategies, and similarly results revealed that respondents agree (M = 3.93, SD = .04) that TPP's are providing the training. The fourth section reported respondents agree (M = 3.93, SD = .04) that TPP's are providing the training. The fourth section reported respondents relating to the *Assessment* of and for student

learning. Overall, respondents agreed (M = 3.99, SD = .04) that TTP's are providing training in this skillset. The next set of standards related to managing and providing a safe student-centered learning *Environment*. A majority agreed (M = 4.09, SD = .04) that they are being prepared to meet these standards. Finally, standards relating to maintaining a commitment to the *Profession* and collaboration were answered. Like the previous standards, respondents agreed (M = 4.04, SD = .04) that they feel TPP's are providing preparation to meet this standard.

	Traditic	onal Certific	<u>cation</u>	Alternative Certification		
Standard	n	М	SD	n	M	SD
Knowledge						
Understand how students learn and develop.						
Design, implement and evaluate instructional methods that enhance social participation & make subject matter meaningful.	334	4.17	.746	83	4.23	.754
	333	3.99	.885	81	4.10	.784
Review data, assessments, and diagnostic information to develop and modify appropriate IEPs. Maintain confidentially and respect privacy of students families colleagues and	334	3.99	.925	83	4.16	.876
administrators.	333	4.31	.718	83	4.34	.801
Identify, assess, use and maintain assistive technologies.	334	3.49	1.146	83	3.66	.991
Understand the causes, diagnoses, and medical aspects of disabilities.	332	3.84	.990	82	3.93	.913
Understand the similarities and differences of varying disabilities.	333	4.12	.804	81	4.20	.714
Understand the educational implications of disabilities as they relate to varying areas of development. Understand the characteristics and effects of culture and environment.	334	3.93	.953	82	4.02	.831
Understand the laws, regulations and policies.	554	5.07	.937	01	5.99	.785
	334	4.14	.801	83	4.20	.745
Understand the historical background of special education.	333	4.19	.800	83	3.89	.827
Plan, implement and assess standards specifically in math and reading.	332	3.70	1.047	83	3.89	.827
Know how to implement age and ability appropriate research-based, instructional strategies. Use research supported methods for transition	334	3.88	.976	83	4.17	.678
and other non-academic instruction.	333	3.74	1.049	82	3.96	.895
Understand the barriers to accessibility and promote access of related services.	333	3.81	.970	82	3.96	.823

Table 2. Descriptive Statistics of Standards Based on Certification

Encourage social and emotional growth by acknowledging the effect of peers on social- emotional development.						
	333	3.91	.929	81	3.94	.871
Understand the effects of language development and listening comprehension on academic and non-academic learning. Understand communication and social interaction elternatives for individuals who	332	3.89	1.004	82	3.99	.923
are nonspeaking. Recognize and understand typical language	332	3.57	1.173	81	3.63	1.066
development and how it may differ.	332	3.79	1.030	82	3.82	1.008
Planning Design lessons focused around subject matter, community, IEP goals and student's needs.	331	4.09	.871	82	4.15	.877
Collaborate with colleagues to develop and implement instructional programs focused on transition.	332	3.76	1.080	82	3.89	1.066
instruction in a variety of settings.	332	4.09	.875	82	4.21	.885
Use sources of specialized materials, curricula and resources.	331	3.92	.901	82	4.06	.851
Select, plan and coordinate activities with related services.	332	3 65	1 045	82	3 78	969
Implement methods for increasing accuracy and proficiency in math.	552	5.00	1.013	02	5.70	.909
Implement methods for guiding individuals in	330	3.53	1.043	82	3.41	1.111
identifying and organizing content.	331	3.72	1.007	82	3.67	.982
information to create and adapt appropriate lessons. Understand how to design and implement instructional strategies for modical solf	330	3.56	1.094	80	3.63	1.060
understand prevention and intervention strategies for students at risk for a disability.	330	3.07	1.252	82	3.22	1.238
	328	3.55	1.180	82	3.66	1.136
Delivery						
Use appropriate instructional strategies and practices to foster positive interactions.	332	4.11	.796	83	4.14	.828
Use a variety of materials, technologies and resources that promote independence, self- determination, problem solving, and study	222	2.95	0.97	82	4.10	826
Understand the effects of cultural and	333	3.83	.980	82	4.10	.820
development, behavior, and communication.	330	3.74	.994	83	3.94	.980

Use varying strategies to elicit responses across settings.	331	3.93	.917	82	4.09	.773
Assessment Communicate expectations, while using a variety of assessment strategies to monitor student progress and provide feedback.						
Use functional assessments to set measurable and appropriate goals for students and monitor progress.	330	4.08	.841	83	4.12	.817
Use data to guide instructional decisions, make placement or eligibility decisions, and provide feedback.	330	3.98	.899	83	4.13	.908
Select, adapt, and modify assessments to accommodate each student while recognizing limitations of assessments.	330	4.00	.914	83	4.14	.899
Paccorpize, develop and modify individualized	331	3.95	.976	83	4.01	.819
assessments.	328	3 99	919	83	4.12	861
Use multiple sources of data when making a decision.	226	4.12	.919	03	4.12	.001
Assess and recognize methods of early identification of students who may be at risk for a disability.	320	4.12	.820	03	4.17	.030
	329	3.80	.995	82	3.85	.995
Environment Establish a consistent classroom routine.	221	4.00	0.00	0.4	4.10	000
Create a learning environment that students learn self-determination, discipline and feel empowered.	331	4.08	.868	84	4.19	.898
	330	4.05	.903	84	4.15	.857
Use non-aversive techniques to control targeted behavior.	227	3 04	048	84	4.02	883
Establish and maintain rapport with students	332	5.94	.940	04	4.02	.005
and families.	331	4.13	.864	84	4.20	.773
Organize, design and sustain a safe, supportive environment that allows student be actively engaged.						
	331	4.18	.802	84	4.21	.793

306

Create a learning environment that shows effective management skills.						
Use and implement appropriate behavior management procedures for assessing social behaviors.	328	4.08	.872	83	4.07	.880
	329	4.07	.914	84	4.12	.884
 Professionalism Collaborate with administrators, colleagues, families, students and community members. Communicate effectively and in a timely manner with families. 	331 332	3.94 4.04	.913 .861	83 84	4.00 4.00	.855 .878
Collaborate with team members and use resources to plan transitions at all levels, that encourage inclusion & participation.						
Reflect on what, how and whom you teach to improve their practice.	332	3.81	.966	84	3.92	.947
Keep up on the current research-based	329	4.08	.839	84	4.05	.877
practices education. Model professional and ethical standards.	330	4.02	.863	83	4.07	.823
Engage in professional activities that benefit individuals, families and colleagues.	330	4.22	.797	83	4.34	.737
Understand the roles of professional groups, agencies, and related service providers.	332	4.08	.831	83	4.07	.880
	331	4.01	.891	84	4.11	.892

Note. Scale: 5= Strongly Agree, 1= Strongly Disagree.

SD = Standard Deviation, n = Number of Participants, M = Mean

Relationship Between Teachers Prepared Through ARPs and Traditional Route Programs

To determine if a relationship existed between preparation routes (i.e. alternate route and traditional route) and perception of training on the standards, the researchers used Pearson correlation product-moment correlation coefficient analysis. The results revealed a significant positive relationship between teacher preparation route and perception of preparation based on the standards, r(463) = .93; p = .007.

Difference in Preparation Between Alternatively and Traditionally Trained SETs

The second research question that was used to guide the study was focused on whether differences in preparation on the standards existed between SET's prepared through ARPs and those teachers prepared through traditional route programs. Figure 2 displays an error bar chart which shows the average (and 95% confidence interval for the average) SET perception score,

separately for teachers prepared in ARPs and those trained in traditional route programs. The figure shows that there was no significant difference that existed between the two groups.



Figure 2. Preparation perception of alternatively and traditionally prepared SET.

A two-sample *t*-test were performed on the research question. The average SET perception score was 3.92 (.06) versus 3.96 (.06) for teachers in ARPs, and teachers in traditional route programs, respectively, t(10) = 2.23; p = 0.594. Therefore, we cannot conclude that a significant difference exists between SET's perceived preparation on the standards based on preparation route.

As a final point, to determine if perception of training existed between alternatively and traditionally trained teachers to work with students based on disability categories (i.e. high or low incidence), a one-way fixed ANOVA was run. Results suggest that there was not a significant effect of disability categories on overall perception of preparation program, based on the results of the Welch (F(2, 71.075) = 2.843, p = .065) and Brown-Forsythe (F(2, 123.457) = 2.823), p = .063) tests. These tests were used in place of the omnibus F-test as Levene's test (F(2, 445) = 3.619, p < .05) suggests that the group variances were not equal. Therefore, it is evident that preparation to work with students based on disability categories (high or low incidence) does not have an effect on overall perceptions of standards.

Extent SETs Are Satisfied with Training in TPPs

The third research question that was used to guide the study asked SETs to rate their satisfaction with the training received in their TPP. Overall, the majority of respondents indicated a very positive rating (36.6%) of their TPP; followed by 30.8% with an extremely positive rating, 23.1% positive, 8.5% positive, and only 1% with a not at all positive rating of their preparation. The overall mean rating of the satisfaction of teachers enrolled in ARPs were M = 3.81, SD = 0.11 vs. traditional programs M = 3.77, SD = 0.06. A two-sample *t*-test was conducted for differences between the groups according to overall satisfaction of program and training received on standards, respectively, t(1) = 12.71; p = 0.66. Therefore, it was determined there was no significant difference that exist in satisfaction ratings between teachers in ARPs and traditional route programs.

Discussion Limitations of the Study

There were several limitations of this study. Despite the authors' attempt to develop a survey that would ensure consistent standards across national and state preparation requirements, the instrument did not cross examine the standards from each of the 50 states and hundreds of programs that may not be CEC certified, where some study participants were recruited. The instrument did not inquire from participants whether there were more or less standards that should be considered, nor did it inquire whether differences existed between standards represented in their own state and program. This factor may affect whether ARP or traditional route programs are doing more or less to effectively prepare their teachers. This study also did not address implementation of the standards and how preparation impacts performance of the standards. The study sought out participants who were pre-service and in-service teachers. Therefore, another limitation would include some of the participants were not finished with their programs; which could have impacted the results of identifying fully qualified teachers.

Additionally, the respondents were asked to generate answers based on their own perceptions of whether programs are teaching the standards. A self-report survey often comes with biases, and answers of participants can often be driven by the self-interest of the respondents (Swann, Chang-Schneider, & McClarty, 2008). Despite these limitations, this study is a unique example of teacher preparation across ARPs and traditional route programs on this topic and represents a reasonable start for future research on this issue.

Extent ARP and Traditionally Prepared Teachers Feel TPPs are Preparing Them to Meet Standards

As specified previously, ARPs were created to meet the demand of the field; however, questions exist regarding the effectiveness of the programs. Research has acknowledged that ARPs can increase the number of SET's in the field, while also creating a more diverse teacher population (Robertson & Singleton, 2010). Though, questions still exist around ARPs and their ability to prepare teachers to meet the needs of students with disabilities. Some research suggests that teachers who were trained traditionally typically outperform those trained alternatively (Scruggs & Mastropieri, 2005). Personnel preparation programs play a critical role in preparing special educators to meet the needs of students in the classroom and also meet a set of standards (Griffin, et al., 2014). Most special educators feel it is important that they understand the competencies outlined in the CEC standards (Zionts et al., 2009); however, no study was conducted on whether teachers felt that ARPs were providing training to meet these standards. Furthermore, no study was conducted to determine how teachers of ARPs and traditional TPPs perceive their training toward meeting standards despite the differences in preparation routes. The present study sought to gather information from SETs to determine if a difference existed between the ARPs and traditional route programs to meet standards. The respondents were asked specific questions about how they felt their TPP prepared them to meet each standard. By understanding this, researchers can better comprehend if there is a difference in the preparation of ARP and traditionally licensed teachers.

A majority of SETs in the present study reported that their TPPs are preparing them to meet professional preparation standards (M = 3.93, SD = .04). Because TPPs have a central role in training teachers to meet these standards, it is important that national (e.g., CEC) and state professional standards are incorporated in program preparation. It is positive to see that SETs' perceive that training is being provided across each set of standards. While the results reveal that

TPPs are preparing teachers to meet the standards, we were specifically interested in whether teachers of ARPs perceived they received training toward the standards. Overall, the results of this study indicated that there was no significant difference between ARPs and traditional route programs giving SETs the skills to effectively meet the standards, indicating that programs are giving teachers the abilities to meet the standards; as perception score was 3.92 (.06) versus 3.96 (.06) for teachers in ARPs and teachers in traditional training programs, respectively, t(10) = 2.23; p = 0.594. This finding is similar to those of Othman et al. (2015) participants that felt they possessed the skills necessary to meet the standards. This study drew from a larger population and included more standards; however, teachers from both types of programs felt they were being adequately prepared.

A final point on this topic revealed that regardless of preparation toward working with students based on disability categories, SETs in ARPs and traditional route programs both indicated training on standards. This was an interesting finding considering the CEC national standards chosen for this topic were commonly focused on special education general curriculum, which is often associated with high incidence disabilities (e.g., specific learning disabilities, emotional disturbances). This may suggest that programs are preparing teachers to have the skills and competencies to meet the needs of students across the disability spectrum. Though both teacher groups (ARP and traditional route program) perceived training is not as strong on standards often identified for students with low incidence disabilities such as *understanding how to design and implement instructional strategies for medical self-management, 3.07* (1.25) versus 3.22 (1.24). The authors did not find this incredibly troublesome given the overall results but offer this standard as a point of conversations for both ARPs and TPPs.

ARPs and Traditional SETs Feel Satisfaction with Training

Regarding how satisfied teachers feel about the training received in their preparation programs, an overwhelming majority (99%) had a positive rating of their TPPs; reaffirming that SETs perceive that TPPs are preparing them to meet the needs of their students. Teachers trained in both ARPs (M = 3.81) and traditional route programs (M = 3.77) each positively rated their training with no significant difference between the groups. We believe that this is a positive finding for ARPs that ratings are the same and even slightly higher than ratings of teachers in TPPs. That despite the fact that questions about adequacy about preparation exists, ARP teachers perceive that their programs are providing adequate preparation to meet the needs of students and that overall ARP teachers have a positive rating of the training received in their preparation programs.

Future Research and Conclusion

There are several implications for future research to be discussed. First, this study addressed a topic about the preparation of ARP and traditional route programs special education teachers on national and state competencies. What is recommended is a follow-up to examine teachers of ARP and traditional route programs on the effectiveness of mastering competencies in the field to meet the needs of students. This study did not observe ARP and traditionally prepared teachers to see if differences existed in their perception of effective delivery of standards. Second, a closer inspection of accreditation of ARP and traditional route programs may be justified as this information can assist in determining priorities of programs that help to prepare special education teachers. A follow up study that focused more on training goals of ARP and traditional route programs (similarities and differences) would be an important

extension of related research and may be able to offer solutions to questions about the significance of ARP programs when compared to traditional programs. Thirdly, it may be useful to conduct a study that investigates whether VA standards are consistent with teacher certification standards across all 50 states compared with the national CEC standards. This would allow for a strong comparison of the standards that teachers are being held to and what would identify a teacher as being qualified.

The results of this study provided insight into the perception of training special education teachers prepared through ARP and traditional route programs received. We believe that findings suggest that from the perception of alternate route and traditionally prepared teachers, that irrespective of preparation route, TPPs are helping to effectively meet national and state standards. Given the limited research on the effectiveness of ARPs and the questions about ARP adequacy, the findings from this study provide insight into the quality of ARPs as perceived by the teachers prepared in the programs.

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Factors Influencing Parents' Selection of Schools for Children with Disabilities: A Systematic Review of the Literature

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Abstract

School choice has become one of the most controversial issues in education. However, little is known about how parents of children with disabilities chose schools. The present article includes an international systematic literature review of research on the factors influencing the decisions of parents of children with disabilities when selecting schools or special education programs. The literature review showed that parents of children with disabilities consider a large variety of factors when choosing schools, including the availability of special education programs, distance of the school, social continuities, class size, teachers' characteristics, parent-teacher communication, beliefs about disability, and the children's well-being. Socioeconomic status and parents' areas of residence had a mixed influence on the decision-making process. The studies found a dire need for research on how parents from culturally and linguistically diverse backgrounds choose education programs for their children.

Keywords: school choice, parents, children with disabilities

Introduction

On September 16, 2014, *Education Week* published an article documenting the experience of Diana Diaz-Harrison, a mother who established a charter school for kids with autism, one of a hundred nationwide charter schools focusing on special education (Prothero, 2014). While the school was founded in response to the specific needs of her son with autism,

her act ran counter to the ideal of inclusive education. Nevertheless, this special charter school was positively accepted by other parents who shared a similar situation, some of whom moved from other states to have their children enroll there (Prothero, 2014). These were the parents who could afford to change their place of residence in order to be near a better school. This is an example of one important determinant of choice in selecting schools, that is parents' ability to navigate resources, access, and educational opportunities for their children.

Parents traditionally enroll their children into schools assigned by the local school district (Altrichter, Bacher, Beham, Nagy, & Wetzelhütter, 2011; Jacobs, 2011). However, school choice policy offers parents a degree of autonomy: they may select a school or an education program for their children beyond the boundaries of neighborhoods and districts (Center for Education Reform, 1993; Jacobs, 2011; Shumow, Vandell, & Kang, 1996; Pyryt & Bosetti, 2007; Ysseldyke, Lange, Delaney, & Lau, 1993). Parents also have the option to select charter schools, magnet schools, or private schools. Their choices have considerable impact on the social and academic outcomes of students with disabilities. This being the case, it is important to examine the factors that impact parents' choice of schools.

Research studies have examined the school selection process and have determined that parental choice of school is strongly influenced by socioeconomic factors such as race and income (Ball, Rollock, Vincent, & Gillborn, 2013; Deluca & Rosenblatt, 2010; Ellen & Kristie, 2008; Goyette, 2008; Joshi, 2014; Sattin-Bajaj, 2015) and by the areas in which parents reside (Danielsen, Fairbanks, & Zhao, 2015; Denton, 2001; Goyette, 2008). However, little is known about how parents of children with disabilities chose schools. There is a paucity of research available on the factors influencing the school selection of parents of children with disabilities (Glenn-Applegate, Pentimonti, & Justice, 2011; Ysseldyke et al., 1993).

This systematic literature review is timely. First, there has been increasing interests among parents of children with disabilities in exercising their right to choose a school. Considering only the case of charter schools, between 2003 and 2013, the number of public school students enrolled in charter schools increased from 1.6% to 5.1% (National Center for Education Statistics, 2016). In 2012, as many as 13.6 % of charter school students were students with disabilities compared to 12.9 % in assigned public schools (Rebarber & Zgainer, 2014).

Second, there are concerns regarding the accuracy of information available for parents' school choice and the consequences of the choice. The lack of accurate information may negatively affect both parents and students with disabilities. Research shows that low-income and immigrant families often make choices based on the publicly promoted assumption that private or charter schools are naturally better than public schools (Beabout & Cambre, 2013; Sattin-Bajaj, 2015). Insufficient knowledge and the desire to provide what they believe to be a better education may lead parents to make decisions with severe consequences. For instance, parents who transfer their children with disabilities from public to private schools must pay extra costs that the state voucher they receive does not cover, and they lose partial or full civil rights protection under the Individuals with Disabilities Education Improvement Act (IDEA; 2004; Almazan & Marshall, 2016; Samuels, 2016; Shah, 2012).

Finally, parents of children with and without disabilities have different considerations when selecting schools, yet research on school choice often overgeneralizes parental decision making, conflating the two groups (Glenn-Applegate et al., 2011; Ysseldyke et al., 1993). Parents of children without disabilities often choose a school that is academically superior and matches their philosophy, one that is safe and close to home (Bell, 2009; Betts, 2009). However, other factors may come under consideration when parents must choose schools for children with

disabilities, most importantly, the availability of services needed for their children (Byrne, 2013; Glenn-Applegate, Justice, & Kaderavek, 2016; Villavicencio, 2013).

The dynamic process of selecting education programs, which is reinforced by school choice policies, provides ample room for the perpetuation of inequality of educational opportunity based on the variables outlined above. The present review takes into account parents' socioeconomic backgrounds (race/ethnicity, income, education, immigration status, and residential areas). In addition, it includes early childhood (Pre-K) up to secondary education. More specifically, this review addresses the following questions:

- What are the factors influencing the decisions of parents of children with disabilities when selecting schools or special education programs?
- Do those factors vary by parents' race or ethnicity, immigration status, income level, educational attainment, and residential area?

Method

To answer the research questions, we conducted a systematic literature search and identified studies published between January 1988 and July 2016, when the literature search was conducted. In what follows, we present the search terms, inclusion criteria, and methods used to identify the relevant studies.

Search Terms

The first step of the search process was to set terms that were the most likely to yield relevant articles. Five levels of search terms were used. Level one search terms were parent* or family or caregiver. Level two search terms were race or ethnicity or Caucasian or White or African American or Black or Hispanic or Latin* or Asian or Indian or Native American or third world or low income or low SES or poor or middle class or upper class or wealthy or rural or urban or immigrant or English learner or non-English speaking or non-English-speaking or minority or underserved. Level three search terms were decide or decision making or select* or prefer* or choose*. Level four search terms were school or education or education program or Open Enrollment or voucher program or charter school or magnet school or private school or special school or alternative school or integrated school or mainstream school or inclusive school or school choice. Level five search terms were child* with special needs or special needs child* or disability or child* with disability* or disorders or learning disability* or learning difficulties or learning problem or autism or autism spectrum disorder or Asperger's or deafblindness or hard of hearing or hearing impairment or emotional disturbance or behavioral disorder or emotional disorder or behavioral disorder or psychiatric disorders or intellectual disability or mental retardation or mental illness or cognitive impairment or multiple disabilities or orthopedic impairment or physical disabilities or other health impairment or speech disorder or language impairment or traumatic brain injury or visual impairment or blindness or attention deficit hyperactivity disorder or at risk. After consultation with expert librarians, we utilized five electronic databases in education: ERIC, Education Research Complete, PsychINFO, Web of Science, and Family and Society Studies Worldwide.

Inclusion Criteria

We then established the inclusion criteria. Articles were selected if they: a) aimed to describe or answer questions about the factors parents consider when choosing a school; b)

included parents of children with disabilities; c) were published in English in peer-reviewed journals d) were published between January 1, 1988 and July 31, 2016; e) used qualitative, quantitative, mixed-method, or single-case subject design. The review focused on empirical studies published since 1988, which marked the start of the open enrollment plan through which students were allowed to enroll in any public school regardless of their residential location (Hill & Jochim, 2009). Initial screening from the database search showed that among studies meeting these criteria, only a few were published in the United States. Therefore, we extended the inclusion criteria to cover global research. We excluded studies that focused on parents' satisfaction with their children's schools or education programs and studies that does not include the decision making of parents of children with disabilities.

Search Strategies

We used three search strategies. First, we applied the search terms to the five electronic databases and identified 2,662 studies. Then, we screened the initial 2,662 studies using the selection criteria. The screening filtered the studies to 20. Of those studies, we read the full texts closely to make final decisions about their eligibility. Four studies remained. The second strategy was to conduct a backward search from the previously published literature review, which was Byrne (2013) and to select the studies that match the inclusion criteria. By applying this strategy, we identified three additional studies. Finally, we conducted a hand search that added eight more empirical studies corresponding to our inclusion criteria. As a result of the application of these three strategies, 15 empirical studies were included in this review.

Results

The results are organized in two parts. We first report the descriptive information about the selected studies. Then, we present the findings of the selected studies addressing the research questions.

Descriptive Information

From the studies included in this review, parental decision making about school for their child with disabilities has received scholarly attention only since 1993. This is in keeping with the fact that education research often overlooks the issue of disability (Artiles, Dorn, & Bal, 2016). Since then, there has been a consistent research effort internationally to capture the dynamics of school selection from the perspectives of parents of students with disabilities. Eight of the 15 studies (53%) discussed here were conducted in the United States, six (40%) in England, and one in Australia. However, many aspects of factors related to school choice by parents of children with disabilities have still been insufficiently addressed in these 15 studies, such as race/ethnicity, immigration status, income level, and parents' educational attainment. The studies fall short in addressing the decision making of non-White parents of children with disabilities. Participants for the two major studies of Glenn-Applegate et al. (2011; 2016) included only 20 and 7.21 percent respectively of African American parents. Four studies included small number of parents from other ethnicities, such as Chicano, Puerto Rican, Latino, Turkish, and mixed-race (Flewitt and Nind, 2007; Glenn-Applegate et al., 2011; Glenn-Applegate et al., 2016; Ysseldyke et al., 1994). Only Ysseldyke et al. (1994) provided rationales for the lack of participation of African American parents in their study. Not one of the studies provided sufficient information about family's immigration status or made an in-depth connection between the school selection factors and the immigration status. Jessen (2013)

highlighted a case study of an immigrant father from Jamaica who moved to the United States in 2004, and Freeman et al. (1999) mentioned having English- and Spanish-speaking parents in their studies, yet neither study connected these characteristics in their discussions.

Ten of the 15 studies (67%) did not specify the income level of the parents. Two studies (13%) mentioned having participants from a middle-class background (Flewitt & Nind, 2007; Glenn-Applegate et al., 2011), while three other studies (20%) mentioned having participants from middle- and working-class parents (Bagley & Woods, 1998; Bagley et al., 2001; Glenn-Applegate et al., 2016). The studies also lacked information about educational background: ten of the studies (67%) failed to provide information on parents' educational attainment.

Studies included parents from various educational backgrounds. Educational levels ranged from eighth grade to completion of doctoral degrees (Bajwa-Patel & Devecchi, 2014; Freeman et al., 1999; Glenn-Applegate et al., 2011, 2016; Ysseldyke et al., 1994). Of those, three studies (Bajwa-Patel & Devecchi, 2014; Glenn-Applegate et al., 2016; Ysseldyke et al., 1994) mentioned having more than 70% of participants with college degrees. Nevertheless, none of the studies focused on how parents with lower education attainment and low-income select schools which suggests an urgent area of investigation for future research on parents' choice.

Residential location has been a relatively common focus of researchers' attention, but comparative analysis has been rare. Two studies (13%) focused on parents living in rural areas (Bajwa-Patel & Devecchi, 2014; Finn et al., 2006), while only one study (7%) focused specifically on the decision-making of parents living in urban areas (Jessen, 2013). Jessen (2013) conducted his study on parents in New York City. Two studies (13%) focused on parents living both in urban and suburban areas (Flewitt & Nind, 2007; Glenn-Applegate et al., 2011). On the other hand, four studies (27%) had a combination of parents from urban, suburban, and rural or semi-rural areas (Bagley et al., 2001; Bagley & Woods, 1998; Ysseldyke et al., 1993, 1994). No study focused solely on parents living in suburban areas.

Based on the types of disability, there has been a minimal focus on a single disability. Eight of the 15 studies (53%) included more than one type of disability simultaneously in their research, among them specific learning disabilities, developmental delays, speech disorders, emotional/behavioral disorders, Asperger's syndrome, hearing impairment, cerebral palsy, and other physical disabilities. Twenty-seven percent of the studies focused specifically on parents of children in secondary education, 20% on pre-school, 20% on primary school, six percent on both primary and secondary school, and seven percent from Pre-K until secondary school. Again, the comparative analysis has been limited. The types of the educational program selected ranged from none, through choosing a school within the assigned school district, choosing one outside it, choosing a charter school, or choosing an inclusive or alternative school.

In terms of the type of research methodologies used to investigate school choice, qualitative methodologies were dominant (n=10; 67%). Four studies (27%) employed quantitative methodologies, and only one study (6%) employed mixed methodology. In what follows, we provide an overall picture of the findings. Table 1 provides detailed information about the characteristics of the selected studies and Table 2 provides their findings regarding the factors influencing parents' selection of schools for students with disabilities.

Method

Parents demography Country

(Author/year)			disability	education programs		
Bagley and Woods (1998)	To discuss parents' experiences selecting a secondary school.	Qualitative	Secondary school; disability was not specified	Type of program not specified	No demographic information mentioned	England
Bagley, Woods, and Woods (2001)	To explore the experiences and reasons selecting secondary school.	Qualitative	Secondary school; disability was not specified	Type of program not specified	Middle class in a town, working class in a high unemployment urban area, and a semi-rural area	England
Bajwa-Patel and Devecchi (2014)	To study the dynamics of school placement and how the choice schools addressed the needs of children with disabilities.	Qualitative	Grade 7; had communication disorder, cognition or learning difficulties, and sensory or physical disability	Open enrollment	About 70% mother; age 41-50. Majority has higher education degree	England
Finn, Caldwell, and Raub (2006)	To learn about why parents choose charter school for their children with disability.	Qualitative	Age 7-14; EBD, speech, Asperger syndrome, LD.	Charter school	No demographic information mentioned	The United States
Flewitt and Nind (2007)	To learn about how parents decide to combine inclusive and special education	Qualitative	Preschool /early childhood education; Speech and language, Learning disability, autism, physical disability due to CP	Inclusive and special education	Sixteen White UK, three Turkish, middle class	England
Freeman, Alkin, and Kasari (1999)	To examine parents' satisfaction and reasons to change educational program for children with Down Syndrome	Quantitative	0-21 years old; Down syndrome	Special to inclusive school	Two hundred and ten English and 81 Spanish speaking; English speaking parents had higher education than then Spanish ones	The United States
Glenn-Applegate, Justice, and Kaderavek (2016)	To explore what factors parents of children with and without disability value when selecting pre-school	Quantitative	Pre-school; 12 children with autism, 6 cerebral palsy, 6 Developmental delay	Early childhood special education program	Twenty five percent were middle to high class, 22.5% in poverty, 24% mothers went to college but no degree, 3.1% finished eighth grade, 23.6% had doctoral degree. Poor mothers had lower income	The United States
Glenn-Applegate, Pentimont ,and Justice (2011)	To examine what parents value when selecting a preschool for their children with disabilities	Qualitative	Pre-school; All types of disabilities; majority were developmental delay and Speech disorder	Not specified	41 White, 11 black, 1 Puerto Rican, 1 other ethnicity. Average annual income \$60.000; English was the main home language	The United States
Jenkinson (1998)	To investigate how parents of children with disabilities in Victoria decided whether to enroll their children in inclusive or special school.	Quantitative	58% were in primary level, 26% in secondary level, 2 students in special program, Majority of students with physical disability in inclusive school, students with	Integrated, partial integration or special school	No demographic information mentioned	Australia

Grade

and Type of

Table 1. Summary of the Reviewed Studies

Purpose

Study

Leave (2012)	To any de	Minad	intellectual disability were in special school	District high	Na damaganahia	m- 11-4-1
Jessen (2013)	impact of the programmatic resources available for students with special needs.	method	not specifically mentioned the types of disability yet one of the child in the case study had speech disorder	school	information mentioned	States
Lange and Lehr (2000)	To discuss why parents transfer their children to charter schools.	Quantitative	Grade was not specified; all types of disabilities	Charter school	No demographic information mentioned	The United States
McNerney, Hill, and Pericano (2015)	To study the factors influencing parents' secondary school selection for their children with autism	Qualitative	Secondary school; Autism	Local district school	No demographic information mentioned	England
Runswick-Cole (2008)	To explore parental attitude toward inclusion of their children in mainstream school	Qualitative	Grade was not specified; all types of disabilities	Special residential school, and inclusive school	No demographic information mentioned	England
Ysseldyke, Lange, and Delaney (1993)	To examine the reason parents enroll their children through open enrollment program	Qualitative	Not specified	Other school districts through open enrolment	No demographic information mentioned	The United States
Ysseldyke, Lange, and Gorney (1994)	To examine the characteristics of students with disabilities and the reason to participate in the open enrolment program in Minnesota	Qualitative	Grade varied- majority were 7 th grade; Majority LD, other disabilities mentioned but not autism;	Other school districts through open enrolment	Various income and education level. Majority were white. None were African- American	The United States

Table 2. Factors Influencing Parents' Selection of Schools

Study (Author/Year)	Factors influencing school selection	Demographic in	ndicators					
		Education	Ethnicity	Languag e/ Immigrati on status	Economic status	Rural	Urban	Suburban
Bagley and Woods (1998)	Students' special education needs, provisions and facilities, students' happiness	Not available	Not available	Not available	Middle class parents were more aware of market choice, visited schools, and attended meetings before making choice.	Not available	Not available	Not available
Bagley, Woods,	Child's	Not available	Not	Not	Middle and	Order of	Order of concerns:	Order of
and Woods	special		available	available	working -	concerns:	special education	concerns:
(2001)	education				class	proximity	needs, children	special

	needs; child's preference, convenience to commute				parents prioritized special education needs, middle class	and convenience, special education needs, and children	choice, children happiness	education needs, proximity and convenience to travel, and social
					concerned about social	nappiness		continuity
Bajwa-Patel and Devecchi (2014)	Specialists, facilities and programs suiting students' needs, and class size	The author neith ethnicity, langu	her described th age, socioeconc	e demographic omic status, and	information of residential loca	the parents, nor st	tructured the findings l	based on race or
Finn, Caldwell, and Raub (2006)	Charter schools addressed students' special needs; had better communicatio n, and smaller class size	The authors did articles mention	d not specifical ed that all the c	lly mention the	demographic i vere in rural are	information of th as, there was little	e participating parent e evidence to generaliz	s. Although the e the findings.
Flewitt and Nind (2007)	Location, programs addressing children's disability, integration	Not available	Not available	Not available	Not available	No adequate facilities and transportati on	Adequate choices of facilities/progra ms and availability of transportation	
Freeman, Alkin, and Kasari (1999)	Transition to new school level, integration, additional service and support from school, financial capability	The authors d income level,	liscussed pare ethnicity and	ntal satisfactiv	on based on la as in the reaso	evel of educations for school cl	on, yet did not inclu hange.	ide education,
Glenn- Applegate, Justice, and Kaderavek (2016)	Teacher characterist ics, safety, facilities, staffs and programs	No association between maternal education and school selection	Not available	No associatio n between SES and school selection	Not available	Not available	Not available	Not available
Glenn- Applegate, Pentimonti, and Justice (2011)	Facilities, programs, and location	Discussion of 75% (41 paren	the findings on the findings of the findings of the findings of the first second secon	did not take in e and 20% (1	to consideration) parents were	ons parents' der e African Amer	mographic informati ican	on. Although,
Jenkinson (1998)	Integration, academic benefits, children happiness and self- esteem, focus on one life skill, class size, funding, and	The author ne based on race	either describe or ethnicity, l	ed the demog anguage, socie	raphic inform	ation of the pa tus, and residen	rents, nor structure tial locations.	d the findings

	teachers'									
	attention.									
Jessen (2013)	Distance	Not	Not	Not	Location	Not	Not available	Not		
	and	available	available	available		available		available		
	facilities									
Lange and Lehr	Services	The author ne	either describe	d the demog	raphic inform	ation of the pa	rents, nor structur	red the findings		
(2000)	provided,	based on race	or ethnicity, la	inguage, socio	peconomic sta	tus, and residen	tial location.			
	dissatisfacti									
	on with the									
	old school									
McNerney,	Location,	The author ne	either describe	d the demog	raphic inform	ation of the pa	rents, nor structur	red the findings		
Hill, and	optimization	based on race	or ethnicity, la	inguage, socio	peconomic sta	tus, and residen	tial location.			
Pericano (2015)	of student'									
	potential,									
	and enhance									
	academic									
	and social									
Pupewiek Colo	Raliafa	The outbor n								
(2008)	about	hesed on rece	or other describe	a me demog	apine miorin	ation of the pa	tial location	eu me miunigs		
(2008)	disability	Dased on face	of ethnicity, ia	inguage, socio	becononnic sta	ius, and residen	itial location.			
Vecaldyka	Teachers'	Not	Not	Not	Not	Teacher's	Social	Social		
I sseluyke,	affectivenes	available	available	available	available	affectivenes	continuity	continuity		
Delaney (1003)	s special	available	available	available	available	cifectivenes	school	school		
Defailey (1993)	education					3	environment	environment		
	program						and class size	and class size		
	proximity.									
	social									
	continuity.									
	and class									
	size									
Ysseldyke,	Suits	College	No	Not availab	No effect	Concerned	Concerned	Care about		
Lange, and	children's	educated	sufficient		of parents'	about	about	special		
Gorney (1994)	special	concerned	evidence		income	special	environment	education		
	education	about			across	education		program and		
	needs,	familial			categories	program		dropout rate		
	teachers'	issues, high				and dropout				
	attention,	school				rate				
	communicat	educated								
	ion, and	valued								
	social	teachers'								
	continuity	attention.								

Factors Influencing School Selection

In presenting the findings of the selected studies, we adopt the three categories of factors related to school choice, following the framework that Glenn-Applegate et al. (2011) established: *structural, process-related* and *familial*. Although this framework was developed to examine the concept of quality parents consider when choosing a preschool for their children with disabilities, it has robust explanation of each factor that can be universally applied to parental decision making in any stage of their children education. Structural category includes factors such as school programs, class size, teacher-student ratio, and safety of the physical environment. The process-related factors include interactions between teachers and students, teachers' response to students' needs, the quality of instructional content, and parent-teacher communication. The familial category covers factors such as proximity to home or parents' workplace and the cost and schedule of the programs. We also added a fourth category: *child-related factors*, that is, those that take into account the children's wellbeing. In what follows, we discuss the findings of the selected studies as they relate to those four categories.

Structural factors. Our review shows that when examining potential schools, parents scrutinized the following characteristics: the availability of special education programs that are suitable to the needs of children, and the size of the school or class.

Availability of special education programs. This factor was identified in 14 of the 15 studies (93%), which suggests that the primary factor parents consider is whether special education programs, facilities, and specialist staffs are available in the schools. Ysseldyke et al. (1994) found the majority of the 141 parents in a statewide survey in Minnesota transferred their children with disabilities to other public school districts because the new schools had specific special education programs and/or specialists. In addition, some parents did not hesitate to travel significant distances outside the local school district on a daily basis to reach schools that had experts and facilities suiting their children's needs (Bajwa-Patel & Devecchi, 2014; Lange & Lehr, 2000). This finding is consistent with the previous reviews that parents were most satisfied with secondary schools that had expert teachers, well-funded and suitable programs, appropriate school provisions and facilities, and a safe school environment (Byrne, 2013).

Class size. Parents of children with disabilities preferred schools that had a lower teacherstudent ratio. Because new schools had a smaller class size, parents opted to leave local district schools for charter schools (Finn et al., 2006; Lange & Lehr, 2000), to leave inclusive schools for segregated ones, (Jenkinson, 1998), and to leave local schools for other school districts (Ysseldyke et al., 1993, 1994). These parents perceived smaller class size maximized individual teacher-student interaction, a benefit to children in the learning process (Lange & Lehr, 2000).

Process-related factors. This category includes the teachers' interpersonal characteristics and personal attention, and parent-teacher communications.

Teachers' interpersonal characteristics. Parents were more satisfied with the school staff who showed a positive attitude during the teaching-learning process. In a survey about factors parents valued when selecting a pre-school for children, completed by 321 preschool caregivers, Glenn-Applegate et al. (2016) found that parents rated as highly important whether "teachers were caring, stable, and responded to children's individual needs" (p. 136). This factor was rated higher (mean = 3.85 out of 4) than school safety (mean = 3.75) and parent-school communication (mean = 3.61). Likewise, Lange and Lehr (2000) found more than 90% of parents reported feeling certain about the good quality of the teachers at charter schools.

Parent-teacher communications. Effective communication with teachers and opportunities for parents to engage in school activities are also important parental concerns. Lange and Lehr (2000) found that a number of parents moved their children from the assigned public schools to charter schools in order to sustain effective communication and positive relationships with teachers. Similarly, Finn and colleagues (2006) found that parents were most satisfied with a two-way communication process in which both parents and teachers listened to and respected each other's perspectives. In another study comparing the assigned and chosen schools, parents noted that they were more frequently involved in school events and more frequently contacted their children's teachers in chosen schools than in assigned schools (Ysseldyke et al., 1994).

Personal attention. Our review showed that parents valued highly the individual attention that teachers provided to their children. This factor is closely linked to class size (structural category) and communication (process-related category). Forty-two percent of caregivers in a statewide survey valued the opportunity for their children with disabilities to engage in more personalized learning with school staff (Ysseldyke et al., 1994). Additionally,

parents had positive comments about school staff and teachers who not only taught but also built a connection with the student and family. One parent positively reflected on the experience of her son in the chosen school as follows: "My son works with a speech teacher and I really like that she [the speech teacher] not only works with him on his speech, but she has built a relationship with him" (Finn et al., 2006, p. 99). In short, parents changed schools to seek an education system that provided close attention to their children with disabilities.

Familial factors. The studies showed that in making decisions about schools, parents considered factors related to practical issues such as proximity or commuting distance, and also factors related to social continuity and beliefs about disabilities.

Proximity. Commuting distance played a range of roles in the school selection process from nonexistent to significant. Some parents wanted their children to attend a school closer to home so that they could respond quickly in case of emergency (Jessen, 2013). Proximity in this context provided emotional reassurance to parents. Parents also preferred a school close to home because it made the daily commute easier (Bagley et al., 2001; Ysseldyke et al., 1993). Some parents were eager to send their children to a chosen school they believed had better special education programs, but long distance and the unavailability of a school bus kept the children from attending those schools (Flewitt & Nind, 2007). In contrast, for other parents, distance was not a major factor. Convenience in commuting and proximity to home were not important enough factors to keep them from seeking schools outside their neighborhoods (Bajwa-Patel & Devecchi, 2014; Jenkinson, 1998; Lange & Lehr, 2000).

Social continuity. In this context, social continuity means a desire to maintain the children's existing supporting system such as peers, siblings, or care providers. Parents in the studies of Ysseldyke et al. (1993, 1994) selected schools in other districts because they wanted their children to continue attending a day care center closer to the chosen school than to the assigned school. Sibling bonds were also important: parents wanted their children to attend the same school because the siblings could support each other (Jessen, 2013; Ysseldyke et al., 1993). This is specifically salient in Jessen's study (2013) reporting the case of a mother who was struggling to find a school for both daughters with special education needs, as follow: "Part of their special needs, it seemed, was social and emotional, and Candace [the parent] wanted them [the two daughters] to feel support by each other and the closeness of the family" (p. 446). Social continuity plays so significant a role that parents seemed hesitant to change the children's existing support system.

Beliefs about disability. Parents' worldview about disabilities affects their choice of whether to attend an inclusive or a segregated school. A majority of parents who preferred inclusive schools valued social model of disability, which believes that disability does not locate within the impairment of an individual (Flewitt & Nind, 2007; Freeman et al., 1999; Jenkinson, 1998; McNerney et al., 2015; Runswick-Cole, 2008). Those parents assumed that inclusive schools provided greater social integration, for the child with a disability, specifically with other children from the same neighborhood (Flewitt & Nind, 2007; Jenkinson, 1998; McNerney et al., 2015), and provide better quality programs to enhance their children's academic competency (Jenkinson, 1998) and social skills (McNerney et al., 2015). In contrast, parents who believed in the medical model of disability- a system of belief that places disability within the impairment of an individual and is subjected to special treatment-enrolled their children in special schools to encourage the children to focus on one life skill (Jenkinson, 1998) and because the special schools had experts that might provide better interventions or possibly even cure the disability in

question (Runswick-Cole, 2008). Parents' view of the nature of disability led to their perception of different educational needs, which in turn affected their school selection processes.

Children-related factors. In regard to school choice, some parents reported their children's needs, happiness, and self-esteem were more important than the academic outcomes. They believed that their children could only reach their full potential if they were in a happy and caring environment, which did not highly emphasize academic grades (Bagley & Woods, 1998; Jenkinson, 1998; McNerney et al., 2015). Parents were also afraid that by moving to inclusive schools their children might lose confidence, having to compete with their peers without disabilities (Jenkinson, 1998). For those reasons, parents might choose to have their children attend a segregated school or to continue attending a similar inclusive school. Most important to them was that their children be happy.

In summary, the studies showed that when selecting schools, parents of students with disabilities sought an education system that addressed children's special education needs, where the teacher-student ratio was low, where there were frequent parent-teacher communications and many opportunities for parents to be involved, where staff and teachers had positive attitudes, where children could keep their existing support system, and where the school's values matched those of the parents.

Demographic Differences and School Choice

The second research question addressed the issue of whether factors related to school choice differ according to parents' socioeconomic background. The selected studies indicate a concerning but not surprising pattern. Not one of them discusses findings based on parents' race/ethnicity or language.

Income level. Studies suggested that income has a mixed impact on parents' school selection. Bagley and Woods (1998) found that middle-class parents were more informed about the school choice options, in part because they often visited and attended school meetings before selecting a school for their children with disabilities. Further, Bagley et al. (2001) found that working-class parents prefer a school closer to home due to convenience in travel and the availability of transportation, compared to middle-class parents. In contrast, Glenn-Applegate et al. (2016) and Ysseldyke, et al. (1994) found no difference across socioeconomic status. By means of multiple regression, Glenn-Applegate et al.'s study (2016) showed that a child's disability status, parents' educational attainment, and poverty status were not significant among preschool selection factors as predictors of parents' preference. Similarly, Ysseldyke et al. (1994) found there were little differences in decision-making across parents' income and education levels. However, the authors noted that highly educated parents were concerned about familial issues such as proximity and social continuity, whereas parents with high school or lower educational attainment were more concerned about process such as the personality of the teachers and the amount of personal attention provided to their children.

Area of residence. Among the studies discussing school selection in relation to where parents reside, no clear patterns emerged to explain the ways in which parents from rural, urban, or suburban areas select schools. Several studies found that parents living in rural areas were more concerned about a specific structural issue such as the availability of special education programs or teacher quality (Ysseldyke et al., 1993) than were parents who resided in urban and or suburban areas (Flewitt & Nind, 2007; Ysseldyke et al., 1993, 1994). However, Bagley et al. (2001), in a longitudinal study, found a contrasting result: parents living in rural areas prioritized

proximity and convenience of travel over the availability of special education programs for their children. In contrast, parents from urban and suburban areas prioritized special education programs more than proximity. Parents residing in urban and suburban areas were also concerned about structural issues, yet their specific concerns were the safety of the school environment (Ysseldyke et al., 1993, 1994) and class size (Ysseldyke et al., 1993). Studies also indicated a gap in the availability of special education programs and transportation between rural and urban areas. Urban areas had more options of schools, special education programs and transportation compared to rural areas (Flewitt & Nind, 2007).

Immigration status. One study reported on the school selection process for an immigrant parent (Jessen, 2013). Jessen found just like other parents of children with disabilities, the immigrant father selected schools with specific special education programs and experts, in this case basing their choice on the availability of a speech therapist. Concerned about finding the best program, he sought advice from a counselor to decide which school to enroll his child in. Below we discuss the findings from the international research literature that we reviewed.

Discussion

The purpose of this present review has been twofold: first, to identify the factors that parents consider when selecting schools for their children with disabilities, and second, to examine whether parents' demographic characteristics influence the selection process. Discussion of the findings has been organized by research questions, limitations and recommendation for research and practice.

Factors that Influence the School Selection Process

In selecting schools for their children with disabilities, parents consider multiple factors that require careful examination. These factors have been categorized into four groups: structural, process-related, familial, and children-related factors. The most commonly cited factor was the availability of a special education program that best meet the needs of their children. Other influential factors cited were: (a) class size, (b) school-parent communication and engagement, (c) teachers' attitudes, (d) children's well-being, (e) distance between school and home, and (f) parents' beliefs about disability. These overarching factors suggest that while it is clear there may often be a conflict between options and needs, to many parents, the need to meet the special education requirement of their children has become a non-negotiable factor. The need to find the most suitable special education program seems to outweigh the desire to enroll into a school focusing on academic achievement. This clearly shows a distinct difference in decision-making between parents of children with and without disabilities.

While parents of children with disabilities prefer a school that has a specific and appropriate facility and expertise, in the selection process parents are limited by their boundary of rationality (Jessen, 2013; Villavicencio, 2013). That is despite the facts that parents have their ideal criteria of schools, the choice parents make is not based on their hope for an ideal school, but on the most reasonable option that suits the needs and resources of the family. The obstacles to choic may be technical factors such as the availability of transportation or they may be related to parents' commitment to provide social and emotional supports to their children.

The School Selection Process and Socioeconomic Status

Research on parents' selection of schools in general has claimed the importance of parents' education, family income, and race or ethnicity (e.g., Ellen & Kristie, 2008, Joshi, 2014; Sattin-

Bajaj, 2015). However, the majority of the empirical studies have not yet considered the importance of race or ethnicity.

The majority of the studies involved White parents. This results in an underrepresentation of racial minority parents having children with disabilities in the practice of and research about school choice. This underrepresentation might partially be due to a lack of timely information disseminated to minority parents (Gastic & Coronado, 2011; Ysseldyke et al., 1994). Having timely and accurate information with feasible access to options that are culturally responsive to the diverse needs, interests, and strengths of students and parents are basic factors that are pivotal to exercising school options.

Parents' income and education, according to the selected studies, have a minimal impact on the school selection process for children with disabilities. This means that parents from low income backgrounds might have a similar rationale to parents from more affluent backgrounds. A possible explanation could be that the process of choice among parents of children with disabilities is more nuanced, and the limited data available have been insufficient to explain the pattern. Although race/ethnicity and other socioeconomic factors do not play a clear role in factors affecting parents' choices, they potentially play a role in creating and expanding available options, as in the case of Ms. Diaz-Harrison described at the beginning of this review, who herself established the kind of school her son needed.

Limitations

This literature review has been limited, in its description of the apparent factors that influence parents' school choice, to those factors which can be categorized based on school and family characteristics. Specific attention has not been given to the characteristics of children themselves, such as their ages and their own choice of schools they want to attend. Second, the criteria for selection of research studies did not include those that focus on parents' satisfaction with the current school placement or provision. The exclusion of those studies may have led to discarding some research that does in fact more fully cover the perspectives of parents from diverse cultures, educational and income level, and residential locations. Including those studies could potentially also expand this review to not only examine factors affecting parents' decisions, but also factors contributing to parents' satisfaction with the choices they have made. Finally, this review could not fully answer the second research question, concerning whether or how demographic backgrounds influence the ways in which parents select schools.

Conclusion

School choice policy reinforces and validates parents' decisions not only to exercise the school options, but also to have more control of their children's education (Hill & Jochim, 2009). The policy, however, comes with serious challenges regarding equity. Unlike Ms. Diaz-Harrison, who was able to build a charter school for her son, not all parents have the capacity (i.e., knowledge, time, network, and financial support) even to explore and choose among the many options of available schools, much less to create their own. On a smaller scale, it is difficult even to obtain correct, useful, and timely information about those schools and programs and the advantages and disadvantages of attending those educational systems. Parents from nondominant racial, linguistic, and economic backgrounds, possibly also recent immigrants, are more prone to be vulnerable to these issues.

Further research can delve into which parents are capable of creating options for themselves, and which parents have the capacity to "vote with their feet" (Danielsen et al., 2015;

Henig, 2009; Tiebout, 1956) in order to be able to enroll their children in the schools they desire. Moreover, critical scholars in the field of education have warned us against the detrimental impact of school choice (e.g., voucher programs) in public education, specifically for students from non-dominant groups and students with disabilities (Apple, 2006).

Research should also expand its focus to involve parents of students with disabilities from various socioeconomic backgrounds, especially parents from minoritized groups such as African American, Latino, Native American, and non-English speaking parents. Our review also showed that research on parents' choice has overgeneralized about types of disability, mostly combining parents of children from a wide range of disabilities, rarely focusing on one single type of disability (e.g., autism). McNerney et al. (2015) acknowledged the urgency of research on a single type of disability. Focusing on a single type of disability might provide different perspectives on how school choice decision-making regarding select schools varies by type and severity of disabilities and what support school professionals can provide to children with disabilities and their families.

Lastly, research with a sharper focus on geography, such as differences between parents in rural and urban areas, can expand on the extent to which geography matters to these parents. According to Bell (2009, 2007), geography in parental choice appears in two concrete forms: *space*, meaning distance, commute time, and availability of transportation; and *place*, meaning the neighborhood and the community including its history, political leanings, race, and class, and social interactions attached to it. The selected studies in this review discussed geography only in the context of distance; but it is also important to research the second aspect of geography, that is, whether and to what extent the context of place matters to parents of children with disabilities.

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Social Acceptance and Paraprofessional Support for Students with Severe Disabilities

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Abstract

In the United States, federal mandates require local education agencies to provide education to students with disabilities in the least restrictive environment. As a result, students with disabilities are included in the general education classroom for varying amounts of the school day depending on their educational goals and individual needs. For students with severe disabilities, placement in a general education classroom is often paralleled with the assignment of a paraprofessional. Research suggests paraprofessional support can cause unintended adverse effects. The current study describes the social acceptance of students with severe disabilities who receive paraprofessional support and explores the intersection of social acceptance and paraprofessional support. Findings suggest students with severe disabilities who receive paraprofessional support have average levels of social acceptance and initial evidence that students receiving more frequent paraprofessional support have lower levels of social acceptance. Practical implications and suggestions for future research are discussed.

Keywords: severe disabilities; paraprofessionals; social inclusion

Introduction

In the United States (US), the Individuals with Disabilities Education Act (IDEA, 2004) mandates local education agencies (LEAs) provide educational programming in the least restrictive environment (LRE), as well as access to the general education curriculum for all students with disabilities. Educational placements for students with disabilities are individually determined to meet the unique educational goals and needs of each student. As such, students with disabilities are increasingly included with their general education peers for a small portion or majority of the school day (Damore & Murray, 2009). The language used in the federal LRE mandate offers flexibility in the interpretation of LRE (Taylor, 2004), and thus, implementation across schools, districts, and states varies, in particular for students with severe disabilities (Janney & Snell, 1997; Kavale & Forness, 2000). Regardless the extent to which LEAs encourage the inclusion of students with severe disabilities (i.e., full inclusion or periodic inclusion throughout the school day), educational professionals are charged with the task of creating a classroom and school climate that is welcoming of all children and provides opportunities for meaningful participation throughout the school day, as placement in the general education setting does not guarantee membership or meaningful participation (de Boer, Pijl, Post, & Minnaert, 2012; Downing & Peckham-Hardin, 2007; Naraian, 2010).

According to the National Dissemination Center for Children with Disabilities (NICHCY, 2004), students with severe disabilities require extensive support in order to participate in major life activities (e.g., domestic, leisure, community use, vocational). In educational contexts, students with severe disabilities are often provided a paraprofessional to meet these support needs (Douglas, Chapin, & Nolan, 2015; Giangreco, 2010; Kilanowski-Press, Foote, & Rinaldo, 2010). Giangreco (2010) refers to paraprofessional support as a "mechanism" for the inclusion of students with significant support needs. Research demonstrates the negative impact of the overreliance on paraprofessionals, such as limiting academic and social opportunities (Giangreco, 2010; Naraian, 2010; Suter & Giangreco, 2009; Tews & Lupart, 2008). Because paraprofessionals receive minimal training (Hughes & Valle-Riestra, 2008), due to district financial, time and implementation restraints (Riggs, 2001; Stockall, 2014), they may lack the requisite knowledge and skills to support the academic and social participation of students in inclusive settings (Kent-Walsh & Light, 2003).

Acceptance of students with disabilities by peers is critical to the implementation of high quality inclusive environments. There are several theories on opinion formation and/or the social acceptance of individuals within a group, most notably Contact Hypothesis (CH). While initially applied to racial prejudice and/or segregation, CH has also been used to explain other pressing social issues, such as the inclusion of diverse students (e.g., students with disabilities) in educational settings (Pettigrew & Tropp, 2011). As with most theories of opinion formation, CH includes a necessary condition of exposure to a certain group or individual with specific characteristics, but emphasizes the context and quality of the exposure as better determinants of positive contact effects or social acceptance (Allport, 1979; Pettigrew & Tropp, 2006). Equal status, common goals, intergroup cooperation, and institutional/authority support are considered necessary conditions for positive contact effects. In educational settings, equal status is established through a school and classroom climate that values diversity (Downing, Eichinger, & Williams, 1997), promotes a sense of belonging (Joerdens, 2014), provides opportunities for meaningful participation throughout the school day (Downing & Peckham-Hardin, 2007) and offers support to all students (Kurth, Lyon, & Shogren, 2015). Common goals are addressed

through differentiating instruction allowing students with severe disabilities to work on tasks similar to their peers, while receiving individualized instruction and supports to promote successful attainment of educational goals specific to the student (Grenier, 2011; Janney & Snell, 1997). In addition, there must be opportunities for students with severe disabilities to work with their peers towards a common goal (Kurth et al., 2015; Wilkerson & Lequia, 2015), encouraging students to identify strengths in all of their peers. Finally, authority support refers to the attitudes and behaviors of all professional staff (Kavale & Forness, 2000). With appropriate adult models, peer attitudes are positively influenced, increasing their confidence to interact with students with severe disabilities (Silberman, 1969).

While literature evaluating social acceptance of students with disabilities exists, a limited number of studies focus specifically on students with severe disabilities and factors that impact their acceptance. For example, previous research evaluating peer attitudes towards students with disabilities in general, anecdotally suggests peers become more accepting of students with disabilities when they are included in general education settings (Idol, 2006) as opposed to confined to segregated settings. de Boer, Pijl, Post, and Minnaert (2012) examined factors that impact peer attitudes towards students with disabilities and found that older, female peers hold more positive attitudes towards students with disabilities. In addition, peers have lower acceptance of students with behavior problems. The studies that consider severity of disability typically compare social acceptance of students by severity of disability rather than focusing on factors that may impact the social acceptance unique to the population of students with severe disabilities. For example, Cook and Semmel (1999) found that students with severe disabilities were least likely to be nominated as a play partner, work partner, or everyday playmate by their peers than students with mild disabilities or no disability.

A cornerstone of inclusive education is creating a positive and caring community – or school climate – in which all students are valued and considered members of a community or establish a sense of belonging (Billingsley, Gallucci, Peck, Schwartz, & Staub, 1996; Carter, Asmus, & Moss, 2013; Kozleski, Yu, Satter, Francis, & Haines, 2015; Schnorr, 1990; Test, Smith, & Carter, 2014). Given the literature characterizing the negative impact of paraprofessional support on social opportunities (Giangreco, Edelman, Luiselli, & MacFarland, 1997), such support may also directly affect a student's social status within the classroom and/or school (Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006). Thus, the current study aimed to describe the social acceptance of students with severe disabilities and explore the intersection of paraprofessional support and peer social acceptance of students with severe disabilities at the elementary level. Specifically, the following research questions were addressed:

- (1) How accepting are classroom peers of students with severe disabilities who receive paraprofessional support?
- (2) Are there differences in social acceptance of students with severe disabilities by intensity of paraprofessional support they receive across the school day?

Methods

Sampling Procedures

A total of 5 school districts (14 schools) in a Midwest state in the US participated in the study. Each school had between one and three focus students participate and each district had between one and nine focus students participate. The Student Information Form (See Measurement section) were used to verify severity of disability. When initially contacted about the research opportunity, districts were notified of the inclusion criteria for focus students:

between 4 and 11 years of age; IDEA label of autism, intellectual disability, multiple disabilities, or other health impairment; included in a general education class for a portion of the school day; and receives support from a paraprofessional. For most districts, recruitment packets were sent home to parents in the eligible focus students' backpacks. One district required a targeted mailing of recruitment packets directly to eligible focus students' homes.

Measurement

Student Information Form. To gather demographic information about the focus students, special educators completed a Student Information Form (SIF) for each participating focus student. The SIF requested the following information: age, gender, ethnicity, special education label, and medical diagnoses; educational programming information, such as percent of the school day that the educator estimates that the student spends in the general education setting, a description of the support arrangements used, whether the student has a behavior intervention plan; and information about students' learner characteristics, such as communication mode, level of engagement, motor abilities. The items pertaining to the students' learner characteristics were adapted from the Learner Characteristics Inventory (LCI; Kearns, Kleinert, Kleinert, & Towles-Reeves, 2006), specifically those items regarding students' expressive communication, receptive communication, motor ability, engagement, and attendance. A copy of the SIF is available from the author upon request.

Social Inclusion Survey. To measure social acceptance, the Social Inclusion Survey (SIS; Frederickson & Graham, 1999) was administered to the entire class in which the focus student with severe disabilities was included. The SIS is part of the Social Skills and Emotional Intelligence section of the Psychology in Education Portfolio (PIEP) and consists of one item asking students to rate how much they would like to play with each of their classmates. Each student in the class rated all of his or her peers by selecting one of the following responses: a smiling face (i.e., happy to play with), a neutral face (i.e., don't mind either way), a frown face (i.e., rather not play with), or a question mark (i.e., don't know him/her well enough to decide). Test-retest reliabilities for acceptance and rejection have been reported between .70 and .78 and agreement of assigning social acceptance as popular, average, or rejected was 68% (kappa = 0.43; Frederickson & Furnham, 1998). This type of measure (i.e., forced choice probability) has the best reliability of commonly used instruments in this area (e.g., peer nomination procedures and rating scale measures; (Asher & Dodge, 1986; Coie & Dodge, 1983).

Data Collection Procedures

Participating schools engaged in a Social Acceptance and Learning exercise. Per Institutional Review Board (IRB) approved protocol, each participating school individually defined the Social Acceptance and Learning exercise which consisted of determining the details of the SIS administration (i.e., what scales to administer, who administered scales). After obtaining consent from parents of focus students (see Sampling Procedures for recruitment details), the SIF and SIS were administered. The SIS was administered to the focus students' class and the special educator of participating focus students completed the SIF. When a member of the research team administered the SIS, the peers of the focus students individually went into a separate classroom or hallway to complete the survey form. When school staff administered the SIS, students individually went to the back of the classroom to complete the survey form. Each school staff member responsible for administering the survey was informed to have the students complete the survey individually in a private location so as to ensure confidentiality and privacy. The person administering the survey informed the students that they were rating how much they like to play with each of their classmates. If necessary, the researcher or the school staff member read the names of the peers for students who required this assistance.

Data Analysis

For each focus student, a social acceptance index (SAI) was calculated by dividing the number of smiley faces by the sum of the smiley, neutral and sad faces. Additionally, the SIS provided categorical results of social acceptance rating each focus student as popular, average, or rejected. For the first research question, descriptive statistics were calculated (i.e., average SAI; percentage of participants rated popular, average, and rejected) to evaluate the social acceptance of students with severe disabilities. For the second research question, cross tabs were calculated to evaluate the SAI and percentage of participants rated as popular, average and rejected were calculated across intensity of paraprofessional support (i.e., occasionally, half day, most of the day, all day).

Results

Participants

Twenty-two students with severe disabilities participated in this study. The majority of focus students received special education services under IDEA (2004) category of Autism (40.9%) or Intellectual disability (54.5%); 16 of the students (72.7%) had multiple special education labels. On average focus students were 8.0 years old (range, 5 to 11) and were male (59.1%). The focus students spanned Kindergarten through fifth grade, with the majority in first grade (22.7%) or third grade (22.7%). The average class size was 20 students (range, 12 to 28 students) and, on average, there were four students with disabilities (range, 1 to 8 students) in participating classrooms. Focus students received varying levels of paraprofessional support during the school day – occasionally (n = 3; 12.5%), half of the day (n = 3; 12.5%), most of the day (n = 2; 8.3%), or all day (n = 14; 58.3%). All students who use AAC and/or have a behavior intervention plan (BIP) receive paraprofessional support either most of the day or all day. See Table 1 for a summary of demographic information of focus students.

		Intensity of Paraprofessional Support					
		Occasionally	Half Day	Most Day	All Day		
Variable	Total Sample	(n = 3)	(n = 3)	(<i>n</i> = 2)	(n = 14)		
Grade							
Kindergarten	3 (13.6%)	1 (33.3%)	-	-	2 (14.3%)		
First	5 (22.7%)	-	-	1 (50.0%)	4 (28.6%)		
Second	3 (13.6%)	1 (33.3%)	-	1 (50.0%)	1 (7.1%)		
Third	5 (22.7%)	-	2 (66.7%)	-	3 (21.4%)		
Fourth	4 (18.2%)	1 (33.3%)	1 (33.3%)	-	2 (14.3%)		
Fifth	2 (9.1%)	-	-	-	2 (14.3%)		
Race							
Caucasian	18 (81.8%)	2 (66.7%)	3 (100.0%)	1 (50.0%)	12 (85.7%)		
Hispanic	1 (4.5%)	-	-	-	1 (7.1%)		
African American	1 (4.5%)	1 (33.3%)	-	-	-		
Asian	1 (4.5%)	-	-	-	1 (7.1%)		
Two or more	1 (4.5%)	-	-	1 (50.0%)	-		
Gender							
Male	13 (59.1%)	1 (33.3%)	2 (66.7%)	-	10 (71.4%)		
Female	9 (40.9%)	2 (66.7%)	1 (33.3%)	2 (100.0%)	4 (28.6%)		

 Table 1. Demographic Information of Focus Students

Uses AAC device	8 (36.4%)	-	-	1 (50.0%)	7 (50.0%)
Behavior intervention plan	6 (27.3%)	-	-	-	6 (42.9%)
% of day included ¹	62.2 (24.8)	67.5 (24.1)	50.0 (0.0)	67.5 (17.7)	62.9 (28.9)
Social Acceptance Index ¹	0.52 (0.21)	0.60 (0.24)	0.78 (0.33)	0.40 (0.02)	0.48 (0.17)
x x x x x x x x					

*Note.*¹ Mean and standard deviation.

In addition to paraprofessional support, consulting teacher model was used with 95.5% (n = 21) of the focus students, peer mediated interventions were used with 90.1% (n = 20) of focus students, resource room was used with 81.8% (n = 18) of focus students, and co-teaching was used with 36.4% (n = 8) of focus students.

According to the SIF, half of the focus students (50.0%) respond to social interaction, but do not initiate or sustain these interactions. The majority of the focus students (59.1%) use symbolic language, while about one-third (36.4%) use intentional communication but not at the symbolic level. Eight students (36.4%) use augmentative and alternative communication (AAC). The majority of focus students (72.7%) required additional cues to follow 1-2 step directions. Approximately one third (31.8%) of students required adaptations to support motor functioning. Most of the focus students (90.9%) were reported to have high levels of attendance at school (i.e., at least 90% of the time). Special educators reported two focus students (9.1%) attended 75% of school days with absences being mostly health related. See Table 2 for a summary of the learning characteristics of the focus students.

		Intensity of Paraprofessional Support			
Variable	Total Sample	Occasionally	Half Day	Most Day	All Day
		(n = 3)	(n = 3)	(<i>n</i> = 2)	(<i>n</i> = <i>14</i>)
Expressive communication ¹					
Uses symbolic language	13 (59.1%)	3 (100.0%)	3 (100.0%)	1 (50.0%)	6 (42.9%)
Uses intentional language	8 (36.4%)	-	-	1 (50.0%)	7 (50.0%)
Uses cries, facial expressions	1 (4.5%)	-	-	-	1 (7.1%)
Receptive communication ¹					
Follows 1-2 step directions	5 (22.7%)	1 (33.3%)	2 (66.7%)	-	2 (14.3%)
Cues to follow 1-2 step directions	16 (72.7%)	2 (66.7%)	1 (33.3%)	2 (100.0%)	11 (78.6%)
Physical assistance to follow directions	1 (4.5%)	-	-	-	1 (7.1%)
Motor ability ¹					
No significant motor dysfunctions	14 (63.6%)	3 (100.0%)	3 (100.0%)	-	8 (57.1%)
Adaptations to support functioning	7 (31.8%)	-	-	2 (100.0%)	5 (35.7%)
Personal assistance for most activities	1 (4.5%)	-	-	-	1 (7.1%)
Engagement ¹					
Initiates and sustains social interactions	8 (36.4%)	2 (66.7%)	3 (100.0%)	-	3 (21.4%)
Responds to initiations	11 (50.0%)	-	-	2 (100.0%)	9 (64.3%)
Alerts to others	3 (13.6%)	1 (33.3%)	-	-	2 (14.3%)
Attendance ¹					
Attends at least 90% of school days	20 (90.1%)	3 (100.0%)	3 (100.0%)	2 (100.0%)	12 (85.7%)
Attends 75%, absences health related	2 (9.1%)	-	-	-	2 (14.3%)

Table 2. Learning Characteristics of Focus Students

Note. ¹Items and responses were adapted from the Learner Characteristics Inventory (LCI).

Social Acceptance and Paraprofessional Support

Overall, the majority (63.6%) of focus students had average levels of social acceptance; one focus student (4.5%) was rated as rejected, and seven students (31.8%) were rated as popular. According to the SAI calculated for each focus student, those who receive

paraprofessional support (as indicated by the special educator on the SIF) had a SAI of 0.53 (range, 0.1 - 1.0). This suggests that, on average, focus students received about as many smiley face ratings as neutral or sad face ratings from their classmates.

Across levels of paraprofessional support, two focus students (66.7%) receiving occasional (i.e., 1-25% of the school day) support from a paraprofessional were rated popular and one focus student (33.3%) was rated as average. Of the focus students receiving paraprofessional support for half of the day (i.e., 26-50% of the day), two (66.7%) were rated as popular and one (33.3%) was rated as average. All of the focus students (n = 2; 100%) receiving paraprofessional support for most of the school day (i.e., 51-75%) were rated as average. Of the students who receive paraprofessional support all day (i.e., 76-100% of the school day), the majority (n = 10; 71.4%) were rated as average, with one focus student (7.2%) rated as rejected, and three focus students (21.4%) rated as popular. When pulling out the students who have a BIP (n = 6), one focus student (16.7%) was rated as popular and five (83.3%) were rated as average. Of the focus students who use AAC (n = 8), three (37.5%) were rated as popular and five (62.5%) were rated as average. Figure 1 displays the social acceptance category across varying intensities of paraprofessional support.



Figure 1. Category of social acceptance across frequencies of paraprofessional support

Focus students receiving occasional (i.e., 1-25% of the school day) support from a paraprofessional had an average SAI of 0.60 (range, 0.35 to 0.84) suggesting that, on average, focus students in this group received more smiley face ratings than neutral or sad face ratings. Those receiving paraprofessional support for half of the day (i.e., 26-50% of the day) had an average SAI of 0.78 (range, 0.40 to 1.0) which suggests, on average, focus students in this group received more smiley face ratings. The average SAI for students receiving paraprofessional support for most of the school day (i.e., 51-75%) was 0.40 (range,

0.39 to 0.41), suggesting that on average focus students in this group received fewer smiley face ratings than neutral or sad face ratings. Of the students who receive paraprofessional support all day (i.e., 76-100% of the school day), average SAI was 0.48 (range, 0.13 to 0.71), which suggests, on average, focus students in this group received fewer smiley face ratings than neutral or sad face ratings. When pulling out the students who have a BIP (n = 6), average SAI was 0.50 (range, 0.13 to 0.71). Of the focus students who use AAC (n = 8), average SAI was 0.56 (range, 0.39 to 0.71). Figure 2 displays average SAI by intensity of paraprofessional support.



Figure 2. Average social acceptance index across frequencies of paraprofessional support

Discussion

Students with severe disabilities require extensive support to participate in everyday activities (i.e., daily living, community involvement; NICHCY, 2004). As educators, it is important to remember that one of these activities is developing friendships or networks of supports (Carter et al., 2013; Heiman, 2000; Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011). Including students with severe disabilities with their peers provide endless opportunities to foster friendship and capitalize on natural supports. An essential component of high quality inclusive educational settings is establishing a classroom climate that is accepting of diversity so all students,

regardless of disability status, are considered a member of the class (Billingsley et al., 1996; Kozleski et al., 2015; Schnorr, 1990; Test et al., 2014). Findings from the current study corroborate and extend evidence from previous research that while students with severe disabilities have average acceptance by their peers overall (Janney, Snell, Beers, & Raynes, 1995), certain contextual factors have an impact on a student's social acceptance by their peers. As with previous research evaluating peer attitudes towards students with disabilities (de Boer et al., 2012), findings from the current study provide additional evidence that focus students who

receive paraprofessional support have average social acceptance and students who have BIPs have lower social acceptance. Furthermore, Cook and Semmel (1999) found that contextual factors impacted peer acceptance of students with severe disabilities. Similarly, the current study found trends in peer acceptance based on the intensity of paraprofessional support. The results provide initial evidence that students with severe disabilities who receive more frequent paraprofessional support have lower social acceptance than their counterparts who do not receive as frequent support from paraprofessionals.

There are several plausible explanations as to why focus students who receive more frequent paraprofessional support have lower social acceptance. CH (Allport, 1979; Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006) suggests the quality of exposure or contact with specific populations directly impacts the formation of positive attitudes towards them. Using this logic, findings from the current study may be attributed to the quality of supports provided by paraprofessionals when students with severe disabilities are included with their peers. Previous research evaluating educators' attitudes towards students with disabilities suggests professionals may hold the belief that a student's disability makes them vulnerable, requiring protection (Berry, 2006). When supporting students with severe disabilities, paraprofessionals may take more of a protective approach to providing support to these students, rather than fostering meaningful participation and actively creating socialization opportunities with peers during activities in the various educational contexts where they are exposed to their peers. Furthermore, instead of being fully included, the student may simply be integrated into a certain setting without appropriate planning for the participation of the student in planned activities. For example, while the student with severe disabilities may be in the same classroom as peers, they may not be actively engaged in the activities their peers are doing, but rather working on separate tasks in a separate portion of the classroom. Such practices limit the exposure peers have and impede naturally occurring social opportunities (Giangreco, 2010; Giangreco, Edelman, Luiselli, & MacFarland, 1997).

In addition to quality of exposure, CH (Allport, 1979; Pettigrew & Tropp, 2011; Pettigrew & Tropp, 2006) suggests that providing peers with information about the physical, communication, and/or behavioral characteristics that students with severe disabilities may demonstrate, in addition to offering opportunities to interact with students with severe disabilities who receive appropriate supports, will result in positive contact effects. Findings from the current study may be a manifestation of limited knowledge of paraprofessionals regarding the social benefits of inclusion and/or strategies to facilitate social opportunities for students with severe disabilities. Paraprofessionals are charged with providing individualized support to students with severe disabilities when they are included with their peers, which involves the development of skills of students with severe disabilities, as well as sharing relevant information with those in their immediate environment to make them comfortable approaching and interacting with them. For example, when supporting students with severe disabilities in inclusive settings, paraprofessionals may be hesitant to encourage peers to provide support to the student because they are uncomfortable having other students providing supports they believe they are supposed to be providing to the student. This role confusion is detrimental to the overall goal of inclusion. Paraprofessionals need to be cognizant of how their presence affects the natural social opportunities for the students they support and overcome this by facilitating interactions and capitalizing on social opportunities.
Practical Implications for the Field

When an educator learns that a student with severe disabilities will be included in their classroom, there is a period of information gathering they undergo to prepare for having the student in their classroom. One step that is just as important to the success of inclusion is sharing information and/or preparing the peers, much as they prepare their professional team. Such planning is directly related to creating a classroom climate that is accepting of diversity. Information shared with peers can be specific to an individual student or generic information about diversity in certain domains (e.g., communication, behavior, motor skills). Determining what information to share can be accomplished in a variety of ways: (a) reflect on what information peers will need to understand how to communicate with a student, (b) consider whether there are unique behaviors that peers may need to be aware of to reduce fear, (c) ask the peers what questions they have, and/or (d) ask the student and/or parent(s) what information to share. There are also several options for delivering this information to peers: (a) the student can share information about themselves; (b) peers can directly ask questions either to the student, parent or teacher as they naturally arise or in a structured context; (c) teacher can share information; and/or (d) parents can share information. Ensuring peers have sufficient information regarding the behavioral and/or communication challenges students with severe disabilities experience will increase their confidence and likelihood of interacting with students with severe disabilities across the school day. Such information can also be incorporated as part of school initiatives to improve school climate by including disability as a specific category of diversity that all students are provided information on generally. Adding this to school climate initiatives provides educators and staff administrative support for their efforts to create inclusive environments for all students and will be reflected in peers' attitudes.

When utilizing paraprofessional support as a way to support students with severe disabilities in inclusive settings, it is imperative to consider the amount of training a paraprofessional has related to supporting students in inclusive settings. To effectively support students with severe disabilities, paraprofessionals need training on the social purpose of inclusion, understanding their role in an inclusive classroom, and specific strategies to facilitate socialization between students with severe disabilities and their peers in both structured and unstructured educational settings. Data from the current study suggests that training specific to facilitating opportunities for students who use augmentative and alternative communication (AAC) systems and students who have behavior intervention plans (BIPs) may be even more important, as both of these subgroups of students made up the majority (87.5%) of the focus students who received more frequent paraprofessional support and lower social acceptance in the sample. Ensuring adequate training will reduce the likelihood of role confusion paraprofessionals experience when supporting students with severe disabilities in general education settings and will maximize the benefits of inclusion for the students they support.

Furthermore, when determining necessary supports for inclusive programming for students with severe disabilities, thoughtful consideration must be given to the goals of these experiences and how the support will improve the experience for all members of the classroom, especially the student receiving the support. While paraprofessionals are integral to the provision of special education services (Dillon & Ebmeier, 2009; Giangreco, Edelman, & Broer, 2001), several negative effects of paraprofessional supports for students with disabilities in inclusive classrooms have been cited (Giangreco, 2010; Giangreco, Yuan, McKenzie, Cameron, & Fialka, 2005.; Suter & Giangreco, 2009). Therefore, districts must consider potential detrimental effects of certain support options and make a plan to assess whether they occur in each unique situation

and how to adjust the support if they do occur. For example, the Department of Education in New York State recently passed new requirements for the assignment of a one-to-one paraprofessional (Geary, 2016). Some of the requirements include explicitly outlining the skills and goals for the student to increase independence; identifying harmful effects that might result from the support; listing alternative supports, accommodations, or services; and specifying the training that will be provided to the paraprofessional to ensure they understand the student's disability and support needs. These types of regulations by states will help improve these issues systemically and ensure that supports provided are effective for each individual student across different contexts.

Limitations and Suggestions for Future Research

When interpreting the results of the current study, there are limitations that need to be considered. First, this study is descriptive and exploratory in nature and is intended to only provide initial evidence of the relationship between paraprofessional support and social acceptance of students with severe disabilities. Replication with a larger sample and more rigorous analyses is needed to validate the generalization of the findings. Second, use of a sociometric instrument to quantify social acceptance does not allow for consideration of the quality of acceptance. Future studies utilizing qualitative measures in addition to the sociometric instrument will help the field better understand the contributing factors to peers' attitudes towards their peers with severe disabilities.

Because professionals' knowledge is directly related to the implementation of strategies (Clarke & Hollingsworth, 2002), future research evaluating the training needs of paraprofessionals is warranted. Specifically, information is needed on paraprofessionals' knowledge of various aspects and benefits of inclusion, perception of their role in inclusive educational settings, and the types of training and support desired related to supporting students with severe disabilities when they are included with their peers. Future research is also needed to examine the is a threshold of exposure required to develop positive attitudes towards students with severe disabilities. In ideal contexts, when peers are provided sufficient information and paraprofessional effectively facilitate socialization opportunities between students with severe disabilities and their peers, how long does it take before positive contact effects (i.e., acceptance) occur? Such data would help inform whether interventions aimed at improve this issue are effective. Lastly, it is common for LEAs to have initiatives aimed at improving school climate and increasing acceptance of diverse populations. It is unclear the extent to which disability is included as a category of diversity in such efforts. Future research should consider the impact of initiatives to improve school climate on peer acceptance of students with severe disabilities.

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Teachers' Concerns about Inclusion in Mainstream Early Childhood Development in Zimbabwe

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Abstract

This study examined teachers' concerns about inclusion in mainstream Early Childhood Development (ECD) in Mashonaland West educational province of Zimbabwe. Embedded within the "core expertise" of inclusive pedagogy, the study draws on a sample of twenty-one mainstream ECD teachers purposively selected from the educational province. Entrenched within qualitative phenomenological methodology, individual semi-structured interviews, non-participant observation and document analysis were conducted to collect data. The study used a constant comparative approach of data organisation with continual adjustment throughout the analysis. Participants had systemic concerns about inclusion in mainstream ECD including the lack of physical facilities, time, clear and specific policy, finance, support services and flexible curricula. Participants also had teaching related concerns about inclusion including stakeholders' negative attitudes, large class sizes, inadequate professional preparation and the nature and severity of disabilities. The institutionalisation of individual and institutional capacity building strategies could optimise inclusion in mainstream ECD in Zimbabwe.

Keywords: Children with disabilities; concerns; Early Childhood Development, inclusion; mainstream teachers, Zimbabwe

Introduction

Since the worldwide adoption of inclusion in education in 1994, educational systems are experiencing fundamental changes including a significant increase in the diversity of school populations (Bhatnagar & Das, 2013; Florian, 2012; Voss & Bufkin, 2011), in particular, mainstream classrooms which are significantly heterogeneous (Ballard, 2012; Hornby, 2012; Kisanji & Saanane, 2009). Studies reveal that, despite the adoption of inclusion internationally, its practice varies between and within nations (Ballard, 2012; Naicker, 2006; Singal, 2008), including states, provinces and districts. Zimbabwe is no exception as there are significant differences between urban, semi-urban, farm and rural settings and educational provinces with per capita incomes significantly higher than those where the vast majority of the population live in abject poverty (Zimbabwe National Statistical Agency, 2013). In addition, there are districts in Mashonaland West educational province that have not significantly benefited from the post-colonial national economic reform (Education for All, 2015).

Despite the global adoption of inclusion, there are reservations regarding whether the mainstream classroom can provide optimum quality education to children with disabilities (Majoko, 2005; Yadav, Das, Sharma & Tiwari, 2015). Also, how to ensure such provision in response to the individual needs and abilities of children with disabilities is a decisive issue (Florian & Linklater, 2010; Pantic, 2015; Voss & Bufkin, 2011). It is widely acknowledged that segregated education, that was primarily institutionalised across the world during the eighties and early nineties, did not yield the desired results (Ince, 2012; Miles, 2009; Rouse, 2008). Despite the earlier common misconception of inclusion as the commonplace physical placement of children with diverse learning needs in mainstream classrooms, more recently, researchers postulate that it is much more than such a placement (Florian & Black-Hawkins, 2011; Majoko, 2005; Slee, 2010). Inclusion embodies the quality of the school experience of children and the extent to which they are assisted to learn, achieve and participate fully in the life of the school (Ballard, 2012; Florian & Rouse, 2009; Friend & Bursuck, 2012).

Overall, inclusion depends on several factors including necessary revisions and changes in policies, regulatory systems and administrative structures and the availability of materials and resources (Chireshe, 2013; Naicker, 2006; Yadav et al., 2015). It is, in particular, dependent on teachers' positive attitudes, knowledge, skills, competencies and understandings (Ballard, 2012; Bhatnagar & Das, 2013; Florian, 2014). As inclusion is complex and demands fundamental changes from teachers (Florian & Spratt, 2013; ; Kershner, 2007; Rouse, 2008), its successful and effective practice is contingent on their willingness to accept children with special needs (Hornby, 2012; Pantic & Florian, 2015) and their self-efficacy and beliefs (Florian & Black-Hawkins, 2011; Slee, 2010; Voss & Bufkin, 2011). Teachers' concerns therefore require systematic addressing before establishing the foundation of a successful inclusion programme (Agbenyega, 2007; Kim & Rouse, 2011; Oswald & Swart, 2011).

Inclusion in mainstream Early Childhood Development in Zimbabwe

In 1994, Zimbabwe actively adopted inclusion in mainstream ECD in compliance with civil rights movements as expressed in several international human rights agreements, charters, conventions and declarations (Education for All, 2015). These include the Universal Declaration of Human Rights (United Nations, 1948), the Convention on the Rights of the Child (United

Nations, 1989), the Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994) and the Convention on the Rights of Persons with Disabilities (United Nations, 2006) (Mandina, 2012; Mpofu & Shumba, 2012; Mugweni & Dakwa, 2013). Although inclusion takes several forms, raising questions about what constitutes model practice, what counts as evidence of such practice and how it can be known (Artiles & Kozleski, 2015; Florian, 2014), its fundamental premise is that schools are about belonging, nurturing and educating all children irrespective of their differences including ability, language, gender, culture, ethnicity and class (Florian, 2012; Pantic & Wubbels, 2010; Singal, 2008). The philosophy is entrenched in the transformation of schools into communities that respect and celebrate differences, the changing of the curriculum to meet child diversity, the framing of policies and practices to be inclusive of all families and the design of professional preparation and development to systematically address the needs of all children (Florian & Black-Hawkins, 2011; Horny, 2012). Inclusion is embedded in addressing and responding to the individual needs of all children including those with disabilities through increasing access, acceptance, participation and achievement in learning, cultures and communities and reducing exclusion within and from education (Florian & Linklater, 2010; Pantic & Wubbels, 2010; Voss & Bufkin, 2011).

Despite the broad focus of inclusion, comparable to other countries including the United States of America (Artiles & Kozleski, 2015), Ghana (Agbenyega, 2007), South Africa (Naicker, 2006), Botswana (Chhabra, Srivastava & Srivastava, 2010), Tanzania (Kisanji & Saanane, 2009), Zambia (Miles, 2009) and Uganda (Okwaput, 2006), in Zimbabwe (Mutepfa, Mpofu & Chataika, 2007), the philosophy tends to focus on children with disabilities and special needs. In Zimbabwe, there is an estimated 600 000 children of school going age with disabilities (Deluca, Tramonta & Kett, 2013). These include speech or language impairments, mental retardation, visual impairment, hearing impairment, autism, orthopaedic impairments, emotional disturbances, traumatic brain injuries, specific learning disabilities or other health impairments (Chireshe, 2013). These children have developmental challenges in one or more of the domains of communication, cognitive development, physical development and social or emotional and adaptive development and are guaranteed special needs education programmes and services (Mpofu & Shumba, 2012; Musengi & Chireshe, 2012).

In pursuance of inclusion in accord with the global world, Zimbabwe institutionalised several supportive initiatives (Chireshe, 2013). These include the passage of several pro-inclusion policies and legislation including the Constitution of Zimbabwe Amendment Number 20 of 2013 section 75, the Education Act of 1987 as revised in 2006 (Mugweni & Dakwa, 2013) and recommended practice circulars including the Secretary's Circular number P36 of 1990, the Secretary's Circular number 12 of 2005 and the Director's Circular number 7 of 2005 (Mutepfa et al., 2007). These mandate the right of all children, including those with disabilities, to access, participation and achievement in mainstream ECD (Mandina, 2012; Mpofu, Kasayira, Mhaka, Chireshe & Maunganidze, 2007). Also, through mandating the right of access and participation by individuals with disabilities to programmes, services and settings available to those without developmental delays, the Disabled Persons Act of Zimbabwe of 1996 supports inclusion in mainstream ECD (Majoko, 2005; Musengi & Chireshe, 2012). The most recent Principal Director's Circular Number 20 of 2011 reveals that, out of 5 896 public primary schools in Zimbabwe, 3 610 have ECD classrooms which are inclusive of both children with and without disabilities (Mugweni & Dakwa, 2013). The aforementioned initiatives have brought inclusion in mainstream ECD to the forefront of the education reform movement in Zimbabwe. With adequate resource allocation and management, coupled with addressing teachers' concerns about the philosophy, effective implementation of these initiatives can change the lives of children with disabilities in the country (Mandina, 2012; Mushoriwa & Muzembe, 2011; Mutepfa et al., 2007). The following section presents teachers' concerns about inclusion.

Teachers' concerns about inclusion

Studies reveal several categories of teachers' concerns about inclusion including classroomrelated concerns such as behaviour problems (Donnelly & Watkins, 2011; Forlin & Chambers, 2011), large class sizes (Bhatnagar, 2006; Oswald & Swart, 2011) and negative attitudes of educators and others (Friend & Bursuck, 2012; Huang & Diamond, 2009). Meeting the educational needs of children with and without disabilities (Oliver & Reschly, 2010; Pantic & Florian, 2015) and designing and implementing curriculum and instructional adaptations (Kim & Rouse, 2011) are also teachers' classroom-related concerns about inclusion. Further, teachers' classroom-related concerns about inclusion include evaluation, grades and diplomas (Friend & Bursuck, 2012) and the social acceptance of children with disabilities (Gok & Erbas, 2011; Ncube, 2006; Pantic & Florian, 2015).

Similarly, inappropriate infrastructure (Bhatnagar, 2006; Donnelly & Watkins, 2011), lack of trained teachers (Agbenyega, 2007; Singal, 2008), financial limitations (Secer, 2010; Friend & Bursuck, 2012), non-availability of teaching materials and equipment (Chhabra et al., 2010; Oswald & Swart, 2011), unavailability of specialised personnel (Okwaput, 2006) and lack of support staff (Oliver & Reschly, 2010) are teachers' school-related concerns about inclusion.

Teachers' self-related concerns about inclusion include the lack of training in special education (Bhatnagar, 2006; Naicker, 2006), teacher stress (Friend & Bursuck, 2012), incompetence to teach children with different disabilities (Flecha & Soler, 2013; Forlin, Keen & Barrett, 2008; Gok & Erbas, 2011), inadequate knowledge and skills about inclusive practices (Oliver & Reschly, 2010) and difficulty in keeping all the children with and without disabilities focused during the class (Donnelly & Watkins, 2011; Flecha & Soler, 2013; Huang & Diamond, 2009).

Additionally, teachers' management-related concerns about inclusion include time and scheduling (Gok & Erbas, 2011), additional workload and responsibility (Ballard, 2012), lack of support from school administrator/principal (Kim & Rouse, 2011), difficulty in inclusion of children with disabilities in co-curricular activities (Majoko, 2005; Chireshe, 2013) and negative attitudes of parents of children without disabilities (Florian, 2012). Further, teachers' academic achievement-related concerns about inclusion include the overall academic standards of the school (Kim & Rouse, 2011) and academic achievement of children without disabilities (Pantic & Wubbels, 2010).

The foregoing studies reveal that, unless the stage is set beforehand, it may be impossible to realise effective and successful inclusion in mainstream ECD. Without the provision of appropriate information and opportunities for teachers to acquire experience working with children with disabilities, initiatives to optimise the quality of inclusion in mainstream ECD may be futile (Pantic & Florian, 2015; Secer, 2010). Teacher professional preparation and development for inclusion is indispensable prior to its adoption (Friend & Bursuck, 2012; Voss & Bufkin, 2011). The design and implementation of professional preparation and development

programmes that meet teachers' needs requires a systematic collection of information about their concerns about inclusion (Ince, 2012; Kershner, 2007). Although the above cited studies that were identified in other countries can provide educational policy makers and administrators with a framework for addressing teachers' concerns about inclusion in mainstream ECD, a systematic exploration of the issue is needed in the Zimbabwean context. The subsequent section presents the rationale for the study.

Rationale for the study

Experiences of other countries with inclusion reveal that systemic changes in education is a complex process particularly when such changes are mandated by "external forces" and demand a redefinition of roles and responsibilities on the part of the implementers of these changes (Ince, 2012; Pantic, 2015; Slee, 2010). Regarding the Zimbabwean context, initiatives by the central government since 1994 have made it incumbent on all schools to adopt inclusion in mainstream ECD. Nevertheless, research reveals that although the implementation of an educational innovation such as inclusion might occur at state, provincial and district levels, the most fundamental of these must occur at the classroom level (Agbenyega, 2007; Artiles & Kozleski, 2015; Kim & Rouse, 2011). Similarly, other researchers reveal that it would be naïve to assume that an enabling legislative framework for inclusion would guarantee the development and implementation of inclusive education programmes (Bhatnagar & Das, 2013; Deppeler, 2012; Florian, 2012). These researchers assert that the fundamental factors for the success of inclusion are the positive attitudes, skills, competencies and understandings of classroom teachers who are the direct implementers of inclusive education programmes. In the same vein, the beliefs of teachers regarding acceptance of inclusive practices will influence the extent to which they will execute that duty (Forlin et al., 2008; Gok & Erbas, 2011; Hornby, 2102).

Research consistently reveals that it is the willingness of teachers in mainstream classrooms that ensures successful and effective inclusion in education (Florian & Black-Hawkins, 2011; Mandina, 2012; Mpofu & Shumba, 2012). In contrast, the negative perceptions of teachers in mainstream classrooms regarding inclusion are barriers to its effective practice (Alkin, Demir, Sucuoglu, Bakkaloglu & Iscen, 2014; Okwaput, 2006; Voss & Bufkin, 2011). It is therefore critical to investigate and consider teachers' concerns about inclusion in mainstream ECD. Although studies consistently reveal that much of the success of inclusion depends on teachers' willingness to implement it, the researcher's literature review did not yield any studies that systematically examined teachers' concerns about inclusion in mainstream ECD. This study was carried out to fill such a void in literature particularly in Mashonaland West educational province of Zimbabwe. As Zimbabwe actively adopted inclusion in 1994 and is continuously institutionalising supportive initiatives, it seemed timely therefore to carry out this study to ascertain teachers' concerns about inclusion in mainstream ECD in one of the country's largest educational provinces, Mashonaland West educational province. Specifically, this study addressed the following research question:

What are the concerns of teachers about inclusion in mainstream ECD classrooms in Mashonaland West educational province of Zimbabwe?

Theoretical framework

The "core expertise" of inclusive pedagogy which is entrenched in teachers' engagement in inclusive practices at various levels including classrooms (Black-Hawkins & Florian, 2012; Florian, 2012), collaborative actions to address issues requiring responses beyond the classroom (Florian & Spratt, 2013) and professional and social networking seeking to optimise social justice (Slee, 2010) informed this study. Substantive engagement of families in decisions about education (Flecha & Soler, 2013), sharing responsibility within school for the outcomes of all children, planning strategies to address exclusion and underachievement and collaboration with other professionals (Friend & Bursuck, 2012; Oliver & Reschly, 2010) also underpins the "core expertise" of inclusive pedagogy. This body of knowledge constitutes the core expertise (the knowing, doing and believing) entrenched in the inclusive pedagogical approach (Pantic & Florian, 2015).

The "core expertise" of inclusive pedagogy is further embedded in the commitment of teachers to enhance the achievement of all children whilst safeguarding the inclusion of those who are vulnerable to exclusion and other forms of marginalisation (Florian & Black-Hawkins, 2011). It requires that teachers shift their focus from "most" and "some" children to "everybody" embedded within a socio-cultural framework on pedagogy (Deppeler, 2012) where the complexities inherent in providing for differences among children are subsumed within a set of interrelated ideas about them, learning, teaching and the curriculum (Pantic & Florian, 2015). The "core expertise" of inclusive pedagogy is grounded in open-ended views of the potential of all children and teachers' extension of the range of opportunities that are availed to everyone in the learning community of the classroom and school (Black-Hawkins & Florian, 2012). In the Zimbabwean context, inclusion in mainstream ECD requires that teachers account for difference as a fundamental component of human development in any conceptualisation of learning (knowing). Teachers must believe and be convinced that they are qualified and capable of teaching all children (believing) and that the profession is required to develop creative new ways of working with others (doing) (Florian & Black-Hawkins, 2011).

Methodology

This study used a multiple-case study design entrenched in qualitative research methodology. Qualitative research methodology is utilised when information about an investigated phenomenon is limited and when the study seeks to explore and describe experiences through identifying themes and developing theories grounded in informants' perceptions of events (Corbetta, 2003; Grbich 2007). The methodological approach of this study was embedded in phenomenology since it solicited participants' practices, experiences and views. Phenomenology seeks to comprehend daily life situations of individual informants (Cohen, Manion & Morrison, 2007; Creswell 2009). Such constituted individual teachers' concerns about the inclusion of children with disabilities in their mainstream ECD classrooms.

Study sites

Zimbabwean public mainstream primary schools are clustered into 10 educational provinces (Education for All, 2015). This study was conducted in selected public mainstream primary schools in Mashonaland West educational province. The medium of instruction in these schools

is English (Zimbabwe National Statistical Agency, 2013). Nevertheless, local languages, including Shona and Ndebele, are also used in teaching and learning to facilitate ease of understanding (Education for All, 2015).

Sampling

Mashonaland West educational province constitutes 702 public mainstream primary schools in districts, namely, Sanyati, Zvimba, Makonde, Kariba, Mhondoro-Ngezi, Hurungwe and Chegutu (Zimbabwe National Statistical Agency, 2013). These schools are categorised into rural, periurban and urban with regards to their grouping (Education for All, 2015). To understand teachers' concerns about the inclusion of children with disabilities in mainstream ECD, one public mainstream primary school, which included children with disabilities, was selected from each of these settings from the respective districts using snowball sampling. Snowball sampling was utilised because of the scarcity of potential informants due to the limited number of children with disabilities who are included in mainstream ECD classrooms (Cohen et al., 2007; Creswell, 2009; Pierce, 2008). The sample comprised 21 public mainstream primary schools. Recruitment of teachers was executed through contacts with Mashonaland West Provincial Education offices. The researcher distributed information letters to contacts in the designated schools and, following the head teacher's approval of the study, to teachers who were perceived to meet the inclusion criteria for participation.

The inclusion criteria for teachers to participate in this study included at least a mainstream undergraduate ECD teaching qualification, five years of experience in teaching children with disabilities in mainstream ECD classrooms and that they were, at the time, a teacher in a mainstream ECD classroom in Mashonaland West educational province. The adequacy of the sample was determined when no relevant or new data emerged regarding categories which were well developed with respect to their properties, dimensions and variations (Corbetta, 2003; Pierce, 2008; Silverman, 2009). A total of 21 mainstream ECD teachers, made up of 16 females and five males, one per participating school, constituted the sample for this study. Each of the participants taught in mainstream ECD classroom which had a maximum of 48 five- to six-year-old children. Each mainstream ECD classroom included, at most, seven learners with disabilities. Participants were between 34 and 56 years old with six to 16 years of teaching experience. In addition to primary school teachers' diploma with specialisation in ECD, 14 participants had post-graduate qualifications in mainstream education. The researcher carefully gained entry into the schools, sampled participants, established good relations and maintained ethical protocols.

Procedure

The researcher sought and secured ethical approval from the Ministry of Primary and Secondary Education of Zimbabwe, Mashonaland West Provincial Education offices and the head teachers of participating primary schools prior to the execution of this study. Thereafter, informed consent was secured from the participants before conducting the study. The foregoing parties were provided with letters which constituted a brief, clear, concise and precise research profile to secure ethical approval and informed consent. Each participating institution constituted a unit and reflected a distinct context of mainstream ECD culture and setting (Corbetta, 2003; Creswell, 2009; Grbich, 2007). The researcher discerned similarities and differences from these educational settings to explore teachers' concerns about inclusion in mainstream ECD

classrooms. The researcher executed 21 individual interviews with participants, one interview per participant. Since an individual interview allows the participants to express their opinions and perceptions about a studied phenomenon in their own words (Charmez, 2006; Creswell, 2009; McMillan & Schumacher, 2006), it is a fundamental instrument in soliciting data in qualitative research (Cohen et al., 2007; Grbich, 2007; Lewis 2003). To provide a framework for the interviews, but motivate participants to express their concerns about the inclusion of children with disabilities in mainstream ECD in mainstream classrooms, semi-structured individual interviews with open-ended questions were utilised. Semi-structured interviews assist the interviewer to ask questions about a phenomenon under investigation while allowing individual interviewees to elaborate their perspectives and experiences (Charmez, 2006; Cohen et al., 2007; Corbetta 2003). The interviews followed an individual in-depth semi-structured format that explored teachers' concerns about inclusion in mainstream ECD classrooms.

Although there was a degree of structure and organisation to the process because of the use of the interview guide, the approach was still flexible as context-specific questions were probed during the interviews. Demographic information, including years of teaching and additional teaching qualifications, was solicited from the participants. Participants' perspectives and experiences in inclusion of children with disabilities in ECD mainstream classrooms were probed. The individual in-depth interview questions were structured as follows: (a) Describe the length of time you have been teaching at ECD level and your professional training background; (b) Describe the children that you are experienced in including in mainstream classroom; (c) How do you experience the inclusion of children with disabilities in mainstream classrooms?; (d) What issues do you confront in the inclusion of children with disabilities in mainstream classroom?; (e) Kindly add anything else that we did not talk about regarding the inclusion of children with disabilities in mainstream classrooms. On average, each individual interview lasted 90 minutes. All the interviews were carried out in English and were recorded with the consent of the participants. Tape recordings facilitated accurate collection of data and assisted the researcher to be more attentive to the individual participants. Individual interviews were carried out at participating schools at participants' proposed time schedules outside school hours.

The researcher also executed 21 non-participant classroom observations, one per participant per day which lasted 30 minutes on average. Non-participant classroom observations provided the researcher with the opportunity to observe participants during teaching and learning in mainstream ECD classrooms for disconfirmation or confirmation of data solicited from individual interviews. Non-participant classroom observations also assisted the researcher to establish the extent to which the verbalised concerns were in alignment with the expressions of the participants. Non-participant classroom observations were documented using an observation protocol. Data, on how the process, environment, product and content of inclusion in mainstream ECD classroom was managed, was recorded, based on the narratives of the participants. Participants filled a reflection form wherein they were interrogated on their unique concerns about the inclusion of children with disabilities in mainstream classrooms. The researcher took reflective field notes using an observation guide. The researcher had also informal follow-up conversations with participants for clarity regarding their concerns about the inclusion of children with disabilities in their mainstream classrooms. The researcher further photographed facilities, activities and resources of study sites and analysed documents including teachers' scheme books, lesson plans, instructional materials, children's workbooks and education policy

documents. These documents served as sources for the triangulation of data. The study was conducted between January 2015 and October 2017.

Data analysis

The researcher and three critical readers, who were experts in qualitative research, triangulated data solicited from different settings, methods and sources in order to illuminate on emerging themes (Charmez, 2006; McMillan & Schumacher, 2006; Lewis, 2003). Individual participants' responses were compared within and across settings. The utilisation of a combination of individual interviews, document analysis, non-participant observation and informal follow-up conversations facilitated an assessment of degree of convergence and complementarity of study findings and elaborated on divergences between findings accumulated (Charmez, 2006; Cohen et al., 2007; Grbich, 2007). Whereas individual interviews aided understanding of the teachers' concerns in the process for inclusion of children with disabilities in mainstream ECD classrooms, non-participant observations enhanced contextual understanding of the concerns in the practice of inclusion of these children. Individual interviews illuminated on non-participant observations and assisted in the validation of other non-participant observations. Identification of the research question, establishment of trends within and across all data, initial code generation, discerning similarities and differences for identification of the initial overarching themes, reviewing of themes, definition and renaming of themes and writing of the report comprised triangulation of data. The focus of the study informed data organisation and interpretation throughout the process. The primary themes that were identified after the preliminary analysis were presented to the participants for review. This motivated further discussions and added to the accumulated information, enhancing the trustworthiness of the themes.

Findings

Through analysis of interview transcripts, two themes emerged, namely, systemic concerns about inclusion and teachers' self-related concerns about inclusion.

Systemic concerns about inclusion

Ambiguity of policy and legislation

Eighteen participants were concerned about clear and specific policy and legislation on inclusion, as confirmed by these selected excerpts (pseudonyms used):

Because of lack of specific policy on inclusion in our country [Zimbabwe], we [mainstream teachers], specialist teachers, educational psychologists, social workers and parents at our school confront role conflict and role ambiguity in its practice. For instance, because of their professional preparation in School Guidance and Counselling, specialist teachers lack clarity whether it is within their professional jurisdiction to provide psychotherapy to children (Todo).

Mainstream education policy governs inclusion in Zimbabwe. This policy is not clear about its rationale. Hence, stakeholders including typically developing children and their parents, communities and most mainstream teachers do not support inclusion because of lack of understanding of its essence (Sengu). We [mainstream teachers] lack legal accountability regarding inclusion because of ambiguity of policy and legislation. Inclusion or exclusion of learners with special needs primarily depends on our personal will rather than policy. The country [Zimbabwe] lacks clear and concise policy mandating quality education for all including learners with disabilities (Sona).

Documents on national policies and legislation revealed that the inclusion of children with disabilities in mainstream ECD classrooms was based on mainstream education policies and legislation, including the Zimbabwe Education Act of 1987 as revised in 2006, the Zimbabwe Constitution Amendment Act Number 20 of 2013 section 75 and the Principal Director's Circular Number 20 of 2011. The vision and mission statements of all participating schools were entrenched in mainstream education including the pursuit for academic excellence of typically developing children. Mainstream education policy and legislative framework, including whole-class approach to pedagogical content, process, environment and product informed all observed participants' inclusion of children with disabilities in mainstream classrooms. Consistent with the "core expertise" of inclusive pedagogy which is entrenched in shifting from "most" and "some" children to "everybody" (Black-Hawkins & Florian, 2012; Florian, 2012), participants' policy focus was embedded in responding to human differences in ways that include children rather than exclude them from what was ordinarily available in the daily life of the mainstream classroom.

Stakeholders' negative attitudes

Seventeen participants were concerned about stakeholders' negative attitudes towards inclusion, as confirmed in the following selected excerpts:

Stakeholders including parents, communities, the government and communities do not pool resources for inclusion because of negative attitudes towards people with disabilities. As a result, I lack human, material, financial and technological resources for inclusion in my classroom (Kake).

Children without developmental delays and their parents, communities, mainstream teachers and school administrators do not morally and materially support inclusion at our school. This is due to negative attitudes towards people with disabilities emanating from stigmatic cultural standards (Tsaru).

Individuals, organisations and institutions, including most mainstream teachers, parents of typically developing educands, mainstream schools and donors underestimate the abilities of educands with disabilities. Consequently, they perceive inclusion as a barrier to the achievement of typically developing educands (Tseu).

School documents, including attendance registers of stakeholders' meetings, showed that most parents, donors and government officials were absent from meetings on teaching and learning of children with disabilities but attended meetings on teaching and learning of typically developing children. All participating schools lacked disability friendly physical infrastructure including spacious doorways, classrooms, storerooms and toilets to accommodate children who used wheelchairs. In all participating schools, typically developing children were observed isolating

their peers with disabilities in pair, trio and group work activities in and out of classrooms, including academic assignments and games. Inconsistent with the "core expertise" of inclusive pedagogy which demands that difference must be accounted for as a fundamental component of human development in any conceptualisation of learning ("knowing") (Florian & Linklater, 2010), stakeholders focused on the disabilities rather than the abilities of children.

Lack of physical facilities

Twenty participants were concerned about the lack of physical facilities for inclusion, as confirmed in the following selected statements:

All classrooms at our school are not disability friendly. They lack ramps and are not spacious enough for easy mobility of pupils who use wheelchairs. Our classrooms are not deaf-friendly because they lack acoustic environments to accommodate pupils with hearing aids (Taku).

Classrooms in most schools in the province are not spacious enough to set up quiet zones for learners with Autism Spectrum Disorder. Storerooms, classrooms and libraries of most schools are also inaccessible to learners with physical disabilities as they are meant for typically developing learners (Ndada).

Our school lacks physical facilities for inclusion of educands with disabilities. These include guidance and counselling offices, disability-friendly furniture and equipment including desks, computer hardware and software (Ndoga).

Schemes of work and lesson plans of teachers showed that they put children in large teaching and learning groups to facilitate their sharing of limited resources, including textbooks and desks. Teaching and learning groups of at least ten children were observed in classrooms in all participating schools. All participating schools lacked ramps to accommodate children who used wheelchairs. Inconsistent with the "core expertise" of inclusive pedagogy, which is premised on increasing participation and achievement of "all" children, including those with special educational needs (Florian & Rouse, 2009), the physical facilities of mainstream pedagogical settings were not conducive to learning for all, including those with disabilities, in the community of mainstream classrooms.

Time

Nineteen participants were concerned about time as regards inclusion as highlighted in the following selected excerpts:

I cannot meet the full range of needs of learners with disabilities because of my classroom time-table. It is fully packed with academic subjects (Famba).

My management of teaching and learning is in compliance with national standards and expectations. The teaching and learning of educands with disabilities is timeconsuming as they need task analysis. Inclusion therefore interferes with my coverage of the content of the national curriculum and ultimate meeting of national standards and expectations (Tsaru). The government mandates the teaching and learning of specific subject content per school term. Pupils with disabilities impede teaching of the specified content per term because they need much time to master concepts (Tok).

Schemes of work and lesson plans of teachers revealed that they covered subject specific content per school term in compliance with the national school curriculum and syllabi regardless of whether or not children mastered such content. All participants were observed following the time-tables of their classrooms. Inconsistent with the "core expertise" of inclusive pedagogy which is entrenched in perceiving difficulties in learning as dilemmas for teaching for innovative service delivery (Pantic, 2015), participants viewed such challenges as deficits in children.

Finance

All participants (21) were concerned about the lack of finance in inclusion, as highlighted in the following selected statements:

Nationally, schools lack finance to successfully practice inclusion. They cannot requisite inclusive teaching and learning material, human and technological resources (Demo).

Because of the national economic crisis, schools throughout the province cannot finance curriculum materials and resources for inclusion. Resultantly, they lack necessary inclusive teaching and learning resources (Tsetse).

At our school, we are short of finance to offset fixed and recurrent costs in inclusion. We are not able to meet the costs in effective maintenance of computer technology for inclusive teaching and learning (Nanzva).

Documents including school and classroom inventories revealed that all participating schools lacked finance to buy teaching and learning materials and resources including computer hardware and software for children with disabilities in mainstream classrooms. All the participating institutions lacked the finance to repair the limited computers that were available. All observed schools had inadequate materials and resources including chalk, door locks, chairs, tables and textbooks because of the shortage of finance. Inconsistent with the "core expertise" of inclusive pedagogy which is premised on seeking and trying out novel ways of working to support the learning of all children in the community of the mainstream classroom (Slee, 2010), participants lacked strategising on pooling finance for inclusion.

Curriculum

All participants (21) were concerned about the lack of curriculum flexibility for inclusion, as highlighted in the following selected excerpts:

Our national ECD curriculum is rigid. We [teachers] cannot adapt its content and teaching strategies to the unique needs of children with disabilities such as their pace of learning. On account of its academic orientation, it is exclusive of functional academics (Gono).

Our school curriculum lacks flexibility to accommodate children with developmental delays in mainstream classrooms. For instance, it lacks flexibility for teachers to use alternative assessment for children with disabilities (Tseu).

I do not have curricular resources and materials that are responsive to the needs of children with disabilities in my classroom. I do not have textbooks that are written in large print to cater for the needs of children with low vision in my classroom (Taku).

Documents including head teachers' lesson observation sheets indicated that teachers were required to cover specific teaching and learning content per school term in compliance with national curriculum and syllabus. All observed classrooms lacked disability friendly curriculum materials and resources including textbooks that were written in large print to accommodate children who had low vision. Inconsistent with the "core expertise" of inclusive pedagogy which demands a shift in teaching and learning from an approach that works for "most" children existing alongside something "additional" or "different" for those ("some") who experience difficulties, participants were focused on attending to individual differences without avoiding the stigma of marking some children as different. This is a move towards the development of a rich learning community characterised by learning opportunities that are adequately made available for "everyone", so that all children are able to participate in the classroom (Florian & Linklater, 2010).

Large class size

Seventeen participants were concerned about the large class sizes as regards inclusion, as highlighted in the following statements:

I have 48 learners in my classroom. I cannot meet the individual needs of these learners because they are too many. I cannot cope with learner diversity in my classroom (Fana).

Throughout the country, averagely, there are 45 children in classrooms. Our pedagogy is not responsive to the individuality of these children as they are too many (Famba).

Addressing the full range of needs among 49 pupils in my classroom is unrealistic. I cannot design and implement Individualised Educational Plans for such a large pool of pupils (Shana).

Documents including class registers indicated that all participating schools had on average a class size of 48 children. Teachers were observed using cooperative teaching and learning strategies including whole-class and group work at the expense of individualised instruction to cope with large-class sizes. Teachers could not attend to the individual needs of children with and without disabilities including their tempo and pace of learning because of large class sizes. Inconsistent with the "core expertise" of inclusive pedagogy which focuses on "everybody" in the community of the classroom (Flecha & Soler, 2013), participants focused on children with disabilities as they were in need of additional support.

Support services

Eighteen participants were concerned about the lack of support services for inclusion, as confirmed in the following selected excerpts:

Schools across the province lack specialised personnel for inclusion. These include therapists, nurses and social workers (Ndada).

Multi-disciplinary teams in our province are short of specialists including educational psychologists, specialist teachers and school counsellors. This hampers collaborative pooling of resources including teaching and learning materials and expertise for inclusion (Gango).

At our school, we lack national, provincial, district and institutional level support in inclusion. It is impossible to successfully practice it without support (Todo).

Documents including staff lists showed that all participating schools lacked specialist staff including social workers, specialist teachers, occupational therapists and educational psychologists. Meetings of multi-disciplinary teams that were in progress in observed institutions lacked specialist personnel including nurses, physiotherapist and specialists teachers. Consistent with the "core expertise" of inclusive pedagogy which is grounded in working with and through other adults that respect the dignity of all children as full members of the community of the classroom (Florian & Spratt, 2013), participants perceived that their collaboration with other stakeholders was indispensable in successful inclusion.

Teachers' self-related concerns about inclusion

Inadequate professional preparation

All (21) participants were concerned about their inadequate professional preparation for inclusion, as confirmed in the following selected statements:

Nationally, we [mainstream teachers] lack positive attitudes, knowledge and skills in inclusion because of inadequate professional training. Therefore, we cannot effectively manage inclusive teaching and learning in our classrooms (Gamba).

My pre-service teacher preparation constituted basic components of inclusion including some theoretical perspectives, categories of disabilities and strategies of managing child behaviour. I therefore have limited professional competence in inclusion (Tok).

Our teachers' colleges lack comprehensive pre-service and in-service teacher preparation for inclusion. They do not expose teacher trainees to comprehensive theory and practice of inclusion (Todo).

Like any other mainstream teacher in the country [Zimbabwe], I cannot adapt pedagogy to the individual needs of both pupils with and without disabilities in my classroom. I was not equipped with adequate theory on inclusive education as well as

practical experience in inclusive settings in my pre-service and in-service training (Fana).

Documents including children's workbooks, schemes of work, lessons plans and remedial records showed that teachers used mainstream pedagogical strategies including whole-class teaching and learning that were not responsive to the individual needs of children with disabilities. During delivery of lessons, all the participants displayed incompetence in theory and practice of inclusion including curriculum differentiation, scaffolding and task analysis to meet the individual needs of children with disabilities. Inconsistent with the "core expertise" of inclusive pedagogy which demands that teachers must believe ("can be convinced") that they are qualified and capable of teaching all children ("believing") (Florian & Spratt, 2013), participants lacked confidence in their professional competence to respect and respond to individuality in ways that could include children in the daily life of the mainstream classroom rather than exclude them from it.

Nature and severity of disabilities

All (21) participants were concerned about the nature and severity of disabilities with respect to inclusion, as confirmed in the following selected statements:

The nature and severity of disabilities impedes inclusion in mainstream classrooms. Children with severe to profound disabilities in mainstream classrooms require intensive individualised attention from teachers thereby interfering with the academic achievement of their peers without developmental delays (Kake).

Children with behavioural and emotional challenges can harm their typically developing peers in mainstream classrooms. Apart from endangering the safety and security of their typically developing counterparts, children with behavioural and emotional challenges and intellectual challenges demand specialised professional competence from teachers (Ndoga).

Children with severe to profound disabilities disrupt teaching and learning in mainstream classrooms. They require advanced behaviour management expertise including use of operant conditioning and environmental adaptations which we [mainstream teachers] lack (Sengu).

Documents including social record books of teachers showed that they utilised mainstream education behaviour management strategies including time-out to contain the behaviour of children with disabilities. The behaviour of children with disabilities including outbursts interfered with teaching and learning in all observed mainstream classrooms because of teachers' lack of appropriate attitudes, knowledge, skills and competencies in behaviour management. Inconsistent with the "core expertise" of inclusive pedagogy which demands rejection of deterministic beliefs about ability as being fixed and the associated premise that the presence of some will impede the progress of others (Pantic & Florian, 2015), participants did not believe that "all" children could make progress, learn and achieve.

Discussion

This study examined teachers' concerns about inclusion in mainstream ECD in Zimbabwe. Inconsistent with the "core expertise" of inclusive pedagogy which is entrenched in increasing the achievement of all children whilst safeguarding the inclusion of those who are vulnerable to exclusion and other forms of marginalisation (Florian & Black-Hawkins, 2011; Pantic & Florian, 2015), overall, participants were non-supportive of inclusion. Similarly, previous studies also found that teachers had negative attitudes towards inclusion (Bhatnagar & Das, 2013; Friend & Bursuck, 2012; Huang & Diamond, 2009).

Participants were concerned about the lack of clarity and specificity of policy and legislation on inclusion as stakeholders, including specialist teachers, educational psychologists, social workers, parents and themselves, confronted role conflict and role ambiguity in its practice. Typically developing children and their parents, communities and most mainstream teachers were also non-supportive of inclusion as a result of the lack of clear policy that articulated its rationale. Participants further lacked legal accountability regarding practising the philosophy, hence inclusion or exclusion of children with disabilities depended on their personal will. This finding resonates with previous studies which established that, while inclusive education in the West is perceived as a fundamental right of every child with special needs, the same rigour is unavailable in legislation and policies in many developing countries (Ballard, 2012; Chireshe, 2013; Mutepfa et al., 2007).

Inconsistent with the body of knowledge constituting the "core expertise" (the knowledge, doing and believing) embedded in the inclusive pedagogical approach (Florian & Spratt, 2013; Slee, 2010) participants were concerned about their inadequate professional preparation for inclusion. As a result of inadequate pre-service and in-service training, including the lack of exposure to comprehensive theory and practice of inclusion, participants were concerned about their professional competence in practising it. This finding contradicts with the "core expertise" of inclusive pedagogy which demands teachers' professional competence in engendering learning opportunities that are adequately availed to "everyone", so that all children can participate in classroom life (Florian & Linklater, 2010). Similarly, previous studies reveal that mainstream teachers are concerned about professional ill-preparation as regards inclusion (Agbenyega, 2007; Bhatnagar, 2006).

Participants were concerned about stakeholders' negative attitudes towards inclusion. Stakeholders, including parents of typically developing children, communities, the government, mainstream schools, mainstream teachers and donors, were not supportive of inclusion materially and morally because of negative attitudes towards disabilities. This finding contradicts with the "core expertise" of inclusive pedagogy which demands working with and through other adults who respect the dignity of children as full members of the community of the classroom (Pantic & Florian, 2015).

Inconsistent with the "core expertise" of inclusive pedagogy which is entrenched in increasing participation and decreasing exclusion from the community of mainstream schools (Florian, 2014), participants were concerned about the lack of appropriate physical facilities for inclusion. The lack of spacious classrooms with ramps and acoustic environments, inaccessible storerooms and libraries and disability friendly furniture and equipment including desks and computer

hardware and software interfered with inclusion. Similarly, previous studies have established that teachers were concerned about inappropriate infrastructure for inclusion (Bhatnagar, 2006; Chireshe, 2013; Donnelly & Watkins, 2011).

In alignment with previous studies (Gok & Erbas, 2011), participants were concerned about time as regards inclusion. As classroom time-tables were filled with academic subjects and pedagogy was managed in compliance with national standards and expectations, teachers had inadequate time to meet the full range of needs among children with disabilities. This finding is inconsistent with the "core expertise" of inclusive pedagogy which requires teachers to focus on "what" is to be taught and "how" instead of "who" is to learn it (Black-Hawkins & Florian, 2012). Consistent with previous studies (Friend & Bursuck, 2012; Okwaput, 2006; Ncube, 2006), participants were concerned about financial limitations in inclusion. The lack of finance to pool curriculum materials and resources, human and technological resources and offset fixed and recurrent costs interfered with inclusion. This finding contradicts the "core expertise" of inclusive pedagogy which requires teachers to be strategic in supporting learning of all children including those with disabilities (Florian & Black-Hawkins, 2011).

Participants were concerned about the lack of curriculum flexibility for inclusion. Curriculum content, teaching and assessment strategies were not flexible enough to accommodate the unique needs of children with disabilities. This finding is inconsistent with the "core expertise" of inclusive pedagogy which is embedded in responding to the complexity and diversity of children as a natural consequence of humanity instead of portraying "some children" as "different" thereby creating an unhelpful hierarchy within diversity (Florian & Linklater, 2010). Similarly, previous studies reveal that teachers are concerned about designing and implementing curriculum and instructional adaptations in inclusive settings (Pantic & Wubbels, 2010). In this study, participants were concerned about the lack of curriculum resources and materials that were responsive to the needs of children with disabilities. This finding concurs with previous research which reveals that teachers are concerned about the non-availability of teaching materials and equipment for inclusion (Chhabra et al., 2010; Friend & Bursuck, 2012; Oswald & Swart, 2011). Inconsistent with the "core expertise" of inclusive pedagogy which is premised on everybody approach to inclusion, participants' concerns about the unavailability of textbooks written in large print for children with low vision was premised on an individualised approach to inclusion ("most" and "some").

Consistent with previous studies (Bhatnagar, 2006; Oswald & Swart, 2011), participants were concerned about large class sizes in inclusion. As a result of large class sizes, participants failed to adopt individualised teaching to meet the full range of needs among children with disabilities. This finding is inconsistent with the "core expertise" of inclusive pedagogy which requires teachers to extend what is ordinarily available for "all" children (creating a rich learning community) rather than using teaching and learning strategies that are appropriate for "most" alongside something "additional" or "different" for "some" who experience difficulties (Florian & Spratt, 2013).

Regarding inclusion, participants were concerned about the nature and severity of disabilities. Similarly, previous studies reveal that teachers are concerned about their incompetence to teach children with different disabilities (Flecha & Soler, 2013; Forlin et al., 2008; Gok & Erbas, 2011). Inconsistent with "the core expertise" of inclusive pedagogy which rejects deterministic

beliefs about ability and the associated premise that the presence of some will impede the progress of others (Slee, 2010), participants were concerned that children with severe to profound disabilities required advanced intensive individualised attention while those with behavioural and emotional challenges could harm typically developing children. Participants were concerned that children with behavioural and emotional challenges needed advanced behaviour management expertise. Although this finding aligns with previous studies which reveal that teachers are concerned about behaviour problems in inclusion (Donnelly & Watkins, 2011; Forlin & Chambers, 2011), it is inconsistent with the "core expertise" of inclusive pedagogy which is grounded in individual teachers' successful practice and recognises the complexity of their work, including the processes of reflective and practical problem-solving in which they continually engage (Black-Hawkins & Florian, 2012; Flecha & Soler, 2013).

Consistent with previous research (Okwaput, 2006), participants were concerned about the lack of specialised personnel for inclusion. Participants were concerned about the lack of specialist staff including therapists, nurses, social workers, educational psychologists and school counsellors. Similarly, the "core expertise" of inclusive pedagogy demands that teachers engage in collaborative actions to address issues that require responses beyond the classroom (Florian & Spratt, 2013; Friend & Bursuck, 2012). They can also take part in professional and social networks that seek to contribute to greater social justice (Alkin et al., 2014). In addition, they can share responsibility for planning strategies to address exclusion and under achievement and work with other professionals within the school for the outcomes of all children (Flecha & Soler, 2013; Oliver & Reschly, 2010). Participants were concerned about the lack of support at national, provincial, district and institutional levels for inclusion. Similarly, previous studies reveal that teachers have support concerns about inclusion (Chhabra et al., 2010; Friend & Bursuck, 2012).

Implications, limitations and future research

Participants had several classroom-related, school-related, self-related, academic achievementrelated and management-related concerns about inclusion in mainstream ECD which have several implications for policy, practice and research. The passage and enforcement of clear and specific policy on inclusion could potentially eliminate role conflict and role ambiguity confronted by professionals and parents, clarify its rationale to the stakeholders and garner their support and guarantee teachers' legal accountability regarding its practice. The provision of comprehensive theory and practice on inclusion in pre-service and in-service training could also adequately prepare and develop teachers for it. Further, disability awareness campaigns could foster positive attitudes in stakeholders towards inclusion and pooling resources for its practice.

Similarly, establishment and reinforcement of disability-friendly school environments and the requisition of appropriate physical facilities could facilitate inclusion. The institutionalisation of flexible classroom time-tables, national curriculum management standards and expectations and collaboration of stakeholders in pooling resources and off-setting fixed and recurrent costs in inclusion could also facilitate its practice. Developing and implementing flexible curricula that could accommodate child diversity, reduce class sizes, provide specialised support and national, provincial, district and school/institutional support could facilitate inclusion.

This study has some limitations that should be noted while interpreting its findings including its examination of mainstream teachers' concerns about inclusion in one educational province of Zimbabwe, while the philosophy is practised nationally. The transferability of the findings of the study to other educational provinces in the country is therefore unknown. Further, variables besides those gleaned in this study could have influenced participants' concerns about inclusion. The study also excluded the concerns of other stakeholders including children with and without disabilities and their parents, specialist teachers, school administrators and therapists. Consequently, it cannot be ascertained whether the aforementioned stakeholders' concerns resonate with those expressed by mainstream teachers. Future studies could therefore examine these stakeholders' concerns for informed teacher professional preparation, development, support strategies and services for inclusion. Since teachers had classroom-related, school-related, self-related, academic achievement-related and management-related concerns about inclusion, future research could also examine and propose best models for individual and institutional capacity building for inclusion.

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Readiness of General Elementary Schools to Become Inclusive Elementary Schools: A Preliminary Study in Indonesia

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Abstract

A preliminary study was conducted to find out the readiness of general elementary schools (GES) to become inclusive elementary schools (IES) based on the criteria for the implementation of the government-specified inclusive schools. Data were collected through face-to-face interviews in 50 general elementary schools involving principals, teachers, parents and school committees. The results show that 60% of principals are ready to implement inclusive education programs because of government appointments, 92% of schools do not have inclusive school supporting facilities, 94% of schools have no special educators, 88% of schools have special needs students, 72% of schools have never received socialization inclusive education, 80% of schools do not yet have cooperation with institutions relevant to inclusive education, 82% of schools are not aware of the inclusive school administration procedures. The conclusion of this research is that GES is not yet ready to become an IES. The government has not maximized the implementation of inclusive schools through continuous assistance of inclusive elementary school candidates.

Keywords: Inclusive education, inclusive school, public school, special need student, Indonesia

Introduction

Inclusive education is a form of service for every child under any circumstances to obtain a fair education. Robo (2014), stated, that the outcome can encourage effective learning by increasing educational value at entire stages by sponsoring procedures to guarantee that disqualified children step into school united with agendas and exercises that guarantee that they will succeed there. It is an activity that includes directing and acting to the varied requirements of learners. Accordingly, the UNESCO (2005) stated that inclusive education is an approach that expresses how to change educational structures and other learning atmospheres to meet the needs of the variety of learners. Inclusion highlights opportunities for an equal involvement of individuals with disabilities (physical, social and emotional) when possible into typical education, but leaves accessible the probability of individual selections and possibilities for special aid and accommodations for persons who need it and want it.

Implementation of inclusive education is embodied in schools of inclusive education. The purpose of all students to get the service that meets their needs and removes obstacles, as well as, that inclusive schools embrace diversity and celebrate differences (UNESCO, 2005; Graham & Harwood, 2011). In the Salamanca Statement (UNESCO, 1994), general schools with this inclusive interest are the most successful ways of opposing inequitable feelings, building hospitable societies, constructing an inclusive civilization and reaching education for all; moreover, they offer a successful education to all of children and increase the effectiveness and eventually the cost-effectiveness of the whole education system. Effective inclusive schools are the different problem resolving associations with a usual duty that highlights learning for all students, as well as assisting and respecting students' diversity (Skidmore, 2004; McConkey & Mariga, 2011; Rose & Howley, 2007).

Increasingly, the establishment of inclusive schools is a necessity that cannot be further delayed as the number of students with special needs is increasing. Consequently, the critical concentration has been on altering the culture, systems and applies of schools, especially, within the skills of teachers, the facility of extra resources, such as learning support aides and adjusting the curriculum and teaching approaches (Mitchell, 2008; Winter & O'Raw, 2010). But the school-focused typical of inclusion has its limits (McConkey & Mariga, 2011). According to UNICEF, more than 80% of children with disabilities live in developing countries and have little or no access to appropriate services. In many countries that are improving inclusive education, government duties become very complicated in providing inclusive schools. As stated by UNESCO (2017), almost all nations look troubled in finding the funds to backing inclusive and justifiable improvements. The vital issue is guaranteeing that existing resources, mainly human resources, are used to produce a most significant outcome. Countries should strive that the conditions for allocating financial and human resources for education replicate the purposes of inclusion and justice.

Inclusive education in Indonesia

After ratifying the Salamanca Statement in 1997, Indonesia began implementing an inclusive education program by conducting inclusive education trials from 1998-2001 in several areas of Yogyakarta province to date. To strengthen its implementation, the regulation issued by Regulation of The Minister of National Education of The Republic of Indonesia, Number 70 the Year 2009, about inclusive education for students with special needs has the potential of intelligence and or students with special talents.

However, in its implementation to date, it is not easy to apply it in all regions of Indonesia, whereas the number of special needs students each year is increasing while the inclusive school still cannot accommodate them. Data of Ministry of Education and Culture of Republic of Indonesia (2011) that number of inclusive schools in 2008 as many as 814 units to serve 15,181 the number of special need students. In 2009, data from the National Socio-Economic Survey stated that the number of children with special needs in Indonesia was 354,000 with 70% of them had not received inclusive education services. In 2012, the number of children with special needs of 9.9 million, with the number of inclusive elementary schools in 2017 reached 23,195 (https://www.kemdikbud.go.id). This condition is of course still far from the prevalence of the number of students with special needs who should receive inclusive education services.

The problems faced by general elementary schools (GES) to become inclusive elementary schools (IES) to date face complex obstacles. The readiness of GES to be IES must meet the criteria set by the government. Problems that arise are items that must be met by GES to turn into IES. Some of the problems that occur are the community understanding of inclusive education, the teacher's understanding of the characteristics of students with special needs and the sharing of responsibilities with special escort teachers, supporting facilities and infrastructure --curriculum & learning system-- and evaluation of learning (Rudiyati, 2011).

Criteria of candidate for inclusive school

GES that will turn into IES so far are public schools designated directly by the Ministry of Education, with several criteria that must be met. In addition to direct appointments by ministries, public or private schools may also apply to inclusive schools by following several criteria that have also been arranged with some additional criteria from the general criteria. The direct appointment means that the local government --a district or city -- appoints at least one school in each sub-district as an inclusive school, and it is required to accept students with special needs. Schools applying for inclusive education must submit a proposal to the ministry, to be assessed as eligible as an inclusive education provider (Ministry of Education and Culture of Republic of Indonesia, 2011).

Although the appointment of schools by ministries is a comprehensive consideration, the school readiness to inclusive schools often encounters problems in the criteria set by ministries. Criteria of candidates for the school of the providers of inclusive education

established by the Ministries of Education and Culture of the Republic of Indonesia are readiness of schools to organize inclusive education programs, namely the students with special needs in the school environment, the availability of the special teachers/aid teachers, the commitment to the completion of compulsory education with proof of statement, the existence of network of cooperation with other relevant institutions, available supporting facilities that can be accessed by all learners, the socialization on inclusive education to the schools, the specified administrative procedures in each region.

This article aims to see the readiness of GES to become IES in Indonesia concerning some criteria or requirements for inclusive school candidates determined by the Ministry of National Education of the Republic of Indonesia. The question in this study is GES ready to become IES meeting all the criteria or requirements for inclusive schools?

Method

This article is compiled from mini research using a qualitative approach. A qualitative approach to this research focused on an independent assessment of stances, thoughts, and performance. Research in such a position means the researcher's perceptions and impresses (Khotari, 2004). The purpose of using this qualitative approach is identifying what factors are constraints in establishing an inclusive school in Indonesia using the inclusive school inclusion criteria used by the Indonesian National Education Ministry.

Participants

The participants involved came from 50 general elementary schools that were not yet inclusive schools, consisting of 47 public schools and three private schools in one district in West Java, Indonesia. Participants consist of principals (n = 50), teachers (n = 50), parents (n = 50), school committee (n = 30). All members of the school are involved --except the students --because they understand the real conditions of both obstacles, problems, and things that need to be prepared in order to turn schools into inclusive schools.

Data Collection

Data collection was conducted using face-to-face interviews with informants. The topic of this interview is on matters relating to the government criteria in determining a school to become an inclusive school, such a,s school readiness, acceptance of special needs students, facilities and infrastructure, availability of special teachers, socialization on inclusive education, administrative requirements. Interviews conducted one day with an average duration of 2-3 hours. The primary data obtained were the recording which then made his transcript by the researcher for further analysis.

Data Analysis

Data analysis used in this research was the qualitative content analysis. The term qualitative

content analysis is to indicate to the complete scope of qualitative methods for data analysis, to associate the method with other qualitative methods such as discourse or conversation analysis (Krippendorff, 2012). The qualitative content analysis is a technique for analytically defining the meaning of qualitative data (Schreier, 2012). Qualitative content analysis assists with cutting the quantity of material. It involves the researcher to concentrate on chosen parts of meaning, specifically those parts that concern to the whole research question. Three features describe the method: qualitative content analysis decreases data, it is systematic, and it is adaptable (Flick, 2014). In this manuscript the data were calculated the percentage of each criterion of inclusive school implementation obtained from interviews which then perform content analysis in each criterion.

Results

Below is the result of a survey that has been conducted, and is explained by the rank of the most difficult criteria to be met by each school that will conduct inclusive education.

Readiness of schools to organize inclusive education programs

The school preparedness points consist of the readiness of school members to implement inclusive education consisting of principals, school committees, teachers, and parents.

 Table 1. Percentage of readiness of school members in the implementation of inclusive education

Members	Ready for inclusive	Not ready for inclusive
Principals	30 (60 %)	20 (40 %)
School committees	15 (30 %)	35 (70 %)
Teachers	18 (36 %)	32 (64 %)
Parents	8 (16 %)	42 (84 %)

Table 1 displays that the school members who are most ready to run an inclusive school are 30 principals or 60%, while the most unprepared are the parents of 42 people or 84%.

Available supporting facilities that can be accessed by all learners

The supporting facilities that an inclusive school must possess in this interview consist of parts of physical facilities and infrastructure, such as tables, chairs, wheelchairs, writing and reading aids or toilets that are all accessible to students with special needs. Besides instructional facilities such as curriculum modification, evaluation of learning is also a concern in the interview.

Table 2. Availability of supporting facilities of school

Availability of supporting facilities	Number of Schools	Supporting facilities	Source of provider
Available	4 (8%)	Wheelchair	From another
		Hearing aid	institution (special

		school)
Unavailable	46 (92%)	

Most of the schools from the Table 2 that were observed as many as 46 schools or 92% did not have supporting facilities to provide access for students with special needs.

Special teachers/aid teachers are available

On the third criterion is the availability of special teachers either provided by schools or other institutions

Table 3. Availability of special teachers

Availability of special teachers	Number of schools	Source provider
Available	3* (6%)	School
Unavailable	47 (44%)	-

*Each school has only one special teacher

There are students with special needs in the school environment

In some schools both public and private, there are several categories of students with special needs, with the following percentages:

Table 4. Category of special need stu	idents in observed school
---------------------------------------	---------------------------

Availability of	Number of	Kind of special need	The number of
students with special	schools	students	special need
needs			students
		Slow Learner	35 (37.6%)
		Learning difficulties	21 (22.6%)
		ADHD	16 (17.2%)
		Deaf	6 (6.5%)
Available	44 (88%)	Autism	5 (5.4)
		Speech impaired	5 (5.4)
		Mentally disabled	1 (1.1%)
		Handicapped	3 (3.2%)
		Blind	1 (1.1%)
Unavailable	6 (12%)		

In Table 4, the number of students with the most special needs found in schools that observed is the slow learner students, that is 35 students.

The school has received socialization on inclusive education

Some schools have received socialization on inclusive education, which has been delivered by several institutions. But some schools have not received the socialization, as illustrated in the Table 5 the following:

Table 5. T	he amount (of socialization	of inclusive education	

Socialization to school	Number of	Frequencies of	Amount of
	schools	socialization	participant
			(principals or
			teachers)
		once	14
Already followed the	14 (28%)	twice	8
socialization		3-5 times	6
		>5 times	2
Never had any	36 (72%)		
socialization			

The existence of the network of cooperation with other relevant institutions.

On the criteria of school collaboration with other institutions focused on the question of whether the school has co-operation related to the implementation of inclusive education, whether related to mentoring, how to identify children with special needs or about learning.

Table 6. Network of cooperation with other relevant institution

Network of cooperation with other relevant institution	Number of schools	Kind of institutions	Kind of cooperation
Already have cooperation	10 (20%)	Special schools	Learning Aids
		Psychologist/doctor	Psychology test
Have no cooperation yet	40 (80%)		

In Table 6, it can be stated that almost the majority of schools of 40 schools or 80% have not cooperated with other institutions relevant to inclusive education.

Complies with administrative procedures specified in each region

The criteria for understanding the administrative procedures that should be known in establishing an inclusive school can be illustrated in the Table 7 below:

Table 7. Understanding of administrative procedure

Understanding of	Number of schools
administrative procedure	
Already know the	9 (18%)
administrative procedure	
Not yet know the	41(82%)
administrative procedure	

The last criterion is to have a commitment to completing compulsory education, all schools

or 100% have a strong commitment to support this because it is a requirement written in the Constitution of National Education System, Year 2003.

Discussion

Several criteria for inclusion of IES candidates, based on survey results that have been conducted about the problems faced by most schools, especially public schools, to be able to provide inclusive education. The government has not maximally facilitated public schools as an example of inclusive schools in various regions of Indonesia. The implementation of inclusive education is an obligation of every sub-district in all provinces as a form of educational service for all children without exception. Problems are arising when evaluated from the requirements of the establishment of inclusive schools based on the results of surveys conducted relating to the criteria for establishment of inclusive school candidates themselves.

In Table 1 on the readiness of each school member, principals, school committees, teachers and parents, the most significant readiness are shown by the school principal regarding school readiness in implementing inclusive education. The readiness of the principal is a form of compliance and necessity in carrying out orders from officials who overshadow the school of the Head of Education or even the Minister of National Education of Indonesia. Be prepared or not prepared by the rules should be implemented, although school readiness, in general, is not adequate. Although they hope that in line with the implementation of inclusive education, the government also facilitates its implementation such as the provision of facilities and infrastructure that support the learning and accessibility of students with special needs in schools. This statement is shown in one of the principal interview results:

"As principals, I have to be ready if appointed by the department to make our school inclusive, but I also hope that the service or government can meet school facilities and infrastructures, such as special tools or special teacher also."

It is not easy to bring all the thoughts of all school members together because there must be pros and cons in the delivery of inclusive education. But the principal should be able to facilitate all members of the school. Principals assisting educators to participate in positive and serious studying [...] improve a learning society integrating, usefulness and cooperate with parents and the wider society, and engage learners as residents in school review and improvement in the inclusive school culture (Carrington & Robinson, 2006; Curcic, Gabel, Zeitlin, Cribaro-DiFatta, & Glarner, 2011; Gous, Eloff, & Moen, 2014).

In addition to principals, teachers as implementers of instructional in an inclusive classroom, actually have high enthusiasm in the implementation of inclusive education. But various obstacles such as how to teach students with special needs, give attention and time to all students, make the modification instructional strategies or lesson plan is still a barrier to teachers to be able to accept students with special needs to study in general classrooms. This happens because most teachers do not have the background of special education for

children with special needs. Though they realize that they must provide knowledge to all students without exception. One of teachers stated:

"I am ready if our school is used as an inclusive school, but the government should have prepared the facilities and infrastructure such as tools or instructional media, special-need teachers, how to make the instructional strategies in inclusive classes because I have no experience in handling children with special needs."

The instructional strategy so far that teacher is still focusing on teacher-oriented, which leads to learning is only controlled by teachers. Whereas in inclusive classroom required good collaboration between general teacher and student or general teacher with a special teacher. Central approaches teachers practice to control their learners [...] within more peer reinforced learning where learners are contributing in extra dynamic modes; there is a want for less central approaches (Warham, 1993; Kugelmass, 2001). The teacher's readiness to teach in an inclusive class changes explicitly the teacher's view of an instructional system. Intellectual provisions involve great amounts of time to integrate and ultimately endorse, and more than a few months earlier to school establish are obligatory to totally engage and prepare teachers for the joint assignment of visioning, cooperating, and scheduling the syllabus and instruction of a new school (Florian, 2012; Mastropieri & Scruggs, 2017; Slavit, Nelson, & Lesseig, 2016).

As for the school committee, they are the facilitators between the school and the parents. The school committee considers that if schools are not ready to be inclusive schools, including the provision of government facilities, as well as the skills of teachers to pay attention to all students, school committees are more likely to advise schools not to implement inclusive education. But the decision to become an inclusive school depends on all school members/community (Swart, Engelbrecht, Eloff, Pettipher, & Oswald, 2004) and government. [...] Encouragement can be important that opens or closes the door to inclusion, parents are related to the willingness of the school (Mortier, Van Hove, & De Schauwer, 2010). Below is the leader's opinion of the school committee:

"We are in a position that does not accept or reject our school as an inclusive school, but we also have to look at the condition of the school, the reality is not ready either teachers or learning We also see many parents who do not understand the intent of inclusive schools, the mind of the parents who refused, but if the government appointed our school as an inclusive school we must accept its"

Most parents--typical student's parents-- feel unprepared to turn their schools into inclusive schools because teachers are hard-pressed to share the time and attention of having to deal with children with special needs. Parents suggest that children with special needs can attend special schools with special teachers so that it is easier to handle, and to avoid bully them (C. A. Rose et al., 2015; C. A. Rose & Espelage, 2012). This statement stated by the parents:

"It is better for children with special needs to attend special schools only, so they can avoid bullying and teachers are also not divided into the attention of children with special needs."
This parent's opinion is related to the fact that there are still many parents who have not understood the purpose of inclusive education. Some parents who have children with special needs say otherwise, that they feel the general or inclusive school is the right school for their children, constructive effects for children (Gasteiger-Klicpera, Klicpera, Gebhardt, & Schwab, 2013; Francis et al., 2016), so that children can socialize and not shut down from peers. Although there are fears will be bullied by his friends. One of special need student's parent stated:

"I hope the school can accommodate our children who are indicated as children with special needs because our children will learn socialization and interaction with other children, but we also hope that teachers can supervise them so that no bullying."

On the second point of criteria is the availability of supporting facilities as an important issue that becomes a complaint of every school if it becomes an inclusive school. During these public facilities are still many schools that do not meet the standards set by the government. Some things that become complaints and highlights of the school is the availability of special tools needed by each child with special needs. For example, the special tools needed for blind students for orientation and mobility training, wheelchairs or other learning tools (2016) such as computer, film, video (Tsolakidis & Tsattalios, 2014) or educational toys are difficult for schools to provide, as they are related to the funds that schools have in their management that considers budgets based on priority physical needs and school activities. Some attempts by regular schools to provide education services, even though they are not inclusive schools, are to borrow special tools from special schools. Not infrequently also, the school tries to find their funds for the procurement of supporting equipment for students with special needs such as wheelchairs. This is evident from the teaching experience of one of the teachers who teaches handicapped students:

"[...]Such as a wheelchair, when I have taught, and there is a child from the waist until his legs are paralyzed, the child comes from a family who can not afford, then the school bought himself--and some donations-- a wheelchair, and it is very helpful in the mobilization of children. Teacher and his friends can push it to the desk in the class."

Another fact is the provision of special guidance and counseling rooms or resource spaces provided by the school as a place for children with special needs when to be withdrawn from the classroom to learn certain lessons that require specific explanations; there are still many schools that do not yet have or still have limitations. The availability of classrooms is usually only sufficient for students 'learning space --tailored to the number of students--teachers' rooms, libraries, toilets and worship rooms. The government's attention to the limitations of supporting facilities and infrastructure is a problem that should be considered to choose a school to become an inclusive school. This is related to the success of the academic or learning objectives (Bano, Akhter, & Anjum, 2013; Ruijs, Van der Veen, & Peetsma, 2010) and the implementation of inclusive education to be felt for all children.

Based on Table 3, only three schools have special teachers. In accordance with Regulation

of The Minister of National Education of The Republic of Indonesia Number 70 Year 2009, Article 10 paragraphs 1 and 2, it is explained that for schools designated as inclusive schools, the government is obliged to provide special teachers, whereas if it is not the school designated as an inclusive school it is mandatory to provide at least one special teacher. In fact, however, some of the issues relating to the availability of special teachers relate to the field of teachers coming from special education graduates dealing with children with special needs. During this time, graduates of special-needs teachers are more specialized in special schools, with a more promising career of being a permanent school teacher or as a civil servant teacher. This is contradictory if teachers with special education graduates who teach in inclusive schools or regular schools with special needs students have status only as honorary teachers. This condition causes the reluctance of special teachers to teach in inclusive schools. In effect, inclusive schools or schools with special needs students do not have teachers who collaborate with classroom teachers in dealing with students with special needs (Keefe & Moore, 2004) To overcome this problem, the classroom teachers usually handle and assist the students with special needs. Whereas most class teachers do not have the skills and competency to handle students with special needs. This opinion illustrated by a quote from one of the teachers below:

"In my opinion, the presence of a special teacher is essential to assist the classroom teachers. It is impossible for teachers to control all children, including children with special needs themselves, because not all teachers are experts in handling them."

Another factor that is problematic in the provision of special teachers is the funds for salary payments. So far there is no regulation that states about the party who is obliged to pay the salary of a special teacher. In inclusive private schools, the burden of salary payments is left to parents by the provisions of the school. But in public schools that are inclusive schools typically receive government inclusive school funding, and the salary payments of special teachers are partly used from these funds, but after school is designated as inclusive schools. Public schools that are not yet inclusive schools, or become an inclusive school candidate do not have sufficient funds to use government operational funds since funds are usually allocated for other more important purposes. To charge funds to pay the payments, most of the parents come from underprivileged categories, so they cannot afford to pay special teachers. The above conditions, leading to the availability of special teachers are very rarely owned by public schools that indirectly have to accept and handle students with special needs (Mapunda, Omollo, & Bali, 2017).

The further requirement in the criteria of inclusive school candidates is that they must have special needs students. Nearly all major schools or 44% of schools have students with special needs with different types of disabilities owned by students with special needs. The number of slow learner students is the largest number of schools. The problem with this is the difficulty of schools determining or identifying the types of children with special needs (Isaksson, Lindqvist, & Bergström, 2010). One of the causes is with the closing of information parents to the school on the condition of their children (Anders et al., 2011). Though this impact leads to errors in the handling of learning and behavior of the child. Some schools have indeed identified early on the tendency of a student having special

needs. Some ways are done by observation of students who have a tendency slow in learning both readings, counting, etc. Also, at the beginning of enrollment, several schools conducted a series of academic tests and psychological test in collaboration with psychologists to determine the IQ, as well as the talents of the child.

One important requirement for inclusive school candidates is that schools have received socialization on inclusive education. In Table 5, it is stated that the number of schools that have received socialization as many as 14 schools or about 14% with participation at most only once the following socialization. Socialization is usually done in seminars or workshops. The problem with this socialization is that not all schools are socialized, only a few schools are invited to join the seminar or meetings represented by the principal or a classroom teacher. So there are still many schools that have not gotten socialization about inclusive education. Another problem is that the socialization program is not sustainable and there is no school assistance to be the inclusive school of the education office for the results of the socialization. One of the teachers' opinions on the importance of socialization that has been followed is:

"I have attended inclusive education training twice, then the district education department said that the training would be done once every three months, but until now it has not done yet, I hope that socialization activities are continuously done."

The impact of this lack of socialization is the lack of understanding of all school members, especially teachers in dealing with students with special needs, which they must accept even if not as inclusive schools.

School networking with other relevant institutions is an essential requirement that schools must have. In Table 6, only ten schools or 20% of schools have cooperative networks with special schools and psychologists. This cooperation is related to instructional tools, and a psychological test is done to new students at the beginning of school entry. In this case, the government and schools are less active in approaching other parties such as universities, or non-governmental organizations concerned with inclusive education that might involve regional authorities, community groups, school regions, and teacher federations to discourse multifarious topics needing cross-departmental/-organizational (Canadian Association for Community Living & B.C. Teachers' Federation, 2004). Most schools have been relying only on government programs, so that information or input on inclusive schools is still limited to schools. This was stated by the principal, namely:

"Our school has not had any cooperation with other institutions other than the education office, which has been providing seminars on inclusive education, whereas we need cooperation with other institutions such as universities with inclusive education programs, especially learning methods in inclusive classes."

It is also the case with the government, which does not encourage schools to collaborate with other institutions, whereas the government as facilitator can make other relevant institutions to help schools to implement inclusive education effectively. The role of the university, particularly in teacher education institutions as well as a resource center for ordinary schools thus providing direct support to children with special educational needs (UNESCO, 1994), is includes building or establishing inclusive schools innovatively with activities. A research project conducted by (Skilton-Sylvester & Slesaransky-Poe, 2009), build the inclusive school with the innovative, team-based qualified improvement standard used to requests school-based groups of teachers, administrators, and parents to design achievement ideas, see regularly, apply modifications, and expose on their performs to build inclusionary learning atmospheres for all children.

Procedurally, the criteria that must be fulfilled by every inclusive school candidate is the understanding of administrative procedures established by each region in the form of special conditions other than conditions established by the government. A total of 41 schools or 82% of schools have not understood the administrative procedures of inclusive education. This condition is caused by a lack of socialization by district education offices to schools that have not yet become inclusive schools. In addition to the education office, local governments have not made concrete efforts to provide understanding that has implications on managerial aspects such as providing a friendly, comfortable and warm class for all children with all the differences, advantages and disadvantages; using a modifiable curriculum for all children as well as individual learning for students with special needs; the application of communicative and effective learning; collaborate with relevant parties and make parents as partners who are always together to think about the progress of students, especially students with special needs. The impact of this ignorance of administrative procedures adds to the reasons for the unpreparedness of schools in providing inclusive education.

The last criterion that is not less important is the commitment of each school to complete compulsory education. In this case, all schools have a strong commitment to complete the 12-year compulsory education as a form of providing opportunities for every child and promoting education in Indonesia. Within this framework as inclusive schools, the commitment of principals and teachers is demonstrated by providing services and learning that can make all children including children with special needs to achieve educational goals. This can be illustrated by the following teacher statements:

"I will guide my students as much as possible in reaching the mastery learning. I have a student who is hard to learn to read, but every day I always monitor and repeat continuously so that he can read. Now he can read, and I am very proud and happy to see it. I will do to other students too so that they can be more advanced and smart. "

According to the teacher, the strong commitment in completing the compulsory education program can be implemented in the form of directing and assisting students in achieving the minimum level of mastery of learning, although they do not yet have the skills in handling the students with special needs. But with experience, that commitment can be achieved well.

Conclusions

This article is a preliminary study aimed at identifying the readiness of GES candidates by using some criteria or requirements set by the government and must be met by inclusive school candidates, consisting of eight criteria. Based on the results and analysis of criteria that have been asked to several schools, it can be concluded that in general almost all schools have not ready to be made as an IES. This is shown from all the criteria asked by the participants. At the first criterion, on the readiness of school members in facing the inclusive school program, the principal is the school member most ready to turn the school into an inclusive school. This readiness is related to the order or rules that must be implemented if it has been appointed by the government. The second criterion, related to the availability of supporting facilities almost all schools do not have facilities that support the implementation of inclusive education. The third criterion does not yet have a special teacher who is in charge of assisting classroom teachers to handle students with special needs. This is related to at least teachers with special education skills areas to teach in inclusive schools that are also associated with limited funds to pay teachers as special teachers. The fourth criterion, most of the schools have students with special needs, but for the implementation of learning has not been using inclusive education system. The fifth criterion, socialization conducted by the government is still very little to the school, thus causing information on the practice of inclusive education has not been widely known school. The sixth criterion, most schools do not yet have a network of collaborations with other institutions relevant to inclusive education that should be able to collaborate in implementing inclusive education. The seventh criterion, the socialization of administrative procedures for the implementation of inclusive education, has not been widely known by the schools, leading to the lack of establishment of inclusive schools. The eighth criterion, all schools have a strong commitment to complete the compulsory education program for all students including students with special needs, which is shown by the students' learning mastery score.

The implication of the above conclusion is that the establishment of an inclusive school should not only be the authority and obligation of the government in the framework of legislation by appointing an inclusive school within each sub-district. But the government can set up an inclusive school by piloting it first. Pioneering can be done regarding the terms or criteria that all schools must meet. An important activity that the government should undertake in pioneering is ongoing and sustained assistance so that IES candidates are ready to implement inclusive education.

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Development and Standardization of Mental Health Battery for Visually Impaired

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Abstract

The aim of this study was to develop and standardize a mental health battery for students with visual impairment (MHB-VI) in India. The research was carried out on sample of 126 children with visual impairment of the age group 10-25 years from Haryana state. The battery contained 61 items and these items were categorized into six sub-scales namely emotional stability, over-all adjustment, autonomy, security-insecurity, self-concept and emotional intelligence. Items showing behavioural characteristics related with six mental health sub-scales were framed on the five points Likert Scale. Item analysis was performed by calculating t and r-value and 12 items were deleted and final 61 items were retained. The value of Cronbach's alpha and split half correlation came out to be 0.89 and 0.80 respectively. This battery may act

as a valuable tool in accessing mental health of students with visually impairment in India as the findings demonstrated that its scores were valid and reliable. This tool is specifically useful for practitioners, special teachers, social workers, psychologists and stakeholders. They can use this tool in assessing the mental health of students with visual impairment; as a result, effective planning and strategies can be established.

Keywords: Mental Health, Visually Impaired, Emotional Stability, Over All Adjustment, Autonomy, Security-Insecurity, Self -Concept and Emotional Intelligence

Introduction

Mental health forms an important part of an individual's health and interact in a complex manner with physical health and abilities to succeed in school, at work and in society. Sound mental health is essential to a full functioning of an individual (WHO, n.d.). Punia and Berwal (2015) explained that a mentally unhealthy person directs all his energies to overcome the imaginary threats and fears. World Health Organization (2011) defined Mental Health, "A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make contribution to her or his community" (para.1). It is the state of mind in which an individual can work productively, enjoy life and meet the challenges of life without losing his physical, social and mental balance (Work/life balance and stress management, 2017).

Thornicroft and Strathdee (1991) described that earlier metal health issues were marginalized in medical sciences. Mental health has received main attention in public health and policies after the release of World Health Organization's flagship report (The World Health Report- Mental Health: New Understanding, New Hope, 2001). Poonia and Berwal (2013) emphasized that the concept of mental health is not new but educationist and psychologist has started giving importance to it in recent years. Wikipedia (2013) described mental health as a level of psychological well-being, or an absence of a mental disorder. Mental disorder has been referred as an umbrella term in NICHCY Disability Fact Sheet 5 (2010, p.1) prepared by National Dissemination Centre for Children with Disabilities. It includes emotional disturbance, behavioural disorders, or mental illness. These include (but are not limited to): anxiety disorders, obsessive-compulsive disorder and psychotic disorders.

Depending on the specific mental disorders individual's physical, social and cognitive skills may be affected (Behaviour Disorders: Definitions, Characteristics & Related Information n.d.). Mental illness may also affect the thinking, feeling, mood and daily functioning (What is Mental Illness & Types of Mental Disorders (n.d.). The National Alliance on Mental Illness (NAMI) (NICHCY Disability Fact Sheet 5, 2010, p.2) explained very well the characteristics and behaviours seen in children who have an emotional disturbance. These characteristics and behaviours are:

- (i) Hyperactivity (short attention span, impulsiveness);
- (ii) Aggression or self-injurious behaviour (acting out, fighting);
- (iii) Withdrawal (not interacting socially with others, excessive fear or anxiety);
- (iv) Immaturity (inappropriate crying, temper tantrums, poor coping skills); and
- (v) Learning difficulties (academically performing below grade level).

All the behaviours described above clearly highlights the significance of good mental health in everybody's life. Although mental health problems can occur to anybody at any stage of life, however the severity of the problem increases, when it occurs in the beginning of childhood or adolescence. As per Cuellar (2015) views, problem of depression and addiction are more likely to appear in teenage. Then along with other associated manifold problems it is detrimental for child's educational performance. McLeod, Uemura and Rohrman (2012) mentioned that mental health had shown consistent association with various behaviour problems and attainment. Therefore, mental health of children is an important concern for all of us. Interventions that improve the mental functioning of children should be planned and executed. Fleming et al. (2005) found that interventions that strengthened the mental health of students also positively affected their academic achievements. Research also demonstrated that there is a social benefit to invest in positive mental health of students as students with stable and good mental health are less likely to drop out of school (Skalski & Smith, 2006). Mental health was found correlated with many environmental, emotional and personal factors (Anand, 1989; Manjuvani, 1990; Chaudhary & Bajaj, 1993). Although some children who do not have mental disorders may display some of the behaviours that indicates poor mental functioning, yet in case of children having mental disorder, these behaviours stay over longer period of time.

In case of the visually impaired, the behaviour is modified by the limitation of their vision (Visual Impairment: Its Effect on Cognitive Development and Behavior, 2016). They are surrounded by various problems like lack of confidence, dependence on others, emotional disturbance, low self-concept, poor perception about surroundings, depression, lack of interaction with peer group and external environment (Stewart, 2014, Shenoy et al. 2017)). They face problems like mobility and isolation. This may further compound their problems of depression and alienation (Evans, Fletcher, & Wormald, 2007). Punia and Berwal (2017) mentioned that disabled students are at greater risk of developing different psychological problems, feeling of deprivation and alienation. This kind of social exclusion leads to various mental health problems and considerably influences their mental health (Kawachi, & Berkman, 2001). Mental health can even affect physical health and day to day activities (Cornwell, & Waite, 2009). Therefore, visual impairment is not only the loss of vision but also associated with various emotional and psychological problems and may leads to depression and increase in the feelings of anxiety. Research by the Mental Health Charity Mind, 1999(as cited in Community Care and Mental Health Services in Scotland, 2006) indicates that people who become blind or partially sighted may have particular mental health needs as they learn to adjust to their sight problems. Visual impairment is likely to influence mobility and access to social contacts which may further result in social isolation, separation, loneliness, and loss of social support (Social Isolation and Physical and Sensory Impairment, n. d.).

Based on review of relevant literature, discussion with experts and personal experiences, it was felt by the researchers that a tool to assess the mental health of visually impaired is the needed. It was further necessitated by the fact that various test /scale/battery for mental health are available for general population in India but scales measuring mental health of visually impaired are not available. Many of the items included in the mental health scales for sighted students are not appropriate for visually impaired which poses limitation on their use. Moreover, there are large numbers of students with visual impairments studying in special and inclusive schools in India. And if, a tool is developed to assess their mental health, intervention programmes for improving their mental status can be planned and executed which ultimately may help in creating a sound and wavering Indian society.

Methodology Development of the battery

The aim of present study was to construct a mental health battery to evaluate the mental health of visually impaired studying in inclusive and special school. Six indices of mental health were finally selected for inclusion in the battery (Jahoda, 1959; Maslow, 1950; Rogers, 1961; Singh, 2013). These are emotional stability, over-all adjustment, autonomy, security-insecurity, self-concept and intelligence. Each dimension is explained as follows.

Emotional Stability. It is the ability of an individual to withstand stress, strains, failures and difficulties of day to day life without becoming anxious, nervous, tense and emotionally upset (Emotional Stability, n.d.). Behavioural characteristics associated with emotional stability are: stable emotions and self-image, even tempered, dealing successfully in diverse conditions, following strict schedule to feel in control, feeling contended with life and accepting one's circumstances, ability to cope up with adversity and safe living environment.

Over-all Adjustment. It refers to adapting, regulating and adjusting in various aspects of life like education, health, social, emotional and cultural at home, school, society and workplace. It helps in maintaining equilibrium between the needs and obstacles (Shaffer, 1948). The identifying characteristics associated over all adjustment are: adapting in various aspects of like education and social health at home, school and society, maintaining balance in different life situations, positive attitude towards life, balance between work and family, tackling with fear, anxiety and stress, forming positive relationship and dealing effectively with challenges of life.

Autonomy. Autonomy is the quality of an individual of being having independence, selfdetermination and freedom. Soares & Rebelo (2017) explained it as the ability of an individual to be governed by his own principles and laws and can respond freely in any situation. The characteristics associated with autonomy are: independence, self-determination, freedom, organization and contribution to the society.

Security-Insecurity. The concept of security and insecurity was originated from the work of W.I. Thomas and Alfred Adler (Cameron & McCormick, 1954). In the past, these terms were defined differently by different authors but in the present study security refers to the feeling of safety, confidence, stability, pleasantness and satisfaction. While the term insecurity is associated with the feeling threat, uneasiness, anger, frustration, unpleasantness created under threatening and unsupportive environment.

Self-Concept. Self -concept is the collection of belief about oneself like one's strengths, weaknesses, status, cognition and achievements (Adler &Towne, 2002). In general, it refers how someone thinks about himself or self -image. The defining characteristics of self -concept are: self -image, relationship with friends, perception about one's abilities, cognition, good self - image and self -esteem and abilities to meet basic needs.

Emotional Intelligence. This term originated from the works of Peter Salovey and John Mayer but got popularity when Dan Goleman wrote a book on emotional intelligence in 1996. Salovey and Mayer (1990) defined it as 'the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions' (p. 189). Goleman (1996) described it as collection of positive characteristics which includes political awareness, self-confidence, conscientiousness, and achievement motives. Associated constructs are: awareness of self, self-regulation, maintaining balance between relationships, motivation and understanding others emotions.

Sample

A sample of 30 students with visual impairment was taken for the pre-pilot study. One hundred and twenty six visually impaired students in the age group 10 to 25 years, studying in five special schools and 52 inclusive schools were selected randomly for the study from entire State of Haryana for the final development of the tool. Students having multiple disabilities along with visual impairment were excluded from the study, as they might influence the final results.

Procedure

Initially, an item-set for Mental Health Battery for the Visually Impaired (MHB-VI) was created after consulting pertinent literature and related scales. An instruction sheet was prepared including personal detail per forma for the subjects and briefly explaining purpose of the study and instructions for answering the items in the scale. In the preliminary draft, 79 statements showing the behavioural characteristics related to mental health subscales were framed on 5 points Likert scale. The draft was sent to eight experts for their opinion and constructive criticism regarding relevance, content coverage and understanding ability of items. Experts were selected from different areas like education, special education and psychology. On the basis of comments received, some of the items were modified and only those items were retained in the battery which were consented to by the experts. Further, the approved items were given to two experts in English and Hindi for language vetting. Finally, six items were deleted and 73 statements were retained in the battery. Then for pilot study, preliminary draft was administered to thirty visually impaired students and their observations regarding understanding of statements, appropriateness of language, ambiguity and repetition of statements, if any, were recorded by the investigators. Some of the statements were modified accordingly. Then following steps were undertaken for standardization of the MHB-VI and accordingly results were obtained and explained:

Try-out. The preliminary draft was administered on a sample of 126 visually impaired students. The instructions on the battery were read out and the doubts were removed. There was no time limit for the completion of test although subjects were asked to complete it as early as possible. As the sample of the study was of the visually impaired, the investigator collected the data by explaining each statement to the subjects and noting down their responses.

Item Analysis and Item Selection. After administering the initial form of test consisting of 38 positively and 35 negatively keyed items, the item analysis was completed in two steps. The score obtained by the subjects were tabulated and item analysis was done to determine the difficulty and discriminatory power of the item of the test. After scoring, the response sheets of 126 subjects were placed in an ascending order. The top 27 percent and bottom 27 percent were selected for item analysis (Kelly, 1939). The 't' test was applied to find out the item discriminating value. The items having significant 't' values (i.e. greater than or equal to 1.75) were selected whereas others were rejected. Along with this, item discrimination was also calculated for item selection, represented by r-value. The obtained t-values and r-values are given in Table 1, which shows that ten items had poor discrimination on the basis of r-value while ten items were having t-value lower than 1.75. So out of 73 items, twelve items bearing serial numbers 1,6,10,14,15,40,

43,45,46,47,51 and 61 which were falling short under any of the required value of r and t were rejected and total 61 items were retained.

Items	Item No.	r- value	Cronbach's Alpha, if Item Deleted	Decision	
1	1.02*	0.156	0.867	Rejected	
2	2.42	0.358	0.866	Retained	
3	3.44	0.343	0.865	Retained	
4	3.41	0.301	0.866	Retained	
5	4.11	0.432	0.864	Retained	
6	1.31*	0.169	0.868	Rejected	
7	3.91	0.24	0.867	Retained	
8	6.21	0.529	0.862	Retained	
9	4.24	0.284	0.866	Retained	
10	-0.56*	-0.06*	0.869	Rejected	
11	2.88	0.217	0.867	Retained	
12	4.30	0.371	0.865	Retained	
13	2.77	0.192	0.868	Retained	
14	-2.51	-0.27*	0.872	Rejected	
15	-4.37	-0.45*	0.876	Rejected	
16	4.21	0.368	0.865	Retained	
17	1.81	0.141	0.868	Retained	
18	3.75	0.275	0.866	Retained	
19	2.98	0.254	0.867	Retained	
20	4.48	0.364	0.865	Retained	
21	3.71	0.315	0.866	Retained	
22	2.44	0.163	0.868	Retained	
23	5.27	0.445	0.864	Retained	
24	7.97	0.568	0.862	Retained	
25	5.19	0.391	0.865	Retained	
26	5.22	0.329	0.866	Retained	
27	2.43	0.204	0.867	Retained	
28	2.43	0.241	0.867	Retained	
29	6.41	0.469	0.864	Retained	
30	4.71	0.314	0.866	Retained	
31	6.04	0.568	0.863	Retained	
32	5.83	0.404	0.864	Retained	
33	2.95	0.301	0.866	Retained	
34	4.80	0.35	0.865	Retained	

Table 1. Item Analysis and Correlation between Items and Total Scores of Mental Health Battery Image: Comparison of the second second

35.	7.47	0.49	0.863	Retained
36	2.00	0.204	0.867	Retained
37	5.63	0.377	0.865	Retained
38	3.24	0.305	0.866	Retained
39	3.67	0.258	0.867	Retained
40	-0.36*	-0.08*	0.871	Rejected
41	5.32	0.37	0.865	Retained
42	4.51	0.363	0.865	Retained
43	-0.31*	-0.11*	0.872	Rejected
44	2.32	0.208	0.867	Retained
45	0*	-0.1*	0.872	Rejected
46	1.31*	0.073*	0.869	Rejected
47	-1.18*	-0.13*	0.873	Rejected
48	2.46	0.208	0.867	Retained
49	5.57	0.375	0.865	Retained
50	6.90	0.466	0.863	Retained
51	0.18*	0.01*	0.87	Rejected
52	4.41	0.412	0.865	Retained
53	5.81	0.369	0.865	Retained
54	4.61	0.416	0.864	Retained
55	5.11	0.499	0.864	Retained
56	2.83	0.284	0.866	Retained
57	1.94	0.191	0.867	Retained
58	5.04	0.338	0.865	Retained
59	3.62	0.333	0.866	Retained
60	3.02	0.258	0.867	Retained
61	0.46*	0.07*	0.868	Rejected
62	4.81	0.358	0.865	Retained
63	5.81	0.391	0.865	Retained
64	2.80	0.317	0.866	Retained
65	2.22	0.248	0.867	Retained
66	2.61	0.173	0.868	Retained
67	3.60	0.335	0.866	Retained

68	3.46	0.362	0.865	Retained
69	3.15	0.331	0.866	Retained
70	4.44	0.443	0.864	Retained
71	5.10	0.396	0.864	Retained
72	4.26	0.383	0.865	Retained
73	6.06	0.414	0.864	Retained

*Value accountable for item rejection

Reliability. Reliability of the battery was determined by means of Cronbach's alpha and split-half method and calculated by using reliability calculator created by Del Siegle (dsiegle@uconn.edu). The value of Cronbach's alpha in the present case comes out to be0.89 which is reasonably good. Split-half reliability came out to be 0.80 which indicated that all the test items were measuring mental health. Table 2 shows different measures of reliability calculated for the mental health battery before and after the correction, based on item analysis.

Tuble 27 Different filousures of Rehubinty				
Reliability Measures	Preliminary Draft of MHB-VI	Final MHB- VI		
Cronbach's Alpha	0.87	0.89		
Split-Half (odd-even) Correlation	0.76	0.80		

Table 2. Different Measures of Reliability

Validity. Three kinds of validity---content, face, construct---for the battery were determined. The content validity of the mental health battery was determined by "Translation and Back Translation Method". The face validity of the mental health battery was improved by including only those items which were unanimously agreed by all the experts. Construct validity was determined by computing the coefficient of correlation between the scores of this battery and scores obtained from Mental Health Battery (MHB), prepared by Arun Kumar Singh and Alpana Sen Gupta. The coefficient of correlation was calculated on 45 subjects, which came out to be 0.58. This value of coefficient of correlation was significant at 0.05 level of significance and provided the indices for construct validity.

Norms. First of all, normality of the data was determined by using Shapiro Wilk test and Quantile-Quantile plot (Q-Q plot). The value of Shapiro Wilk test came out to be 0.62, which was greater than 0.05, so it could be concluded that this particular sample was normally distributed.



Figure 1: Normal Q-Q Plot of Data Collected by Using Mental Health Battery

The Q-Q plot compares ordered values of a variable with quantiles of a specific theoretical distribution (i.e., the normal distribution). From the Fig. 1, it can be concluded that the data appeared to be normally distributed as it followed the diagonal line closely and had linear pattern. The percentile norm was prepared on the basis of mental health scores obtained from 126 subjects. The scores of mental health battery can vary from 61 to 305 and their interpretation was categorised in five broad categories viz. very poor, poor, average, good and very good. The interpretation of the scores obtained in the mental health battery was done on the basis of details given in the Table 3.

Percentiles	Mental Health Scores	Quantitative Interpretation	Qualitative Interpretation (Mental Health Categories)
95 th	268.65	260 and above	Vow Cood
90 th	259.30	200 and above	very Good
80 th	245.60	242 to 259	Good
75 th	241.00		
70 th	233.00		
60 th	228.00	201 / 241	
50 th	221.50	201 to 241	Average
40 th	212.80		

Table 3. Percentile Norms and their Interpretation

30 th	205.00		
25 th	200.00	181 to 200	Door
20	196.00		roor
10 th	180.00	180 and below	Very poor
5 th	172.70		, cry poor

 Table 4. Distribution of Items in Six Sub-Scales of Mental Health Battery

Sr. No.	Sub-Scales	Total No. of Items	Serial number of the items in the test
1.	Emotional Stability	11	7,8,9,10,12,37,38,39,40,43,48
2.	Over-All Adjustment	9	4,5,6,11,13,14,16,41,42
3.	Autonomy	6	1,15,24,36,47,49
4.	Security-Insecurity	14	2,3,17,18,19,20,21,34,35,50,51,52,57,61
5.	Self-Concept	10	22,23,30,31,33,53,55,56,58,59
6.	Emotional Intelligence	11	25,26,27,28,29,32,44,45,46,54,60

Item Scoring. The positively keyed items scored as 5 was assigned to 'strongly agree', 4 to 'agree', 3 to 'undecided', 2 to 'disagree' and 1 to 'strongly disagree'. The scoring was reversed in case of negatively keyed items, i.e. 1 was assigned to 'strongly agree', 2 to 'agree', 3 to 'undecided', 4 to 'disagree' and 5 to 'strongly disagree'. Table 6 shows scoring pattern.

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1 able 5. Detail	of Positive	and Negative	Items of Menta	I Health Battery

Type of Item	Item Serial No.	Total
Positive	1,2,4,10,11,13,15,20,22,23,24,25,26,27,28,29,30,31,32,33,38,41,43,44, 45, 46,48,52,53,55,56,57,58,60	35
Negative	3,5,6,7,8,9,12,16,17,18,19,21,34,35,36,37,39,40,42,47,49,50,51,54,59,61	26

Items	Strongly Agree	Items	Undecided	Items	Disagree	Strongly Disagree
Positive	5	4	3		2	1
Negative	1	2	3		4	5

Table 6. Scoring Pattern for Positive and Negative Items

Description of the Battery

The final draft of the battery contained 61 items and these items were categorized into six sub-scales namely emotional stability, over-all adjustment, autonomy, security-insecurity, self-concept and emotional intelligence. Table 4 shows the items constituting various sub-scales of mental health. This battery consisted of both the positively and negatively-keyed items. Out of 61 items, 26 items were negative statements while 35 positive ones. The items were arranged randomly in the battery to obtain most appropriate responses. The detail of positive and negative statements is given in Table 5.

Discussions

The present study was conducted to develop reliable and valid scale for assessing mental health of visually impaired students in India. The final format of MHB-VI contains 61 items. These items were selected from a pool of 79 items after pilot testing and following the necessary steps of standardization procedure. Item in the MHB-VI have been divided into six sub-scales namely emotional stability, over-all adjustment, autonomy, security-insecurity, self-concept and emotional intelligence. The final format of MHB-VI is appropriate for the school going visually impaired students and easy to administer. The items can easily discriminate between the visually impaired children in terms of their mental health. The results of the item analysis, reliability, and validity indicate that MHB-VI possesses satisfactory values that justify its worth for assessing the mental health level of visually impaired in India. This mental health battery has an advantage over earlier available batteries, as it was developed and standardized on the sample of visually impaired.

Like any other scale, this also have some limitations which need consideration before using it. Firstly, the construct validity of the battery was determined by using Mental Health Battery (MHB), prepared by Arun Kumar Singh and Alpana Sen Gupta (constructed for normal population) due to unavailability of mental health battery for visually impaired students in India. Secondly, the standardization of the battery was completed on a sample of 126 visually impaired students considering the fact that the sample belongs to a specific group (represents only 0.4% of total Indian population as per Census 2011). In spite of these limitations, this battery can be utilized outside India also after determining its reliability and validity in context-specific conditions.

Conclusions

The review of literature in the field of special education found no evidence about the availability of instrument that assess the mental health of visually impaired students in India. Further, various studies indicate that poor mental health is detrimental for the overall development of an individual, therefore timely assessment and intervention can help in reducing its negative effect on the growth and development of students with visually impairment. Hence, a battery to

assess the mental health of visually impaired students in Indian context was desired and therefore constructed and standardized by following due procedure and results are explained. It was developed in two languages i.e. English and Hindi (National Language of India). Further, the English version of it was also converted in Braille to avoid any kind of inconvenience. Therefore, the battery has its utility for blind students in addition to the partially sighted. It is easy to use and assess the mental health on six dimensions. The MHB-VI constructed in this study can be used in a number of ways in future studies. The first use is to employ MHB-VI as a screening test to detect children with visually impairment having poor mental health. Interventions programs to improve the mental health of such children can be planned and executed by the school teachers, psychologists, principals etc. The second way of using the mental health battery is for assessing the impact of intervention studies. Further, it can be utilised to reduce the dropout rate of school students and increase their academic achievements.

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Appendix:

Mental Health Battery –Visually Impaired (MHB-VI) Items:

- 1. I can play significant role in the development of country despite my visual impairment.
- **2.** People in my surrounding are supportive.
- **3.** I fear while walking alone outside.
- 4. I contribute effectively in society.
- **5.** I cannot work effectively at school.
- 6. Due to visual acuity, I feel depressed in school.
- 7. Usually, I am not able to control my feelings.
- 8. I get angry when somebody criticizes me.
- 9. I am not satisfied with my life.
- **10.** Usually I do not get angry.
- **11.** I easily get adjusted with among others.
- 12. When others blame and criticize me, I generally release my negative feelings.
- **13.** I feel at ease with my relatives.
- **14.** I like to go to school daily.
- **15.** I always do my work according to my planning.
- 16. Often, I am not able to concentrate on my studies.
- **17.** I do not feel secure when alone at home.
- **18.** I feel nervous among new people.
- **19.** In any problem or difficult situations, I get threatened.
- **20.** I can adjust in new situations.
- **21.** My life conditions are not good.
- 22. Usually, my friends welcome me.
- 23. I learn and grow from my mistakes rather than denying them.
- 24. I always complete my homework timely.
- **25.** I can control my emotional ups and downs.
- 26. I am aware of my capabilities and limitations.
- 27. I cope up easily with harsh conditions.
- **28.** I always think before acting.
- **29.** I feel, obstacles make a man stronger.
- **30.** I am mature enough to deal with difficult situations.
- **31.** My family members usually value my ideas.
- 32. I can understand other's moods and behaviours.
- **33.** I am good looking.
- 34. Sometimes, I have nightmares.
- **35.** I often hesitate in sharing my feelings with others.
- 36. I cannot achieve whatever I like to.
- 37. Sometimes, I feel happy in one moment and sad in another moment.
- **38.** My parents are caring.
- **39.** I feel stressed during examination.
- **40.** I fear while travelling alone.
- 41. I perform well in academics despite my visual impairment.
- 42. I often feel that my visual impairment creates hindrance in my growth.
- **43.** I do not get frustrated in difficult situations.
- **44.** I set goals that can be attained.
- **45.** I maintain emotional balance in hard time.
- 46. I understand how my feelings affect my success.
- **47.** Due to my visual problems, I feel helpless.
- **48.** I am punctual at my work.

- **49.** I face difficulty in moving freely from one place to another.
- 50. Sometimes, I feel scared without any reason.
- **51.** I do not participate in any competition.
- **52.** My family is very cooperative with me.
- **53.** People enjoy my company.
- 54. It is very difficult for me to recover from setbacks in life.
- **55.** My teachers treat me well at school.
- **56.** I find my life to be purposeful.
- **57.** My relationship with teachers is very healthy.
- **58.** I like myself despite my visual impairment.
- **59.** I face many fears and insecurities in facing new situations or challenges.
- **60.** I maintain my patience even when I found adverse situation.
- **61.** My future is bleak.

Twice-Exceptionality in the Kingdom of Saudi Arabia: Policy Recommendations for Advances in Special Education

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Abstract

The adoption of the principle of Education for All has catalyzed major efforts in special education throughout the world, and the Kingdom of Saudi Arabia (KSA) has developed educational policies to meet the special education needs of students since the late 1960s. Despite these efforts, there is no current policy in the KSA that provides specific services for twice-exceptional (2E) students. This paper presents recommendations for implementing a policy for 2E students in the KSA using the conceptual framework for policy planning developed by the United Nations Educational, Scientific and Cultural Organization (Haddad, 1995). The general issue of twice-exceptionality is reviewed, and processes for policy development, practitioner training, service interventions, and evaluation procedures specific to the KSA are presented. In keeping with research from the United States, recommendations emphasize the importance of a multifaceted approach to identification and intervention with 2E students.

Keywords: *education policy development, gifted education, Response to Intervention, Saudi Arabia policy, special education, twice-exceptional students.*

Introduction

The current government of the Kingdom of Saudi Arabia (KSA) emphasizes the importance of education for all citizens without discrimination. In this respect, there have been significant developments toward modernizing education in this country during the past several decades. Educational policy in the KSA has advanced to the degree that a wide variety of disabilities are now acknowledged, and this country devotes considerable financial resources toward educational institutions and services (Aldabas, 2015; Murry & Alqahtani, 2015).

Concurrently with advances in laws that provide education for individuals with disability, there have been major developments in education for gifted and talented students, but to date, laws governing special education and gifted education are separate. Efforts to nurture and

educate gifted and talented individuals have progressed since the late 1980s and have expanded with the establishment of the King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity (Mawhiba), which oversees the gifted and creative education program (Alamira, 2014; Mawhiba, 2017). The increased focus on creating effective education policies and services for both gifted and disabled individuals in the KSA is further supported by the Saudi Vision 2030, which brings to the forefront the importance of developing all the country's human potential. This vision demonstrates strong dedication to promoting a diverse economic and cultural environment and developing global citizens (Saudi Vision 2030, 2017). This support and dedication to nurturing all human potential creates a timely opportunity to develop effective services for twice-exceptional students (2E) in this country.

The issue of twice-exceptionality is an important consideration in modern education, which seeks to provide adequate services to all students without discrimination (Baum, 1984; Baldwin, Omdal, & Pereles, 2015b). Twice-exceptional students are unidentified and underrepresented in receiving the services and supports they need, and their achievements often fail to correspond with their capabilities (Baum, Cooper, & Neu, 2001; Krochak & Ryan, 2007). Some social and emotional issues, such as increased frustration, lowered self-esteem, and increased antisocial behaviors, can cause challenges later in life if left unaddressed in 2E students (King, 2005; Ronksley-Pavia, 2015). According to King (2005), if these students are provided extra support and encouragement, they will often persevere in the face of difficult tasks that might have otherwise elicited disruptive or distracting behavior.

Without a clear, direct federal policy specifying the definition, programs, and services that 2E students need, it is highly improbable that their special needs will be met. This holds true wherever clear and direct guidelines are lacking (Haddad, 1995). Because educational changes in the KSA have mirrored those in the United States (Murry & Alqahtani, 2015), this paper will review US history, policy, and programming as these relate to establishing successful services for 2E students in the KSA, followed by a presentation of 2E policy recommendations for the Kingdom.

The importance of this policy paper stems from the need for educators, administrators, policy makers, and parents, regardless of nationality, to have the necessary expertise and wisdom to guide 2E students through their developing years toward healthy and productive long-term lives. Efforts to establish clear policies and procedures related to twice-exceptionality will help those involved to provide appropriate academic guidance, social/emotional environments, and strategic interventions to help them maximize their potential to the fullest degree possible. The objective of this paper is to propose an initial policy regarding twice-exceptionality to the Ministry of Education in the KSA that will inform the process of implementing identification and intervention strategies for these students. Comprehensive recommendations to policy makers in the KSA are provided regarding a specific policy, the practical application of this policy, and its effective evaluation.

This policy proposal uses the conceptual framework for policy planning published by the United Nations Educational, Scientific, and Cultural Organization (Haddad, 1995), which includes the following components: (a) analysis of the existing situation, (b) the generation of policy options, (c) evaluation of policy options, (d) making the policy decision, (e) planning of policy implementation, (f) policy results assessment, (g) subsequent policy cycles. The first four components of this framework deal with policy making, the fifth with planning and implementation, and sixth and seventh with ongoing policy evaluation and adjustment. Furthermore, the recommendations made in this paper are based on careful consideration of the

critical role that policy intermediaries play in implementing educational policies (Lane & Hamann, 2003; Owens, 2014; Vandeyar, 2015).

Twice-Exceptionality

One issue of interest in the field of special/gifted education is how to address twiceexceptionality. Twice-exceptional students are defined as those who demonstrate a gift or talent in one or more areas and have a disability in another area (Davis, Rimm, & Siegle, 2014). Twiceexceptional students represent a growing portion of the overall student body in schools. Statistics show that 2 to 5% of gifted students have a disability and vice versa (Dix & Schafer, 1996; Nielsen, 2002; Whitmore, 1981).

The unique characteristics of twice-exceptionality create challenges in identifying the specific needs of these individuals. The disabilities and gifts that co-occur with twice-exceptionality can hide each other, called masking. Generally, researchers acknowledge that 2E students exhibit a discrepancy between their actual ability and their achievement, but the specific patterns exhibited among 2E individuals is so diverse that it is difficult to standardize an assessment process (Baum & Owen, 1988; Beckley, 1998; Krochak & Ryan, 2007; McCoach, Kehle, Bray, & Siegle, 2001; Ronksley-Pavia, 2015; Ruban & Ries, 2005). Ultimately, these students are viewed as being at twice the risk of failing to achieve their full potential. Members of this student population require specialized services and specific strategies to help them succeed. These may include providing them with the opportunity to participate in a special program that focuses on their giftedness as well as continuing to meet specific needs that are associated with one or more disabilities (King, 2005).

The Challenge of Twice-Exceptional Students

The masking and confounding effects of co-occurring giftedness and disability create a massive challenge to educational researchers and practitioners. Current research indicates that there are three groups of 2E students (Baum, 1988; Broody & Mills, 1997; Krochak & Ryan, 2007; McCoach et al., 2001). The first group of 2E includes those who have been recognized as being gifted but have mild disabilities that cause them to have difficulties in school. These students are typically viewed as underachievers because they do not perform in keeping with expectations for gifted students. Usually, individuals this group use compensation strategies to mask their disability, and they often complete their schoolwork within or near their grade level until they experience more difficult material later in school (Baum, 1988; Broody & Mills, 1997). These students could attain higher levels of academic achievement if properly identified as 2E students, but because they seem to be making acceptable progress, they are most often unrecognized.

The second 2E group involves students that have not been identified as having a gift or talent but are showing strong signs of a disability. Because of their disability, this group of students cannot attain appropriate level scores on intelligence tests and other assessments. Because their disability dominates (masking their ability), their full potential as students is often underestimated. Educators often have lower expectations of these students, and many students meet only these lowered expectations as a result (Broody & Mills, 1997; Baum, 2004; McCoach et al., 2001).

The third 2E group includes students who are not identified as either (gifted or disabled) because these two characteristics hide one another. Teachers often perceive these students as having 'average ability' which is what prevents them from getting evaluations and services for

either their disability or giftedness (Broody & Mills, 1997). The result is a particularly vulnerable population in as much as neither their giftedness nor their disabilities are identified or recognized, in which case no services are provided to them that might help them attain much greater achievements.

The numerous possible combinations of gifts and disabilities makes it difficult to establish clear definitions and identification processes that support appropriate educational practices and interventions for 2E students. The United States has made notable progress in raising and addressing the issue of twice-exceptionality, and the KSA is likely to benefit from developing a culturally sensitive 2E policy using practices in the US to guide the process. Because policies rely on clear definitions, a discussion of how best to define twice-exceptionality is an important first step.

Legal Definition of Twice-Exceptionality in the United States

Before we develop policy, we must adopt a clear legal definition that states who the policy will affect and exactly how it will affect them. However, defining 2E in legal terms is not an easy task. Vaughn (1989) stated that nowhere else have two populations suffered from more definitional problems than the populations of those known as learning disabled and those known as gifted.

It is well known that gifts and talents come in a broad spectrum, ranging from general to specific intellectual abilities across a wide variety of skill domains, such as cognitive, leadership, creativity, performing arts, and so on (Davis et al., 2014). Similarly, numerous disabilities exist that can co-occur with giftedness. In the US, the Individuals with Disabilities Education Improvement Act (IDEA) includes up to 13 different kinds of disabilities that are eligible to receive appropriate services (Individuals with Disabilities Education Improvement Act Regulations, 2006). The types of disabilities encompassed in IDEA include the following: learning disabilities; emotional disabilities; impairments that relate to hearing, vision, speech, or language; physical disabilities; sensory disabilities such as Auditory Processing Disorder, Autism, ADHD, and/or other health impairments (IDEA Regulations, 2006). The abundance of possible configurations of gifts and disabilities observed in 2E students creates a challenge for researchers in this field in that research about gifted students with one type of disability does not easily transfer to all other situations involving twice-exceptionality. Also, research focused on a specific disability potentially inadvertently leads researchers to overlook participating students who are 2E (Baldwin, Baum, Pereles, & Hughes, 2015a; Reis, Baum, & Burke, 2014).

The difficulties encountered so far in this area have not prevented researchers and professional organizations in the US from attempting to devise an official definition of twice-exceptionality. The most recent comprehensive definition of 2E resulted from a collaboration between the Council for Exceptional Children (CEC) and the National Twice-Exceptional Community of Practice (2eCoP), which comprises representatives from over 15 partner organizations and a variety of stakeholders who have the desire to help 2E students. The 2eCoP group has come up with a definition to help professionals meet the needs of 2E students. This definition states:

Twice exceptional (2e) individuals evidence exceptional ability and disability, which results in a unique set of circumstances. Their exceptional ability may dominate, hiding their disability; their disability may dominate, hiding their exceptional ability; each may mask the other so that neither is recognized or addressed. 2e students, who may perform below, at, or above grade level, require

the following:

• Specialized methods of identification that consider the possible interaction of the exceptionalities.

• Enriched/advanced educational opportunities that develop the child's interests, gifts and talents while also meeting the child's learning needs.

• Simultaneous supports that ensure the child's academic success and socialemotional well-being, such as accommodations, therapeutic interventions, and specialized instruction.

Working successfully with this unique population requires specialized academic training and ongoing professional development (Baldwin et al., 2015a, p.212-2013).

Academic Services for 2E Students in the United States

Current research has generated information about instructional practices for providing quality services to 2E students to serve this population in schools. Best practices for working with 2E students emphasize following a problem-solving process that is collaborative with all key stakeholders (Baldwin et al., 2015b; McCoach et al., 2001; Omdal, 2015). This process includes defining the areas of need, collecting and analyzing data, implementing a development plan, and evaluating the progress (Omdal, 2015). Researchers emphasize using the strengthsbased approach method, where efforts are concentrated mainly on students' strengths rather than their weaknesses (Baldwin et al., 2015a; Coleman & Gallagher, 2015; Collins, 2008; Jeweler, Barnes-Robinson, Shevitz, & Weinfeld, 2008; Yssel, Prater, & Smith, 2010).

An additional recommended method is the whole child approach, where each student is regarded as having a unique profile requiring a tailored set of evidence-based strategies reflecting their unique strengths and challenges (Campanelli, & Ericson, 2007). Educational strategies that include acceleration and enrichment strategies (Willard-Holt, Weber, Morrison, & Horgan, 2013), as well as individualized instruction and interventions coupled with comprehensive case management and social emotional support have been founded to effectively support the educational needs of 2E students in school settings (Montgomery County Public Schools, 2002).

Current Education Policies Relating to 2E in the USA

Since 1980s there have been several attempts by Congress to understand, define, and serve the 2E student population. Notably, the Jacob K. Javits Gifted and Talented Students Education Act (1988) spurred several research studies and projects to advance understanding the needs of 2E students (Foley-Nicpon, 2013). Following this, another monumental progressive education act on the part of the US Congress was the development of the Individuals with Disabilities Education Act (IDEA), which was further refined in 2004 to include federal recognition that gifted students with coexisting disabilities are to be allowed a free, appropriate education in the least restrictive environment (Baldwin et al., 2015a; Foley-Nicpon, Allmon, Sieck, & Stinson, 2011). The legal recognition of coexisting gifts and disabilities had major implications for 2E students; most significantly, this was the first ever inclusion of priority funding for students with disabilities that also present with gifts and talents (Baldwin et al., 2015b). Most recently, the establishment of 2eCoP has created a larger voice in helping to advocate and influence policy makers to create clear and direct policies regarding 2E students, starting with the development of a legal definition of twice-exceptionality based on expert consensus (Baldwin et al., 2015a).

Although these cornerstones of understanding and establishing a scientific base for twiceexceptionality have been accomplished in the US, there is still a significant challenge in implementation because the responsibility for details still rests with individual states, which are not consistent with definitions and identification processes. As a result, there are vast differences in the array of services available from one state to another. Variance in policy and practices across states also serves to complicate legal processes and case decisions related to twiceexceptionality (Foley-Nicpon et al., 2011).

Analysis of the Existing Situation in the Kingdom of Saudi Arabia

A summary of the history of education for students with special needs in the KSA illustrates how special education has evolved in this developing nation. The first Ministry of Education in the KSA was established in 1952, and in 1958, special education classes for the blind were implemented. In 1962, the Ministry of Education formed an additional division, the Administration for Special Education, which focused on improving learning for students with disabilities (Aldabas, 2015; Al-Kheraigi, 1989). The actions of this ministry were related to establishing rules and regulations that guaranteed rights for people with disabilities, as well as improving the quality of special education programs and the professionals administering the programs (Al-Mousa, 2010; Alquraini, 2010). During the 1960s, however, special education policies and programs in the KSA focused on physical disabilities (Blindness and deafness). Special day schools were provided with those who qualified for services (Aldabas, 2015; Al-Kheraigi, 1989).

In 1971, intellectual disabilities were first considered for special education, and individuals with intellectual disabilities attended special day schools or residential school. Between 1960 and 2000, the KSA instituted numerous special day schools, residential schools, and full-time special education classrooms in public schools. During the 1990s, policy defined mild and moderate intellectual disability, Autism, and a more articulate range of hearing impairments (Aldabas, 2015).

In 1987, the KSA enacted the Legislation of Disability, which guaranteed equal rights to individuals with disabilities, and in 2000 the government enacted the Disability Code. These legislative actions specifically mention that people with disabilities have the right to access free appropriate educational services (Alquraini, 2010). In 2001, the KSA introduced its first legislation for students with disabilities, Law 224--*Regulations of Special Education Programs and Institutes* (RSEPI), which was modeled after the United States' special education policies (Alquraini, 2010). This legislation is composed of many elements that support how to uphold the law, such as how to administer programs like prevention and intervention, evaluation, assessments, Individual Education Programs (IEPs), and training requirements for students with disabilities. The legislation has a natural, built-in, quality assurance that requires agencies to follow set regulations (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002).

Since 2000, the KSA has continually added depth and complexity to how disabilities are defined and addressed. The special education system in the KSA currently recognizes disabilities as follows: moderate, profound, and severe disabilities including physical disabilities, deafness, blindness, intellectual disabilities, Autism, and multiple disabilities. Efforts have also included adding special education resource rooms in general education classrooms (Aldabas, 2015; Al-Kheraigi, 1989).

Special education for gifted and talented students in the KSA has developed concurrently with efforts to provide education for students with disabilities. Specific interest in education for gifted and talented students in the KSA was endorsed by the government in 1969 with "The Education Policy in the Kingdom" (decree No. 779 of 16-17 September 1969), which called attention to gifted and talented students. Article 57 of this decree states that a key goal of education in the KSA is "identifying gifted students, nurturing them, and providing varied resources and opportunities to develop their gifts within the framework of general programs, and through applying special programs (Ministry of Education, 1969, p. 16, as cited in Alqarni, 2010). Between 1969 and 1990 efforts to support gifted students mostly consisted of financial or material rewards for scholastic achievement, scholarships for advanced studies, or family gatherings for gifted students. The next major step in gifted education programming in the KSA was to establish objective, scientific methods for identifying and educating gifted and talented students (Alqarni, 2010).

Between 1990 and 1995 major efforts were made in the KSA to establish appropriate tools to identify and categorized gifted and talented students. The Saudi Arabian National Education Project modeled programs used in the United States and other developed countries in establishing testing and placement procedures for gifted students in several basic performance domains including science, technology, literature, and the arts. This project was also responsible for establishing two enrichment programs, one for science and one for math. The scientific processes and technologies established during this period served as the basis for implementing gifted student development programs through the Ministry of Education, The General Headquarters for Girls' Education, and the King Abdul-Aziz and his Companions Foundation for Giftedness and Creativity, which oversees the gifted and creative education program Mawhiba, established in 1999 (Almousa, 2010). The first authoritative activity that focused on providing special education for gifted and talented students occurred in the 1999/2000 school year, during which the Ministry of Education issued a directive for the education of gifted and talented male students; the same directorate for female students was issued the next year.

Shortly thereafter, the Ministry of Education fostered Section 4 (8)(5) of Law 224 (2001), which focuses on identifying and overseeing special education and addressing the needs of gifted and talented students. This legislation defines giftedness as an outstanding ability in one or more categories: intelligence, creative thinking, academic achievement, and special skills such as speech, poetry, art, sports, drama, and leadership. This document loosely indicates that, usually, the gifted student will be above average compared to their peer group (The Document of Rules and Regulations for Special Education Institutes and Programs, 2001; Disability Welfare System Law 224., 2002). Additionally, Section 4 (8) (5) requires specialized programs to be implemented for each student and focuses on gifted and talented students, overseeing the services that are provided to them (The Document of Rules and Regulations for Special Education Institutes and Programs, 2001; Disability Welfare System Law 224, 2002, Section 4(8)(2)). Although this document is a major step forward for gifted and talented programming in the KSA, further clarification related to possible coexisting disabilities is needed.

Special Education Processes in Saudi Arabia

Currently, the KSA provides a variety of special education services and settings for students with disabilities. One of the most prominent characteristics of the special education system in the KSA is the use of mainstreaming to address non-traditional categories of disability such as blindness, deafness, and intellectual disabilities (Al-Mousa, 2010; Bin Battal, 2016). The

following definition of mainstreaming was adopted to indicate that students with disabilities have the right to receive educational benefits in regular education schools: "Mainstreaming, operationally defined, means educating children with special educational needs in regular education schools, and providing them with special education services" (The Document of Rules and Regulations for Special Education Institutes and Programs, 2002, p.15).

The KSA implements partial and full mainstreaming to deliver special education services. Partial mainstreaming consists of self-contained classrooms in regular schools, and full mainstreaming is done through support programs added to regular school programs including resource rooms, itinerant teacher programs, and teacher-consultant programs. Mainstreaming programs in the KSA target two groups of students according to specific disabilities. Full mainstreaming efforts are directed at gifted, physically disabled, learning disabled, behaviorally disturbed, and emotionally disturbed students. This group of students attends regular schools, and supplementary mainstreaming programs provide needed services. Partial mainstreaming is used for students with blindness, deafness, intellectual disability, and autism, who are educated in self-contained classrooms or separate schools. There is currently strong interest in full mainstreaming for this second group of students (Bin Battal, 2016).

In terms of overall progress in special education efforts, the KSA currently acknowledges the rights of both gifted students and students with disabilities to obtain an appropriate education. However, there is still no recognition of the concept that students may be gifted and have a coexisting disability. No specific formal policy has yet been created that focuses on twiceexceptionality in the KSA.

According to Almousa (2003, 2005), there is a significant shortage of research, understanding, programs, and government support for 2E students in the KSA. This researcher has also found that in the KSA this group of students is neglected and overlooked (Almousa, 2005). Teachers know little about twice-exceptionality issue, and they do not have appropriate experience and training related to this issue. Currently, no services are provided specifically to help 2E students. This represents the need to establish a policy that ensures 2E students will obtain the services they need to achieve their full potential in schools in the KSA (Almousa, 2005).

The Policy Issue and Objectives

The policy issue is that 2E students in the KSA are not being identified, and there are no clear guidelines on how appropriately to challenge these students and meet their needs. The educational system in the KSA is not prepared to provide a consistent educational approach to these students. Consequently, teachers are not prepared to meet the needs of 2E students. The objective of the proposed policy is to provide early identification of 2E students, Individualized Education Plans (IEPs), and educational teams that can create and implement student plans that are consistent with their goals. Students will then have more opportunities to develop their strengths, to be challenged, and to experience the methods and strategies that are needed to address both their gifts and challenges.

Organizational and Political Context of the Issue

In the KSA policies are centralized, so the Ministry of Education makes policies related to all of education, distributes them to all districts, and mandates their implementation through the schools (Alamri, 2011; Alqarni, 2010; Alshaer, 2007). Therefore, issues in education must first be addressed with the Ministry of Education because this entity makes the official decisions

in developing all education policy. The Ministry of Education has already implemented policies that support a free appropriate education for all students, and a twice-exceptionality policy would help strengthen the purpose and intent of the Ministry. Both elements of the twice-exceptionality issue have been addressed in the KSA from an organizational and political perspective in that the KSA already has policies protecting students with disabilities and those who are gifted or talented. However, the policies are separate at this point. It is anticipated that stakeholders will readily accept a policy that acknowledges co-existing giftedness and disability, bridging the existing gap in services.

A data-based approach to recommending a 2E policy in the KSA will provide detailed information about twice-exceptionality as observed in the Kingdom and the steps involved in developing an effective policy. Key stakeholders, value issues, and guidelines regarding the key elements of the policy will be presented. Recommendations for policy dissemination and implementation will be provided including paths for effective communication, professional training needs, required educational support services, and evaluation processes. The policy will also communicate clear paths of authority and responsibility.

Recommendations for the Policy-Making Process

The successful development and implementation of a 2E policy in the KSA will require input and involvement from multiple stakeholders and intermediaries with authority and expertise in both education and the culture of Saudi Arabia. Government administrators, Ministry of Education representatives, university faculty, public school teachers, psychologists, and parents are some of persons that will be critical to the process. Furthermore, the KSA has devoted substantial time and financial resources to provide advanced studies to students in a wide range of disciplines. Retuning citizens who have attained doctoral degrees in special education and now are employed in universities will serve as a rich source of expertise.

The KSA has established policies that address giftedness and disabilities separately; however, there is currently no existing policy for twice-exceptionality. Research consistently supports the importance of involvement and buy-in among intermediaries in the process of implementing educational policy changes (Lane & Hamann, 2003; Owens, 2014; Vandeyar, 2015). Input from these stakeholders will provide comprehensive information about what needs to be included in the policy and asking for feedback from each of these groups will help identify what is working and what is not working with current practices. This approach will provide databased direction to developing an initial policy in this country. Furthermore, the proposed process will help to develop a high level of buy-in on the part of intermediaries, which is needed to implement the policy effectively (Lane & Hamann, 2003).

Strong intermediary buy-in and involvement will add to the quality of the developed program by ensuring sensitivity to the sociopolitical context, providing comprehensive information regarding twice-exceptionality in the KSA, and obtaining field information about the current state of special education in the KSA (awareness, perspectives, practices, professional training). Surveys combined with focus groups comprised of representative stakeholders will provide balanced, comprehensive information from which to generate realistic options for a 2E policy (Lane & Hamann, 2003; Owen, 2014; Vandeyar, 2015).

The Key Stakeholders and Intermediaries

The significant stakeholders involved in this policy are as follows:

Twice-exceptional students. These students will be identified as 2E, and they will receive the benefits of this policy.

Special education teachers, gifted education teachers, and general education teachers. These stakeholders will receive necessary training, and they will provide 2E students with appropriate educational methods and teaching strategies in daily classrooms.

Para-professionals. These individuals will assist lead teachers to help 2E students with special needs.

Gifted Coordinators. These specialists will provide guidance and assistance to the lead teachers within gifted education.

Psychologists. Qualified psychologists will help assess and evaluate the abilities and disabilities of 2E students.

Counselors. Qualified counselors will offer support for the students with non-academic issues.

The policy makers. Policy makers will be members of the Ministry of Education and twiceexceptionality subject matter experts who will write and supervise the implementation of the policy.

The parents. The involvement of parents will help with the identification process, and parents are also a good source of information about most key aspects related to serving 2E students.

Major Cultural and Value Issues

Cultural sensitivity requires that policies recognize and honor specific cultural traditions. In establishing a 2E policy for the KSA, it is critical to identify cultural and value issues that may influence how stakeholders participate, value, and implement the policy. One major value issue is related to the idea of labeling students. The value issue that accompanies labeling is that students that have disabilities may hide or mask their weaknesses because they don't want to be seen as having a disability (Alquraini, 2010). It will be especially important to avoid labeling students as disabled in the KSA. Special attention should be given to the labeling issue during policy development because in the KSA disabilities have some potentially negative consequences that are related to the dominant religious beliefs and social mores. Although patience and respect related to disabilities is encouraged, those with disabilities still face difficulties in that they can't live independently and they may be ostracized (Alquaraini, 2010).

Another important issue to consider is that in the KSA it is mandated that students be segregated by gender, so the policy will need to accommodate this cultural mandate. Also, there may be specific educational subjects that are not currently acceptable for instruction within public schools in the KSA (such as music, dance, or performing arts). Such subject matter is not available to any student, regardless of their status as disabled, gifted, or average (Alamer, 2015). To accommodate for subject matter that may not be available at school, the policy will support recommendations for access to resources outside as well as inside the classroom to help 2E students develop their talents. These cultural characteristics will influence of the specific content of the identification and programming processes that accompany the 2E policy.

Key Elements of Policy Options

Generating feasible options and finalizing a 2E policy for the KSA requires developing a working definition for 2E students and a process for identifying them. The initial definition will model those found in current research. Similarly, a multi-faceted approach to identification is recommended (Baldwin et al., 2015a; Yssel, Adams, Clarke, & Jones; 2014)

Definition. To identify the issue of twice-exceptionality, a comprehensive definition should be formed to clarify the nature of the issue in the KSA, the people that need to be served, and what services they need. To benefit from the successes of the US education system, the 2eCop for twice-exceptionality definition will be used as an initial basis for the policy and adapted to Saudi Arabian culture and values, if necessary, based on input from the policy development group.

Identification. The foundation of a proposed policy rests on the appropriate identification of 2E students and the inclusion of valid assessment instruments, tools, and procedures. The KSA already has a systematic assessment procedure for identifying gifted students, the National Educational System (Alqarni, 2010), and a separate system for identifying students with disabilities. Identification procedures will be based on an empirical body of evidence about giftedness and disabilities, to the degree possible, the developed system will be integrated with existing processes. The identification process will consider a student's demonstrated strengths and interests, and it will also consider learning traits like commitment, motivation, and persistence.

Recent work advocates a dynamic problem-solving approach to delivering interventions that are targeted at addressing the needs of 2E students (Baldwin et al., 2015b). Two promising models in this area are the Multi-Tiered System of Support (MTSS) model and Response to Intervention (RtI) (Crepeau-Hobson & Bianco, 2011). Currently, practitioners integrate these approaches to develop appropriate interventions for students with academic issues, non-academic issues, or both (The National Center for Learning Disabilities, N.D.). According to the Colorado Department of Education (2017), MTSS is a data-driven problem-solving method for improving educational outcomes for students. School districts use MTSS to combine tackling behavioral concerns and academic ones, and MTSS and RtI often go hand in hand.

Response to intervention is a multi-tiered method for working with students with academic difficulties, behavioral issues, or both (Brown-Chidsey & Steege, 2005; Crepeau-Hobson & Bianco, 2011; Pereles, Omdal, & Baldwin, 2009; The National Center for Learning Disabilities, N.D.). Since 2E students are vulnerable to academic, social, and life adjustment difficulties, a tailored RtI system is an appropriate multi-faceted identification and intervention system for use with 2E students (The National Center for Learning Disabilities, N.D.; Yssel et al., 2014). The RtI system emphasizes prevention, and the key purpose of this model to identify students' difficulties early, provide remedial services for all students, and to evaluate the effectiveness of specific teaching methodologies used (Crepeau-Hobson & Bianco, 2011; National Joint Committee on Learning Disabilities (NJCLD), 2005); Volker, Lopata, & Cook-Cottone, 2006). The RtI approach includes three critical components for successful outcomes: tiered instruction and intervention, ongoing assessments, and family involvement. The RtI approach uses frequent data collection from the involved parties to make research-based decisions regarding student progress that guide appropriate interventions. RtI interventions emphasize the value and use of differentiated instructional strategies, which are appropriately adjusted according to changes in a student's progress and needs (Crepeau-Hobson & Bianco, 2011).

There is no universally-applied RtI model; however, most of them are divided into three tiers. In Tier 1, all students receive a standard, general education curriculum. Benchmark data are collected for all students three times a year. In Tier 2, students receive more intensive services in smaller groups, generally consisting of increased time, intensity, or duration of instruction. Progress data should be collected every week and instructional methods should be adjusted based

on these results. If a student does not respond to Tier 2 methods, they move onto Tier 3. This progression is generally viewed as a "failure to respond to intervention" and signals the possible presence of a learning disability. At this point, the student should participate in a comprehensive, multidisciplinary evaluation to determine if a learning disability exists. From there, appropriate services should be provided (The National Center for Learning Disabilities, N.D.). Proponents of this method assert that more timely, frequent, and intensive interventions will help distinguish between students whose difficulty comes from poor instructional methods from difficulty caused by a true disability (Fuchs, Mock, Morgan, & Young, 2003; Fuchs & Fuchs 2009; Volker et al., 2006).

Studies that identified weaknesses in basic RtI indicated that 2E students might still be overlooked (Assouline, Foley-Nicpon, & Whiteman, 2011; McKenzie, 2010). Identification of 2E students is problematic, and one of the main reasons for this difficulty is that 2E students' compensating strategies and masking effects complicate assessment results. Recently, researchers have developed modified RtI programs that are more suitable for use with 2E students (Crepeau-Hobson & Bianco, 2011; Yssel et al., 2014). The recommended multi-faceted process will follow the RtI model specifically developed for gifted students with learning disabilities presented by Yssel et al. (2014), with a view toward developing an efficient, tailored procedure for the KSA. The main feature of Yssel et al.'s (2014) modification is the use of a dual differentiation strategy. Dual differentiation involves addressing a student's gifts and integrating supportive instruction for challenge areas at the same time. Dual differentiation is implemented across all three tiers and intervention plans are adjusted regularly, driven by ongoing evaluations. The core principles of RtI (early intervention, high-quality instruction for all students, screening and progress monitoring, and differentiated instruction) allow dual differentiation, and this system can create a supportive learning environment for 2E students (Yssel et al., 2014).

The achievement-ability gap will clearly be an important factor in the identification process, and one instrument for initial consideration in a test battery is the Wechsler Intelligence Scales for Children, WISC-IV. Although specific research with the 2E population using this instrument is unestablished, specific subscales that do not consider working memory and processing speed are likely to be useful with this population (Krochak & Ryan, 2007). Some examples of tools that may be useful during the intervention process are scales for rating the behavioral characteristics of superior students (Renzulli, 2010), several forms suggested by Yssel et al. (2014), and the A-Lyzer Family of Interest Instruments (Renzulli, 1997). One caveat is that these tools are in English, and they will need to be translated and adapted for use in Arabic speaking countries and cultures. Instrument adaptations need to be carried out carefully to maintain reliability and validity. Also, best practices for twice-exceptional identification should include collecting information from all available sources including teachers, parents, peers, school staff members, and the student themselves. In the proposed system. careful consideration will be given to students whose results fall right at performance benchmarks or cutoff-scores (low or high), which should not be enforced rigidly.

Recommendations for Planning and Implementation

Planning and implementing a new policy for 2E students in the KSA will require substantial involvement of multiple levels of experts within and external to the Ministry of Education. Planning and implementation efforts will include the dissemination of the policy and training for multiple levels of school officials, teachers and other stakeholders. Furthermore, a 2E policy will drive the development of services that accommodate the dual differentiation

intervention strategy. Because educational authority in the KSA is centralized, the Ministry of Education will play a central role in the development, dissemination, and implementation of this policy.

Role of The Ministry of Education

Representatives from the Ministry of Education will provide authority, consistent communications, and resources for 2E policy development and implementation. The Ministry of Education will receive their own tailored workshop that will include a presentation and report on the new application for all phases of the 2E policy and how to monitor and review ongoing progress. Members of the Ministry of Education will also learn how to regularly obtain feedback from the teachers about successes and obstacles that arise with the implementation of the policy. Ministry representatives will be responsible for recruiting and providing expert trainers for twice-exceptionality. The Ministry will serve as the central point for accumulating, storing, and analyzing data. Ministry representatives will conduct periodic monitoring onsite in the schools and review documentation that confirms adherence to the policy. This should include reviewing samples of teachers' lesson plans and curriculum as well as IEPs for 2E students.

Financial Resources

There are significant financial commitments involved with developing and implementing any policy. The Saudi cabinet approves a budget with specific funding dedicated to the Ministry of Education. The direct costs associated with this policy will then be provided by the Ministry of Education. Members of the policy development group will conduct appropriate cost-related research and make specific budget recommendations to the Ministry of Education, which will then allocate budgets for policy development, training, policy implementation, and new services provided by the policy.

Disseminating and Implementing the Policy: (See Appendix I)

The Ministry of Education will create the policy in conjunction with specialized educators and advisors, and voting will take place to accept the policy. Immediately following approval, the policy will be disseminated to all districts, and the districts will distribute it to all schools within each district. Each school will then be responsible for ensuring that all stakeholders have been informed of the new policy. Key staff will sign an acknowledgement that they have received and will comply with the new policy. The policy will also be distributed to the families of all current students, who will receive a written announcement and copy of the policy.

Strategies for implementing the policy will include formal staff training for all groups of teachers and administrators. Workshops will be completed several times within the first implementation year to support staff development of 2E expertise. School administrators will be responsible for daily monitoring of the policy and ensuring that the teachers are following the appropriate procedures for the 2E learning. Administrators also need to provide encouragement and support to all personnel providing services to 2E students.

Workshops after the first year will reflect any changes made based on initial evaluation data. When implementing this policy one strategy that will be needed is flexibility in modifying the curriculum, teaching methods, and development strategies. Teachers will need support from the whole IEP team to help them fully comply with the policy.

Workshops and Trainings

Workshops will provide training on how to implement supports and services for 2E students. Response to Intervention training sessions will be held for all groups of teachers to help them learn to screen and identify 2E students as well as to train them in adapting curricula using appropriate strategies and methods for 2E teaching. The training workshops will teach the RtI model with dual differentiation as well as using student-centered approaches,

and including the student in development planning to increase interest and self-efficacy. General and special education teachers, psychologists, counselors, para-professionals, and gifted coordinators will be the primary personnel responsible for implementing the policy directly. Workshops will include basic information such as who is the 2E student, 2E characteristics, best practices for identification, best strategies for working with 2E students, collaboration, and how to communicate effectively to serve 2E students. Training sessions will include details on assessment tools to be used for identification, their practical application, and their use for ongoing evaluation.

Educational and Support Services

Instructional interventions and services will include modification and individualization of educational materials including the assigned curricula. The policy will also support the use of ancillary services (e.g., specialized therapists). Policy for 2E students will mandate the development of IEPs and emphasize the use of a variety of teaching strategies. Teaching strategies will include encouragement, understanding, and consideration of special interests. Teachers and other practitioners will focus on areas of excellence and attend to deficits as well. Teaching for depth and complexity will be emphasized in programming along with dual differentiation strategies

Some specific strategies that are used to provide services to 2E students in the U.S. include subject-matter acceleration work on strength areas, and strengths-based or talent-focused approaches (Baum, Schader, & Hebert, 2014). Enrichment programs will also be considered including the School Wide Enrichment Model (Renzulli & Reis 1985 1997), the Autonomous learner model (Betts, 1985), the Multi-Perspectives Process Model (MPPM), and contextualization and integration of skills development (Baum, Schader, & Hebert, 2014).

Programming will also address developing non-academic skills, such as organizing and time management skills, communication skills, leadership, and collaboration. Help with socioemotional needs will also be critical for 2E students including support for developing positive self-esteem, self-efficacy, and self-advocacy skills. 2E students with physical issues will receive modified or appropriate assistive technologies.

Evaluating the Effectiveness of the Policy

School administrators and representatives from the Ministry of Education will collect data for evaluations of program effectiveness and needed modification. Before the implementing the new policy, baseline data regarding student performance, achievement, and other characteristics will be collected using standardized testing to establish relevant data about the overall population of students. Current attitudes and practices of educators before the policy is implemented will also be collected to provide comparison data for a pre-post implementation evaluation. The same assessment instruments will be re-administered to the whole student body the next school year (after the policy has been implemented). Baseline data will help to identify any new trends in the student body data that may be related to the effectiveness of the policy.
One of the most critical evaluation activities for this program will be validating the developed twice-exceptionality identification process. Also, verifying with school administrators and Ministry representatives that the policy is actually being implemented will be foremost before attempting to assess outcomes of the programs. To evaluate the implementation process, surveys and observations will be a key source of data. Reviews of RtI documentation will also provide critical details about the nature of interventions that occur and whether substantial student progress results from service interventions.

Evaluation efforts will also address the importance of intermediaries. Data collection will include information about teachers' and other service providers' perceptions and activities related to the program, as well as objective measurements of teacher performance. Teachers are the first line of intervention, so their input will be critical for identifying strengths and weaknesses of the program. Input from both teachers, parents, and administrators will help to determine whether teachers are effectively trained and invested in the program on a personal level. Feedback from parents about student behavior and performance as well as their interactions with teachers and other stakeholders will provide yet another valuable perspective on the policy and its usefulness.

The first year will provide feedback on areas that need to be improved as schools try to implement this policy. Surveys will be distributed to all stakeholders such as teachers, parents, and administrators to evaluate their satisfaction with the policy and the outcomes that have been achieved. The evaluation group will collect data on short- and long-term student outcomes for ongoing development and evaluation efforts.

Conclusion and Implications

A policy for 2E students in the KSA is needed as there is currently no established process for identifying students that are gifted but have a coexisting disability. This new policy will assist the students that are currently overlooked in the general education system, and teachers will also benefit from the educational workshops and training they receive. The proposed system for identifying and supporting 2E students uses the RtI system of intervention for students with special needs. The dual differential strategy that is the key focus of the proposed program for 2E students likely has much broader applicability. To the degree that it is desirable to mainstream students, if possible, and RtI approach with a well-rounded universal screening process could be the foundation of a new public education paradigm for the KSA.

An important consideration in education policy development is to define the boundaries of responsibility placed on public schools, human services providers, and the central government in meeting the special needs of students. Although it is desirable in theory to provide a free public education to all students with special needs, case law in the United States has revealed that it is not always feasible or reasonable to meet all student needs across the K through 12 age range (Zirkel, 2004). For example, some parents have argued that the public-school system should pay college tuition for high school-aged gifted students who qualify for post-secondary instruction (citation). This type of complication makes it necessary for the Ministry to consider carefully defining the boundaries of financial and social responsibility for the public schools.

The policy will be evaluated throughout the first year, and thereafter, to determine if and how it is working and to address anything that is missing and needs to be modified. Ongoing data will be recorded and evaluated, and with the help of the Ministry of Education, ongoing support will be provided to ensure that the new policy is matched with the objectives and goals of the country.

Summary of Recommendations

The Ministry of Education in the KSA will create and apply a special policy for 2E students. The policy should include:

- Ministry of Education will adopt a comprehensive definition of twice-exceptionality modeled after the definition developed by 2eCop.
- Twice-exceptionality assessment tools, instruments, and procedures will be selected and adapted to use in Arabic cultures.
- The RtI model will serve as the initial system for identifying and providing interventions for 2E students.
- All groups of teachers, psychologists, counselors, para-professionals, and gifted coordinators will receive twice-exceptionality and RtI training, which includes defining 2E students and their characteristics, how to identify them, and the best strategies to work with them.
- After training, teachers and other providers will identify 2E students, in alignment with the current identification procedures for both gifted students and those with disabilities and use dual differentiation strategies to meet their needs.
- An evaluation plan will be designed and implemented to assure the effective implementation of the new policy.

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	Timeline	Ministry of Education	School District	Schools
Phase 1 Policy creation, dissemination, and training program development	Year One	Develop actual policy and complete approval process	N/A	N/A
	1 to 3 months	Disseminate the policy to the School Districts	Receive the policy	N/A
	Approximately 1 month	Disseminate the policy to all ministries and school districts.	Disseminate the policy to the individual schools.	Disseminate the policy and acknowledgement to all stakeholders: teachers, parents, students etc.
	6 months	Develop the training sessions for all key stakeholders	Provide input for training session development	Provide feedback, if feasible, on the training developed by the Ministry of Education.
Phase 2 Implementation	One year	Formal staff training for the Ministry on the new policy, RtI, and how to obtain data and provide support	Formal administrator training for implementation of the new policy	Formal practitioner training for implementation of the new policy (teachers, counselors, and so on).
		Onsite monitoring two times a year.	Gathering data on first phase of the new policy, what is working and what is not working. As well as assessing the implementation of the policy.	Ongoing workshops on 2E identification and practices twice during each semester of the first year.
Phase 3 Evaluation of Program Rollout	One year	Review data gathered by school administrators for program evaluation, and revise policy and programming accordingly if needed.	Districts review field evaluations and summarize for analysis by the Ministry of Education.	Follow up surveys and meetings with key stakeholders to evaluate initial rollout—results passed up to school district level.
Phase 4 Roll out modified policy and programs	Post-Evaluation year 1	Support, onsite visits and disseminate modified training programs	Deliver modified 2E workshops based on evaluation data.	Workshops on identification of 2E based on survey data.
Phase 5 2E student outcome evaluation	6 months - 1 year	Serves as data collection center	Gathers student outcome data from all schools within each district	Gathers 2E student outcome data from all key stakeholders
Phase 6	5-year outcome study	Provides authority to collect data and serves as data collection center	Gathers student outcome data from all schools within each district	Gathers 2E student outcome data from all key stakeholders

Appendix 1. The Timeframe of Implementing the 2E Policy

Should Teachers Learn how to Formally Assess Behavior? Three Educators' Perspectives

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Abstract

Functional behavior assessment is a technique supported by research, to assess behavior to determine causes of behavior and develop effective behavior interventions. In this article we discuss how special and general education teachers are prepared to assess students when they struggle academically, but are not typically prepared to assess students when they struggle behaviorally. Research shows little consensus about whether teachers can effectively conduct functional behavior assessments while attending to their responsibilities in the classroom. One argument is that the complexity of the process may be prohibitive for teachers to conduct valid functional behavior assessments on their own. Others argue that with training and support, teachers can effectively use functional behavior assessment to address behavior in their classrooms. In this article, three educators (two teachers and a behavior specialist) who have been taught to complete functional behavior assessment give their perspectives on teachers' use of functional behavior assessment in the classroom.

Introduction

Teachers are taught a variety of assessment techniques to help students succeed in school. They learn to assess their students' math and reading skills, their knowledge of social studies and science content and their ability to write. When teachers are faced with a student who is challenged by the subject matter and is struggling, teachers have a variety of assessment methods in their skill set that helps them identify the student's problem and provide instruction to address the problem. Unfortunately, the same is not true when it comes to addressing challenging behavior. For purposes of this paper, challenging behavior is defined as the behavior all teachers, both special education and general education, may be faced with daily in their classrooms such as chronic talking out, off task, verbal aggression and noncompliance.

Although teachers are taught how to assess academic challenges, teachers are not equipped to systematically assess challenging behavior in their students. Instead they may intervene by reacting to the behavior without knowing the cause or reasons for the behavior (Stoiber & Gettinger, 2011). A method that has been shown to be an effective way to assess behavior is the functional behavior assessment (Gable, Park & Scott, 2014). While functional behavior assessment (FBA) is a term most associated with special education, FBA is a method that if used proactively, can help all teachers both general and special education, avoid escalating behavior in the classroom and intervene efficiently while behavior is challenging but mild in form (Moreno and Bullock, 2011).

Functional behavior assessment has its roots in applied behavior analysis and consists of a series of methods to analyze the function or causes of challenging behavior in order to create an effective intervention. The premise behind FBA is that all behavior serves some purpose or function related to access to reinforcement. There are two main functions of behavior, these include access to positive reinforcement in the form of an activity, sensory stimulation, a tangible item or attention; and, access to negative reinforcement in the form of escaping or avoiding an activity, attention or sensory stimulation (O'Neill et al, 1997).

Functional behavior assessment may include indirect and direct assessment procedures. For indirect methods the challenging behavior is not observed directly but instead evaluated through the use of behavior rating scales, checklists and interviews with those familiar with the challenging behavior. Direct assessment procedures involve directly observing challenging behavior. A direct assessment may include recording the antecedents, behaviors and consequences of a behavior over time and in a variety of contexts. This method is commonly referred to as the ABC method and allows the assessor to record what happens right before(antecedent) the challenging behavior occurs and what happens right after (consequence) the challenging behavior occurs. The practitioner then can analyze the data and detect patterns in antecedents and consequences and formulate a hypothesis about the function or reason for the behavior, and the events that trigger the behavior. Functional analysis allows the practitioner to test the hypothesis by manipulating various conditions to see if the hypothesis holds true (Cooper, Heron and Heward, 2007; Umbreit, Ferro, Liaupsin and Lane, 2007). Once an FBA is complete the practitioner can develop a function based intervention. A function based intervention, based on the functional behavior assessment will consist of reinforcement for a replacement behavior that serves the same purpose as the challenging behavior but is more socially acceptable. For example, hand raising would be reinforced instead of shouting out. The function based intervention may also include changes to the events that typically occur right before the behavior and adjustments to the consequences of the challenging behavior (Umbreit, et al., 2007).

Research on Educators and Functional Behavior Assessment

Research has shown that functional behavior assessment is an effective means to assess challenging behavior and provide information about the behavior to develop function based interventions (Gable et al., 2014, O'Neill, Bundock, Kladis & Hawken, 2015). While widely used by behavior analysts and researchers in clinics, private practice and research settings, the use of FBA by teachers in the schools is limited. Within schools the guidelines are not clear regarding which methods of FBA to use (Scott, Anderson and Spaulding, 2008). Gable et al. (2014) note that school personnel tend to rely on indirect methods of functional behavior assessment out of the need for efficiency. Indirect assessments are the quickest assessment to complete and can be done outside the classroom setting, however they do not necessarily yield valid results. Research indicates that there is little correspondence between results of indirect assessments and direct systematic FBA processes. Consequently, for teachers to use FBA procedures that are effective and valid they would need to be using a variety of FBA methods, not just an indirect assessment method (O'Neill et al., 2015). Thorough functional behavior assessments incorporating both indirect and systematic direct methods are time consuming. The amount of time needed for an FBA is considered to be problematic for teachers who may not have extra time in their classrooms to conduct valid functional behavior assessments as they attend to their students and classroom responsibilities (Scott et al., 2008).

In order to investigate if teachers are using FBA in the schools, Scott et al. (2004) reviewed 12 research studies conducted with students in the schools regarding the implementation of FBA and function based interventions. They found some form of direct or indirect FBA was used and positive results were reported, but the majority of the studies were researcher directed and the teachers in the schools played a limited role implementing the procedures. Scott et al. (2004) suggest that the rigorous requirements of a traditional FBA are not conducive to the general education classroom, making it difficult for teachers to conduct valid FBAs while attending to their teaching duties. Similarly, Allday, Nelson and Russel (2011) conducted a review of 45 research studies regarding teacher involvement in the FBA process. They found that overall, various forms of FBA as well as hypothesis testing and function based intervention were used. However, they found that teachers were not typically involved with collecting data and did not have knowledge of various data collection methods. In addition, they found that teachers were not involved with testing hypotheses developed from direct observations. They concluded these factors may result in FBA processes that may not yield valid results.

When teachers do not have comprehensive training on the methods associated with FBA it makes sense that they would not use functional behavior assessment processes that produce valid results. Research has shown that many teachers are unaware of FBA and do not have the training to implement the various forms of FBA that require experience and expertise. Meyers and Holland (2000) surveyed general and special educators and found that 75% of special educators had heard of FBA but only 42% were trained to conduct FBA. Additionally, they found that 17% of general educators had heard of FBA and of those, only 12% had some training on how to conduct FBA. Similarly, Young and Martinez (2016) surveyed over 700 educators and found that only 20% were familiar with functional behavior assessment.

McCahill, Healy, Lydon and Ramey (2014) reviewed 25 research studies that focused on training instructional aids, teachers and administrators to conduct FBA using some form of indirect and direct assessment methods. Of those studies reviewed four relied on a combination of indirect and direct methods and in 21 of the studies researchers trained educators to use some form of functional analysis where they systematically manipulated variables which were representative of those variables occurring in the classroom. After training, they found that the participants were able to conduct functional behavior assessments and develop hypotheses about the function and in those studies that included interventions, the school personnel were able to implement interventions and reduce challenging behavior. They also found a high degree of treatment integrity. In those studies where the participants were asked about their perceptions of the process the majority reacted positively to the process. McCahill et al. (2014) acknowledge that the types of FBA processes taught and implemented in their review varied and they suggested that there continues to be a lack of agreement about what types of FBA are the most effective for use in the classroom on a daily basis.

The social validity of the FBA processes is another reason suggested that teachers may not be using FBA in their classroom Social validity has its origin in behavior analysis and refers to determining the acceptability of treatment goals to the client and others affected, the acceptability of the procedures by the client and those implementing the procedures and the validity or social importance of the results (O'Neill et al, 2014). They examined the social validity of the FBA process from the point of view of school personnel who use FBA to assess behavior and develop function based behavior plans. O'Neill et al. (2014) argued that although there is contradictory research about whether educators, after training, can implement FBA procedures effectively and with validity in their busy classroom, there is very little research regarding the acceptability of these procedures to teachers and other educational providers. O'Neill et al. (2014) were interested in determining how acceptable the FBA procedures were to special educators as well as school psychologist and if there would be a difference between these two groups. The FBA procedures included indirect assessment such as interviews, rating scales, questionnaires as well as systematic direct observation and functional analysis. They found that both the special educators and the school psychologists in general had an overall positive perception regarding the usefulness and practicality of a variety of FBA procedures. School psychologists were more concerned than special educators about the time it takes to complete direct FBA procedures. The authors indicate the results may reflect the special educator's ability to spend more time daily with students in the classroom, whereas the school psychologists have to carve out time to observe students in contexts in which challenging behavior occurs.

Three Educators' Perspectives

Within the research on teachers use of FBA in the schools there is little consensus regarding whether teachers can effectively conduct FBAs and develop function based interventions. Consequently, it is important to continue to examine this issue in order to determine if there is a need for pre-service and in-service teachers to learn how to formally assess behavior using functional behavior assessment techniques. One way to do that is to gather information directly from teachers, and other personnel in the schools who use FBA, about how they perceive various FBA processes; which FBA processes they use the most; and, whether they believe they can effectively use FBA procedures to address challenging behavior in their classrooms.

The purpose of this paper is to further explore the attitudes of educators toward FBA through first hand written accounts from three educators who have taken two graduate classes on FBA and function based intervention. The three educators chosen to discuss their experiences for this paper were selected by the first author based on their current position in the school in which they work. One is a special education teacher, one is a general education teacher and the third is a behavior specialist. Each of the educators took and completed two graduate classes with the first author. The first class covered the various forms of functional behavior assessment and data collection procedures and the second class covered single subject research designs, data analysis and intervention based on FBA.

The educators were asked to write about their experiences with functional behavior assessment in their professional lives and were specifically asked to think about how they approached behavior prior to learning about FBA, and how they use their knowledge of FBA after completing the course work. They were also asked to discuss their thoughts on the benefits and disadvantages of educators using FBA to address behavior.

General education teacher

For the past 10 years I have been a general education teacher of students in kindergarten and 1st grade. At no time had I ever heard of functional behavior assessment (FBA) in any form, shape or fashion. I had never even heard of any sort of assessment which could be used to assist with students who routinely struggled with behavior in the classroom, such as chronic talking out, being off task, verbal aggression and noncompliance. When I began taking classes, it was eye opening to learn of such a method to analyze the reason why a student's behavior occurs and how to address it in a proactive manner.

For my first nine years of teaching, I used my instincts when it came to addressing behavior. Basically, depending on the student and what the behavior was, I simply did the best I could with addressing and correcting problem behavior. On some occasions, I would separate the student from others in the classroom usually in a single desk where there was no interaction with others. At other times I sat the student near me for additional support with staying on task. There were also times where I would ask a student to go next door to my partner teacher's classroom for a time out from our classroom. Finally, on rare occasions, I would call down to the office for assistance. Never, had I thought about the function of behavior when intervening in this way. Looking back, I suspect I reinforced the challenging behavior at times since I was not aware of the function.

Now that I have training in completing FBAs, I have begun an FBA on two students in my classroom. One student, who is new, has struggled with being off task for most of her day since Pre-K, preventing success in the learning objectives presented on a daily basis. The other student has difficulty keeping his hands to himself, which has led to several incidents where he is removed from areas such as PE, lunch, library or recess after hitting others. For both students, the challenging behaviors are providing difficulties for them in all areas of the school day and may possibly be increasing. My goal is to address these issues now, before they magnify and become full-blown issues in the near future.

In both cases, I began with using direct assessment procedures in my own classroom. I used the ABC method in which I recorded the antecedents, behavior and the consequences observed during times where the challenging behaviors had tended to present themselves. This was done with the assistance of an instructional aide in the classroom. It was simply too difficult to gather the information while conducting class with 22 students in the room. I also observed

one of the students in physical education and also during lunch. This was somewhat helpful, but I felt the behavior changed due to my presence in the environment.

Next, I used indirect assessments completing structured interviews with others on staff who have also observed the students challenging behaviors during their class time. I also gave one individual a questionnaire to compete on their own. For each student I also met with their parents and interviewed each of them for further information, as well as, to gain their perspective. In both cases, I then analyzed the data to formulate my hypothesis as to the function of the behavior and the events which bring about the behaviors. My next step is the functional analysis. Although this is still new to me, I feel it is becoming an invaluable tool that will help in numerous ways. By combining the direct observation with the indirect assessment and making use of a functional analysis, I feel I am getting the most information possible to conduct an effective FBA.

As a teacher studying to be a behavior analyst, I am doing my best to complete this in my classroom, but find it quite difficult to do it all. Without the assistance of an additional person in my room, such as the instructional aide, I have struggled to fully focus accurately on collecting data without distractions. I do not want any of these distractions to interfere with the careful and objective observations I need for my data collection process. Getting indirect information from others is easier, when I find the time to interview individuals who interact regularly with the students. The functional analysis has been another challenge. Manipulating what happens before and/or after the challenging behavior is not the difficult part of the functional analysis, I find it almost impossible to continuously record data with a full class of students and activities going on.

In my opinion, conducting an FBA and developing a function based intervention should become the norm for teachers to address challenging behaviors that interfere with not only that student, but also create issues for the entire class and in some cases other classes nearby. All teachers should be trained on FBA to have a useful tool for assessing challenging behaviors and to be able to develop productive interventions for the good of their students. The disadvantages for teachers conducting functional behavior assessments I foresee are time and effort. Many teachers simply feel they just don't have time for one more responsibility pushed upon them and others may not see the benefit for putting forth the effort. However, with proper training and additional support, I believe a behavior specialist and the teacher can make a difference in the lives of the students who have behavior challenges interfering with their success.

Special Education Teacher

I am an elementary In Class Support Teacher who primarily works with students in 3rd-5th grade. Before being trained to do an FBA, I did not fully appreciate how function drives behavior. I ended up addressing the student's behavior instead of the function driving it. Consequently, I often contributed to the perpetuation of the very behavior I was trying to deal with. For example, if a student was continually blurting out or interrupting, I would address that behavior. I might have done a social lesson on the appropriate ways to get the teacher's attention, or had a discussion with the student about expected behaviors in the classroom. Either way, the student got my attention. If the function of that student's behavior was attention, I fed right into it, and the behavior would intensify.

As a special education teacher, I was familiar with Functional Behavior Assessments, at least from the perspective of the forms completed by the school psychologist during the process of developing a student's behavior intervention plan. The template used was scripted, and did not

reflect the kind of conclusions I experienced in my FBA classes. Prior to my training, I did not realize how information for an FBA was gathered and how useful that information could be. Upon completing the classes, I now do my own FBAs. The school psychologist is more than glad to help, proof, and offer suggestions, but doing FBA's for my students has helped me have a better understanding of my students and allows me to best meet their needs. I stopped grouping my student by behaviors and started doing more grouping by behavior plus function. For example, in math class I had five students demonstrating work refusal by not completing a math worksheet the class was given. After a quick informal assessment, I determined that four of the students could verbally explain the process of dividing whole numbers by a fraction. Three of the four students have very slow processing speed, and, from experience, I knew they get anxious about keeping up with their peers if the assignment is lengthy. They can doddle or completely shut down in avoidance. I told them to choose odds or evens and they only had to complete those problems. All three started working and completed their assignment. The fourth student, who also understood the math concept, was clowning around. I knew, from experience with this student, that he desperately wanted attention. I negotiated time with me doing a preferred activity after the assignment was completed in exchange for completing the assignment. He started and finished. The fifth student was not able to explain the math concept to me. He hates to admit that he does not know something and was trying to avoid the assignment. I worked a couple problems with him and, in the process, created some mentor solutions that he could reference as he worked through the rest of the problems. He started and finished. In summary, all five students were refusing to work on their assignment. Of those five, one student was seeking attention, three students were trying to avoid the assignment because of the number of problems that had to be completed and one was trying to avoid because he didn't understand the concept he was supposed to be practicing. If I had not attempted to understand the function behind why these students were not doing their assignment I would have probably ended up doing what a lot of teachers do: prompt, prompt, threaten, prompt, prompt, threaten... and still have not helped my students make progress.

Taking ownership of the FBA processes allows me more input developing a functional behavior intervention plan that has the best chance of being successful. Not only do I work in partnership with the general education teachers to collect data for the FBA, creating the behavior plan is equally collaborative. It is imperative to consider the parent's or teacher's skill level, resources, schedule and even her vision for her classroom when developing a behavior intervention plan. I could independently come up with the most elaborate, inventive plan, but if it is not contextually sound for those responsible for implementing it, that plan is going to fail.

Conducting an FBA takes time. It takes time to gather information for informal assessments, do direct observations, and develop a plan. In the past, our school psychologist would always produce the FBA and behavior intervention plan and simply present them to us. The time spent is worth it because the interventions are much more likely to be effective. First, through the process I develop a deeper understanding of what is driving my student's behaviors. Secondly, by working collaboratively with the other teachers this information is shared and the students starts with a team of adults that are willing to work together to provide the consistent and predictable environment needed for success. Finally, behavior is fluid, not fixed. Conducting the FBA and putting a behavior intervention plan in place is just the start of the process. I still have to be able to be flexible and responsive to how different social and

environmental settings affect my students' behaviors. Authoring my own FBA's is conducive for follow through including any future adjustments.

I do think a possible barrier to widespread use of FBA is the format some schools use. This can promote more of a 'form letter' type approach, which is not conducive to the in-depth investigation that should be done. I worked with these forms for several years and never gleaned from them the type of information that the direction observation narrative format yields.

In summary, FBA has been a wonderful tool to add to my skill set. Using it effectively, can help guide teachers in dealing with the most difficult behaviors. However, thinking functionally is also a mindset. I am on a team of seven other special education teachers and 14 special education paraprofessionals. In this past year, our conversations about behavior have shifted. We talk more, both among ourselves and with the general education teachers, about the functions of those behaviors; how to avoid inadvertently reinforcing them; and what a suitable replacement behavior would be. We do this without a formal FBA, because some behaviors, if not most behaviors are not persistent and do not require a formal FBA. The more we understand the function of behaviors the more we are able to intervene early on before behaviors become persistent. Thinking functionally should be foundational to every teacher's behavior management plan. Looking beyond the behavior allows teachers to stay empathetic; it keeps the focus on the student as a person; and, most importantly, it allows teachers to avoid attributions while gaining useful insights that will best help students.

Behavior Specialist

Prior to working as a Behavior Specialist, I worked as school psychologist. As a school psychologist I had training and experience completing FBAs that included observations, parent interviews, and teacher interviews. Since I have completed graduate level coursework in functional behavior assessment and functional behavior interventions, I complete FBAs with a more in depth understanding of behavior and functions of behavior. While I follow the same format of observations and interviews, I have greater awareness of how the environment, consequences and antecedents affect behavior. Therefore, my observations are more precise and my interviews are more focused. I can more accurately identify the function of the behavior and consider how the environment or people in the environment act on the behavior. This allows me to design more effective and focused interventions. Previously, I introduced multiple interventions without consideration of the function, now I have knowledge about how to plan and implement function based interventions. Additionally, I use data collection throughout the intervention to evaluate effectiveness, and to make changes in the behavior plan as needed.

When I am assigned a case, the first thing I do is observe the student in the classroom. Then I meet with the teacher to complete a functional interview. I get an understanding of the target behavior and when the behavior most often occurs. I follow up with ABC observations at the times the teacher identified the behavior to occur most often. Then, I meet with the parent to get information about how the student behaves at home and I complete a functional interview with the parent.

If the student is able to answer questions and has some understanding of his own behavior I include a student interview in the FBA. For example, recently, I worked with a 10 years-old student with good insight into his own behavior. He was motivated to change his behavior, so I was able to include him in the intervention planning by allowing him to choose the type of behavior monitoring tool he wanted to use. As his behavior improved, I discussed self-monitoring with him and he helped design the self-monitoring form that was used. When a student is able to participate at this level in the FBA and intervention plan, it helps create buy in and accountability.

Since availability of time interferes with the ability to complete a thorough FBA, I have worked to include teachers in the process. I have taught a few teachers how to take ABC data by using a simple form and modeling. This has been helpful with completing FBAs when time is limited. I am able to corroborate the teacher's data with my own observations and interviews, and then plan effective function based interventions. However, it is difficult for teachers to take data and run their classrooms at the same time, therefore, I have been successful in getting only a few teachers to participate in the FBA process. Also, in my position as a behavior specialist in my district, I work with a paraprofessional who has been trained in data collection and implementing function based interventions. She often works with me to collect baseline data and to complete ABC observations. Additionally, with my guidance, she implements the plan in the classroom and models the intervention for the teacher. This has been most helpful in allowing me to work around the barrier of limited time.

The benefit of conducting FBA and developing function based intervention is that more effective interventions can be implemented and there will be better outcomes for students. When behavior can be managed before it becomes problematic and disruptive, teachers can better focus on instruction for all of their students. The classroom environment is more conducive to learning. The amount of time it takes to complete a thorough FBA is the only disadvantage of the use of FBAs in the public schools. Generally, behavior specialists have a high caseload so it is difficult to devote the time needed to conduct FBAs for every case. The demands of the classroom interfere with the ability of teachers to focus the time and attention needed to conduct an FBA. Additionally, teachers usually do not have the needed training to complete FBAs. While time is a constraint, taking the time to complete an FBA and develop a strong behavior plan saves time in the long run. Interventions are more successful when the function of the behavior has been considered.

Based on my experiences working as a behavior specialist, I believe that it would be beneficial for general education and special education teachers to learn to conduct FBAs. Although teachers may have too many demands in the classroom to conduct an FBA independently, with proper training, they could collaborate with behavior specialists to do the job. A foundational knowledge of how antecedents impact behavior, and how consequences maintain behavior, will help teachers to identify appropriate and effective interventions before behaviors escalate. When there is limited understanding of the function of behavior, teachers tend to try any strategy that they may have learned from colleagues, a workshop, or the internet (Teachers Pay Teachers and Pinterest are popular resources for many teachers). While these may all be good strategies, if it is not an intervention based on the function of the behavior, it can do more harm than good. Often teachers inadvertently reinforce the behavior by using an intervention that is not function based and they do not recognize when they are reinforcing the behavior. When teachers have a better understanding of behavior and function they are more successful at managing behavior before it becomes significant and a disruption to the classroom environment.

Conclusion

While this paper does not resolve the question about whether educators should learn how to formally assess behavior, it does shed light on the issues surrounding the question. The educators agreed with the research that time is an issue when it comes to conducting valid FBAs, for teachers running a classroom or behavior specialists having large caseloads (Scott et al.,2004). The time intensive process of conducting thorough FBAs requires support from colleagues and para-professionals. While the educators agreed with previous research about the time intensive nature of the FBA process, they also supported previous findings about the social validity of the process (O'Neill et al., 2015). Each educator expressed an appreciation for learning how to assess behavior and learning to think functionally about behavior. Each indicated that the FBA process resulted in better outcomes when it came to behavior. Each was supportive of all educators learning how to conduct an FBA to learn how to address the function of behavior.

Whether teachers have the time or desire to conduct their own FBAs or leave it up to consultants or school based behavior specialists, it is important for them to know how to assess behavior. As indicated by the educators, when teachers understand functions of behavior and how to assess behavior they are better equipped to participate in the behavior assessment and planning if consultants are required. Teachers' participation in the process assists consultants or school based behavior specialists design interventions that meet the needs of the student as well as the teacher in the context of the classroom. Additionally, teachers who understand the foundations behind functional behavior assessment will observe behavior in terms of function during their normal classroom activities. Subsequently, they will be able to address minor classroom nuisance behavior effectively and efficiently before the behavior escalates to the point it interferes with learning in the classroom and requires a complete functional behavior Educating pre-service and in-service teachers and other educational staff about assessment. functional behavior assessment should be undertaken by schools as well as teacher preparation programs. It would be of benefit for all educators to have another tool at their disposal to not only address their students' academic needs but behavior needs as well.

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INTERNATIONAL JOURNAL OF SPECIAL EDUCATION

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Including all? Perceptions of Mainstream Teachers on Inclusive Education in the Western Province of Sri Lanka

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Abstract

This study aimed to uncover perceptions of 'inclusive education' using semi-structured interviews with 15 mainstream teachers from the Western Province in Sri Lanka. Thematic coding of the interview data was undertaken using the key principles of Framework Analysis. The main themes that emerged were incongruous conceptual understandings of 'inclusive education' and 'integration', discrepancies in the use of terminology, fear of incompetence, concerns regarding limited training facilities, the lack of incentives offered to work within special education settings, the pressure of working towards school examination success and the lack of policy awareness. These findings will be discussed with regard to its implications for policy and practice. The results underpin the need to consider local teacher perceptions and to address these concerns within pre-service and in-service training in order to support the establishment of education reforms of equal access for all, which are relevant and sensitive to cultural needs and considerate of local realities.

Introduction

The paradigm-shift from hitherto segregated education to inclusive mainstream education for children with or without disabilities was historic. In principle, it marked in unambiguous terms the right to education for all and the right to access education within a mainstream educational context (Eleweke & Rodda, 2002; Kalyanpur, 2011; UNESCO, 2000). The perceived premise of inclusive education is a strong argument for fostering social inclusion (Abosi & Koay, 2008) within the promotion of fundamental human rights, dignity and equal opportunities (Urwick & Elliott, 2010). Additionally, the case of the perceived cost-effective nature of inclusive education has also been proposed (Lei & Myers, 2011). That said, the wholesale application of inclusive education to low and middle-income countries with the expectation of reasonable accommodations to include all children within mainstream education and the orthodox view of educational effectiveness within inclusive education have been contested (Urwick & Elliott, 2010). Inclusion, only to promote 'social inclusion' without sufficient consideration for academic attainment, has been critiqued as reflecting a charity model approach to disability in stark contrast to the rights-based model proposed within inclusive education (Donohue & Bornman, 2014).

Arguably, inclusive education is a Global North concept transported to the Global South without overt preparation among teachers and educational personnel. While some of the challenges to implementing an inclusive education policy in the Global North resonate with the barriers faced in the Global South, a closer critical analysis of factors specific to the Global South-Majority World experience is imperative to both better understand the ground-realities faced and to bring about change.

Among the deterrents to implementing inclusive education in practice in the Global South highlighted within the literature is the lack of clarity and coherence on the conceptualization of inclusive education, with the equation and interchangeable use of 'inclusion' with 'integration', with little consideration for accommodating all children within mainstream education (Bayat, 2014; Kalyanpur, 2011; Pather, 2011; Sharma & Das, 2015). Poor accessibility, which includes school buildings, the location of schools, transportation and inclusive latrines (Erhard et al., 2013) is said to deter equal access to education. Additionally, attitudinal barriers among teaching staff and parents of children without disabilities has also been found to be a challenge to the enrolment of children with disabilities within mainstream education (Bhatnagar & Das, 2014; Nutter, 2011). This reflects the misguided view that the education of children without disabilities will in some way be disrupted by the inclusion of children with disabilities, who may be paid more attention. Connected to this, in the systematic review of the literature on low and middle-income countries commissioned by CBM, Wapling (2016) reports on a recurrent theme of the importance to address the attitudes of teachers, pupils and parents prior to placement of students with disability within inclusive education programs.

Also, the lack of 'preparedness' to manage students with disabilities within the mainstream classroom and the scarcity of specific pre-service or in-service training on teaching methodologies for the mainstream classroom have emerged as key constraints (Barnes & Gaines, 2015; Das, Kuyini & Desai, 2013; Hettiarachchi & Das, 2014; Kavale & Forness, 2000; Nutter, 2011). This situation of feeling ill-prepared for teaching children with disabilities in an inclusive teaching context is amplified by the large student numbers in each class in resource-poor countries (Furuta, 2009; Hove, 2014; Mutasa, 2010; Nkonyane & Hove, 2014; Shah, 2007; Wapling, 2016). Compounding this is a lack of investment on better supporting teachers, with a lack of classroom teaching support (i.e. teaching assistants, shadow teachers or Learning Support Teacher) and limited collaborative teaching between mainstream and special education teachers (Ali, Mustapha & Jelas, 2006) and the examination-centric nature of education (Jayaweera, 1999). Underscoring many of these factors is the all permeating influence of extreme poverty on access to education (Le Fanu, 2014).

The Sri Lankan context

The General Education Reforms of 1997 brought about a fundamental change to existing curricula, pedagogies, and the vision of education in Sri Lanka. Among the 19 reforms proposed on educational opportunity were access to special education for children with disabilities, curricula development, and teacher training. With reference to special education, there was to be wider access to educational opportunities via the formulation of programs to facilitate inclusion of children with disabilities into mainstream education. According to Campbell (2013) there is neither a philosophical framework nor a legal framework for the effective realization of rights. Despite having ratified the CRPD in February 2016, the country has not made notable progress in terms of introducing an effective disability rights law that brings the CRPD obligations into effect.

While the legal and policy framework remains thus, persons with disabilities in Sri Lanka face multiple discrimination as the general approach to disability continues to be based on the charitable and medical models. Independence and self-autonomy of disabled individuals is arguably not yet recognized either by their families or the society around them. The number of children with disabilities accessing education in 2000, is reported to have been 59.5% of boys

and 40.5% of girls in Sri Lanka (UNICEF, 2013). Though this number may have arguably increased over the past 20 years, it still suggests that an alarming 40.5% of boys and 59.5% of girls with disability are not accessing formal education, which is unacceptable. Though reporting on the state of educational access back in 2000, seventy percent of classes for children with disabilities were found to be offered within special education units and not within mainstream school contexts in spite of advocating for mainstreaming (National Institute of Education, 2000). However, this may not be unusual as Thomas (2005) states that globally, children with disabilities are more likely to have never accessed school compared to their peers without disability.

This gap between adequate policies and a lack of implementation is echoed within the literature (Anthony, 2011; Pather & Nxumalo, 2013; Modern, Joergensen & Daniels, 2010). For instance, a review of 26 countries found that strong policy environments do not necessarily translate into changes in practice (Modern, Joergensen & Daniels, 2010). Within the ground reality of children with disabilities not accessing any form of education in many countries (Srivastava, de Boer & Pijl, 2013), the poor uptake of inclusive education in the Global South is hardly surprising. Therefore, the baseline with regards to access to education for children with disabilities in underresourced countries must be acknowledged (Wapling, 2016) together with the state of readiness to transition to inclusive education for children with disabilities (Srivastava, de Boer & Pijl, 2013). Spasovski (2010) argues that inclusive education in practice is firmly dependent on teachers' perception of children with disabilities, of their abilities and limitations, reflecting the stigma and stereotypes of disability prevalent within a society. These teacher perceptions are said to impact on both the students and the learning process, which makes uncovering and documenting teacher perceptions, particularly of the Global South-Majority World experience, of much value.

Method

Study area

The Western Province consists of three Districts: Colombo, Gampaha, Kalutara. This Province was chosen as it includes the capitol city and is arguably the best resourced Province. The researchers felt it best to uncover the perceptions of teachers in the best resourced Province as it would offer clearer insights into the operationalization of inclusive education in practice. At present, there are 107 mainstream National schools and 126 mainstream Provincial schools in the Western Province.

Participants

Teachers working in mainstream schools or in special units attached to mainstream schools in the Western Province of Sri Lanka were invited to be part of the study. A purposive sampling technique was adopted with the participants identified through professional contacts with the schools. A total of 15 Sinhala and/or English-speaking teachers from the Western Province were included in the study. The participants, all female, were between 25-52 years, with a range of work experience of 6 months to 24 years. There was one preschool teacher, ten trained graduate teachers, two trained mainstream teachers, one trained special education teacher and one government-appointed mainstream English teacher.

Interview guide

The aim of the study was to uncover conceptual understandings of inclusive education among Sri Lankan mainstream school teachers in the Western Province. An interview guide was devised based on the literature on special education and inclusive education. The guide consisted of a structured section on demographic details and a guide of 7 topic areas for the semi-structured interviews (Appendix 1).

Data collection and analysis

Face-to-face and telephone interviews were conducted with the participants using an interview guide to support the discussion. Each interview lasted between 20 - 45 minutes. The interviews were audio-recorded and recorded on paper simultaneously, as appropriate. A thematic analysis was undertaken on the interview data, using the key principles of *Framework Analysis* (Ritchie and Spencer, 1994).

Ethical considerations

Ethical approval was gained from the Ethics Review Committee of the Faculty of Medicine, University of Kelaniya, Sri Lanka. An information sheet and a consent form were offered in Sinhala and English to the participants, as required. Pseudonyms were assigned to each participant to maintain confidentiality.

Results and Discussion

The thematic analysis of the semi-structured interview data resulted in seven main themes including conflicting understandings of 'inclusive education', discrepancies in terminology, limited training opportunities in inclusive educational pedagogies, fear of incompetence, lack of incentives, special education training as leverage and policy awareness.

Theme 1: Conflicting constructs of 'inclusive education'

The theme of 'conflicting concepts' refers to a lack of cohesion among the participants and often insufficient clarity on key constructs associated with inclusive education, which is of particular concern within the context of the ratification of the United Nations Convention on the Rights of Persons of Disabilities (United Nations, 2006) by the Sri Lankan government, the Sustainable Development Goals of 2030 the country espouses to and the adoption of inclusive education at a policy level (Ministry of Social Welfare, 2003; UNICEF, 2003). The participants' descriptions of inclusive education were at times lacking in clarity, and on occasion, contradictory in the constructs associated with the concept, suggesting a lack of a uniform definition among teachers. Rupa (P10), a teacher attached to a mainstream government school in the Gampaha district exemplifies this confusion. Her initial explanation was that a child with a disability is best supported within a special school setting, making the point, however, that this may be, in fact, easier for the teacher. She said: 'When there is a child with a disability in a classroom, we are

not able to give him any special attention but if the child is separated, then it is easier for the teacher. When everyone is together, it is difficult because there are other children in the class who are weak in studies. So in terms of the teacher, it is better to have the disabled child separated.'

However, Rupa's follow-up comment as stated from the perspective of students is in contrast to the above, acknowledging that an inclusive educational setting may be most supportive to the students in-line with current global views (albeit views largely from the Global North) on inclusive education. She explained this saying, 'but in terms of the child, when he/she gets the opportunity to stay with everyone else in the same classroom, this child (the child with a disability) gets the sympathy of others. For example, even if this child hits the others they will not hit him back, that is what is 'special''. Here, the emphasis is on gaining sympathy rather than a rights-based view of accessing 'education for all' (UNESCO, 2010). Explaining this idea further, Rupa went on to define the term 'special' suggesting that in the context of mainstream school, it is the tolerance and acceptance of 'difference', though in this case, of arguably 'unacceptable behavior' by the students in class, that is laudable.

In direct discussions on the understandings of the different educational options available to children with disabilities in Sri Lanka, there was particular confusion between integrated vs. inclusive education. Referring to integrated education, Malathi (P12), a mainstream school teacher attached to a Roman Catholic semi-government school sounded perplexed requesting for further clarification stating, 'What do you mean by that?' and when the researcher offered an explanation, talked about inclusive and not integrated education noting that 'We don't have inclusive education in our school. There are children with mild disabilities. For example, I don't even know how to explain- there is a girl who doesn't understand much.' It appears that Malathi's definition of inclusive education does not include children with mild disabilities but rather maybe, children with significant disabilities.

Another teacher, Tania (P15), though lacking in any direct experience of supporting a child with a disability in her classroom, agreed with the concept of inclusion in principle in opposition to segregation. She voiced her opinion saying, 'I have never had a student with disabilities. I have seen disabled children in big classes; they attend with regular children. I think it is good. If the disability is something that can be addressed in a classroom of other children it is okay to put everyone together. When you segregate, you isolate'. That said, the caveat to the inclusion of all children with disabilities into the mainstream classroom is given as a disability 'that can be addressed in the classroom', and what constitutes the possibility of management is not clear; and who determines this is not specified. She did, however, go on to explain that if the question was on her personal life, she would strive to help develop the child to have commensurate skills to his/her peers as 'I don't like to look down on children with disabilities. If I have a child with disabilities, I would somehow want to bring that child up to the level of the other children.'

Extending the idea proposed by Tania of including children with disabilities 'that can be addressed in the classroom', Sumudu (P14), insisted that special education is 'necessary' explaining that inclusive education should be offered 'Not for all activities; only for selected activities, activities where everyone can participate.' Her explanatory model of inclusion was

more akin to the concept of special education units in Sri Lanka where students with disabilities study in special units attached to the mainstream school and are integrated with the mainstream school students during particular activities such as games and art (Hettiarachchi & Das, 2014; UNICEF, 2003). Methuni (P11), a teacher of a Roman Catholic semi-government school, added a different dimension to this argument, suggesting inclusion (or segregation, depending on your viewpoint) of students, contingent on cognition and motor skills, feeling that these students could access and both literally and metaphorically 'navigate' the mainstream school system. She cogently expressed this view saying: 'If there is no cognitive difficulty and if there is only a physical disability, I believe that special education is not needed'. While this is positive and inclusive of children who do not have cognitive or motor difficulties, the subtext is that children diagnosed with these two particular disabilities should be excluded from accessing inclusive mainstream education. The literature does suggest an influence of the type of student disability on teacher perspectives on teaching in an inclusive teaching-learning setting (Sari, Celikoz and Secer, 2009), though theoretically, inclusive education should be accessible by all children, disregarding the type of disability.

Methuni went on to share her single personal experience of supporting a student with disabilities saying, '...I have only taught one girl who was partially blind in our school for the entire 15 years of my teaching practice. But we don't practice inclusive education in our school. For instance, our school is not even accessible to someone who is using a wheel chair.' While it is not clear from her words the qualitative nature of her experience (i.e. whether successful or challenging to have supported a student with partial-vision), her words do, nevertheless, add a little more to our understanding of her view. It may well be that it is this lack of 'preparedness' (Das, 2001) or easy physical access and by extension, all forms of accessibility, that may be influencing Methuni's view of inclusion. A report by World Vision (2007) notes that while children with disability are increasingly included in mainstream schools, this is more a form of 'integration' (where the child must adapt to fit in) than 'inclusion' as there are few adaptations to accommodate diversity' (p.9).

Conversely, Dhammika (P6), a graduate teacher attached to a mainstream school in Colombo presented a different view, at least initially, making a strident statement that children with disabilities are best supported with their peers without disability within the mainstream teaching-learning context. She proposed that:

Special education as I understand is teaching differently abled kids separately. But I think they should be in normal classes. There are a few children in our school, one particular child is good in studies and everything but has certain abnormal habits such as suddenly clapping or disturbing during the assembly. But the children know him very well and treat him with respect. This time he took part in the sports meet. He came last, but there was a thunderous cheer for him from all the kids.

Akin to Rupa's comment, Dhammika too remarked on the reaction to children with disabilities by their peers without disability suggesting the positive nature of inclusive education, in this instance, encouraging their peer on rather than excusing particular behavior. She went on to espouse the virtues of inclusive education in creating as she saw it, students 'with compassion' towards their peers with disabilities. She purported thus:

I think children understand more about respecting the differently abled, they have learnt it from being together with them. If they were separated they would never know. Sometimes the students' advice the teachers too, sometimes when the teachers say these differently abled kids are a nuisance, the other children correct the teachers and advise us not to think like that and tell us to treat them with compassion.

Dhammika makes note of not only the compassion shown towards students with disabilities by peers without disability, but also how they take on a role of 'moral tutor', offering advice to the teachers, in a role-reversal of sorts, regarding positive attitudes towards students with disabilities.

Having said the above, the contradiction in Dhammika's explanatory model was apparent when she explained her understanding of and view on inclusive education. Here she explains inclusive education as '*teaching together*' and goes on to describe her view as:

Sometimes I personally feel it may be more useful if the differently abled kids were taught separately because they have special needs and the teachers could focus more on improving them, but in terms of becoming a part of normal school life, it is important to have them in the normal classrooms.

So, while continuing to view inclusive education as offering a *'normal school life'* to children with disabilities, she also proposes exclusive special educational instruction claiming that these students have *'special needs'*. Dhammika's view has support from Ahuja and Mendis (2002 cited in UNICEF, 2013) who note that teachers in Sri Lanka have identified special education units as the most suitable educational placement for children with disabilities in comparison to mainstream classrooms. Similarly, Alborz, Slee and Miles (2013) had found a discrepancy between the commitment to inclusive education vs. a need to create special schools among Iraqi teachers. A high level of commitment to inclusive education was also found among Zambian student teachers, though they too simultaneously held the view that children with disability are best supported by specialists as it requires significant accommodations to the mainstream classroom (Muwana & Ostrosky, 2014).

This view of skepticism about the professed benefits of inclusion has been well-documented (Salend, 2005; Wapling, 2016). Spasovski (2010) for instance, contends that teachers' selfperception is of inadequate competencies and preparedness to support children with disabilities or with special educational needs. In the case of these Sri Lankan teachers, the root of the skepticism appears to be a lack of a clear, cogent conceptual understanding of inclusion and the lack of preparedness or training received resulting in notions of perceived difficulties. While positive teacher attitudes are said to bolster its operationalization in practice (Bhatnagar & Das, 2014; Das, Kuyini & Desai, 2013; Prakash, 2012), this perceived negativity may hamper efforts to establish inclusive education. Negative teacher attitudes towards inclusion could result in the use of ineffective pedagogical methods, which in turn, impact on academic attainment among students with disabilities (Nutter, 2011). This lack of consensus and conviction on the value of inclusion may explain why 70% of classes for children with disabilities are said to be offered within special education provision in Sri Lanka (National Institute of Education, 2000).

This confusion or lack of consensus on what inclusion entails may in fact reflect what Pather (2007) proposes as "borrowed notions" of inclusion from the Global North. Therefore, there is a need to more clearly conceptualise and construct 'inclusion' within the local context, which may also include deconstructing and challenging current notions of special education. A wider

approach to inclusive education must consider not only the marginalization of children with disabilities, but educational access of all children.

Theme 2: Discrepancies in the use of terminology

The participants' discussion included comments on the diverse and often changing terminology in English and Sinhala. There was concern about the current terminology in frequent use, an appreciation of the presumed need for terminology even if the current use of terms was thought to be problematic, with a lack of consensus on the terms used.

Many suggested that the terms in contemporary use in Sri Lanka are questionable, noting as Dhammika (P6), a graduate teacher attached to a mainstream school argued, the term 'disabilities' itself is thought to '*immediately bring(s) to mind a child who is 'not normal' or abnormal'*. She asserted that 'the word 'disabled' is not used now. Instead we use 'differently abled'. Even in day to day conversations, we say people with special skills instead of disabled people.' Likewise, many participants, including Methuni and Malathi, were defiant in their condemnation of some of the terminology in current use while favoring others, arguably they sided with a particular school of thought.

Malathi (P12) critiqued the use of current terminology, suggesting that 'the terminology is not good. ... It's better if we can avoid using the terminology' as 'the terminology gives me a sense of sympathy' so 'why not use 'children with special needs'. Methuni (P11) shared similar reservations to Malathi (P12) on the current terminology in usage. Methuni said, 'I don't like the terminology. It'll hurt the one with the disability. We say 'blind', 'deaf' or 'mongol' sometimes. We hardly use terms like Down's syndrome. I don't like the terminology. They refer to something that the person is lacking. ...I don't like the term disabilities. I like the term 'differently abled' better. They have a special ability. Even without hearing you can achieve a lot in life. So I don't like the term disability. It is not the strength of the body. It is the strength of the mind.'

Methuni's view raises an interesting dichotomy. While she is not in favor of terminology such as 'mongol' which she (as well as the disability-rights movement) finds offensive and therefore unacceptable, her list of self-proclaimed objectionable terminology extends to 'deaf' and 'disability', both of which have arguably been positively reclaimed by the disability-rights movement. Cultural connotations within the use of particular terminology must be considered. The culture-specific nature of terminology is markedly evident in the use of the term Deaf, which has been embraced by many cultures. Arguably in Sri Lanka, the Deaf community which have reclaimed and embraced Deaf identity and politics is a minority subaltern community on the margins of a system, robbed of agency with Sri Lanka sign language usage at the site of struggle. This is evident within the local context in the use of the terms 'disability' and 'Deaf' in the Disability Organizations Joint Front (2017) and the Sri Lanka Central Federation of the Deaf (2017).

Methuni's view, arguably shared by others in Sri Lankan society, is the view that persons with disabilities '*have a special ability*'. This notion is proposed presumably to counter the negative

societal stereotypes within Sri Lankan society (Ministry of Social Welfare, 2003), but inadvertently perpetuates positive stereotyping of persons with disabilities as possessing *'special ability'*. This echoes topical debates on 'inspiration porn' in which persons with disabilities are viewed as 'inspirational' exclusively or to a large extent on account of their disability (Heideman, 2015).

Sumudu (P14), an English teacher working for 6 years attached to a government school favored the use of the term 'differently abled' proposing that 'we should have terminology. Otherwise we can't identify them separately.' The reference to children with disabilities here is as 'them', as the other and therefore, the need for the terminology is with a view to perhaps 'label' or differentiate the group of children without disabilities from the 'differently abled' children. This potentially covert 'ableist' (Campbell, 2009) perspective underlines subtle ways of social exclusion prevalent in the attitudes of some of the teachers.

A lack of consensus in the use of terminology was apparent within the discourse of the teachers. As per this finding of a lack of consensus on what constitutes inclusive education, this together with the connotations of inclusion for a regular mainstream teacher have been proposed as substantial challenges to the operationalization of inclusive education from theory to practice (Miles & Singhal, 2010). Tania (P15) who works at an international school explained that she was uncomfortable with the use of any terminology that is inherently negative or disrespectful to persons with disabilities. She said 'I don't want to use terms which look down on children with disabilities'. Adding to this view, Susima (P1) who is attached to a mainstream government school explained in detail the changing terminology as she envisaged it saying, 'I use to think disabilities are only physical, but now I know that disabilities could be both physical and mental. Visible and invisible disabilities. ... We use to say deaf, dumb, blind earlier. But now we use disabilities in hearing, disabilities in speech and disabilities in vision. Children who have problems in talking and so on'. Susima as Methuni (P11) above, decried the use of archaic disrespectful terminology in favor of newer terms. Susima appears to reclaim the term 'disabilities' akin to the disability-rights movement while Dhammika (P6), Sumudu (P14), Methuni (P11) and Dulani (P13) promoted the use of the more recent coinage of 'differentlyabled', which as the latter put it, 'the term 'disability' has been recently substituted by the term differently abled but the general term has not changed'. Dulani notes a shift in the terminology while acknowledging a seeming lack of acceptance of this newer terminology.

Theme 3: Limited training opportunities

The self-explanatory theme refers to the lack of possibilities for training available to mainstream school teachers on special education or inclusive education. This included a paucity of appropriate basic pre-service training as well as on-going in-service training. The conversations centered around the need for training together with questions of who should receive training, the content of the training courses and the pedagogical methods used within training.

Making the point of the dearth of training explicit, Sumudu (P14) argued that '*Training is needed*. No training has ever been given. Without training I would not be able to handle a child with disability.' She remarked that while she is working in a mainstream school and currently

does not have any students with disabilities in her classroom, she does not feel equipped with relevant pedagogical knowledge and skills to manage an inclusive teaching classroom. This mismatch between the potential demands of inclusion in terms of knowledge and skills and the perceived capacity of the teacher results in a lack of overall confidence and a sense of inclusion as 'more work' and therefore, 'a burden'.

With the arguably sudden prospect of working with a student with disabilities within the hitherto mainstream school classroom reserved for students without disabilities, these teachers appeared to be apprehensive about their knowledge and skills to support children with disabilities. This fear of inadequacy and possible failure made some teachers reluctant to include students with disabilities in their classroom. In a conversation with Dulani (P13), she said that 'Inclusive education is beneficial for differently abled children mostly. However, it may cause practical issues for the teacher.' One of the 'practical issues' or key reason for this fear was the lack of direct training in special education and inclusive education received by the teachers. The current teacher training for mainstream teachers does not offer comprehensive training on pedagogical methods for supporting students with disabilities in contrast to the training afforded to special education teachers. That said, Lakma (P9) argues that the training offered to special education teachers is insufficient for mainstream school teachers who require particular pedagogical knowledge and skills to teach the mainstream syllabus to an inclusive classroom. Dhammika (P6) adds to this opinion by intimating that training should be offered to all teachers and that 'Teachers should be given training on handling differently abled kids, specially the psychology of handling them.' There is recognition by her of the importance of considering the psychological dimension of 'handling' children with disabilities in the classroom.

The availability of trained teaching staff and opportunities for on-going in-service training and classroom resources have been identified as contributory factors to the establishment of inclusive education (Das et al., 2013; Furuta, 2009; Kavale & Forness, 2000; Kugelmass & Ainscow, 2004; Modern et al., 2010; Nutter, 2011; Philpott, Furey & Penney, 2010; Sari, Celikoz & Secer, 2009). It appears that the lack of appropriate and adequate training is a factor highlighted by this Sri Lankan mainstream teacher group as impacting on the establishment and success of inclusive education within the local context.

When instructional courses are offered, the training program is said to be a 'basic training program' (Gayani-P2), usually recommended for teachers who are working in or expecting to work in special education. Arguably, for a policy of inclusion to succeed, all mainstream teachers should be equipped with the knowledge and skills required to support children with disabilities in the mainstream classroom. Thushila (P5) articulating this point expressed her view as, 'I appreciate the special education given for a set of teachers to teach such learners. But all the teachers which includes those in mainstream schools should be given at least a basic training to work with such learners.' Conversely, Methuni (P11), who by her own admission, had success with supporting a student with disabilities to access higher education was more skeptical about training. She was strident in her view that training should only be afforded to teachers directly working with children with disabilities rather than all and sundry. Explaining this view, she said:

I don't think all teachers need to be given a training on handling children with disabilities. Only those who are dealing with those children should be given a training. I have not got a training. I dealt with the one with the visual impairment as I thought was fit. She did very well and in fact is waiting for university entrance.

Tania (P15) attached to an international school had received specific training though she was critical of the effectiveness of the training due to a lack of experiential learning as they were *'never shown real life examples. It is (was) mostly just theory'*. The need for hands-on experiential learning opportunities were valued by the teachers, which in turn helped them to feel sufficiently knowledgeable, skilled and confident at handling children with disabilities in the mainstream classroom. Adding to this point, Malathi (P12) shared her own experiences, saying 'I *think it is a good idea to give a training in handling children with disabilities to all the teachers. I would have benefitted. I have a child in the class who is slow to learn. If I had a training, I would have handled her better.' These perceptual findings can inform the content and methodology of pre-service and in-service training programs.*

Direct discussions on the content of the training courses required generated much debate. Sugath (P8), a mainstream primary school teacher from Colombo noted that '*Teachers have to be trained on special education so that their attitudes will change.*' This suggests a need for training and for training to focus on attitudinal change to enable readiness to engage in inclusion. Alghazo, Dodeen & Alqaryouti (2003) too acknowledge the power of positive teacher attitudes coupled with knowledge on inclusion as benefitting the process of mainstreaming and inclusion. Making this point both explicit and persuasive, Susima (P1) explained: '*Primarily, the need is to change the mindset of teachers. There are more disabled children now, especially in the Western Province there are more children with disabilities now.*' She warns that 'If the teacher does not identify the children, then they end up dropping out of school', highlighting the role played by mainstream teachers in identifying children with disabilities and referring them on for professional support. In reality, the experience of a significant number of children with disabilities in under-resourced countries is the limited access and often lack of access to formal education (Filmer, 2005; Thomas, 2005).

Theme 4: Fear of incompetence

With the arguably sudden prospect of working with a student with disabilities within the hitherto mainstream school classroom reserved for students without disabilities, these teachers appeared to be apprehensive about their knowledge and skills to support children with disabilities. Supporting diverse groups of students within inclusive mainstream classrooms requires specific training and levels of competence (Das, 2001). Dulani (P13) sees inclusive education as *'beneficial for differently abled children mostly'* but raises concerns that *'it may cause practical issues for the teacher'*. Among the 'practical issues' raised by the teachers interviewed were the lack of appropriate and adequate pre-service and in-service training and the large classroom size, both of which result in fears of incompetence and possible failure.

This fear of inadequacy and possible failure made some teachers reluctant to include students with disabilities in their classroom. In a conversation with Uthpala (P7), who is a young teacher

on her first posting to a school and was interviewed at the school appeared visibly anxious at being observed in class. She explained how she was new to the school and was not offered any training by the school prior to starting work on how to support a student with learning disabilities in her mainstream classroom. In discussion, she said 'I don't know what you think of me. I am very new to the school. I was not given any special training or any warning on how to support that child. I don't know the method to teach him.' Subjectively, the student with a disability appeared to be the least of this teacher's challenges, with another 39 students to manage in the classroom with no classroom assistants.

The key reason for this fear was the lack of direct training in special education and inclusive education methodologies received by the teachers. The current teacher training for mainstream teachers does not offer comprehensive training on pedagogical methods for supporting students with disabilities in contrast to the training afforded to special education teachers. That said, Lakma (P9) argues that even when training is offered, it is insufficient for mainstream school teachers who require particular pedagogical knowledge and skills to teach the mainstream syllabus within an inclusive classroom of students with mixed abilities. As she put it, 'I will not be able to help these children. I don't know enough to help them with all the other children working towards the shishathwa (scholarship) exam. I don't think I will succeed.' Adding to this point, Susima (P1) noted the fear felt by teachers of being judged and ridiculed by personnel from the Ministry of Education as 'The Education Inspectors will come and check if all the children have nice, round hand-writing. They will mock us if the children's handwriting is not good. They do not understand if we explain the disabilities.' This fear of a downfall of academic attainment has been identified by Indian teachers arguably facing similar socio-economic, cultural and political realities (Das et al., 2013).

Theme 5: Incentives and support

The need for inducements and the lack there of within mainstream schools for teachers supporting students with disabilities was a cause for concern. The teachers felt that supporting students with disabilities within the mainstream classroom is challenging, requiring a specific skill-set and therefore particular training. As teaching students with disabilities was perceived by some of the teachers to be an arduous task requiring special knowledge and skills, a few teachers bemoaned the lack of incentives. In a discussion with Rupa (P10) on working within a mainstream inclusive classroom, she had this to say: '*There are no incentives; financial or in terms of assistive equipment provided for children with disabilities in the mainstream. Sometimes they need special equipment to support with motor skills.*' This underlines notions of support required to adequately assist a child with disabilities to access the curriculum in an inclusive mainstream classroom. There is an acknowledgement of the need for specific 'equipment' or learning-aids and that the use of specialist pedagogical methods by the teaching staff should be incentivized.

Prakash (2012) notes that the availability of resources including teaching aids assists positive attitudes towards inclusive education among teachers. Sari, Celikoz and Secer (2009) similarly identified the level of special education support provided by the school administration as a key factor influencing teachers' perspectives. It may be that teachers who feel well-supported do not

view the inclusion of students with disabilities as a 'burden' or as additional work. Dayani (P4) added to this exchange with her suggestion of the need for a combination of teaching methodologies; pedagogical methods used within special education settings and those used in mainstream educational settings. Explaining this, Dayani said, 'They need both a special form of education as well as mainstream educational opportunities since they have to be integrated to society while their special needs are addressed in their respective learning environments.'

Talking about the external support available, only one participant was able to offer specific details. Susima (P1) described that 'If there are children with autism in the class, we send them to the Pediatric Unit of the hospital. We obtain doctor's advice about their behavioral patterns. The doctor usually gives us guidance on how to manage the child; let the child work slow; give less challenging tasks. For example, if the class is asked to write an essay, these children will be asked to write 2 lines on the same topic.' Additionally, Susima went on to explain her own experience of managing a mainstream inclusive classroom. She explained as follows:

'I have one autistic child, one hyperactive child and a few slow learners in my class. They are on one side of the class and they follow the same syllabus as the others but at a lower benchmark. For example, if the other children are asked to write a few lines on 'My home', they would be asked to draw pictures of the house and people who live there.'

Theme 6: Pressure to guarantee examination success

The emphasis, perceived as 'undue emphasis' by one participant, on examination success puts tremendous pressure on teachers who feel that they are not able to 'compromise' on this examination-focus if students with disability are included in the mainstream classroom. On the one-hand, there is a philosophical belief in pushing towards inclusive education juxtaposed with, on the other-hand, a need for achieving good examination results and thereby maintaining the school position on national league tables. Two participants, Lakma (P9) and Susima (P1) both raised the above point. Susima (P1) articulated her concern clearly and cogently suggesting that 'All the children are expected to perform equally well. Our entire education system is based on competitive exams. Children's skills and knowledge is not tested. Their personal improvement is not a priority.'

While acknowledging the need to address prevalent teacher attitudes towards disability and inclusion within training programs, the pressure to deliver on student examination results, particularly at shared compulsory island-wide examinations was identified by Susima as a fundamental obstacle to establishing inclusive education. As she said, '... The main reason why teachers do not want these children in a classroom is because of the pressure put on the teachers by the Department of Education. They always want a 100% pass rate.' This examination-oriented education system and therefore the challenges faced by the teachers was also proposed by Jayaweera (1999) more than a decade ago. Susima argued further asking a challenging question of 'How can you get a 100% pass rate and neat and round handwriting for each and every child, when there are children with disabilities; teachers cannot perform miracles. ... The Education Authorities have to be sensitized. They have to know what disabilities are.' This tension between the opposing directionality of an education system which is examination-

oriented and that also attempts to embrace inclusion, places teachers in an uncomfortable position.

Susima went on to raise concerns about the lack of reasonable accommodations at examinations for students with disability, making the system unequal. As she put it, '... what will happen to these children when they go to the O/L class? They cannot get the same marks as the others. There are no options available for them, there is no system to test their knowledge, something like a viva system.' In spite of this view, there is evidence of reasonable accommodations offered to students with disabilities regarding modes of response such as the use of a scribe or special switches (Cerebral Palsy Lanka Foundation, 2017), though a change to the format of the examination has not been reported on. It may be that there is an overall lack of awareness among teachers on the types of reasonable accommodations that can be offered through the Ministry of Education.

Theme 7: Policy awareness

This theme of policy awareness encapsulated the different levels of teacher familiarity (or lack thereof) on current local policies connected to inclusive and special education. The overall scarcity of knowledge on current policies concerning special education or inclusive education among the participants was admitted by all the teachers bar one interviewed. Often this lack of knowledge on contemporary policies was accompanied by embarrassment on the part of the participants who suddenly appeared to become aware of the potential repercussions of this limitation in knowledge. Sumudu (P14) in response to a question on government policy said 'I don't know any government policy on education' followed by a nervous embarrassed chuckle. Similarly, Tania (P15), in spite of having received particular pedagogical training on supporting students with disabilities, acknowledged her lack of awareness of current educational policies connected to inclusive education noting openly and unambiguously that she has 'no idea what government policies are'.

In further discussions with some of the teachers on awareness of local educational policies relevant to students with disabilities among teacher colleagues and administrative staff of their respective schools, the participants consulted reported a similar scarcity of knowledge. The scarcity of knowledge on inclusion policies and procedures, can in turn, foster negative attitudes towards inclusive education (Das et al., 2013; Kavale & Forness, 2000; Nutter, 2011). Discussions on current policies, its relevance and critical reviews of challenges of policies in practice were said not to feature in staffroom conversations. In a discussion with Malathi (P12), it was apparent that while she was apologetic for her lack of familiarity on contemporary local educational policies, she makes the claim that she is not unusual in this lack of understanding, suggesting that there is an overall deficiency in policy awareness among teachers. While seemingly reticent to speak, she claimed: 'I have no idea. Very sorry to say. I don't have much knowledge about government policies. That is not part of our conversations with other teachers even.' The suggestion within Malathi's response is on a lack of overall knowledge among teachers of educational policies for both students with and without disabilities. Agreeing with the point made by Malathi and while similarly apologetic, Methuni (P11) said 'Sorry I am not familiar with any government policy. This is not something that is there in our discussions

among teachers. If you ask me to name a government policy especially with regard to children with disabilities, I wouldn't know!'

The explanation for this marked lack of knowledge among teachers on relevant educational policies was explained as due to a lack of clarity by the government on its educational policies, making this information largely inaccessible. Gayani's (P2) words captured the general view among the teachers that 'Government policies on education must be clear, transparent and comprehensible to everyone. Policies should identify the needs of the students and should address them. For policies to be successful and effective, policy makers should consider current and upcoming global trends in education.' The suggestion within Gayani's words was that policies must be articulated lucidly making the information accessible to all but also be inkeeping with the current worldwide pedagogical research evidence-base for teaching students with disabilities. While the ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2008) in February 2016 by the Sri Lankan government, and the strong stance on inclusive education in the National Policy on Disability for Sri Lanka (Ministry of Social Welfare, 2003) reinforce the right to free and compulsory mainstream education for all children, the 'lack of a definitive policy on inclusive education' (UNICEF Sri Lanka, 2013) may still be impeding its awareness among teachers and its establishment.

In spite of not being cognizant of contemporary legislation connected to education for children with disabilities, two of the teacher-participants stridently acknowledged the 'right to education' that should be afforded to children with disabilities. Ruwan (P13) in conversation noted that 'children have a right to education. They are born with that right.' Sharing similar sentiments, Dhammika (P6), who had followed a Diploma course in Education admitted the following:

'I did an Education Diploma where there were sections on this [education policy] but I cannot remember exactly what they were. But I can remember that the policies basically said that they [children with disabilities] should be treated equally.'

Adding to her previous comment, Dhammika (P6) went on to explain her individual view point as: 'I personally think these children are the same as the other students, I know there is always a group protecting them in school.' She appears to feel that there is adequate support to take care of or 'protect' children with disabilities within the mainstream setting, although no further details were offered. Conversely, Ruwan (P13) was less convinced of the adequacy of the support offered, stating that '...There has to be some support for children with disabilities in the school in order for them to be independent. The school has to have the environment in which they will not have to depend on someone else for their day-to-day activities. Children with disabilities have to be able to reach their targets even if the other students do not help them.' The suggestion here is not of 'protection' but of specific assistance to reach one's potential and encourage independence.

Contesting the view of the teachers who admitted a lack of awareness on current educational policy, Susima (P1) was adamant that no such legislation was available. She concluded that 'There are no such policies, but as mentioned before, we are given awareness on these issues during our training programs.' In reality, the Sri Lankan government formally introduced the

inclusion of children with disabilities into mainstream classrooms through the 1997 General Educational Reforms, thereby legitimizing the approach started in the early 1970s, which appears not to be public knowledge among the teachers.

Susima's opinion was that she had imbibed knowledge on the rights of students through her training, complaining about what she felt was a lack of legislation, particularly favoring the introduction of law stipulating pedagogical approaches to teaching as '*The children are totally at the mercy of the attitudes of the teachers because there are no proper education policies on this. There has to be a law that compels the teachers to practice multi-level teaching approaches.*' Explaining about this pedagogical method further, Susima (P1) added that '*We have been asked to follow a multi-level approach now. There is no circular or policy but this concept was introduced to us in our training programs; we have approximately three trainings per year. We are repeatedly reminded that a classroom consists of different types of children and to adapt our teaching methods to suit every child. But I must tell you that the majority of teachers do not like this method, mainly because they are pressurised to achieve targets by education authorities.'*

There is a recognition that specific pedagogical methods must be adopted to better support students with disabilities within the mainstream inclusive teaching environment. In a study conducted 8 years ago, Furuta (2009) uncovered the lack of training opportunities for teachers, limited resources and large classroom sizes as key concerns in Sri Lanka. Therefore, training programs should offer locally-sensitive, contextually-relevant inclusive pedagogies that enable mainstream instruction to be accessible to all students.

Conclusion

In conclusion, the results suggest the need for all teachers to be cognizant of the current education policies relevant to children with disabilities. There is also a need for terminology to be agreed on at policy-level and filtered down to all teachers with room for review and revision as required over time. The contradiction in the perceptions of inclusive education both in theory and practice, and attitudes towards its implementation poses a barrier to the establishment of inclusive education, given as Mittler (2000) proposes the central role played by teachers within inclusive education. Therefore, for inclusion to move from theory to practice, there is a need to meet the training needs of mainstream teachers, which could include mandatory pre-service training and on-going in-service training. While the findings warrant close analysis of the reasons for large-scale exclusion of disparities and inequities that exclude all children from schooling through discussions on the intersectionality between education and schooling and culture (including disability), gender, ethnicity, language, socio-economic background, religion, politics and power.

While the above interpretation and conclusions were reached based on the analysis of the data, it is acknowledged that there were limitations to the study, in spite of efforts to minimize such limitations. One concern is the lack of representation of equal participants from across the Province with a majority from Gampaha and Colombo and only two participants from the Kalutara District. We also only gathered data from one round of interviews and understand that we may have been able to gather deeper, richer data through a series of interviews with the same

participants. This study only gathered perceptions of teachers and the researchers acknowledge that there is a need to compare perceptions with behavior or 'real skill', to be able to understand inclusion in practice. Nevertheless, it is hoped that the teacher perceptions gathered could influence the pre-service and in-service training offered to mainstream school teachers enabling teachers to feel better prepared and open to inclusive education.

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Culture-based Intervention Strategies for Bedouin Parents of Children with ASD - Identification and Conceptualization

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Abstract

Professisonal community workers' interevention strategies are effective insofar as they are relevant to the cultural context in which they are delivered. This article presents a methodological process of identifying and conceptualizing culture-based intervention strategies of Bedouin professionals who work with Bedouin parents of children with ASD. Twenty three Bedouin professionals who work in a special education school for children with ASD participated in semi-structured ethnographic interviews. A thematic analysis was conducted, and 11 culturally based intervention strategies were identified and conceptualized. The manuscript presents these strategies in the results section with reference to three items of information: a) title, b) goals, and c) underlying assumptions. This research is, for the first time, focused on Bedouin culturally influenced intervention strategies, but its insights and the research methods that it offers allow for the identification of culturally based intervention and/or indigenous communities that have children with ASD.

Keywords: Culture, intervention, Bedouin, parents, ASD.

Introduction

The Bedouin society is a traditional, tribal and patriarchal society that lives in polygamousendogamous clans (*hamulas*) with large families. It is a community characterized by a low socio-economic status (The Statistical Yearbook of the Negev Bedouin, 2004) in which half of the Bedouin population lives in recognized townships; the other half lives in unrecognized settlements, where there are no basic municipal services (Manor-Binyamini, 2011, 2014). The Bedouins who are the focus of the current study, live in the Negev, southern Israelalonside the Jews.

Most of the Bedouin population lives in small and remote unrecognized settlements in communities where their traditional way of life is preserved. These settlements suffer from a lack of basic infrastructure, such as water, electricity, health services, welfare, transportation and education. In these places, there is a shortage of educational services in general and of support services for special education in particular. The lack of support services for children with special needs prominent when we compare to the jewish population that live in the Negev. For example in the jewish sector ther are 11 special education schools, and for the Bedouin sector ther are four special education schools and all of them are for children with intellectual disability.

Against this background of insufficient support services, the first school for children with ASD in the Bedouin community was founded in 2013. Demographic data show that in 2010, there were approximately 180,000 Bedouin residents of the Negev, with approximately 70,000 of them living in unrecognized settlements. The growth rate of the Bedouin population is among the highest in the world: this community doubles in size every 15 years or so (The Knesset Research and Information Center Committee, 2011).

The Bedouin culture has its own characteristic values, and the main values of this culture are harmony, maintaining family honor, and commitment to family and relatives, all of which is achieved by means of turning a blind eye to one's personal needs and sacrificing them (Al-Krenawi, 2000). The individual is expected to demonstrate self-discipline, emotional control, restraint, patience and coherence. Family relationships within the Bedouin community are characterized by interdependency. This dependency is manifested through financial support, caring for and watching the clan's children, and social support, among other things (Okasha, 1999).

The uniqueness of non-Western cultures calls for a differential treatment by the professionals. Intervention programs and the work with parents of children with ASD in these kinds of communities are a major challenge. This is because the profession of special education, like other therapeutic professions, was born and developed in Western countries, which are generally characterized by cultural values that are different from the values of these non-Western cultures, such as individuality, equality, human rights and freedom, democracy and freedom of expression, all of which were translated into therapeutic theories and treatment and intervention programs (Dwairy, 2006). Finding ways to help families cope with the differences in their lives when a child has ASD remains a priority for researchers and professionals throughout the world (Hall, 2012).

Based on the unique characteristics and values of the Bedouin community, this study's basic premise is that a professional community worker's intervention strategies are effective insofar as they are relevant to the cultural context and structured according to social and cultural considerations. It can also be assumed that professionals who belong to coll ectivist societies would use different judgment than that of professionals who belong to individualistic societies, as a result of the differences between these two types of culture.

Culture-based Intervention- Emic and Etic perspective

Most research regarding ASD emanates from western cultural perspectives (National Research Council, 2001). Culture can be defined as "*The learned, shared and transmitted values, beliefs, norms and lifetime practices of a particular group that guides thinking, decisions and actions in patterned ways*" (WHO, 2004, p. 20). Culture plays a role in families` acceptance a child with ASD (Ennis-Cole et al, 2013). Ferdermore the decisions families make about ASD diagnosis and treatment are directly influenced by the family's cultural background (Helms & Cook, 1999), Since Society`s beliefs about ASD are shaped by culture (Griffen et al., 2007)

Theoretically, therefore, the issue of cultural differences is discussed over two conventional approaches: the Emic Approach and the Etic Approach (Lum, 1992). The Emic Approach explores behavior within the cultural system in which it occurs, in order to understand that behavior according to the conceptual framework of that culture. This is a reference to the situation from the perspective of those who experience it. The Etic Approach, in contrast, focuses on universal concepts in order to understand behavior. These concepts are obtained from an external, objective perspective, rather than according to the culture in which the behavior occurs (Lum, 1992).

Intervention strategies that are used by Western professionals are intervention strategies that are based on the Etic Approach but are still culturally adapted. In other words, these strategies make use of the resources of the society and the culture within which these professionals work, as the restrictions of the particular society are taken into account. The attempt to instill Western theories and practices on non-Western cultures has met with failure, when the intra-cultural implications of the disability were not taken into account (Coleridge, 2000)

Working with the Etic Approach in a non-Western community, such as the Bedouin community, could lead to misunderstandings and misinterpretations when the professionals encounter the parents of children with ASD. These mistakes can constitute a fundamental obstacle, both in the relationship and in the intervention process the professional has planned for treatment. For example, a professional who maintains emotional distance (like for instance, silence) and anonymity in his or her relationship with the parents may be perceived as disinterested or hopeless (Manor-Binyamini, 2014). In order to implement an effective intervention program in non-Western societies for children with ASD or to work with their parents, it is necessary to be deeply informed and familiar with the unique characteristics of that particular culture from the Emic perspective, that of the community itself.

The purpose of this manuscript was to identify and conceptualize culturally based intervention strategies used by professionals who are members of the Bedouin community in their work with parents of children with ASD in the Bedouin community. that is to say, from the Emic perspective.

Methods

Qualitative perspective

Kleinman (1977) suggested that "*ideal*" cross-cultural studies begin with "*local phenomenological descriptions*" (1977, p. 4) that provide an understanding of phenomena in cultural contexts. The phenomenological study aims to provide a holistic understanding of each participant's personal experience, as well as to reveal essential commonalities shared by the participants in order to expose the essence of what it means to be a member of that population (Creswell, 2007).

Ethnography is a multifaceted description of a person or a group that requires an indepth and comprehensive view of the culture under study with an emphasis on understanding the "obvious notions" through an analysis of the daily life (Schutz, 1944). Therefore, by combining the phenomenological approach with ethnographic interviews, we can examine the obvious notions of the experience of Bedouin professionals who work with parents of children with ASD in the Bedouin community.

Procedure and data collection

First, ethical approval for the research was received from the ethics committee of the Ministry of Education. After obtaining the ethical approval for the study, with regard to the description of the strategy of the sample of the study. First, the school principal was approached. The study and its objectives were presented to him, after obtaining consent from the school principal for the study. A request was made to every professional expert on team, the study, its importance and purpose were presented to the team , and all 45 members of the inter-disciplinary team (all members of the Bedouin community) were asked to participate in the study, 20 professionals who have expressed their willingness to be interviewed, were personally approached by the two students who conducted the interviews. (The male student approached the men and the female student approached the women) every professional who expressed a willingness to be interviewed, was interviewed. Participants signed informed consent before the interview, which included details regarding the nature of volunteering for research. Professionals were assured that the interviews were completely confidential and that their real names would be replaced by fictitious ones.

Next, 20 semi-structured ethnographic interviews were conducted by professions from various disciplines (see table 1) who work in a special education school for Bedouin students with ASD. Each interview lasted from an hour and a half to two hours and was tape-recorded. The following table presents the demographic background of the participants of the study.

D C :		A 1 * *			D 1	
Profession	Education	Academic institute	Gender M=men W=women	Number of years of working with ASD	Residence U=Unrecognized settlements R=Recognized settlements	
					5000000000	
Principal	M.A		University	М		R
Consultant	M.A		University	М		U
Doctor	Ph.D		University	М		U
Psychologist	M.A		University	М		U
Therapist	M.A		University	М		U
Therapist	M.A		University	М		R
Educator	B.A		College	М		U
Educator	B.A		College	М		U
Educator	B.A		College	М		U
Educator	B.A		College	М		R
Educator	M.A		University	W		R
Educator	B.A		University	W		U
Educator	M.A		University	М		U
Educator	M.A		University	W		U
Educator	M.A		University	W		U
Educator	M.A		University	М		R
Educator	B.A		University	М		U
Social worker	M.A		University	W		U
Social worker						U
Social worker	B.A		University	W		R
	B.A		University	W		R

Table 1. The demographic background of the study participants

The interview began with a request for demographic background on the interviewees and a signature on an informed consent form. The interviews were conducted by one man and one woman who are special education experts from the Bedouin community and were trained to use the interview guide to facilitate a conversation, while allowing for flexibility in order to let participants raise issues of interest and ask clarifying questions. The interview relied on four types of questions, descriptive, structured (Spradley, 1979), focuse and exploratory (see Table 2- Interview questions).

Finally, the codebook was sent to all of the participants for feedback.

Table 2. Interview questions

Focus/Centers question	Do you think that there are intervention strategies compatible with the Bedouin culture, and if so, what are they?
Exploratory question (expanding knowledge of phenomenon)	Were there occasions when you made use of intervention strategies compatible with the Bedouin community? Explain to me why you used them? What led you to use these strategies?
Descriptive questions (account of experience)	Describe to me the way/s that you work with the Bedouin parents of children with ASD? Tell me about cases where your methods were effective in working with the parents?
Structured questions	In what cases, do you think, other experts working in the Bedouin community use culture appropriate/compatible strategies?
1	In your opinion, what are the reasons that affect the choice to use intervention strategies that are culture compatible?

Data analysis

The process of data analysis included the following steps: inscribing the recorded ethnographic interviews transcribed verbatim (Spradley, 1979) and thematic analysis aimed at identifying common intervention strategies, as well as the assumptions that those strategies are based on. The thematic analysis of the interviews was done by the author using familiarization, highlights and techniques for writing memos/notes (Burnard, 1991). Familiarization involves repeated listening to recordings, transcript readings and documentation of first impressions. Atlas software was used for data management and organization of transliterations of the interviews, which were condensed in relation to explanations of social and cultural beliefs/issues and in reference to raising children with ASD. In the process of generalizing the themes, the author carefully followed coding practices (Berges, 2004) that reflect the main message of the data while maintaining study-participants' original wording as much as possible. Then, the author created a codebook describing the most salient themes and conducted a theme analysis of data using two strategies: coding and analytical memos (Charmaz, 2006).

To ensure rigourous methodological soundness in this study, trustworthiness was established (Creswell, 1998) This included; a) prolonged engagement -the interviewers have considerable

experience working with ASD children and their families. b) peer debriefing- numerous formal and informal discussions were held to examin ideas and possible preconceived notions among the author and two interviewer.c) member checking- emerginh strategy were presented and reviewed by another qualitative researcher in order to explore the viability of emerging findings. d) apperent validedy- the codebook was discussed among the research team, which included the author and the two interviewers. Then the codebook was sent to the interviewees, who were asked to indicate to what extent the formulation reflected what they had reported in the interviews and allowed the participants to immediately provide feedback on initial interpretations (Patton, 2002). Corrections were based on the interviewees' comments, which enabled researchers to assign titles for each strategy and underlying assumption, so they could be presented to the professionals for a second opinion. The final list of 11 culturally based intervention strategies were identified based on, and tailored to, the Bedouin community and culture.

Results

The intervention strategies will be presented the strategies with reference to three pieces of information: a) the title given to the strategy, b) the purpose of the strategy, and the c) underlying premise of the strategy (Manor-Binyamini, 2014).

Strategy 1 - recruiting social support for the diagnosis and treatment of the child with ASD.

The purpose of this strategy was recruiting support from the closest social environment (the in group) of the parents for the child's diagnosis and involving them in the intervention plans.

The underlying premise of the strategy was that the Bedouin society in the Negev is characterized by strong cultural context and a collective commitment over equality and individualism, the promotion of the common good over the individual, and social stability. Therefore, the individual is continuously dependent on his extended family, which provides him with reassurance and support at the level of everyday interactions, helps him cope with his problems and shapes his relationship with the group. In return, the individual is committed to accept the traditional norms and favoring the common good over his own personal wishes. As psychologist says:

"in order for us to diagnose and treat the child, we first need the support of the parents' extended family".

Strategy 2 - respect for faith in God as the source of coping

The purpose of this strategy was to give strength to the parents in dealing with the child with and tending to his needs in a way that respects the belief that what is happening is God's will.

The underlying premise of the strategy was that according to the Islamic religion, everything happens according to God's will, man's destiny is fixed, God dictates it from the moment of birth, and man cannot avoid his fate. People are helpless in the face of "El mactob" (God's will and plans). In the Bedouin community, the predominant belief is that God controls people's destinies. It is a worldview that considers the situation as a "decree of fate." According to this view, God is the source of power and strength, which he then decrees to the individual person. He is the one that helps and assists individuals in obtaining their

wishes. He decides, he gives and takes away, and the role of humans is to get closer to him and ask for his help. Holding a belief in the existence of God is in itself a source of strength.

educator: "the religious context is an important factor in analyzing problems and solving them, so I use it as such".

The social worker added: "When I see that the parents are struggling to cope, I lead/initiate a religious discourse, sometimes at the level of the singular parent and sometimes at the level of the entire settlement or the neighborhood where the parent lives; I immobilize them. Once I had asked the Imam to give a sermon on Saturday about..."

Strategy 3 - matching the professional terms to the commonly used cultural terms.

The purpose of this strategy was to use terms that the parents would be able to understand. For example, the term autism is a Western concept, which is not well known or clear to parents in the community.

The underlying premise of the strategy was the reformulation of problems and difficulties and needs into culturally familiar terms or expressions, complete with examples that are intended to make the problem, which is initially professionally defined, accessible to the parents and their world view in order to help them solve the problem, even though they do not know the technical terms and are not exposed to the professional aspect of the situation.

The educator remarked: "I replace the terms that I learned in university with other terms; I never say "ASD". I can speak about it in such a way that is closer to their world view, and when I do, we can all understand". Are: "the use of professional terms creates alienation between the parent and myself; it moves them away from me".

Strategy 4 - prevention of conflicts surrounding the issue of the diagnosis and treatment of children with autism.

The purpose of this strategy was preserving the peace in the household, moving away from confrontation and friction between the two parties in the event of conflict surrounding the diagnosis or treatments or educational framework and making an attempt to reach a compromise.

The underlying premise of the strategy was that tensions within the society are permitted as long as they do not harm the overall sense of social cohesion. Any harm to social cohesion will upset the balance of the society, threaten the very existence of that balance, and lead to the division and separation among the people. It is therefore important to maintain social harmony throughmosiara. Mosiara is a value, as well as a way of life, in which the person tries to meet the expectations of others.

In a collective-authoritarian society, mosiara is a social means of avoiding confrontations and maintaining support and good relations. As reported by

The educator noted: "It's true that it is necessary, we must diagnose the child, but if it leads to conflict among the people in the tribe, even if the parent is right, it can hurt and do some damage and that doesn't lead anywhere... conflict only begets more stress and other complications, and sometimes it can lead to the decision to socially alienate someone, and no parent ever wants to experience social ostracism... Concession isn't a weakness, it is a strength and power. Everybody

takes a step back and avoids confrontations until things calmed down, and then they can find solutions from a less loaded place."

For example: choosing whether to send the child to a Jewish or a Bedouin school is considered in the collective Bedouin culture to be a collective issue and not the personal issue that it is in Western cultures in which it is an issue of laws and placement (referring specifically to sending the child to a special education Jewish school, instead of a Bedouin school). The Bedouin culture also affects the kind of help that people seek, with Bedouins preferring to ask their families for help instead of seeking formal professional help.

Strategy 5 - recruiting the parents for the evaluation/diagnosis procedure

The purpose of this strategy was conducting a diagnostic procedure in order to see if the child has autism.

The underlying premise of the strategy was that there is low awareness on the part of Bedouin parents of the importance of the diagnostic process as a means of fully utilizing the legal rights that the child deserves for his treatment. As social worker said:

"I always mediated to the parents, in a sensitive way, that the process of evaluation, placement and absorption of their child at school is a prerequisite for receiving the disability payments and recognition of the child's condition in various government programs... for instance, I draw a connection between the process of receiving a reduction in their municipal tax and other issues that have to do with the local authority, provided that their child is officially diagnosed and is learning in a special education school."

Strategy 6 -getting consent for the intervention or treatment from the local leadership.

The purpose of this strategy was getting the consent of the local leadership, the tribal leaders, for providing treatment or constructing an intervention plan such as an IEP (Individual Education Program) for the child's needs.

The underlying premise of the strategy was that in Bedouin society, the culture is used as a source of guidance and inspiration throughout the treatment process. Therefore, the process of treatment and intervention for the child requires the consent of the community leaders. Social consent is an important value for the existence and continuation of the Bedouin society, especially in the obedience to the respected community elders, who are the ones that protect the heritage values and hold the responsibility for the harmony in the community. Harming the general agreement means breaking the fundamental conventions of society, undermining the future of the community and the framework which provides a sense of belonging, identity, security, protection and support. It is therefore important to get consent for any intervention program in the community. A solution within the community would receive a measure of agreement and maintain the dignity and status of the distinguished community elders. As Achmad-school principal says: "Why should I involve the supervisor when I can reach a consensus and a good result by appealing to the community...".Asad-educator says:"many times, I turn to the people of the community and ask for their help".

Iad social worker claimed: "the community elders are very well respected, they have a great deal of experience, they have been through many things, they are older, I see them as a source of

power, and I appeal to them whenever I am struggling with a difficult issue... in cases when the child is in distress, when the parents will not consent to the treatment that the child needs... when there is a deterioration in the child's condition... I always look for a way to work from the inside."

Strategy 7 - working on a cognitive level, with no emotional expression.

The purpose of this strategy was to obtain the cooperation of the parents.

The underlying premise of the strategy was that for the Bedouin parent, like most people in that community, it is difficult to reveal their feelings to anyone outside their family because the person who exposes their feelings might be perceived as weak. As the psychologist described:

"I work in both a Jewish school and a school in the Bedouin community. There is something that is so prominent - Bedouin separate their thoughts and their feelings. If they show their emotions, it is considered a weakness... They also don't know how to express emotions... I see mothers who don't hug their children, don't kiss them..."

Strategy 8 – "*El Sutra conceal or hide the diagnostic or receving treatment*

The purpose of this strategy was promoting the treatment of the child and addressing the child's needs.

The underlying premise of the strategy was that "El Sutra" is a metaphor, which in the Arabic language means to conceal, to hide, to cover up, or to ensconce. One main issue relating to the concept of "El Sutra" was presented, mirroring to the parents that the child's diagnostic process was carried out in complete confidence. As suggested by the therapist :

"Our society punishes and sanctions those who choose to act against the social and cultural conventions... if anyone knew that a child has been diagnosed or is receiving treatment from a Jewish facility, without the consent of the tribal elders, they would punish the parents..."

Strategy 9 - Use cultural adjustments such as a traditional look, a neutral professional who speaks Arabic.

The purpose of this strategy was relieving suspicion and building trust with the parents/families.

The underlying premise of the strategy was that in the Bedouin culture, there is suspicion and mistrust of strangers, and there are questions about their ability to understand and contribute to the people in this culture.

When parents in the Bedouin community (especially from the unrecognized settlements), meet with professionals, the parents feel suspicion and fear on the part of the families that someone may want to harm the child or the family. The educator explained:

"The common statement by the parents, the first time you meet with them, is: Why do you come here and offer us help? It is obvious that you have your own agenda, how did you get here? The first thing I do is to remove objections and build trust."

Professionals described different strategies that they use in order to allay the concerns of the families. For example, the psychologist stated:

"This is a traditional and conservative population, so I always, but always wear a headscarf covering my hair; that creates an initial, nonverbal connection. I make sure to dress in accordance with the existing rules in the community; I really love the color red, but I never wear anything red when I come to see the family. It's flashy, it jumps out at them. You know what the meaning of red is? It's considered sexy, cheap..."

The educato explainedr: "I will take a doctor with me, a doctor is perceived by the Bedouins as neutral, and we will always speak in Arabic."

Strategy 10- Be flexible in your reference the concept of time.

The purpose of this strategy was making sure that the parents are persistent in arriving to the diagnosis sessions, treatment and updating.

The underlying premise of the strategy was that Bedouin people have a broad and flexible understanding of the concept of time, and being late or delayed is part of the natural way of life in the Bedouin community. With reference to the concept of time, the Bedouin parent is more concerned with the present moment than with planning for the future, due to the difficulties of the family in making time because of the hardships of daily life and everyday survival (large families, economic hardship and accessibility difficulties).

As the therapist added: "...We have to understand that some of the parents will never come to the treatments on time.We set a date and time for one of the children to come to a parents' conference, and the parents did not come. I was so angry, I sat there and waited for them for nothing. I went home feeling very anxious... The next day I called the father, luckily he has a mobile phone;I tried to find out why they didn't come to the meeting that we set up for them. It turns out that they did come, they just arrived two hours after the time we set, but no one was there anymore to meet with them. The school was already closed. It turned out that they have to walk for an hour and a half to get to the nearest road in order to take the bus, and the bus comes just once an hour, and then they have a ten-minute walk from the station to the school, in short, by the time they arrived at the school, it was closed, and no one was here anymore. If I hadn't called and tried to find out what happened they probably would never even try to come again for another meeting."

Strategy 11 - readiness to provide immediate and practical responses.

The purpose of this strategy was to help parents help their children and offer them solutions to the problems that the children have to address.

The underlying premise of the strategy was that Bedouin families tend to have a large number of children. They are busy at work in addressing the basic needs of daily life for themselves and their children, like, for instance, bringing water from a distant location and bringing logs so they can cook and bake on their home furnace... as the educator claimed "that's why I finished all of my meetings with clear recommendations that are meant to be implemented... They see me as an expert who provides "recipes" and solutions, but these solutions must be such that produce immediate results; the work is always about being in the here and now, otherwise they won't consult with you again".

Any attempt to force an intervention program that combines future goals (such as the IEP), for example, may fail. Therefore, concrete and immediate solutions to their problems would be perceived as more effective and practical solutions than future-oriented solutions and solutions that ascribe more weight to the personal history of the individual or solutions with abstract goals. In summary, the table shows all of the strategies that were presented in the findings, along with a brief description of each strategy.

Table 3. Culture-based intervention strategies for working with Bedouin parents of

children with ASD

The strategy	A brief description of the strategy
Strategy 1 - recruiting social support for the diagnosis and treatment of the child with autism.	The individual in the Bedouin community is committed to the collective, and depends on his extended family, and for that reason, in order to diagnose a child in is important to garner the social support of his parents.
<i>Strategy 2</i> - respect for faith in God as the source of coping	According to Islam, things happen according to God's will, and therefore professionals consider the religious context an important factor in analyzing and solving problems, and make use of this aspect
<i>Strategy 3</i> - matching the professional terms to the commonly used cultural terms	The term "ASD" is a Western concept that is not familiar or understandable to the parents, and therefore professionals choose to formulate problems, difficulties and needs using familiar cultural terms.
<i>Strategy</i> 4 - prevention of conflicts surrounding the issue of the diagnosis and treatment of children with autism.	Tensions are allowed in the Bedouin community, as long as they do not harm the social cohesion of the community, and therefore professionals try to avoid confrontation when addressing the needs of the children.
<i>Strategy 5</i> - recruiting the parents for the evaluation/diagnosis procedure	Since the levels of awareness for the importance of diagnosing and treating the child with ASD is low in the Bedouin community. The professionals "recruited" the parents in a variety of ways, such as: using the diagnosis as a means of receiving the child's legal rights

Strategy 6 - getting consent for the intervention or treatment from the local leadership	The Bedouin culture, culture itself serves as the source of guidance and inspiration throughout the treatment, and therefore it is important to get the approval of the leaders of the tribe for the treatment
<i>Strategy 7</i> - working on a cognitive level, with no emotional expression.	It is difficult for parents in the Bedouin community, as it is for most people in that community, to express emotion, since expressing emotions is considered a weakness, and therefore professionals make sure to keep the work on a cognitive level, and also avoid expressing their own emotions
Strategy 8 –conceal or hide the diagnostic or receiving treatment	Maintaining confidentiality throughout the evaluation process, and sometimes the treatment as well
<i>Strategy 9</i> - Use cultural adjustments such as: a traditional look, a neutral professional who speaks Arabic.	Suspicion and distrust of strangers are parts of the Bedouin culture, and the parents are afraid to cause the child harm and therefore professionals use a variety of tools and adjustments in order to remove the parents' objections and establish trust with them
<i>Strategy</i> 10 – Be flexible in your reference to the concept of time	Bedouins have a broad and flexible approach to the concept of time. Delays are part of daily life, and the parents give greater weight to the present moment. Therefore, in order to keep the parents from pulling their child out of treatment, professionals are flexible with the concept of time
<i>Strategy</i> 11 - readiness to provide immediate and practical responses.	The fact that the parents are mostly concerned with their everyday needs, requires the professionals to understand that perspective, if they want the treatment to be successful by providing practical, everyday solutions for the parents

4. Discussion

The strategies presented in the findings section were developed within the Bedouin culture and in harmony with its values, and they were designed to usefully address situations where regular professional intervention strategies are insufficient or irrelevant. These strategies reflect the consideration of the professional of the connection between the individual and his extended family, and its place in his life (avoiding conflicts, concessions and avoidance of confrontation), taking into account the cultural values and the honor of the family (the El Sutra), taking into account the centrality of religion and an awareness of the impact of religion on the parents, while incorporating religious beliefs into the interventional process.

The social hierarchy and the status of the elders of the community are focal points of power that can assist in providing solutions for social problems, while using culturally relevant terms and expressions. It is also important to refer to the living conditions of this community (addressing the issue of time and providing im mediate and practical solutions). The intra-cultural strategies used by the Bedouin professional working in the Bedouin community increase his leverage to operate as an expert professional, allowing him to respond in a rational, relevant and useful way to the problems and needs of the parents and their children, according to their circumstances.

That is to say, these are strategies that can be used during the diagnosis and treatment processes in which the parents and the professionals belong to the same culture. Based on the findings in this study, it can be assumed that it is possible to identify intra-cultural intervention strategies for each individual culture.

Culturally sensitive research has been receiving considerable interest in recent years (Neely-Barnes & Dia, 2008) however, most of the literature that focuses on parents' coping with children with disabilities refers to Western societies, and only a very few studies examine minority groups (Raghavan & Small, 2004) and non - Western societies (Samadi , McConkey, & Bunting, 2014). The attempt to instill Western theories and practices on non-Western cultures has met with failure, when the intra-cultural implications of the disability were not taken into account (Coleridge, 2000). The existing psychosocial models for cultural are reference challenged and re-evaluated. For example, the ethnic sensitivity model (Iglehart & Becerra, 2007) and Cultural Competence model (Johnson & Munch, 2009). These models have evolved from a reality in which the cultural array of the investigator was different than the culture system of the subjects.

One of the arguments against these models comes from the diversity debate, which deals with the lack of any real dialogue between the dominant Western culture, and *"other"* cultures. The importance of this discussion is even more pronounced in the field of research, and interventions in collective cultural for which western values of individualism, heterogeneity and independence may threaten the dependence, homogeneity and sense of belonging, that the members of collective society strive to strengthen and preserve (Dwairy, 2006).

This study recognized research based intervention strategies that are based on the Bedouin culture that special education professionals can apply in their work with parents. The process of conceptualization of strategies was done in a systematic manner. Therefore, the insights

and research methods that this article offers may also be relevant to other communities traditional, indigenous and otherwise. The conceptualization and methods of this study may be appropriate for studies among other cultural groups around the world and in comparisons that aim to refine the differences between different cultural groups, as well as with clarifying the similarities between them. This recommendation is particularly important in the current era, with its trend of understanding and respecting the importance of cultural diversity or multiculturalism.

Specifically, the procedure of the ethnographic interviews and thematic analysis. Beyond being a method for this study, may be a method for implementing cultural adjustments, regarding interventions in communities or disciplines/professionals from different fields of expertise. In this way, professionals and adjustments for interventions in non-Western societies will benefit from the professionals being like the interviewers interviwers are learners (Wax, 1960). This is an important point of view for learning about cultures because when cultural variables are considered within the design of treatment, the benefit of an intervention to specific groups increases (Bernal et al. 2009) also, the study combined of Emic and Etic Perspectives. Emic "insider" as opposed to etic "outsider" perspectives. The interviewers have an emic perspective as do the interviewed, while the author has an etic perspective in addition there was a request for feedback from informants (Denzin & Lincolne, 1998). Insider that act olso as an informant and as a guide and translator of cultural norms, and at times, jargon or language (Denzin & Lincoln, 1998). The combining of the two perspectives allows for the "ability to negotiate cultural meaning and to execute communicative efficient responses, with an acceptable grade of comprehension for interlocutors" (Rodrigo, 1997, pp. 13-14). This would permit the development of appropriate and effective intervention. Additionally, The first step of conducting a cultural adaptation involves as examination of the cultural assumptions of an intervention . content analysis with clear operationalizations of hypothesized cultural variables can be used to assess cultural values.

Conclusion

This study was qualitative, as such generalizable were not collected. The aim was to explore the culture-based intervention strategies from an Emic Bedouin professional perspective. Interviewing Bedouin parents of children with ASD may provide a complementing point of view to that of the professionals and reveal effective intervention strategies from the perspective of the parents.

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Pedagogy of New Materialism: Advancing the Educational Inclusion Agenda for Children and Youth with Disabilities

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Abstract

In advancing educational inclusion efforts this critical position paper makes explicit the relevance of new materialism as a pedagogy to counter the dominant special education models in Canadian and Australian school contexts. This paper argues the implementation of special education policies and programs do not adequately address the complexity of children and young people with disabilities experiences. New materialism as a form of pedagogy however can prioritize learners with disabilities embodied, relational connections to school and destabilize highly medicalized functional pedagogical approaches. The material turn in schools is a

welcoming pedagogical framework that places the material body and the emergent learner at the center of our practice.

Keywords: *disability, new materialism, pedagogy, inclusion, special education, young people, lived experience,*

Introduction:

Whilst Canadian and Australian educational policies and discourse have arguably been at the forefront of emphasizing inclusion of young people with disabilities across the globe, medicalized and functional capabilities continue to underpin everyday educational pedagogies. In particular, children and youth with disabilities in Canada and Australia continue to experience their education under special education models that position professionals to think predominantly about their functional abilities relative to normative curriculum standards. Their pedagogical encounters are therefore fraught with assessment, identification of needs and specialized accommodations and interventions. Explicitly, pedagogy in Canadian and Australian contexts are aligned with Pearsall's (1999) definition of pedagogy, "theory and instruction of teaching and learning" (p. 1051) rather than a pedagogy understood as "the experience of the corporeality of the body's time and space when it is in the midst of learning" (Ellsworth, 2005, p.4). The problem with a medicalized functional pedagogy when working with children with disabilities is that it does not attend to their embodied negotiations with school rather the primary focus is on assessing their deficits and creating separate individualized programming to meet universalized standards. In this paper, we argue there is a requirement to push further and find new, creative pedagogical tools to support young people with disabilities in Canadian and Australian schools.

Specifically, our aim is to unsettle static special education models and give increased attentiveness to learners' mediated actions in school. To ask: Are there new ways to engage children with disabilities in school beyond standardized special education models? Are there pedagogical approaches that allow for increased voice, creativity and active engagement in their learning? The primary aim of this paper; therefore, is to draw educators' and practitioners' attention to more liberating pedagogical approaches and think outside of fixed bounded programming when working with children and youth with disabilities. Our rationale for examining the usefulness of new materialism as a form of pedagogy in Australian and Canadian school settings is based on our own situated knowledge within these countries as educators and the requirement to push on and advance new ways of thinking when working with children with disabilities. The relevance of advancing new materialism as a form of pedagogy is evidenced after reviewing current Canadian and Australian inclusive policies and programs. We will commence with a succinct review of Canadian policy followed with a review of how inclusion is framed in Australian public schools. It is important to note that in Canada there is no national office of education as it is a provincial authority.

Inclusion in Canadian and Australian School Context

When analyzing provincially governed Canadian inclusive policies and documents inclusive delivery is similar across provinces as the majority of provinces implement a special

education model (McBride, 2013). That is, "under these authorities, all jurisdictions in Canada either require or recommend that an individual program be designed and implemented for students identified as having special needs" (McBride, 2013, p. 5). The commonalities include an assessment and the identification of needs, development of an individual program plan with suitable accommodations and the assigning of educators to deliver the separate special education curriculum to the child with a disability. For example, Nova Scotia Special Education Policy (2008) explains the importance of assessing a child's level of functionality before administering educational programming. Through employing a collaborative team approach, the aim is to locate special intervention strategies to support children with "special needs" in meeting universalized curriculum outcomes. We see similar special education policies in other provinces, such as: British Columbia, Saskatchewan, Alberta, Ontario, Prince Edward Island and Ouebec that also follow early identification, assessment, adaptive design and remediation models when working with students with disabilities. For instance, Ontario's Standards for School Boards' Special Education Plans (2000) states schools "must have in place procedures to identify each child's level of development, learning abilities, and needs", and they must "ensure that educational programs are designed to accommodate these needs and to facilitate each child's growth and development" (p.6). In Alberta, the government's Standards for the Provision of Early Childhood Special Education (2006) identifies that "through early intervention strategies" young children can "develop knowledge, skills and attitudes that prepare them for later Whilst these provincial policies are in place, what is not clear is the *learning*" (pg.2). effectiveness of programs in fully supporting children and youth with disabilities inclusive experiences in Canadian educational settings (McBride, 2013). In particular, there is a paucity of research that explores the relevance of more embodied forms of programming that consider children's affinity to all things beyond universalized curriculum and human centered practice.

Within Australia, national Disability Standards of Education (2005) advocate

"enrolment, educational treatment and participation on the same basis as a prospective student without a disability" (p.12, emphasis in original). However, within state jurisdictional levels, special educational policies emphasize adjustments and interventions to address predominant medicalized and deficit notions of disability for these young people to participate in mainstream education. For example, Department for Education and Child Development *(DECD)* Students with Disability policy defines disability as;

The total or partial loss of the person's bodily or mental functions, or of a part of the body, the presence in the body of organisms causing disease or illness, or the malfunction, malformation, or disfigurement of a part of the person or body. A disability includes a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction, or a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment, or that results in disturbed behaviour. It includes a disability that presently exists, or previously existed but no longer exists, or may exist in the future, or is imputed to a person (DECD, 2014, p.9).

In 2008, Australia introduced its first official national Australian Curriculum which was challenged in a commissioned review by Donnelly & Wiltshire (Australian Government, 2014) to increase access for students with disability (Price, 2017). Subsequent curriculum development has committed to "*meet the needs of all students, regardless of their circumstances, progress in learning or the type or location of school they attend, putting in place measures to reinforce every student's entitlement to rigorous, relevant and engaging learning experiences*" (ACARA, Student Diversity and the Australian Curriculum, 2013, p.6). However, when enacting the curriculum, adjustments to curriculum, instruction and environment continue to be emphasised as central to ensure equity of access to the Australian Curriculum for students with disabilities (Price, 2017).

Whilst Canadian and Australian governments have advocated for rights-based inclusive policies and practices, such as: equal educational access, full membership, and engagement in both academic and extra-curricular programming the enactment of such policies continue to regulate how young people with disabilities experience school. Explicitly, these policies situate learners with disabilities as particular kinds of subjects in school (the special needs student, the child in 'need of intervention'). Critical disability scholars have problematized special education models and acknowledge how these medicalized frameworks place too much emphasis on children and youth's functional aptitude with a lack of attendance to the wider dimensions of their lives (See Canella, 2005; Corker & Shakespeare, 2002; Goodley, 2014; Goodley, Hughes & Davis, 2012; Reddington & Price, 2016; Reddington, 2017; Scully, 2002; Slee, 2001; Underwood, 2008). As Corker and Shakespeare (2002) explain it is the strong emphasis placed on a child's functionality relative to their medical signifiers that "seek[s] to explain disability universally and end[s] up creating totalizing, meta-historical narratives that exclude important dimensions of individual lives, abilities and of their knowledge" (p. 15). As such, the categorical definitions of disability continue to be problematic producing an ability/disability educational system that marks difference and informs our ideas about disability and normality (Garland-Thomson, 2002). This is strongly evident after examining special education policies in Canada and Australia where the documents prioritize the remediation of bodily difference. This paper advances the argument to engage in alternative pedagogical approaches, namely the application of new materialism to unsettle essentialist special education models and acknowledge the situated capacities diverse learners can make in school contexts. Specifically, we argue the requirement to disrupt functional knowledges grounded in medical discourses and to push the boundaries. To do this, we suggest new materialism as a form of pedagogy as it values and recognizes the intersections children and youth with disabilities make to all things; both human and nonhuman elements.

New materialism as a form of pedagogy that focuses on the relational dimensions of individual experience in school can transgress representational knowledges on children and youth with disabilities. An emphasis on the relational dimensions of human-nonhuman encounters is what Barad (2007) describes as *intra-action*, the mutual engagement bodies can make to all matter. That is, intra-activity formulates alternative insights; a "*way of understanding the world from within and as a part of it*" (Barad, 2003, p. 88). As Hickey Moody, Palmer and Sayers (2016) similarly suggest "*[m] atter teaches us [to resist] dominant discourses and [show] new ways of being*" (p. 220). Rosi Braidotti (2013) also explains how productive the new materialist turn can be to unsettle dualisms (i.e. able/disable, normal/special) and increasingly think about people's lives through open systems. Here, we argue that new materialism as a form

of pedagogy can disrupt special education models that place too much on remediating bodily difference and alternatively produce new ways of knowing how children and youth with disabilities engage in school. New materialism "conceive[s] of matter or the body as having a peculiar and distinctive kind of agency, one that is neither a direct nor an incidental outgrowth of human intentionality but rather one with its own impetus and trajectory" (Frost, 2011, p. 70). As Hickey Moody et al. (2016) also state, new materialism is a "profound movement beyond a Cartesian mind-body dualism ... shifts to a 'between' located in, with, and through the body" (p. 216, emphasis in original). Further, Coole and Frost (2010) recognize how new materialism can shift human understanding beyond the universal subject and think through possibilities on young people's lives. Such a shift in Canadian and Australian inclusive deliver produces an opportunity to change the way educators and practitioners think about subjectivity; "blurr[ing] categorical distinctions" between nature and culture, mind and matter (Braidotti, 2006, p. 200).

We begin this paper with attendance to the crisis of representation to raise questions about human centered approaches since educational settings have a *"long history of representational logic"* (Olsson, 2009, p. xvi). Our attendance to the crisis of representation at the onset ignites an initial space to critique dominant modes of representation and shape a conversation on how new materialism can challenge linear, humanistic approaches to pedagogical inclusive delivery. After exploring the crisis of representation, we will outline how new materialism has been applied in education to produce different understandings on individual experience. Distinctly, a kind of materialism that focuses on bodily engagement with all kinds of matter as suggested by Donna Haraway (1991), Karen Barad (2003, 2007), and Elizabeth Grosz (1994, 2005).

The Crisis of Representation

St. Pierre and Pillow (2000) frame the disruption of human centered approaches in education as attending to the crisis of representation or what they call, "working the ruins". Thus, St. Pierre and Pillow encourage educators to keep bodily thinking unstable, fluid, and open. Pillow (2000) identifies "working the ruins" to include a focus on the body. To ask: What happens when paying attention to the emergent body? How does it change what we look at, how we look, what we ask, and what we choose to represent? Pillow (2000) equipped with critical, postmodern, feminist and qualitative research methods identified the intricate dimensions of research when embarking on a study of human experience. Pillow explained how she entered ready for the rigors of research, yet found herself unprepared for the "utter physicality" of the research process when studying girls' experiences with teenage pregnancy (p. 200, emphasis in original). Part of the complexity for Pillow was how to write about the girls' accounts when individual experience was "varied and complex" (p. 200). She described how her body was held in tension not wanting to "simplify" their experiences with pregnancy or claim some "essentialized identity related to the female body" (Pillow, 2000, p. 200). After reading Pillow's accounts, we were challenged with questions surrounding our own inclusive pedagogical practices in Canada and Australia and desired a space in education where individuals' bodily capacities were prioritized. We too felt the crisis of representation as educators and felt constrained by special education policies and frameworks that limit our own capacities to account for the wider dimensions of children and youth experiences.

We started to question, 'what might a new materialist pedagogical approach look like when our educational programming and policies are heavily governed through separate special education policies?' 'How do we destabilize the dominant medical models that ground Canadian and Australian inclusive design?' 'How do we stop ourselves from slipping back into conventional approaches when thinking about children and youth with disabilities in school?' In raising these questions, we turned to explore how educators recently have destabilized conventional pedagogical approaches and in turn, followed young people's mediated experiences. We located post-structural scholars who are interested in thinking about the intricate connections individuals make to all things beyond human centered positions.

We found ourselves exploring the works of Deleuze and Guattari (1987), Leander & Boldt (2012), Hultman and Lenz-Taguchi (2010), O'Donnell (2013), Reddington and Price (2016; 2017) and Reddington (2017). This body of work puts forth the vitality and relevance of why a new materialist pedagogical approach can destabilize static special education design currently used in many Canadian and Australian public schools and rethink how children and youth with disabilities are known. As Hickey Moody et al. (2016) reiterate "pedagogy can be conceived as an open, continuously created and recreated process that is specific to intra-actions of difference, not grounded in existing knowledges that attempt to equalize, normalize or fall back on traditions of established values, concepts and practices" (p. 15).

New Materialism in Education:

Hultman and Lenz-Taguchi (2010) applied new materialism to examine the closeness and association young children made to matter when attending a preschool in Sweden. To do this, they set out to see and think differently about two photographic images taken in a Swedish preschool playground. The emphasis of their inquiry was to focus on the non-human forces that inform the children's learning. At the onset, Hultman and Lenz Taguchi describe the tension they felt at first glances of the images as they too felt the crisis of representation. The humanistic approaches to education dominated their initial ways of thinking. "The children seemed to have a magnetic power over our gazes; they stood out from the background and seemed to rise above the material environment" (p. 525). Hultman and Lenz-Taguchi then remarked on the dominance of embedded human centered approaches to education and how it continued to blur their capacities and ways of seeing the child even though they were highly theoretically informed on new materialism and contemporary frameworks in early childhood settings. "As feminist researchers, our awareness of what can be understood as an *anthropocentric* gaze, a gaze that puts humans above other matter in reality, that is, a kind of human supremacy or humancentrism, became even more problematic to us" (2010, p. 526, emphasis in original). In wanting to disrupt anthropocentric thinking, Hultman and Lenz-Taguchi decided to mobilize what they called *relational materialism* to ignite attention to the human-nonhuman encounters the preschool children made to their environments; with a keen interest in exploring the mutual intersections they made to all matter. Relational materialism is understood as "a space in which non-human forces are equally at play and work as constitutive factors in children's learning and becomings" (Hultman & Lenz-Taguchi, 2010 p. 527).

For example, when exploring one image of a girl in sandbox, the initial anthropocentric gaze shows the girl and the sandbox as two separate entities. The sandbox merely a backdrop to the girl, a "subject/object" divide (Hultman & Lenz-Taguchi, 2010, p.527). Yet, when they put

forth their new materialist approach and asked, "What happens if we look at the image thinking that not only humans can be thought upon as active and agentic, but also *non*-human and matter can be granted 'agency'?" they could actively destabilize the separation of girl and sandbox and see them as mutually engaged (p. 527, emphasis in original). Hultman and Lenz-Taguchi discovered that the sand offered new possibilities when viewed as an effect of mutual engagement. The relation between sand and the girl (metaphorically) can postulate questions to each other and locate an active, emergent relation with one another.

[*T*]*he sand and the girl, as bodies and matter of forces of different intensities and speed, fold around each other and overlap, in the event of the sand falling, hand opening... the falling movement of the glittering sand into the red bucket. (Hultman & Lenz-Taguchi, 2010, p. 530)*

Through a relational materialist approach the sand is understood as emergent and actively interconnected with the girl just as much as the girl plays with the sand. "Human and non-human bodies can thus be thought upon as forces that overlap and relate to each other" (Hultman & Lenz-Taguchi, 2010, p. 529). Their body of work draws attention to the importance of tracking children's attraction to all things as many children and youth with disabilities are affectively drawn to nonhuman forms of matter (Reddington & Price, 2016; Reddington & Price, 2017). We suggest Hultman and Lenz-Taguhi's relational materialism, including the use of images are a productive tool to show children's intersubjectivity with matter in educational settings, that everything is not human-to-human focused. Empowering students with disabilities as visual ethnographers has been found to highlight their interrelatedness with space and place to enhance "opportunities for learning, interactions, safety and happiness" (Price, 2016, p.67). Leander and Boldt (2012) similarly have centered attention on children's emergent actions with other things when offering a nonrepresentational reading of two young boys' experiences with literacy. Their analysis of the boys' active intersections when reading and playing with Japanese manga.

At one point they [the two boys] carried their books, costume accessories, and weapon outdoors and sat reading in a porch swing. With no spoken planning, Lee stood up, grabbed a sword, and began swinging it at Hunter. Hunter dropped his book and picked up a sword, and for the next several minutes the battle moved between the porch and the front yard, with the porch steps offering a vantage point from which to make leaping lunges at one another" (Leander & Boldt, 2012, p.27).

Leander and Boldt's attentiveness to the boys' movements, "*[lives] in the ongoing present*" addresses how children can be thought of differently outside static forms of representation (p.22). Here, the concept of movement, the entanglement of play with Japanese manga, supports the process of thinking through bodily capacities where a more active, ontological space is prioritized.

Our goal with the nonrepresentational rereading is to reassert the sensations and movements of the body in the moment by moment unfolding or emergence of activity... This nonrepresentational approach describes literacy activity as not projected toward some textual end point, but as living its life in the ongoing present, forming relations and connections across signs, objects, and bodies in often unexpected ways. Such activity is saturated with affect and emotion; it creates and is fed by an ongoing series of affective intensities that are different from the rational control of meanings and forms (Leander & Boldt, 2012, p.25, 26).

Leander and Boldt argue that if we begin with the body rather than with texts our attention turns elsewhere. This work is useful in demonstrating the relevance of new materialism as a form of pedagogy as it makes a shift to think about children's literacy competencies outside functional education models. In Canada, taking an alternative pedagogical lens on literacy is important as educational systems continue to assess children's levels of literacy through universalized literacy assessment tests. For example, in Nova Scotia, children are administered formal literacy assessment exams at grade three, six and eight. As well, the Nova Scotia Department of Education and Early Childhood Development (2016) has implemented a literacy strategy and states, "we believe assessments in 2020 will show measurable success with students performing at or above the expectations in reading and writing" (p.3). This returns to thinking conventionally about literacy with young learners rather than locating their active, situated affinities to text like those adopted by Leander and Boldt. This notion of following young learners' emergent relations to texts through movement and physical engagement with learning materials and seeing what matters to children is further evidenced in O'Donnell's work.

O'Donnell (2013) identified how problematic it has been for children and youth when educators predominantly focus on "performance indicators for behaviour change" and use a "skills-based" approach to measure and assess social competence (p.265). O'Donnell's (2013) argument to value and recognize children's subtle pedagogical relations in school, whereby "some of the most significant moments in education can arise from chance occurrences" warrants greater attention in Canadian and Australian school contexts (p. 266).

[The] simple act of noticing and seeing a sense of possibility in those unpredictable moments (kairos) that arise in classrooms, such as a gleam of insight or a frown crossing a student's face, better positions the teacher to help students to work through a genuine pedagogical encounter with a subject (O'Donnell, 2013, p.267 emphasis in original).

O'Donnell (2013) attendance to children's potential shows us that we do not know what children and youth will form connections to; and therefore, we must remain open to the situational elements within pedagogical encounters.

Education requires a heterogeneous milieu, but what will create this heterogeneity cannot be prescribed in advance. The atmosphere of education supports (or destroys) the capacity to receive the unpredictable and to invite surprise, allowing us as teachers and students to undergo the event of a pedagogical encounter. Cultivating the disposition to welcome and take care of the singularity of the other helps to conserve such an atmosphere. As educational practitioners, part of our role is to prepare this invisible terrain in order to facilitate the possibility of an event or an encounter that will lead to transformation (O'Donnell, 2013, p.281).

The transformative accounts highlighted in O'Donnell's work illuminates the importance of focusing on children's active movements and engagement with all matter. In Canadian and Australian contexts, a transformative recognition of children and youth with disabilities actions could signal a reworking of the special education model that currently places limits on how they

are known. The South Australian DECD Special Education Policy acknowledges the important influence of the learning environment stating, *"in seeking to provide for all children and students and in complying with the Standards DECD acknowledges that amongst other matters the degree to which a disability affects a child or student's learning depends on the learning environment and the child or student's ability to interact with that environment"* (DECD, 2014, p.4). We argue however that whilst policy discourse of making reasonable adjustments and interventions to provide access to learning environments, the focus should begin with the child and young people's movements and embodied experiences interconnected with matter.

In aiming to transform educational recognition of children and youth with disabilities, we turn now to explore the work of Reddington and Price (2016) who offer a productive example of new materialism in education. Their research applies Donna Haraway's (1991) readings of cyborg configurations to explore one young man with autism spectrum (AS) connections to cyborg imagery. In particular, their research demonstrates how a person with AS can successfully employ cyborg imagery to "rearticulate his social identity when experiencing school on the periphery" (p. 882). Through cyborg imagery, they demonstrate his intuitiveness to counter deficit thinking and utilize his material alliance with cyborg figures to disrupt his marginalized status in school. Specifically, the young man, Arthur, created a partial cyborg identity, named Silver Ninja Viper, as a mechanism to renegotiate his subjectivity in school. As a cyborg figure Arthur could perform "like a *ninja*" and act like a bit of a "*tough guy*" (p. 889, emphasis added).

Digital robotic voiceover software gives Arthur a space to assign lived qualities to his cyborg ninja, heightening his appeal to exist as partial cyborg. Arthur's cyborg writing similarly amplifies his capacity to exist in alternative ways which he activates across an 18 module [comic] series on ninja's life. Arthur working as partial cyborg, rewrite[s] his social trajectory via ninja [and] offers that social space to evade static configurations that previously deemed his body as marginalized, peripheral. (p. 889)

Reddington and Price (2016) later highlight how Arthur's partial cyborg identity, Silver Ninja Viper, transformed into a blue Dodge Viper GTS. "Arthur's cyborg performs like a Transformer with ninja moving at high speeds, battling forces both with real world (Earth) and fictional worlds" ... "thus, Silver Ninja Viper acting as lead, masculine hero provided Arthur with the opportunity to revitalize his social world" (p. 889, 890). Reddington and Price's research is important as it shows how new materialism can destabilize universal notions of disability experience and envision the body as "multiple, filled with diverse connections; not a bounded [medicalized] subject" (p. 890). The works of Deleuze and Guattari (1987) in A Thousand Plateaus: Capitalism and Schizophrenia (ATP) also offer some productive conceptual tools to foster a new materialist pedagogical framework in schools. Their concept of rhizomes can pursue a line of thought in education that looks to extend and prioritize attendance to children and youth's infinite potential.

Deleuze and Guattari (1987) describe rhizomes as a type of plant spreading in multiple directions with no centralized root. "The rhizome operates by variation, expansion, conquest, capture, offshoots ... the rhizome is acentered, non-hierarchical, nonsignifying system without a General and without and organizing memory or central automation" (Deleuze & Guattari, 1987, p. 21). Here, we suggest rhizomes mobilized as a conceptual tool support a new materialist

pedagogical approach as it allows for recognition of thinking through emergent relations, "any point of a rhizome can be connected to anything other, and ust be ... this is very different from the tree or root, which plots a point, fixes an order (Deleuze & Guattari, 1987, p. 7).

Rhizomes can follow the movements bodies make outside conventional arrangements and contrasts functional knowledges or what Deleuze and Guattari call the arboreal system. Arboreal to mean the central functioning arrangements (i.e. rules, special education policies, authority figures) designed to code and maintain bodies to a specific order. A child with a disability through an arboreal system might be thought of as a body with special needs, a student adhered to special education mandates when attending public school in Canada and Australia. This is seen on the Ontario Ministry of Education (2000) website that initializes their description of special education.

Special education programs and services primarily consist of instruction and assessments that are different from those provided to the general student population. These may take the form of accommodations (such as specific teaching strategies, preferential seating, and assistive technology) and/or an educational program that is modified from the ageappropriate grade level expectations in a particular course or subject (para. 1).

Here, we see how Ontario's special education programming follows a linear, arboreal configuration. Explicitly, outlining how these children experience school differently than their 'normative' peers and require functional evidence based strategies to perform in school. Similarly, in Australia, the Review of the Australian Disability Standards for Education (2015) reported "the Standards establish minimum expectations, and do not articulate broader aspirations of social inclusion, achievement of individual potential or inclusive education. There is support for changes to "'raise the bar' in terms of the expectations of providers set within the Standards, and linking their function to broader objectives of social inclusion" (pp. ii-iii). We argue such static conventional pedagogical approaches do not adequately address the complexity of individual experience. Alternatively, fostering new materialism as a form of pedagogy can support thinking through multiplicities and understanding better the wider dimensions of their lives. A body imagined through rhizomes is a multiplicity; not a subject of organization. That is, when thinking through multiplicities a body is not a static subject; rather, it is a production of affects and intensities (Reddington & Price, 2016; Reddington & Price, 2017; Reddington, 2017). As Lather (2000) explains, "the space of knowledge has changed its contours" thus requiring new approaches when [working with diverse] bodies in social contexts (p.303). As such, the mobilizing of new materialist understandings like thinking rhizomatically can decenter representational thinking and functional forms of knowing. It is thinking through middles rather than "looking down" on children where everything changes (Deleuze & Guattari, 1987, p.23).

We turn now to expand educators thinking on ways to ignite a new materialist pedagogical approach. In particular, we give examples of how enacting connections to non-human things can inform and capture new understandings on how children and youth with disabilities experience school. We draw on Reddington and Price (2017), Price (2016) and Reddington's (2014) recent work to show the relevance of focusing on children and youth's relations to matter. This introduction to pedagogical methods that embody a new materialism framework are intended to ignite discussion and thought amongst educators and practitioners on ways to increasingly apply new materialism as a form of pedagogy to support diverse learners.

Conceptualizing New Materialism

We begin with Reddington's (2014) doctoral research where she invited young men with autism spectrum (AS), ages 18 to 40 years, to visually map their connections to school having attended public school in Nova Scotia, Canada. By means of two face to face semi-structured interviews, Reddington sought the young men's responses in relation to their experiences with structured arrangements, peer relations and their use of school spaces. The participants in the study self-identified as young men with autism who had experienced school under the Nova Scotia Special Education Policy (SEPM) (Nova Scotia Department of Education and Culture, SEPM, 1996). Participants also described to the researcher how they occupied various school sites, such as: regular classroom settings, resource rooms, and separate learning center environments. The learning center and resource rooms in Nova Scotia schools is a form of support under the special education policy designed to assist students with special needs where children and youth with disabilities receive separate individual programming. When learning about the young men's use of school spaces visual mapping was used. The concept of visually mapping involved inviting participants to emergently draw their uses of school spaces on 8 x 11 paper with the use of colored markers. Many of the young men responded to this activity and were eager to show 'on paper' their relational kinship to school sites.

For example, one twenty-two-year-old man with AS indicated how he used to do laps of the hallways to escape what he called the confines of the learning center (See Reddington & Price, 2017). His capacity to use movement (doing laps of the hallway) to disrupt his static medicalized position, a body with special needs, in the remedial environment indicates the potential he possessed to find new trajectories. It is through the act of visually mapping his use of school spaces that produced new embodied knowledge on his experiences in school. Through applying a new materialist approach of mapping his connections to non-human things, Reddington learned the agency he possessed to change his trajectory to suit his interests. Another participant similarly drew a map of a vacant classroom and showed how he secured this space during noon time to avoid unwelcoming entanglements with dominant peers (See Figure 1.0). The young man's active movement to occupy the vacant room reveals his capacity to resist conventional forms of movement and "*attempt to imagine outside them*" (Youdell, 2011, p. 27). In this study, by allowing the participants to visually map their movements in school spaces shows us how bodies flow through school spaces in meaningful ways and how educational sites are not passive entities.



Figure 1.0 Arthur's Vacant Room

This new materialist work evidences the relevance of inquiring more about children and youth's active engagement and movements across the educational terrain. We suggest mapping activities can take a multiplicity of forms such as: physically drawing their journey on paper, photographing use of spaces, or alternatively walking the site with children and actively video recording their engagements. Other elements might involve mapping their movements relative to peers. To consider: Where do they like to go? What is at stake for children and youth with disabilities when moving across the educational terrain? This focus on movement ignites a mediated space for learning to occur. With this, it invites educators and practitioners to find opportunities to support their affective desires and facilitate more welcoming spaces for children with disabilities to learn.

This is seen in Price's (2016) recent work where she mobilized digital photography to gain alternative knowledge on thirty-seven students with disabilities aged 13-19 years experiences of educational places and spaces. In responding to the question 'What is important to me?' student images depicted interactions with significant people (i.e. peers and staff) moving across multiple contexts both within the special education site and local community. Space and places which provided safe opportunities to interact, demonstrate capabilities and foster learning and independence were deemed most important. For example, community access programs mobilized interactions and connection to space and place through work experience, cycling program, community café hospitality training and independent living skills activities. Significantly for those students involved in the school community café (See Figure 2.0), they built trusting relationships with peers, staff and community whilst acquiring skills in hospitality to mobilize as they transition from school to society. Price creatively shows the importance of matter in the young lives and how such affinities to non-human things and activities can transform their personal relationships in meaningful ways.



Figure 2. School Community Cafe

When looking further at new materialist approaches, we also see the importance of acknowledging young people's personal relationship to objects, fictional characters, stuffed animals, pets, virtual worlds, and other aesthetics as seen in Reddington's doctoral research. To ask: Is there a certain object the child is drawn to? Do children with disabilities have an affinity for fictional mediums or virtual worlds? For example, Reddington (2014) showed the importance of using artefacts to support the understanding of young people with disabilities connections to all things. As part of her methodology, she invited participants to share artefacts from their schooling (photographs, yearbooks, pictures, drawings and keepsakes). One participant, a with him. After filtering through several of his art pieces he gave Reddington this drawing titled, "Me



in School" for her project. (See Figure 3.0)

Figure 3."Me in School"

This 22 years old man, showed Reddington the affective connection he made to strong hero like characters seen in action films and later showed this through a series of drawings he carried

The participant expressed how he wanted to emulate this particular character, stating he liked him as he was 'tough and unbeatable'. What unfolds through inviting the young men to bring in artefacts is an alternative understanding of how students with AS think about their subjectivity. It is through the use of artefacts that offered these new insights. This is evidenced again when a twenty-one-year old participant, Wes, expressed how art was a large part of his identity and asked at the onset if he could show Reddington a piece of his art. He uploaded onto Reddington's computer an image of a ceramic bowl. The bowl was a project Wes had constructed in school, and designed to be a 'representation of his identity'. Together, glancing at the image Wes explained its characteristics and imparted that the lid signified his 'introverted' nature, and then signaled for Reddington to look at the sharp points protruding from the sides of the bowl. He explained that the points were added to reinforce the idea of 'keeping people at a distance'. Wes' bowl also had two sculpted handles intended to look like bones to embrace his feelings of 'touching bone', 'organic' and 'intimate'. The bowl, a symbol of Wes' identity, presented an initial means for Wes to share his identity through his interplay with art and matter.

By allowing children and youth to share artefacts, to visually map their use of school spaces and emergently draw their affective bond to non-human things can assist practitioners and educators in knowing more about what is important in children and youth's everyday schooling experiences. In other words, by attending to the wider dimensions of their lives, by applying new materialist approaches, we can learn beyond functional, special education paradigms. To ask: Do children actively work to maintain certain relations to things? How might thinking about children and youth with disabilities emergent relatedness to all things expand our knowing about their lives in school? This follows Deleuze and Guattari (1987) where bodies are thought about through movement, vitality and possibilities. The exploration in this section is intended to support educators in being responsive to the engagement of children and youth with disabilities in school and to nurture their capacities to be active in their learning. It is through a new materialist pedagogical approach that we can begin to decenter special education models in Canadian and Australian schools and advance towards a space where alterity and variation is prioritized.

Conclusion:

A new materialist pedagogical approach to education can pursue the transient nature of children and youth's lives. That is, new materialism as a form of pedagogy can signal a reworking of conventional pedagogies like special education models that place limits on how children and youth with disabilities are known in school. Distinctly, it invites individuals in the fields of education and child and youth study to increasingly consider what other possibilities might exist for children and youth with disabilities when attention is given to their lives in moments. This is crucial as children who feel disempowered, marginalized can become oppressed (Freire, 1996). Therefore, the material turn in schools is a welcoming pedagogical framework that places the material body, the emergent learner, as the central concern.

We must therefore seek opportunities for more liberating pedagogies and present new ways for children to engage in school and resist dominant special education models bound by curricula. As Cannella (2005) reminds us, "the possibilities for supporting diverse knowledges, facilitating new actions and practices, and fostering various ways of living/being with and learning from each other are limitless" (p.19). In addition, there is a requirement to follow closely the entanglements each child makes with both human and nonhuman things and acknowledge the subjectivity of our learners. A space where identity is not fixed, but rather fluid and where educators create conditions that empower children to participate.

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Teaching Elementary-Aged Students with Autism Spectrum Disorder to Give Compliments Using A Social Story Delivered Through an iPad Application

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Abstract

Young children with Autism Spectrum Disorders (ASD) often experience social and communication skill deficits. The purpose of this study was to evaluate the effectiveness of using a social story delivered through an iPad application to enhance giving compliments in three elementary-aged students with ASD. The social story was modified with written description, pictures, and audio support through the application, which allows for customization to create a story. Results indicated that using a social story delivered through an iPad was associated with gains in the number of steps needed for giving compliments. All of the participants demonstrated generalization of the acquired social skill. Recommendation for further research are provided.

Introduction

Autism Spectrum Disorder (ASD) is a broad term for a developmental disorder that affects cognition, and it often emerges between the ages of 18 to 36 months (Autism Speaks, 2017). The number of children diagnosed with ASD has increased over the last two decades. The Centers for Disease Control and Prevention (CDC) indicated the prevalence of autism is approximately 1 in 45 in children (Zablotsky, Black, Maenner, Schieve & Blumberg, 2015). Due to the increase in the numbers of children diagnosed with ASD, schools face difficulties teaching these students given their varied and unique characteristics. Typical characteristics of a student with ASD include: (a) difficulties in social interaction, (b) problems with verbal and nonverbal communication, (c) and repetitive behaviors (Autism Speaks, 2017).
An especially difficult issue facing these students is the lack of skills needed for successful social interactions. Social interations are necessary for communication with others and for living a healthy life, such as making friends (Singleton, 1983). Social skills comprise elements that include interaction and communication. There are two types of social communication: (a) verbal, such as talking with peers, and (b) non-verbal, such as eye contact, facial cues, gestures, and touching (Singleton, 1983).

An outcome of having a lack of social interaction skills is that children with ASD have difficulty building relationships with others (Bauminger & Kasari, 2000). Bauminger and Kasari (2000) investigated loneliness and friendship among children with ASD and found that these children have greater loneliness and less satisfaction with their friendships compared to the typical peers resulting in social isolation.

Poor social interaction skills also negatively impact a student's academic achievement in several ways. For example, a student with ASD who displays poor social skills tends to avoid asking the teacher or peers questions when help is needed in understanding instructions for academic tasks (Bauminger & Kasari, 2000; More, 2008). Also, some students with ASD may exhibit behavioral challenges such as aggressive behaviors in the classroom because of decreased social interaction skills, (Hanley-Hochdorfer, Bray, Kehle & Elinoff, 2010). Finally, lack of social skills needed for academic success could intfer with listening, taking turns, following directions, and cooperating with others (More, 2008).

Unlike typical-developing students, who can learn most of these skills through natural interaction and working with others, student with ASD may require specific interventions to require social interaction skills. One method that has shown promise in teaching these skills to students with ASD is the use of social stories. Social stories can effectively represent a wide range of social concepts and skills from which students can learn (Gray, 1998; More, 2008). For example, giving and receiving compliments is an important social skill students need to learn, especially in primary grades. LeCroy (1994) discussed the development of social skills such as giving and receiving compliments and how this skill has positive long term effect in human relationships. The benefits of giving and receiving compliments as discussed on LeCroy' book (1994) were: (a) saying something nice to others to facilitate postive interactions in the futrue, (b) giving and receiving compliments by stating an opinion and then explaining the reason for the compliment, and (c) giving and receiving compliments to build friendly relationships with others. LeCroy (1994) suggested modeling as an procedure to train individuals giving and receiving compliments. Modeling can be presented through a social story.

Gray (1998) in his book argued how social stories assist individuals with ASD to interact successfully in a variety of social situations. Social stories are designed and written in a simple language to explain challenging social situations; they depict visual supports and text from a child's perspective (Gray, 1998). The use of social stories in the aforementioned studies were effective because they were short, personalized of a particular student, and written from the student's perspective (More, 2008). Social stories allow some customization, such as adding familiar pictures to the story. Children are able to view pictures of themselves and people they know further personalizing the instruction. Such personalization is likely to facilitate a child's knowledge and skill acquisition. because children are more likely to listen and learn from someone with whom they are familiar (More, 2008).

One area of social stories that is less researched is the use of assistive technology. Combining social stories with assistive technology results in a potentially effective teaching tool. More (2008) described digital social stories as an effective and flexible method to create stories to teach social skills for students with ASD. Teachers use digital social stories to teach students how to manage social situations on a daily basis, such as how to give and receive compliments from others (Litras, Moore & Anderson, 2010; More, 2008).

Digital products like social stories are available now as applications in online stores such as the Kid in Story application. Social story applications allow users to personalize their story by adding features like sound, images, pictures, text, colors, and backgrounds. Adding sound to a social story gains the user's attention, especially if the user has visual and reading difficulties (More, 2008). However, there is a paucity of recent research documenting the effects of such applications (Litras, Moore & Anderson, 2010; More, 2008).

The purpose of the study is to examine the effectiveness of using a social stories application for development of giving compliments to others such as peers and staff on three elementary-aged students with ASD. This study expands the current body of research on the use of social stories to teach social interaction skills by (a) demonstrating how the social stories can be taught to students from an iPad's application called Kid in StorySM; (b) assessing the effect of using pictures taken from the same environment (the school playground) and peers were used as a model in the given social story; (c) evaluating the effectiveness of this intervention in a less-structured settings (i.e., the recess time or playground).

Method

Participants

Three students were enrolled in this study and ranged in age 8-10 years. The three students met the following inclusion criteria: (a) diagnosis of ASD; (b) spoke in full sentences or partial sentences; (c) attended general education at least half day; (d) spoke English as a first language; and (e) scored at least average to below-average in an ASD assessment.

All participants were Caucasian male American students in the first, second, and third grade; their pseudonyms are: *Noah, Jacob, David*. Participants attended the resource room about 50% of a school day and they spent the rest of the day in general education classrooms. Special education teachers and paraprofessionals provided the educational supports which varied based on each student's needs; in general, the resource room support included giving direct and specialized instruction, academic remediation, and assistance with homework or other tasks. The general education classroom had similar features as the resource room. All participants had received independent diagnosis of autism by pediatricians and school psychologists. They all have severity of autism on the Autism Diagnostic Observation Schedule, (2nd ed.) (ADOS-2) scaled scores ranging from 72 to 79 (Lord, Rutter, DiLavore, Risi, Gotham & Bishop, 2012), and the Childhood Autism Rating Scale–Second Edition (CARS-2) scaled scores ranging from 30-36.5 (Schopler, Van Bourgondien, Wellman & Love, 2010). These scores indicated the students were in the moderate range of autism symptoms.

Noah. He was 9 years and 8 months of age at the beginning of the study. He was in second grade and attended a general classroom 50% of the day and the resource room the remaining part of the day. He was diagnosed with ASD when he was three years old and had scaled scores of 78 on the ADOS-2 and 33 on the CARS-2. A goal on his Individualized Education Program (IEP) was to improve social skills.

Jacob. He was 7 years and 1 month of age at the beginning of the study. He was in first grade and attended a general education classroom 50% of the day and the resource room the

remaining part of the day. He was diagnosed with ASD at 18 months and he had scaled scores 72 on ADOS-2 and 30.5 on CARS-2. Two goals on his IEP were to improve social and speech and language skills.

David. He was 10 yeas of age at the beginning of the study. He was in the third grade and attended a general education classroom 50% of the day and the resource room the remaining part of the day. He was diagnosed with ASD when he was three years and six months and had scaled scores 79 on ADOS-2 and 35on CARS-2. His IEP included goals in reading, writing, and social skills.

Settings

This investigation was conducted during a 15-minutes of a regularly scheduled 20-minute recess time each day and time sampling sheet used to assist the data collection. Sessions were conducted one per day for each student on consecutive school days, 2-3 days per week. A total of 32 sessions were conducted during the baseline, intervention, and generlization conditions. Recess occured on the outside playground, and on some rainy days, inside the resource room. The location of most observations was during the recess time on the playground. All the participints had recess time before the lunch break, Noah and David had recess from 12:10 to 12:30 p.m. and were observed at the same time, while Jacob had recess earlier from 11:10 to 11:30 a.m. Jacob was observed in the morning while Noah and David was observed in the afternoon.

Materials

A social story was produced for participants. The story was designed and produced according to methods detailed by Gray (1998) and More (2008). The story was individualized according to participants' needs, which was identified as giving compliments to others such as peers and staff. Peers without disability were selected to be the model, and their pictures were used in the social story.

The pictures were taken using an iPad camera (version 10.2) and edited using the Kid in StorySM application. The story was divided up into seven pages including the cover and title pages. Each page introduced one specific step or concept toward the targeted skill, and was introduced within 15 seconds. Each page contained of 1 or 2 words in the heading, and 2 to 3 descriptive writing sentences. Three pictures were taken of the playground from different angles and used as the background of the story pages. There was a white box in the corner of each page to present black text on each page of the story. The written sentences were followed by the model giving a verbal explanation of each step due to support the participants' reading skill. Viewing the story took approximately 1 to 2 minutes, which did not include the time it took to design, edit, and add the stories to the iPad. The script, page numbers are shown in Table 1.

Table 1. The Social Story shown on the iPad

Page S	cript
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1 Compliments (the title)

- 2 A compliment is a nice and friendly thing to say to someone. When someone gives me a compliment, it makes me happy and smile. I would make other people happy as well. So I will give them compliments when I like what they have.
- 3 So! When I want to give someone a compliment.
- 4 I have to look at the person first
- 5 and then smile.
- 6 Say something nice about the person, such as "I like your haircut or I like your shoes".
- 7 Saying a nice and friendly thing through a compliment makes others happy as well as makes me happy.

Social stories application

The Kid in StorySM Application (version 3.1.0) is designed by Enuma, Inc. (Apple Store, n.d.) and categorized as an educational app in Apple[©] Store. It is appropriate for children 6 to 8 years old (Apple Store, n.d.).

Pictures were taken of the outside playground and the model was asked to provide actions to represent the specific steps, such as making a smiley face. The resercher also inserted an audio record as a verbal description on each page of the story.

The iPad was used in *kiosk mode*, which did not allow participants to access anything other than the intervention story. A pair of headphones and the iPad loaded with the intervention and story was demonstrated with the participants before the recess time. Participants only had access to view stories once before the recess time.

Dependent Variable and Measure

Informal interviews with teachers were conducted, and the teachers filled out the Autism Social Skills Profile-2 (ASSP-2) (Bellini, 2016) on each participant to identify a common and needed social skill for participants to learn. ASSP is an assessment tool and it provides a comprehensive measure of social functioning in children with ASD (Bellini, 2016). All participants scored low on item number 27 "Provides Compliments to Others" of the ASSP-2 (Bellini, 2016) (p. 4), indicating that the student had low ability to give compliments. Based on the information obtained from interviews and the ASSP-2 assessment tool, Giving Compliments (GC) was the primary social skill identified.

GC was task analyzed into five specific steps including (1) body orientation toward communication partner, (2) smile, (3) looking at the person, (4) saying a compliment, (5) if the communication partner say "thank you", respond "you are welcome".

Table 2 provides information on the number of component steps of the target social skill taught. The participants were taught the targeted social skill independently before the recess time through using the Kid in Story[™] application on an iPad. A time sampling sheet used to assist the data collection by counting how many times participants were giving compliment to others in each session. The first author conducted observations and data collection.

Table 2. The Steps for Giving Compliments

Targeted skill	Number of steps	Specific steps
6	1	Body orientation toward communication partner
Giving compliments to others		Smile
	2	Look at the person
	3	Say a compliment
	4	If the communication partner says "thank you",
	5	respond "you are welcome"

Design

A multiple-probe design across participants (Gast & Ledford, 2014) was used to assess the effectiveness of using the social skill application on an iPad to teach each participant the social skill of giving compliments to others.

Baseline

During baseline, observations were conducted during recess time on participants in the outside playground and counted and reported the number of performing giving compliments' steps successfully as occurrence or non-occurrence. Noah and Jacob were observed at the same time and David was observed separately. the playground for a 15-min interval.

Social story

The researcher used the Kid in Story[™] application to present giving compliments' steps. The intervention was introduced by the researcher and the story was shown to each participant independently before the recess time. The intervention was shown to the participants during the last five minutes before the recess time in their classroom.

Generalization

The application was not used during the generalization probes. Thus, generalization probes were similar to the conditions during baseline except that the probes were conducted in the lunchroom or the sensory room inside the resource room.

Procedural Fidelity

Fidelity of baseline intervention and generalization conditions was assessed using a modified treatment fidelity checklist developed by Wragge (2008); the checklist was modified to meet different criteria required by the current study. The frequency of data collection was three times per week (60% of the sessions) during the intervention and generalization conditions for all participants. In both conditions, the percentage of the social story intervention fidelity was 95% (range 90% to 100%).

Inter-observer Agreement (IOA)

A checklist was used to record the steps completed for compliments. The researcher conducted observations and a second observer independently collected interobserver agreement (IOA) data. IOA was conducted during 10% of the baseline and 20% of the social story phases only for Noah. An agreement level of 87% (range 86% to 88%) was obtained during baseline and 85% (range 80% to 90%) during the social story conditions (average 85% total). This level of inter-observer agreement is deemed good by (Gast and Ledford).



Figure 1. Results of Multiple-Probe Design Across Three Participants



Figure 2. Results of Multiple-Probe Design Across Three Participants

Results

Among the five steps, participants frequently demonstrated the follwoing three steps: (a) smile, (b) saying compliments, and (c) responding "You are welcome" throughout the social story and generalization conditions. Overall, there was improvement in participants' performance of giving compliments to others steps. As shown in Figure 1 and 2, during baseline, Noah successfully emitted 0–2 steps. When the social story was introduced, Noah emitted a range of 2 to 3 steps. Noah emitted 2 steps and maintained giving compliments 2 times per session during generalization. During baseline, Jacob successfully emitted 0 to 1 step. When the social story application was introduced, he emitted 2–3 steps over 3 sessions. During generalization, he emitted 0–1 steps. When the social story application was introduced, he emitted a range of 2 to 3 steps and maintained giving compliments 1–2 times per session. During baseline, David emitted 0–1 steps. When the social story application was introduced, he emitted a range of 2 to 3 steps and maintained giving compliments 2–3 times per session. During generalization, his emitted 2 steps and maintained giving compliments 2–3 times per session.

As shown in Figure 1 and 2, through visual analysing the data indicated, two common themes emerged: (a) on all graphs trend indicated acceleration across participants, (b) most participants have a low to moderate level of variability. The results indicated that participants met criteria levels of successfully performing three step of giving compliments to others.

The three participants demonstrated overall improvement in emitted steps from baseline to the social story intervention. This improvement generally maintained during the generalization probe. Participants were rarely performed the compliments steps number 1 "Body orientation toward communication partner" and 2 "Look at the person". This supported that individuals with autism face difficulty to receive or expenses nonverbal cues, such as body language and eye contact (Singleton, 1983).

Discussion

Social stories assist students with ASD to better understand and appropriately react in different social situations (Gary, 1998). Social stories has been considered an effective intervention and has been used to improve social and communication skills among individuals with ASD (Hanley-Hochdorfer, Bray, Kehle & Elinoff, 2010). Using a multiple-probe design, a functional relationship was found between social stories using an iPad application, showing an increase in the number of steps correctly completed by each participant. Overall, findings are generally consistent with those of other research exploring social stories and the use of handheld technologies to teach social and communication skills (More, 2008; Sansosti & Powell-Smith, 2008). This study found that teaching students with ASD a social story, which delivered through an iPad application, assist teaching complex social skills, such as giving compliments by breaking the skill down into doable steps.

The literature indicates that teaching social stories have a powerful impact on students at a less-structured environment, such as the ressess time or playground and this helps students to generalize the learning outcome in a social context (Bauminger & Kasari, 2000). Teachers recommended using digital social stories to teach students with ASD social concepts, such as providing compliments to others (Litras, Moore & Anderson, 2010; More, 2008). In this study, the teacher noticed improvements on each of the students' performance of giving compliments to others. The teacher also reported that the social skill application was easy to use and it can be used to teach students a variety of social skills. The teachers and paraprofessionals indicated that the application was flexible and it can be customized to meet the targeted students' needs.

The present study, however, differs in its conclusions and lends limited support for the use of social stories to enhance the social skill of giving compliments in a less-structured environment, such as the outside playground. Elementary-aged participants showed little interest in giving compliments, especially during recess time, even though this study found a positive functional relationship between using the social story on an iPad and improving social skills. Social stories' applications in this context need more examination in terms of which variables may have an impact on outcomes. Moreover, replication over time is necessary to strengthen the external validity of the findings before they can be considered a reliable intervention.

Social Validity

Social validity data were obtained from interviewing and observing others around participants, such as teachers, professionals, and peers. After summarizing information from informal interviews, two common themes emerged: (a) participants seemed to enjoy using iPads and (b) it was socially acceptable to use the iPads at school. All participants indicated that they

enjoyed watching the story on the iPads. Noah, Jacob, and David's peers also stated that they thought using iPads was "cool." David's teachers said David talked about using the iPad all the time. When examining the social acceptability of using the iPad, students, teachers, and peers stated that it was socially acceptable to use an iPad in the classroom. Also, teachers reported that iPads are avaliable for each student in some classes and they use it in some class activites.

The researcher asked the special education teacher to review the story and specific steps for the targeted skill and to determine if all the intervention materials adequately explained the targeted skill. The researcher frequently collected the feedback from the special education teacher and used it to improve the story and intervention materials. For example, the teachers suggested some complimentary phrases to be taught for participants, such as " I like your haircut". The teacher believes in that teaching the participants certain complimentary phrases will help them to produce more complimentary phrases in the future.

Although benefits to the use of a social story on an iPad were found in this study, several limitations exist. First, it is possible that the outside playground was not an appropriate place to observe the social skill of giving compliments. Students can be distracted in play areas and are less likley to provide compliments. It was observed that particapants were more engaged in talking with peers during lunchtime where more social interactions take place. Future studies should be implemented in controlled area, such as in the classroom.

Second, it is unknown the exent to which the peers contributed to the skill development of the participants. Peers were not trained to provide or seek compliments from the participants in the present study. In order to strengthen engagement in social communication for students with ASD, peers may need to be trained to seek compliments from participants to increase the probability that the social behavior will maintain in the future. Future studies should conduct to train peers to seek compliments from participants and increase their opportunity to exhibit more compliments' steps.

Third, only two of the three participants achieved this criterion level. The participants did demonstrate improvements, with all steps. Mostly, the participants demonstrated the following three steps: (a) smile, (b) saying compliments, and (c) responding "You are welcome" throughout the conditions. Future studies should investigate to find additional supportive steps to better perform the target skill.

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Participation and Interaction of Deaf and Hard-of-Hearing Students in Inclusion Classroom

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Abstract

This study identified a variety of strategies that facilitate the participation and interaction of d/Deaf and hard of hearing students in the general education classroom at a public elementary school. In addition, it identified the issues that limit the participation of those students. Particularly, the study focused on describing factors related to general education teachers, sign language interpreter and d/Deaf and hard of hearing students, and hearing students, in order to develop a practical framework for assist students with hearing impairment to gain more social and communication skills. The data were collected through interviews and classroom observation. The finding indicates that d/Deaf and hard of hearing students face barriers that concern their participation and interaction in the general education classroom. Also, the findings identified specific strategies in order to facilitate the participation of d/Deaf and hard of hearing students in the general education classroom.

Keywords: Classroom observation, Disability, General Education Classroom, Interview, Legislation

Introduction

The number of d/Deaf and hard of hearing students who receive their education in general education classrooms with hearing students has rapidly increased (Eriks-Brophy & Whittingham, 2013; Luckner & Muir, 2002; Powers, 2002). According to the Gallaudet Research Institute (2004), the percentage of d/Deaf and hard of hearing students in local regular public schools in the United States has increase from 46% in 1977-1978 to 91% in 2002-2003. More specifically, the U.S. Department of Education (2013) reports that 14.1% of students with hearing impairment spend less than 40 percent of their school day in the general education classroom, and 16.7% spend between 40 to 70 percent of their time in the general education classroom, whereas 56.1% spend more than 80 percent of their day in the general education classroom. On the other hand, around 8.3% of students with hearing impairment are still educated in special schools for d/Deaf and hard of hearing students, 3.4% are served in separate residential facilities, 1.2% are parentally placed in regular private schools, 0.2% receive their education in homebound or hospital placement, and 0.1% are served in correctional facilities. Antia et al. (2009) predict that the percentage of students with hearing impairment in the general education classroom will continue increasing due to the use of early identification and intervention techniques, such as cochlear implants. Other scholars attribute the increase of the inclusion of d/Deaf and hard of hearing students into the general education classroom to three factors: financial pressures, parental expectations, and technological developments (Angelides & Aravi, 2007).

However, this change in the education of /Deaf and hard of hearing students is mainly due to the development of the legislation that supports inclusive education for students with disabilities (Stinson & Antia, 1999). For instance, the inclusion of d/Deaf and hard of hearing students in the United States began when the Disabilities Education Act (IDEA) was enacted (Villa & Thousand, 2000). The goal of IDEA is to provide appropriate education for students with disabilities and to assist them to improve their social skills in an appropriate environment (Colker, 2008). In specific,

this law requires schools to provide all educational support to students with disabilities in the general education classroom.

Although there is an increase in placement of d/Deaf and hard of hearing students in the general education classroom in many countries (Standley, 2007; Stinson, Antia, 1999), numerous studies have shown that those students experience difficulties participating and interacting with general education teachers and hearing peers (Levy-Shiff & Hoffman, 1985; Stinson &Liu, 1999). For example, some studies have indicated that inclusion of d/Deaf and hard of hearing students in regular education classrooms contributes to the loneliness and social isolation of students with hearing impairment (Newcomb & Bagwell, 1995). Further, some studies emphasized that inclusion has a negative influence on d/Deaf and hard of hearing students' communication and interaction skills, as well as on their academic achievements (Stinson & Antia, 1999).

A literature review indicates many possible factors, including communication barriers, teachers' attitudes and knowledge about inclusion and disabilities, hearing students' awareness about deafness, and the classroom organization, that might limit the participation and interaction of d/Deaf and hard of hearing students in general education classrooms (Antia, 1985; Antia, Kreimeyer, & Eldredge, 1994; Garrison, Long, & Stinson, 1994; Saur, Popp-Stone, & Hurley-Lawrence, 1987). Hence, it is important that all staff in schools, particularly teachers, who work

in the inclusive education classroom, create conditions and develop a variety of strategies that eliminates barriers facing d/Deaf and hard of hearing students' participation. Moreover, teachers need to develop a regulatory framework in the classroom which helps students to promote positive interaction between d/Deaf and hard of hearing students and hearing students (Stinson &Liu, 1999). In addition, general education teachers and teachers of students with hearing impairment are required to provide information to hearing students about deafness and characteristics of d/Deaf and hard of hearing students in order to improve their awareness, as well as to encourage them to talk and interact with each other (Newcomb & Bagwell, 1995; Stinson & Lang, 1994).

Research Problem

The number of d/Deaf and hard of hearing students who are educated in general education classrooms has significantly increased (Eriks-Brophy & Whittingham, 2013). Therefore, there is an urgent need to identify all key issues concerning their participation and interaction in general setting. Several studies indicated that d/Deaf and hard of hearing students experience difficulties participating and interacting with general education teachers and hearing students (Levy-Shiff & Hoffman, 1985; Stinson &Liu, 1999). The purpose of the present study is to identify the barriers that concern the participation of students with hearing impairment in inclusive education setting, as well as to identify strategies that facilitate their interaction with their hearing peers and teachers. Furthermore, the present study identified appropriate accommodations that assist d/Deaf and hard of hearing students to participate and interact effectively in the general education classroom.

Theoretical Framework

Vygotsky's theory (1987) was employed as the framework of this study to explore the participation and interaction of students with hearing impairment in general education classroom. This theory indicates that social interaction leads to cognitive development. Particularly, the collaboration and interaction with more capable peers is an effective way of developing skills and strategies. For Vygotsky, the learning context has a strong impact on learning and development. This theory, in specific the concept of zone of proximal development, emphasizes that teachers in the classroom are responsible for structuring interactions between students. In addition, they are responsible to guide the students through the tasks associated with learning a concept. It will be very important to see how d/Deaf and hard of hearing students participate and interact with hearing students in the general education classroom and how the teachers provide varied methods of instruction that allow students to participate and interact with each other.

Research Setting and Participants

This study was conducting in inclusive education program for d/Deaf and hard of hearing students at public elementary school in Ohio state. This school has 17 teachers of d/Deaf and hard of hearing students, 15 full-time general education teachers, and three full time sign language interpreters. This program provides a variety of support services, including: speech therapy, audiology, amplification, sign language interpreters, instructional assistants, work study services, and counseling; to 50 /Deaf and hard of hearing students from grades K to 5. Those students begin their preschool and kindergarten in self-contained classrooms with a maximum of seven students. When they move to first grade, their parents, based on the Individual Education Plan (IEP) of their child, assessment and achievement in the self-contained classroom, make the

decision whether the student continues in the self-contained classroom or moves to a general education classroom with the sign language interpreter. This program provides different levels of inclusion in the general education classrooms, ranging from students being on their own with little support, to situations where a group of students goes into a general education setting with a teacher of students with hearing impairment. Deaf and hard of hearing students in general education classroom always use total communication method in order to participate and communicate with teachers and hearing peers.

For this study, two general education classrooms were selected. The participants were two general education teachers, one sign language interpreter and four d/Deaf and hard of hearing students. The teachers of the 3 rd and 5th grade classrooms have a master's degree in education, and both are teaching all subjects in this school. The teacher of the 5th grade has been teaching students from grades 3 through 5 for 29 years. The other 3rd grade teacher has been teaching students from grades 3 through 5 for 25 years. Both teachers have lengthy experience teaching students with hearing impairments in their classrooms. The interpreter has a two-year diploma in American Sign Language and mainly works with students in the general education classroom. She has four years' experience working in elementary and middle schools.

In addition, four students with moderate to profound hearing losses were observed in this study. One student attended a 5^{th} grade general education classroom on a full-time basis with supportive services under the responsibility of general education teacher. The student has moderate hearing and she wears hearing aids in the classroom. The other three students are included only in math class in the 3rd grade general education classroom. One of the three students had a cochlear implant, and he can speak a little bit. The other two students have profound hearing loss and wear hearing aids.

Research Methods

The ethnographic design was used to conduct this study (Pole & Morrison, 2003). The data were collected using semi-structured interviews and classroom observations (Heath & Street, 2008). The researcher interviewed two general education teachers and one sign language interpreter. Each interview lasted from 18 to 25 minutes. The interviews were mainly conducted to determine the story behind a participant's experiences, as well as to obtain important information on the research's issue (MacNamara, 2009). All the interviews were audio recorded, and the participants were asked five questions: 1) What are the key issues that influence the participation of d/Deaf and hard of hearing students in general classes? 2) What are the barriers to social interaction and development of peer relationships between d/Deaf and hard of hearing students and hearing students in the general education classroom? 3) What is the teacher's role in improving the d/Deaf and hard of hearing students' participation in the general education classroom? 4) What are the most successful strategies that promote the participation of d/Deaf and hard of hearing students in the general education classroom? 5) What factors beside the teachers' strategies can facilitate the participation of d/Deaf and hard of hearing students in the general education classroom? The interviews were important in order to identify some themes that assist the researcher when starting classroom observations.

The classroom observations were conducted three times for each grade, 3rd and 5th, once a week. Two observations in the 3rd grade were videotaped and other observations were conducted without videotaping. The researcher videotaped the participation and interaction of three d/Deaf and hard of hearing students in the general education classroom, as well as the sign language interpreter. Each classroom observation was 50 minutes, and detailed field notes about students' interaction and participation, as well as the interpreter and teachers' instructional strategies, were taken during each one. Particularly, the main goal of the classroom observation was to observe 1) the participation and interaction of d/Deaf and hard of hearing students, 2) the effect of the general education teacher's attitude, knowledge, strategies and collaboration on the participation of d/Deaf and hard of hearing students, 3) the role of the sign language interpreter in terms of improving the communication and interaction between students with hearing impairment and general education teachers and hearing students, 4) hearing students' acceptance of d/Deaf and hard of hearing students and their interaction with them.

Preliminary Findings and Interpretations

Analysis of interviews and field notes revealed different issues that are explicitly linked to the research's problem and to the research's questions. This section is comprised of two parts. The first one focuses on analyzing and interpretation of interview data; the second part includes analyzing and interpretation of observational classroom data.

Interview Data Analysis

Analysis of interviews data revealed two themes: 1) issues related to school, including the general education teachers and the sign language interpreter, 2) issues related to students with hearing impairment and hearing students. To support the analyzing and interpretation in this section, quotations from the interviewees' speech were used.

Issues Related to Teacher and Interpreter

The data collected from the interviews with the teachers and interpreter reveals that there are some barriers facing the participation of d/Deaf and hard of hearing students in the general education classroom. They indicated some teachers may not have the knowledge about deafness and the characteristics of the d/Deaf and hard of hearing students. In addition, some teachers have lack of skills of how to structure classroom activities that facilitate the participation and interaction of d/Deaf and hard of hearing students in the general education classroom. For example, some teachers have a lack of collaboration skills, which influences their collaboration with the teacher of students with hearing impairment, as well as with the interpreter. Teacher 2 stated,

Some teachers do not have experience or they feel nervous that they do wrong for deaf and hard of hearing students. They spend as much time thinking what they are doing is not right.

Teacher 1 added,

"Teachers sometimes speak fast so the deaf students fill behind because they cannot keep up with the teacher's speed."

Another barrier facing d/Deaf and hard of hearing students in the general education classroom is teachers' negative attitudes. This sometimes refers to the lack of teachers' awareness and knowledge about the characteristics of d/Deaf and hard of hearing students. Participants emphasized that the teachers' negative attitude often affects the attitude of hearing students toward their d/Deaf and hard of hearing peers. When the hearing students see their teachers treat the d/Deaf and hard of hearing students as unimportant members in the classroom, this decreases the interaction and communication between students. The interpreter explained,

Hearing students usually follow their teacher's attitudes toward the d/Deaf and hard of hearing students. Teachers who have positive attitudes and treat d/Deaf and hard of hearing students as vital members, this encourages students to interact and communicate with each other. Also, this encourages d/Deaf and hard of hearing students to participate and raise their hand to participate.

Further, participants agreed that the teachers who have positive attitudes often try to engage d/Deaf and hard of hearing students in their classroom. They ask them questions, communicate with them individually, and encourage them to participate in classroom activities. The interpreter indicated,

"I think the general classroom teacher should try to engage the d/Deaf and hard of hearing students by asking them questions and then give them some time to answer."

Additionally, the teachers indicated that one of the teachers' responsibilities is improving their hearing students' awareness about deafness and sign language. It is important to provide information about the characteristics of d/Deaf and hard of hearing peers, hearing aids, and how they can support them in the classroom. Some teachers attempt to assist hearing students to understand the best way to communicate with d/Deaf and hard of hearing students. The interpreter pointed out,

"Some general classroom teachers ask me to teach hearing students sign language. Some of them try to improve the communication and interaction of d/Deaf and hard of hearing students in their classroom."

Vygotsky's (1978) concepts of zone of proximal development indicated that the teacher is responsible for structuring interactions between students, as well as to guide the students through the tasks associated with learning a concept. Moreover, Vygotsky explained the scaffolding concept, in which the teacher helps to arrange the classroom context so that students can participate and socially interact with each other. Participants in this study assert that teachers who have knowledge about deafness and skills of teaching d/Deaf and hard of hearing students can develop different classroom activities in order to facilitate the participation and interaction of d/Deaf and hard of hearing students. Teacher 1 suggested,

One of the best strategies to assist d/Deaf and hard of hearing children to participate in the general classroom and communicate with hearing students is working in small group activities. The deaf student usually communicates and interacts with hearing students when they work in small groups.

Similarly, the participants illustrated the important role of the interpreter in facilitating the interaction between d/Deaf and hard of hearing students and hearing students in the small group activities. According to the teachers, the interpreter often leads the discussion and the activity so s/he is supposed to collaborate effectively with the teachers as well as to encourage both d/Deaf and hard of hearing students and hearing students to participate and communicate with each other.

The collaboration between the general education teacher and the interpreter is a significant issue to facilitate the participation of d/Deaf and hard of hearing students in the general education classroom. Participants asserted that teachers and interpreters are responsible

to discuss the issues that concern d/Deaf and hard of hearing students, such as where the student should sit and what the activities are that should be done. The interpreter indicates,

The collaboration between teacher and interpreter is huge because the role of the interpreter is significant in how to assist d/Deaf and hard of hearing students to facilitate their participation and complete their tasks. It is difficult for the teacher to watch all students in the classroom because sometimes the class has more than 30 students, so the interpreter plays a significant role to facilitate the learning of d/Deaf and hard of hearing students and keep the teacher aware of their challenges.

Teacher 2 added,

The interpreter is a person who d/Deaf and hard of hearing students feel comfortable to talk to. The interpreter usually helps to build their confidence in being signed and speaking up in the class and to use their own language to communicate. Also, the interpreter sometimes sits and helps the students if they do not understand something.

Issues Related to Deaf and Hard of Hearing Students and Hearing Students

All participants agreed that spoken language difficulty is the greatest challenge facing the participation and interaction of d/Deaf and hard of hearing students in the general education classroom. For Vygotsky (1987), using language, particularly verbal speech, is the most important tool to facilitate the communication and interaction. According to this theory, the private speech begins with students from age seven where students become able to plan their own activities and strategies. Also, students use the language as a tool for communication and thinking. This is not the case for the majority of d/Deaf and hard of hearing students who struggle with spoken language, which makes it difficult for them to participate and communicate with hearing students who speak and do not know sign language. Teacher 1 stated,

"Spoken language is the most common barrier that influences the participation and interaction between d/Deaf and hard of hearing students and hearing students."

For this reason, participants suggested schools to provide sign language classes for hearing students to learn basic sign language and become able to communicate with d/Deaf and hard of hearing students. The participants also pointed out that hearing students are curious to learn sign language. They usually ask teachers and interpreters about the meaning of some signs or how they can sign certain words. Therefore, it is useful to provide some sign language classes to hearing students in order to reduce the language and communication difficulty with d/Deaf and hard of hearing students. Teacher 1 explained,

One strategy to improve the participation and interaction of d/Deaf and hard of hearing students in the general education classroom is the sign language class for hearing students which is focused on teaching them basic sign language. This encourages the hearing students to communicate with d/Deaf and hard of hearing students as well as encourage d/Deaf and hard of hearing students to participate in the classroom.

Another issue is that d/Deaf and hard of hearing students are always busy inside the general education classroom, watching the interpreter and the teacher as well as working on the task. Thus, it is very difficult for them to participate or answer the questions that are asked by the teacher. The interpreter pointed out,

When deaf and hard of hearing student have the answer to the teacher's question, they are always three or four seconds behind hearing students who have the answer. Deaf and hard of hearing students usually try to balance so many things.

Participants assert that teachers should understand that d/Deaf and hard of hearing students need more time than hearing students to raise their hand and answer the questions. This requires teachers to follow some strategies, such as speaking slowly, so d/Deaf and hard of hearing students can follow up with them and explain to hearing students to be more patient to give d/Deaf and hard of hearing students an opportunity to participate.

Observational Data Analysis

The goal of this section is to understand and describe the nature of the inclusive classroom of d/Deaf and hard of hearing students. This means understanding the constructing participation and interaction context and how inclusion of d/Deaf and hard of hearing students influences the teaching and learning in the classroom. Analysis of observational data is important to understand the barriers that limit the face to face interaction between hearing students and d/Deaf and hard of hearing students, as well as to understand the participation structure of students with hearing impairment in the general education classroom (Heath & Street, 2008). Moreover, the analysis of observational data assists the researcher to identify the contextual factors that promote the d/Deaf and hard of hearing students' interaction and participation (Green, 2009), as well as to determine the role of the teacher and interpreter in improving the verbal and nonverbal participation of d/Deaf and hard of hearing students in the general education classroom.

General Education Classroom Observation (5th Grade)

There is only one full time hard of hearing student in the 5th grade. This student, "Sara", was always sitting in the front of the class, which allows more visual access to the interpreter and teacher. Sara often interacts and communicates only with the interpreter who always sits in front of her. She was always busy, working on tasks and watching the interpreter and teacher. This student is apparently in isolation from hearing students because she does not interact and communicate with them. Also, she rarely raises her hand to answer or ask questions. In the reading class, the teacher asked students a question about the story that they read at home. Most students, beside Sara, raised their hands to answer the question, but the teacher was only looking at hearing students. The teacher did not look at Sara at all, so she put her hand down and she did not raise her hand again during the rest of class. This was probably because the teacher did not expect that Sara would raise her hand. Therefore, in this situation, the interpreter was supposed to inform the teacher that Sara wanted to answer the question. Additionally, it is important that the interpreter encourage the student to participate and raise her hand, even if the teacher does not see her.

The teacher placed students in small groups consisting of around six students. Each student read aloud a part of the story. Then, they discussed with each other the main characters of the story. Sara's participation in the small group was better than when she was in a big group. She tried to ask and answer some questions as well as to communicate and interact with hearing students in her group. For example, Sara and the student who was sitting next to her were laughing and talking with each other about the story. Also, when the students began to discuss the story, Sara tried to be a part of the discussion by asking and answering the interpreter's

questions. Sara, in the small group, tried to speak more than sign because all students were near to her, so they can know what she is saying. This indicates that spoken language difficulty is the only reason why she does not participate in a big group. Indeed, the small group activities assist d/Deaf and hard of hearing students to improve their private speech, which is important to their cognitive development (Vygotsky, 1987). Also, it gives students an opportunity to work with each other and improve their friendship.

General Education Classroom Observation (3rd Grade)

Deaf and hard of hearing students in the 3rd grade were included in the general education classroom only in math class, and then they go back to their special education classroom. Those students showed effective participation and interaction with other students, as well as with the teacher. Also, both the interpreter and the teacher played a significant role in enhancing the students' participation and interaction. They developed some strategies that assist d/Deaf and hard of hearing students to interact with hearing students. For example, every week the interpreter and teacher chose a hearing student who knows some sign language to sit with d/Deaf and hard of hearing students at the same table in order to improve the communication and interaction between them. This hearing student sometimes assists the interpreter to interpret the teacher's instructions to d/Deaf and hard of hearing students. For example, this hearing student often tells her d/Deaf and hard of hearing peers to put their hands down when the teacher chose another student to answer the question. It was obvious that this hearing student always wants to help those students and learn more sign languages from them. Also, I observed that the teacher always used different strategies such as face to face interaction or working in small group activities in order to engage d/Deaf and hard of hearing students in the classroom activities, as well as to increase the interaction between those students and hearing students.

When I visited the 3rd classroom, the three d/Deaf and hard of hearing students were sitting around one table with the interpreter and one hearing student. The topic was about "Understanding Fractions", and the teacher used different shapes on the board to assist students to understand the topic, as well as to encourage them to participate and interact with the lesson.

Transcript – Mainstream Classroom (Math lesson): Tuesday, November 11th

- **1.** *Teacher: All of you look at the shape on the board.*
- **2.** *Teacher: How many equal parts are in the square?*
- **3.** *Interpreter: Who knows the answer?*
- **4.** *Mike: I know.*
- 5. *Interpreter: Why didn't you raise your hand?*
- **6.** *Interpreter: You should raise your hand when you know the answer. (Encouraging deaf and hard of hearing students to participate).*
- 7- Teacher: Okay Mike, how many equal parts are in the square?
- 8- Mike: Six parts.
- 9- Teacher: Good. Your answer is correct.
- 10-Teacher: Okay, now how many are shaded in the square?
- 11- Teacher: Mike, do you know the answer?
- 12-Mike: Yes, I know.
- 13- Teacher: How many?

14- Mike: One.

15- Teacher: Good job, Mike.
16- Teacher: Did you write this on your paper?
17- Mike: silent.
18- Teacher: Did you write like this "one of six"?
19- Mike: No.
20- Teacher: So how?
21- Teacher: Did you write ¹/₆ like that?
22- Mike: Yes.
23- Teacher: Did you all see how Mike wrote that?

The above transcript explains the role of the teacher and sign language interpreter in the participation and interaction context of d/Deaf and hard of hearing students in the general education classroom. Further, it illustrates how the context of the classroom was shaped by different factors. Erickson (2004) indicated that classroom context is shaped by individuals. Generally, because the teacher is more powerful in the classroom, h/she is required to shape the classroom' context by effective classroom management and organization of activities. Moreover, Vygotsky's (1978) concepts of zone of proximal development emphasizes that the teacher's role is to facilitate the interactions between students, as well as to guide the students through the tasks associated with learning a concept. However, students and interpreter in the inclusive classroom also play a significant role in shaping the classroom's context. For example, the interaction between students is important to enrich the educational process in the classroom. In addition, the interpreter's role is necessary to facilitate the communication between d/Deaf and hard of hearing students and the teacher.

In one math class, the teacher asked a question verbally of all students (line 2). When hearing students raised their hand, the interpreter asked d/Deaf and hard of hearing students, using sign language, to raise their hands if they knew the answer (line 3). Then she encouraged the student who knew the answer to raise his hand and participate with hearing students (line 3). The interpreter in this situation played a significant role in facilitating the communication between d/Deaf and hard of hearing students and their teacher. Also, this interaction is important to understand that some d/Deaf and hard of hearing students who are educated in the general education classroom might know the answer, but they do not have the confidence to participate due to the language difficulty. Therefore, the interpreter tried to be an effective factor that encouraged students to participate and assisted them to find a good pattern of participation (Green, 2009).

Although, the teacher does not know sign language, she often gave the deaf student an opportunity to participate when he raises his hand (line 7). The teacher's expectation seemed high for this student because she asked him again another question (line 11). The teacher in this situation aimed to improve the student's confidence by continuing to ask him sequential questions that the teacher knew the student could answer (line 11-13). In addition, the teacher's goal was to construct the classroom lesson by interaction with students. She wanted to develop the face to face interaction between her and students, specifically d/Deaf and hard of hearing students. Bloome et al., (1989) indicated that "Classroom lessons do not just happen, they must be constructed by the interaction of teachers and students" (p.271). For the success of the classroom, all students should be a part of the interaction and have an opportunity for participation.

This interaction between the teacher, deaf student and interpreter illustrates how the teacher of the general education classroom can hide and overcome the differences between students with hearing impairment and hearing students, such as communication barriers. Further, it shows that the teacher wants to engage her d/Deaf and hard of hearing students in the classroom context. For instance, while the interaction between the student and the teacher was happening, I observed the teacher looking at the student. This was necessary to enhance the deaf student's self-confidence, as well as to encourage him to speak when the teacher communicated with him. The goal of the mainstream classroom is not only to assist deaf and hard of hearing students to be integrated academically, but also to improve their spoken language as well as their social interaction.

The teacher encouraged deaf student (line 15). Then, she encouraged him again in a different way (line 23). This encouraged the other two d/Deaf and hard of hearing students to participate in the class. For example, after Mike answered the question, the teacher again asked students who could divide the circle into five equal parts. All d/Deaf and hard of hearing students raised their hand without encouragement from the interpreter. It is obvious that motivation is an important factor of the learning and development of the d/Deaf and hard of hearing students, particularly in the general education classroom. Thus, one important role of the teacher and interpreter is to make sure that the classroom's context is appropriate and supportive for d/Deaf and hard of hearing students to learn and effectively participate.

Conclusion

This study investigated the significant issues that concern the participation and interaction of d/Deaf and hard of hearing students in the general education classroom. The data collected indicates that facilitation of participation and interaction of d/Deaf and hard of hearing students in the general education classroom requires the knowledge and skills of the schools' staff, including teachers and interpreters. Additionally, the teachers' awareness and attitudes toward deafness and inclusion are important to increase the participation and interaction of d/Deaf and hard of hearing students in the general education classroom. For issues related to students, this study found that the spoken language difficulties for d/Deaf and hard of hearing students are the greatest barriers that limit the participation and interaction of those students. Also, the d/Deaf and hard of hearing students is always busy in the classroom because h/she is working on his/her task and watching the teacher and interpreter simultaneously. Thus, this student often receives the information and the questions a few seconds after hearing students. Generally, this study suggests that schools' staff should improve their collaboration with each other in order to develop the best strategies that make the context of the general education classroom appropriate for d/Deaf and hard of hearing students. Moreover, teachers are responsible for improving the awareness among hearing students about the characteristics of d/Deaf and hard of hearing students. Generally, most obstacles that d/Deaf and hard of hearing students encounter in the general education classroom can be addressed when the entire school staff works together and provides all possible support to those students.

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Appendix 1 Transcript – Mainstream Classroom (Math lesson): Tuesday, November 11th

- 1- Teacher: All of you look at the shape on the board.
- 2- Teacher: How many equal parts are in the square?
- 3- Interpreter: Who knows the answer?
- 4- Mike: I know.
- 5- Interpreter: Why didn't you raise your hand?
- 6- Interpreter: You should raise your hand when you know the answer. (Encouraging deaf and hard of hearing students to participate).
- 7- Teacher: Okay Mike, how many equal parts are in the square?
- 8- Mike: Six parts.
- 9- Teacher: Good. Your answer is correct.
- 10- Teacher: Okay, now how many are shaded in the square?
- 11- Teacher: Mike, do you know the answer?
- 12- Mike: Yes, I know.
- 13- Teacher: How many?
- 14- Mike: One.

- 15- Teacher: Good job, Mike.
- 16- Teacher: Did you write this on your paper?
- 17- Mike: silent.
- 18- Teacher: Did you write like this "one of six"?
- 19- Mike: No.
- 20- Teacher: So how?
- 21- Teacher: Did you write $\frac{1}{6}$ like that?
- 22- Mike: Yes.
- 23- Teacher: Did you all see how Mike wrote that?