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Teachers' Attitudes towards Inclusive Education:
The Role of Job Stressors and Demographic Parameters

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Abstract

The pedagogy of inclusion is the current trend for the education of persons with disabilities. This study investigated teachers' attitudes towards inclusive education in relation to demographics (gender and age) and their occupational stress levels. The research involved 208 primary and secondary school teachers, working in urban and suburban areas of five prefectures of Greece. Two scales were used for data collection: a) The Opinions Relative to the Integration of Students with Disabilities (ORI), which examines the attitudes of teachers towards the inclusion of students with disabilities in mainstream schools and b) a questionnaire with regard to Teachers' Occupational Stress, which detects specific sources of stress in the workplace. Teachers' gender, age and occupational stress served as independent variables. Teachers demonstrated marginally positive attitudes towards inclusion, which were correlated with their age. Specifically, younger teachers expressed more positive attitudes than their older colleagues. However, no differences were detected between men and women. Furthermore, relatively high levels of stress were observed, while the specific stressors were detected. Finally, teachers' attitudes were partly correlated to occupational stress, as less positive attitudes towards inclusive education were associated with increased levels of stress.

Keywords: *inclusive education; teachers' attitudes; teachers' occupational stress*

Introduction

In recent decades inclusive education has redefined the schooling of persons with disabilities. The Salamanca Statement (UNESCO, 1994) attempted to meet the '*education for all*' demand, which can only be satisfied through the inclusion of all students in the general school. According to this Statement, the general school with inclusive orientation combats discrimination, creates open communities and helps to develop an inclusive society. The differences among people are recognized as normal and each child has specific characteristics, interests, abilities and learning needs, while the emphasis should be on strengths rather than deficits. Therefore, schooling should be actualized in accordance with the specific needs of each child, rather than attempting to adapt them in the specifications of the existing curriculum (Peters 2007; UNESCO, 1994).

In Greece the integration of certain groups of students has been established and implemented but with questionable success (Zoniou-Sideri, Deropoulou-Derou, Karagianni & Spandagou, 2006). Specifically, the Greek law provides for the education of students with disabilities and special educational needs into the mainstream school in various ways as follows: (a) with the support of the general education teacher in cooperation with the state *Center for Differential Diagnosis, Diagnosis and Support (KE.D.D.Y.),* (b) with the parallel support of a special educator in case of more severe special educational needs, (c) with attendance at the Special Integration class, taught by a special educator for a number of lessons weekly and (d) by the presence of the special auxiliary personnel for students who confront difficulties in taking care of themselves, for example due to physical disabilities. There is, however, a significant number of students who attend special schools, since it is considered that they cannot be served by the mainstream structures.

Clearly, the institutional reforms are a precondition to appropriately serve students with special needs in mainstream schools. However, the success of inclusive education seems to depend significantly on the active participation of teachers. The behavior of educators, their way of working, the theoretical background they follow and their specific teaching practices are critical factors which can enhance or undermine the integration process. Therefore, positive perceptions of teachers are deemed to be necessary and indeed an important starting point for the development of a suitable inclusive school environment (Leung & Mak, 2010; Parasuram, 2006).

The adoption of positive attitudes has been found to be affected by a variety of educators' characteristics, such as gender, age, experience and education. However, in addition to demographic data, the formation of perceptions may be influenced by other factors, such as occupational stress. Numerous investigations have identified the teaching profession as being particularly stressful, which has negative consequences not only for teachers themselves, but also within the educational process. Teachers experiencing stress usually have to cope with anxiety and depression, which disturb their teaching ability. Furthermore, the correlation of occupational stress to low levels of job satisfaction affects the teachers' willingness and could act as an obstacle to the integration process. Therefore, identifying the specific stressors is deemed necessary to successfully deal with stress and its negative consequences.

The purpose of this study is to identify teachers' existing attitudes with respect to inclusive education, to detect the factors affecting them. More specifically, we posed the following questions:

- What are teachers' attitudes towards inclusive education?

- What is the impact of teachers' gender and age in shaping perceptions?
- Do the participants cope with occupational stress?
- Is there a correlation between teachers' attitudes and their occupational stress?

Teachers' attitudes towards inclusive education

Teachers' perceptions have been a topic of research in almost every developed country. There are numerous studies that demonstrate the reluctance of teachers and their insecurity in the implementation of integration policy, even when it is a state law. The overview of Boer, Pijl and Minnaert (2011) showed that the majority of teachers adopt neutral or negative attitudes regarding inclusive education. In like manner, a survey by Rakap and Kaczmarek (2010) showed on average a 'slightly negative attitude' towards inclusive education of the participating teachers. Moreover, Sari, Çeliköz and Seçer (2009) concluded that the educators participating in their study were '*undecided*' on the idea of inclusion of students with disabilities.

In contrast, there are numerous research attempts that present slightly positive to very positive teachers' attitudes: A meta-analysis by Avramidis and Norwich (2002), although incorporating relatively dated research (1984-2000), resulted in positive outcomes in the sense that perceptions of teachers are supportive towards inclusion. However, teachers seem to partially support inclusion, since they express their opposition to the inclusion of each and every student and suggest specific training for certain student groups. The findings of the aforementioned literature review are confirmed by more recent studies (Haq and Mundia 2012; Khochen and Radford 2012).

Additionally, a number of studies suggest that the teachers' agreement with the philosophy of integration in theory and their willingness to teach these students may be quite distant from the application of inclusive education in practice, where the role of the state is dominant. The meager government grant, which leads to deficits in personnel and equipment, seems to cause uncertainty among teachers (Koutrouba, Vamvakari & Theodoropoulos 2008; Memisevic & Hodzic 2011; Zoniou-Sideri & Vlachou, 2006). A further adverse factor is the concern of teachers with regard to their own ability, and the appropriateness of schools, to develop an inclusive learning environment (Shevlin, Winter & Flynn 2013). Nevertheless, there are cases where teachers report that inclusion is being successfully implemented in their school (Humphrey & Symes, 2013) and their attitude is identified as 'very positive' (Jerlinder, Danermark & Gill, 2010).

Factors influencing the attitudes of teachers

According to the existing literature, teachers' attitudes differ as a result of various variables. Gender and age are the key demographics controlled in each and every investigation. Women usually reflect more positive opinions in comparison with men (Tsakiridou & Polyzopoulou, 2014; Vaz et al., 2015). Regarding age, the youngest and the oldest teachers seem to express the most positive perceptions regarding inclusion (Parasuram, 2006; Rakap & Kaczmarekc. 2010). However, there are several studies that fail to detect differences based on the participant's gender or age (Avramidis, Baylis & Burden, 2000; Jerlinder et al., 2010). Moreover, educational experience has been found to enhance the tolerance of teachers (Emam & Mohamed, 2011), while previous teaching experience of students with disabilities seems to be a

decisive factor for positive opinions. The implementation of an inclusive practice or being in contact with people with disabilities appears to help teachers to familiarize with them and consequently shape positive attitudes towards inclusion (Avramidis & Kalyva, 2007; Batsiou et al., 2008; Kurniawati et al., 2012).

Teacher training is also significant, since teachers educated in Special Education tend to be more positively disposed towards inclusion (Ghanizadeh, Bahredar & Moeini, 2006; Sari, 2007). Small differences are found in relation to the grade they teach, where primary education teachers are found to represent more positive opinions (Ross-Hill, 2009). Moreover, perceptions of teachers have been linked to self-efficacy, in view of teachers with high self-efficacy levels expressing more positive attitudes (Avramidis et al., 2000; Emam & Mohamed, 2011; Lambe, 2011; Tsakiridou & Polyzopoulou, 2014; Vaz et al., 2015). Educators' willingness is also measured as an independent variable in research with regard to teachers' perceptions. Namely, positive perceptions of teachers have been associated with elevated levels of willingness and their acceptance of even the most severe forms of disability (Monsen, Ewing, & Kwoka, 2014; Rakap & Kaczmarek, 2010).

The factor of working stress has been remotely studied in reference to the perceptions of teachers. However, during interviews performed as part of an investigation by Sukbunpant, Arthur-Kelly & Dempsey (2013) stress was repeatedly cited as a deterrent to the implementation of inclusion. The lack of cooperation with parents and the extra workload caused by teaching a child with special needs in the general class were mentioned as sources of stress that contribute to negative attitudes towards integration. In contrast, Monsen et al. (2014) in a study which included a stress scale for teachers (based on Galloway's Teacher Stress Scale), identified no statistically significant correlation between perceptions and the degree of stress experienced.

Teachers' occupational stress

Occupational stress is a common problem in a variety of professions, while teachers are among those who experience the highest stress levels (Johnson et al., 2005). In the teaching profession occupational stress is defined as an experience that includes negative emotions, such as anger, anxiety, emotional stress, frustration or depression as a result of some aspects of their profession (Kyriacou, 2001). The levels of stress as well as the specific stressors affecting them have been studied amongst general and special educators in numerous countries.

Occupational stress in the implementation of inclusive education

Forlin (2001) studied the factors that may cause stress to teachers in the implementation of inclusive education. According to research results, the vast majority are concerned by the simultaneous management of students with disabilities and other members of the class. The lack of time, the students' behavioral problems and the acceptance of a disabled student by his classmates, were a few indicative issues that concerned the teachers. Additionally, the lack of training in inclusion and special education issues was found to be stressful to a large number of teachers. 91% of respondents questioned the appropriateness of the training to meet the individual needs of students with disabilities. However, the stress of teachers remained generally low, whereas previous experience and adequate training in the integration process appeared to be extremely helpful in reducing stress.

In a study by Engelbrecht, Swart & Eloff (2001) stressors affecting the inclusion of students with Down syndrome in the general school were investigated. Teachers reported their inability to fulfill the educational needs of students in the absence of specialist support as a key source of stress. A similar survey was conducted regarding the integration of mental disability (Engelbrecht et al., 2003), where teachers showed high levels of stress. The main stress sources were identified within five key categories, namely '*administrative issues*', '*support*', '*behavior of the learners*', '*the teacher's perceived self-competence*', and '*the parents of the learners with intellectual disabilities*'. Nonetheless, the levels of stress appeared to be diminished in cases where teachers had previous experience in inclusive school environments.

Unlike results presented research on job stress of teachers towards integrating pupils with physical disabilities (Eloff, Swart & Engelbrecht 2002). Teachers showed limited and to great extend non-existent stress, which indicates that students with physical disabilities can be easily included in mainstream schools. Summarizing the above, we observe that with regard to inclusive education, teachers are primarily concerned with the diverse educational needs of their students, the lack of training combined with the absence of the necessary multidisciplinary support and the low state funding. The aforementioned reasons create insecurities and cause stress to teachers.

Comparison of occupational stress for teachers of special and general school

A number of studies have focused on the occupational stress of special educators, particularly in detecting differences compared to teachers employed in mainstream schools. In Lazarus (2006) study the stress experienced by special educators was characterized as low to moderate, though it was higher than teachers employed in general schools. The main sources of stress were associated with organizational issues, such as the lack of information on the situation management, limited supervision and a lack of cooperation among colleagues.

In contrast, are the findings of Kalyva (2013), who examined the effect of teaching students with special needs on the extent of stress expression. Accordingly, participants who had experience of teaching students with disabilities expressed lower stress levels. This was attributed to the working conditions of special educators in Greece, who take smaller classes and have a more flexible curriculum compared with their colleagues in the mainstream school. Pepe and Addimando (2013) studied stress as a result of experiencing 'challenging behaviors' of certain students in primary school. According to the results, general teachers reported by 80% 'externalizing behaviors' as the most stressful, while the rate for special education teachers was only 57%. The latter included in second place, students with 'weak character' that need increased attention. It is worth noting that in Italy there is full inclusion of students with disabilities in mainstream school, so this difference is attributable to heterogeneity of the requirements of each specialist while operating in the same environment.

The findings above differ in part from research by Williams and Gersch (2004), where no significant deviation was observed in the overall levels of stress among teachers of general and special schools in Great Britain. There was however a difference in the sources of stress, as the teachers of general school reported students

(fuss, unwillingness, lack of time for each), while the special educators were mainly concerned with insufficient equipment.

Methodology

Participants
The sample of this study consisted of 208 general teachers (71.6% women and 28.4% men) employed in public primary (77%) and secondary education (23%) schools of urban and suburban areas in Greece. More than 65% of teachers who participated were over 40 years old. Furthermore, the vast majority of participants (73.6%) had at least ten years of teaching experience. Regarding training in the field of special education, 43.8% of the teachers had not received any specific training in this field, 42.8% had taken part in conferences and short term courses, 5.8% had participated at long term seminars, 5.3% were retrained and specialized in Special Education and 2.4% possessed a Master Degree in Special Education.

Methods
A two-scale questionnaire was used for the survey that consisted of:

a) A Greek adaptation of 'Opinions Relative to the Integration of Students with Disabilities' (ORI) (Antonak and Larrivee 1995; Larrivee and Cook 1979) scale to investigate the perceptions of teachers on inclusive education. The scale consists of 25 items to which teachers are required to indicate their degree of agreement or disagreement on a six-point Likert-type scale, where -3 corresponds to 'I disagree very much' and +3 to 'I agree very much'. The calculation of the total score results in a value of between 0 and 150. A score that exceeds the minimum of 75 points indicates positive attitudes.

b) The 'Teachers' Occupational Stress' scale (Antoniou, Polychroni & Vlachakis 2006), which consists of 30 statements referring to job stressors. Teachers evaluate the level of stress they experience on a six-point Likert-type scale, where 1 corresponds to 'it is not stressful at all' and 6 to 'it is very stressful'. The factor analysis indicated four major occupational stressors, explaining 50.82% of the cluster: a) the management and the behavior of students ($\alpha = 0.874$), b) working conditions ($\alpha = 0.613$), c) teachers' workload ($\alpha = 0.827$) d) support and recognition by the state ($\alpha = 0.726$)

Finally, teachers completed questions with regard to demographical issues and working parameters, such as gender, age, years of teaching experience and training in the field of Special Education.

Procedures

The survey was conducted during January and February 2016. The questionnaires were distributed to schools with the consent of the directors. Participation in the survey was voluntary and anonymous. Of the 250 distributed questionnaires 208 were answered fully, yielding a 83.2% response rate. Data analysis was performed using the statistical package SPSS for Windows (ed. 22). Multiple statistical tests were conducted, namely frequencies, regression analysis, factor analysis, t-tests and univariate analysis of variance (ANOVA).

Results

Teachers' attitudes towards inclusion

To ascertain the teachers' attitudes towards inclusion the total score of the ORI was calculated for every participant. The reliability of the measurement using the Cronbach's alpha reliability coefficient was α=0.77 for the 25 items, which indicates that the sample had reached a satisfactory level of reliability. The score ranged from 24 to 119 (M= 76.44 S.D.=15.47). A narrow majority (57.2%) obtained the minimum score of 75 points, suggesting that 42.8% of respondents expressed negative perceptions. The factor analysis did not lead to satisfactory results, so the total score was used, according to the recommendations of the authors, and the average value on individual items.

The examination of the mean and standard deviation of the score for the individual items of the scale showed the items to which the participants mostly agreed or disagreed. Specifically, 93.7% of teachers expressed some degree of agreement with the position that the inclusion of students with SEN requires 'systematic and continuous training of teachers of general class', while the vast majority (89.3%) agreed and that 'the education of pupils with SEN is best done by special educators rather than by teachers of general education'. Correspondingly, 84.6% of teachers disagreed that the general class teachers have sufficient training to teach students with SEN, confirming the above aspects.

However, three out of four teachers recognized that inclusive education 'allows the interaction of a mixed group, which fosters understanding and acceptance of diversity among students' by partly or totally agreeing with this statement. This attitude is confirmed by the high disagreement with the opposite proposition, where eight out of ten teachers showed their disagreement with the item 'the presence of students with SEN in the general class does not promote the acceptance of diversity by the other students'.

Additionally, teachers acknowledged the benefits of inclusion in the social and emotional development of students with disabilities, by indicating a strong disagreement with the proposals that the isolation in the special class has a positive impact on social and emotional development of students with SEN (85.5%) and the inclusion of students with SEN does not promote their social independence (83.1%). Furthermore, 70% of teachers disagreed with the view that the behavior of pupils with SEN would constitute a negative example to other students. Finally, 89.4% of teachers stated that pupils with SEN should be given every opportunity to participate in the general class, whenever possible. Nevertheless, a significant number of participants (70%) expressed their concern about the behavior problems that are likely to be expressed by pupils with SEN in the general classroom.

To test whether the participants' perceptions were influenced by their gender we performed a t-test for independent groups. The analysis showed that there were no statistically significant differences in the total score of the participants that could be explained by their gender (t = .724, df = 206, p = .470). In contrast, age was found to influence the views of teachers. The univariate analysis of variance (ANOVA) showed statistically significant differences related to teachers' age: F(3.204)=3.543, p <0.05, n2 = .050. More specifically, the Bonferroni test showed that teachers aged under 30 years had a statistically significant higher score on the ORI scale compared to the 41-50 years group (p <0.05).

Occupational stress

For the 'Teachers' Occupational Stress' scale the average score of the responses was calculated individually for each participant. The internal consistency reliability (Cronbach's alpha) for Teachers' Occupational Stress scale for 30 items was α = .90, indicating a satisfactory level of reliability for the scale. The score ranged from 1.83 to 5.63 (M= 3.65, S.D.= .71). It was identified that teachers experience relatively high stress levels as the average score was found to be close to 4, indicating the existence of stress. 'The lack of time for personal engagement with students' (M=4.26, S.D.=3.35) and the 'severe lack of resources and equipment' (M=4.24, S.D.=1.17) were found to be the two main stressors. Generally, the stressors associated with *the lack of support and recognition from the state* and *the workload* proved to be mostly associated with increased stress (Table 1).

Table 1. Means for the occupational stress factors

Occupational stress factors	M
Behavior and management of students	3.73
Working conditions	3.15
Workload	3.82
Support and recognition from the state	3.84

Teachers' attitudes towards inclusive education and their occupational stress

In the next stage of the statistical analysis, the relationship between teachers' attitudes and their occupational stress was studied, in order to check whether the existence of occupational stress affects the perceptions expressed by teachers. However, the independent samples univariate analysis of variance (ANOVA) at $p<0.05$ level did not reach results that allow the correlation between the two variables (Table 2).

Table 2. ANOVA results for the differences in score of teachers in the ORI and the working stress in the individual stressors

Stress factors	M	SD	F (61.146)
Behavior and management of students	3.73	.835	1.069
Working conditions	3.15	.879	.726
Workload	3.82	.926	.866
Support and recognition of the State	3.84	.854	.864

However, the Pearson correlation coefficient showed several correlations of the stress components and the total ORI score (Table 3).

Table 3. Statistically significant correlations of stressors
and the total ORI score

Stress factors
The integration of students with special needs
Imposing discipline and the noise in the classroom
Too much time spent on certain children
The large number of students in the classroom
The effect on my personal life
The adherence of the program

Note: *p < 0.05, **p < 0.01.

Regression Analysis

Regression analysis was conducted to predict teachers' attitudes towards inclusive education by gender, age and the four main stress factors. By using SPSS we performed three separate regression analysis (Table 4). According to the results, perceptions of teachers were associated with their age b= -.189, t = -2.76, p < .01, R^2= .031 and concrete perceptions were more positive in younger ages. Finally, regarding occupational stress the analysis showed that teachers who experience more stress in relation to the 'behavior and management of students' are expected to have more negative attitudes on integration b= -.260, t = -2.64, p <.01, R^2 = .032.

Table 4. Regression analysis to predict teachers' attitudes by gender,
age and occupational stress

Predictors
• Gender
• Age
• Behavior and students management

Working conditions
Workload
Support and recognition from the state
.

Note: *$p < 0.05$, **$p < 0.01$*

Discussion

The main purpose of the study was to investigate the opinions of teachers regarding the inclusion of students with special needs in the general school. Additionally, the gender and age of teachers, as well as their occupational stress levels were examined as predictors of their expressing attitudes. According to the statistical analysis teachers participating in the study expressed marginally positive opinions towards inclusive education. Precisely, 57.2% of participants supported the idea of inclusion constituting the narrow majority of the sample. This result confirms previous research (Hsieh & Hsieh, 2012; Koutrouba et al., 2008; Memisevic & Hodzic, 2011), where the teachers' attitudes were likewise characterized as marginally positive and around 50% of the sample supported inclusive education. However, such comparisons could be considered unsafe due to the different methodology used in each survey. For this reason, it is interesting to compare the results to other studies that used the same measurement, indicating the average score on ORI. In Turkey, Rakap and Kaczmarek (2010) found "slightly negative" perceptions, as the rating of teachers on the ORI scale averaged 70.70 with a standard deviation of 19.35. This slight divergence could be explained by differences in the socio-economic and cultural level between Greece and Turkey. Sari et al. (2009) considered teachers to be 'undecided' on inclusive education based on the ORI results, which could confirm the two subsequent surveys.

Focusing on the agreement or disagreement of the participants with specific scale items it could be argued that teachers recognize the benefits of inclusion for both SEN students and their classmates. The social and emotional development of students with SEN is considered to more successfully occur in the mainstream class and promote their independence. Accordingly, the acceptance of diversity through the interaction of a mixed group of students is a key advantage for all participants in the integration process. A significant portion of teachers agreed, therefore, that SEN students should be given the opportunity to become actively involved in the general classroom activities. However, a considerable number of teachers appeared cautious towards behavioral problems displayed by SEN pupils and thus questioned the appropriateness of their training to work in an inclusive environment. This result is in agreement with previous research findings, which supported the inclusion in theory, but expressed reservations as to the application of it (Haq & Mundia, 2012; Khochen & Radford, 2012; Koutrouba et al., 2008; Memisevic & Hodzic, 2011; Zoniou-Sideri & Vlachou, 2006).

Regarding demographics affecting the perceptions of teachers, no significant differences in attitudes were found between men and women. This finding confirms the research of Avramidis et al. (2000), Boer et al. (2012), Jerlinder et al. (2010), Memisevic and Hodzic (2011) and Parasuram (2006). In contrast, differences were

detected in respect of teachers' age. Teachers belonging to the younger age group obtained higher scores and therefore express more positive attitudes, as found in previous research (Parasuram 2006; Rakap & Kaczmarekc, 2010). These findings could be interpreted as a result of the better training, which they are expected to have. The revision of the undergraduate curriculum by including special education issues enhances their educational level and familiarizes the graduates with the school reality. In addition, exhaustion and burnout in older age groups is likely to hamper the implementation of inclusive education and the adoption of positive attitudes towards it.

Another variable that has been extensively studied is the occupational stress of teachers. According to the findings, participating teachers showed relatively high levels of stress, as indicated in their response to specific stressors. The main source of stress was found to be the lack of individual time for each student, related to the workload and the large number of students in the class, which was also found among the common stressors. Additionally, the severe lack of resources and equipment is mainly due to lack of funding, especially during the economic crisis, making it difficult to position the educational and causes stress symptoms. Corresponding results are presented in previous studies from different countries, where teachers seem to face the same difficulties (Antoniou et al., 2006; Antoniou, Polychroni, & Kotroni, 2009; Betoret, 2006; Clipa & Boghean, 2015; Liu & Onwuegbuzie, 2012; Manthei et al., 1996; Richards, 2012; Travers & Cooper, 1993).

Regarding the relationship between attitudes and occupational stress, the results could be considered ambiguous. On the one hand, the perceptions of teachers were not directly linked to the working stress of teachers, as revealed by the analysis of variance in both scales and therefore validated the results of Monsen et al. (2014). However, there is evidence indicating the relationship of negative attitudes towards inclusive education with increased stress levels, confirming the claims of teachers in research interviews (Sukbunpant et al., 2013).

Regression analysis revealed that the stress caused by the behavior and management of students was a predictive factor of negative attitudes of the participating teachers. This component can be construed as the belief that inclusive education requires considerable effort, skills and appropriate training on behalf of the teacher to adapt the environment to the particularities of the student. It is expected that teachers instructed by the potentially "difficult" behavior of students will have difficulties managing such behaviors and appear more hesitant in implementing inclusive education.

The research hypothesis is further confirmed from the review of statistically significant correlations found between perceptions and individual stressors. Firstly, negative perceptions were associated with stress caused by 'the integration of students with special needs'. It could therefore be concluded that negative perceptions of teachers could be partly explained due to stress caused by the process of integration. Stress from 'imposing discipline and noise in the classroom' was also associated with more negative perceptions and thus could be seen as challenges teachers have to face to a greater extent during the inclusive education process. A significant number of studies ensures the aforementioned assumption (Alghazo & Gaad, 2004; Cook, 2001; Khochen & Radford, 2012; Koutrouba et al., 2008; Lifshitz, Glaubman, & Issawi, 2004).

Additionally, the relationship of stress caused by 'too much time spent on some children' could also be justified. The lack of specialized educational personnel support, significantly burdens the teacher who has to devote increased time in order to include a student with special needs. *'Overcrowded classrooms'* are highly connected to the above statement for which the state is responsible. Overcrowded classes hinder the educational work, when the teacher is forced to follow the "*average*" student and *'the need for adherence to the program'* leaves no room for individualized instruction, constituting another source of stress. In general, we observe that the lack of support from the state on special educators and support staff, as well as for technical equipment and infrastructure are obstacles to the implementation of the inclusion process (Khochen & Radford, 2012; Koutrouba et al., 2008; Lambe, 2011).

Finally, the stress caused by 'the impact of the profession in personal life' was also associated with less positive attitudes. Teachers who fail to separate their personal life from their professional life appear to present difficulties in managing demanding situations generally in everyday work. By extension, the psychological damage might contribute to their ability to effectively implement the integration policy. Therefore they are negatively disposed to it.

To sum up, the absence of statistically significant differences between the ORI and occupational stress scales could be a result of the tools used. The occupational stress scale includes factors that cause stress in general in the workplace of teachers. However, given the relationship found between certain elements of the scale with the perceptions of teachers, the constrsuction of a more specialized tool is proposed Using a scale to measure the occupational stress caused by the inclusive education and students with disabilities may present important findings on the relationship of stress perceptions and thus the implementation of inclusive education. The limitations of this research are mainly related to the relatively small number of teachers and their unequal distribution in the individual groups (primary-secondary). It is subsequently recommended to conduct further research for extensive comparisons between those groups. Detection of specific factors causing stress in the inclusion process could be a tool for the development of counseling and the support of educational programs.

Moreover, the reference to a large number of disabilities in the context of this research is consistent with the idea for 'education for all', but is another limitation of the study. Teachers were asked to state their views considering students with various disabilities. However, it appears that the nature of disability should be more extensively considered as a variable. Consequently, it is proposed to investigate the attitudes and problems faced by teachers regarding the inclusion of specific groups of students. This specialization could highlight the needs of specific groups and have a significant effect on the inclusion within the general school.

In conclusion, the finding of even 'marginally positive' attitudes is an important starting point, which gives optimism for inclusive education despite all the adversity and deterioration of the education system in recent years. Future research could focus on ways to improve the working conditions of teachers to address the factors that cause stress and enable the successful implementation of inclusive education.

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Considering the New Common Core State Standards for Teaching Spelling to Urban Students with Disabilities

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Abstract

The importance of writing is recognized in the Common Core State Standards (CCSS). CCSS places emphasis on both foundational skills (e.g., spelling) and writing applications such as planning, editing, and revising a variety of texts (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). Ensuring all students become proficient in writing includes providing effective writing instruction for students with disabilities. The purpose of this paper is to describe the effects of explicit spelling instruction and basal spelling instruction for 41 students with disabilities and who attend school in an urban area. Findings show that students who received the explicit spelling instruction outperformed the students who received basal group teaching on regular, irregular and morphograpic word types. Implications are discussed.

Keywords: *spelling, common core state standards, explicit spelling instruction, elementary students, learning disability*

Introduction

A disparity exists between different groups (i.e., cultural background, socioeconomic status) of students' academic performance and the performance gaps are significantly higher for students in urban areas compared to the national overall student population (Teale, Paciga, & Hoffman, 2007). Reading instruction in urban schools have a very heavy emphasis on phonological awareness, word recognition, and fluency; and instruction must go more in depth if students from urban areas are to have successful outcomes later in life (Teale et al., 2007). One suggestion to improve academic performance includes spending more time capitalizing on connections between reading and writing. Moreover, it is critical that all students become proficient in writing because it is an essential skill for living in industrialized societies. Students who have difficulty with writing are at risk regarding a) success in school,

b) attaining higher education goals, c) gaining competitive employment, and d) participating in society in general (Graham, Harris, MacArthur, & Schwartz, 1991).

Specifically the four writing applications addressed in the Common Core State Standards (CCSS) are a) writing for multiple purposes, b) producing and publishing well organized text through increased ability to plan, edit, and revise, c) using writing to build knowledge; and d) apply writing to extend and facilitate learning in a range of discipline specific subjects across purposes and audiences (Harris, Graham, Friedlander, & Laud, 2013). It is important to teach both foundational skills and writing application because writing fluently is connected with skills such as handwriting/typing, spelling, conventions, grammar, word choice, and sentence construction (Graham & Harris, 2013).

Graham and Harris (2013) lay out advantages of using CCSS and writing for students with disabilities. First the emphasis of application of writing increases the likelihood that students with disabilities will acquire such skills. Second, although not perfect, CCSS offers writing benchmarks that surpasses the coverage, coherence, and clarity of many state standards previously used. Third, CCSS will increase the use of performance assessment procedures. Finally, CCSS allows for continuity of writing goals which can reduce disruptions for any student who has to transition from one school to another.

Even though there are several benefits to using CCSS, Graham and Harris explain CCSS is also limited, and researchers must help educators maximize the probability that students with disabilities meet the writing benchmarks CCSS provides. An important limitation of CCSS Graham and Harris address is the vagueness of foundational skill benchmarks critical to writing fluency which do not offer instructional value for teachers. The example of vagueness Graham and Harris provide include "Spell grade appropriate words correctly". The danger of such vagueness is the possibility that teachers emphasize the writing processes of planning, editing, and revising without teaching students foundational skills and strategies which allow for effective planning, editing, and revising to take place (Gilbert & Graham, 2010). To address this limitation Graham and Harris advise that teachers develop differentiated goals for students based on their need, and not approach writing instruction as one size fits all. Therefore, educators must have a repertoire of instructional techniques to build foundational skills for a variety of students' needs (i.e., handwriting/typing, spelling, grammar, etc.)

Fresch (2003) sent out a national survey of spelling instruction. She wanted to investigate teachers' beliefs and practices in spelling. Ninety-eight percent of the 355 teachers surveyed from around the country reported spending specific time each week for spelling and 73% believed that formal spelling instruction was needed for students to achieve. The majority of the teachers reported using practices that resemble the basal speller issued by the school district, and 72% reported using a common list for the entire class. Fifty-six percent of the teachers reported using mini-lessons, 20% used small group instruction, and 11% used one-on-one instruction. They usually reported using practice sheets, spelling games, word sorts and word walls. A large number (84%) used a weekly posttest for grades. The survey concluded with an open-ended question allowing teachers to respond to any other issue of concern as it related to spelling and their teaching. Most teachers responded that they were very concerned about meeting the individual needs of their students. The purpose of this study was to examine explicit instruction as an instructional method to increase the foundation skill of spelling for students who have writing difficulties, who are from an urban elementary school, and who were identified with a specific learning disability or identified behavior problems.

Stages of Word Knowledge Reflected in Spelling

Word knowledge is critical in reading and writing. Spelling reflects word knowledge, and word knowledge develops with meaningful engagement in reading and writing activities (Bear & Templeton, 1998; Flanigan, 2007). Gehsmann (2011) explain there are five stages of word knowledge reflected in writing.

The first stage is the emergent stage. At the beginning of the emergent stage children draw and scribble. As children continue to participate in meaningful reading and writing

activities, they start to develop an understanding of the alphabetic principle (i.e., phonemes or individual sounds correspond to graphemes and are arranged left-to-right on the page). As children continue to grow in their understanding of the alphabetic principle, they begin to realize that a written word represents a spoken word (Flanigan, 2007). The next stage is the beginning stage. In the beginning stage, children have a basic understanding of the alphabetic principle and the conceptualization of a word. Children write words matching letters to sounds at a very basic level in which one letter represents one sound. As children continue to write words in meaningful reading and writing activities, they begin to understand more complex patterns in words. This marks the transitional stage. In the transitional stage, children write words using long and short vowel sounds and develop an understanding of basic word patterns (e.g., words ending with the silent *e*) and single syllable words. After the transitional stage, children begin to understand more difficult sound and spelling features of words. This is the Intermediate stage. In the intermediate stage, children learn patterns involving words with two or more syllables. In this stage children also begin to combine syllables and affixes which involve phonological and morphological relationships among words. The last stage is the proficient stage. This stage is also referred to as the advanced or skilled stage. In the proficient stage, children develop a well-integrated understanding of alphabetic patterns and the morphological relationships of words. Children know that how words are spelled reflects the meaning of words and that words with similar meanings are often related in spelling.

Explicit Spelling Instruction

Regardless of ability level, spelling continues to be a very difficult task for students with specific learning disabilities and behavior problems (Mastropieri & Scruggs, 1987; Nelson, 1980). Spelling requires the production of exact letter sequencing, letter sounds knowledge, an in depth understanding of grapheme-phoneme relationships and, unlike reading, cannot rely on contextual clues for spelling accuracy. Thus spelling instruction is a very complex process that requires educators to use a variety of teaching approaches.

Researchers show that spelling instruction for students from urban areas or students with disabilities need to be explicit, involve phonemic and morphemic analyses of words, and include strategies that lead to teaching students to spell new words through morphographs (Berninger, et al., 2002; Butyniec-Thomas & Woloshyn, 1997; Simonsen & Gunter, 2001).

Explicit instruction is a manner of providing instruction in which an unobservable process (e.g., thinking) is turned into an overt observable task. For instance, a teacher not only explains a concept, but delivers a series of carefully sequenced set of examples and provides students guidance in the implementation of tasks using the new knowledge. Phonemic and morphemic analyses includes building understandings of the relationship between letter-sounds and their corresponding sounds as well as an understanding of how units of meaning (i.e., suffixes, prefixes, and word bases) is utilized in written English. Several researchers have investigated explicit instruction, phonemic and morphemic analyses as a method of teaching students from urban areas or who have reading or writing difficulties foundational skills for spelling. Studies include examination of explicit instruction components, comparisons of instructional methods, integration of explicit writing and spelling instruction, and the use of manipulatives in explicit spelling instruction.

Winterling (1990) examined the effects of instructional components considered to be explicit and systematic. The purpose of his study was to evaluate the effectiveness of constant time delay (student think time), drill-and-practice, and token reinforcement in teaching sight words to a small group of three students with disabilities. Three students (two males and one female) who were receiving services in a resource room participated in the study. Two of the students were classified as having an intellectual disability and the third student was classified as having SLD. The students' average age was seven-years-old. Lessons lasted 20- 30 minutes and were conducted three or four days a week. Data from all three students indicated error rates in spelling dropped and the teaching procedures were effective in teaching students to spell.

Other studies compared the effectiveness of explicit spelling instruction to other methods of teaching students with disabilities such as the use of visual imagery or spelling activities that are not taught in explicit formats. Darch and Simpson (1990) examined the effectiveness of teaching students with SLD to spell through the use of visual imagery mnemonic to explicit spelling instruction that taught students phonemic and morphemic rule-based strategies. In visual imagery the teacher would show a word to students on a screen then implemented the following steps a) the instructor would have students visualize the image of the word in their mind, b) students were asked to imagine the word in their mind on a screen, c) students were asked to imagine each letter of the word, and d) students were then asked to imagine nailing each letter of the word to the screen.

Twenty-eight upper elementary students were randomly assigned to two groups during a four-week summer enrichment program. Overall results of the study indicated that students taught with an explicit rule based strategy approach outperformed students who were taught with the visual imagery strategy. Darch and Simpson explain that it is possible students in the explicit rule based group performed better because explicit instruction allowed for close teacher monitoring and immediate corrective feedback when an error was made.

A study by Darch, Eaves, Crowe, Simmons and Conniff (2006) compared the effects of an explicit rule-based strategy versus a more traditional approach involving spelling activities that are not explicit in nature. Spelling activities included introducing the words in the context of story, defining the meaning of the words, sentence writing, and dictionary skill training. The participants were 42 second- through fourth-grade students receiving special education services, yet both groups performed poorly on retention and transfer tests. Results indicate students who received explicit rule-based instruction significantly increased in spelling performance. Darch et al explain spelling programs should provide sufficient guided and independent practice to mastery so that students can apply a strategy to spell words.

Researchers also examined combinations of explicit spelling and writing instruction for diverse populations of students. Berninger, et al investigated the effects of explicit instruction in both spelling and writing for students with spelling difficulties who live in urban areas. Ninety-six third grade students from seven elementary schools in three urban school districts participated in the study. Four conditions of explicit instruction were examined. They were a) explicit spelling instruction only, b) explicit instruction in composition only, c) combined spelling and composition instruction, and d) contact control in which students practiced writing and received keyboard training but instruction was not explicit. Findings suggest that explicit spelling instruction lead to greater gains for students in spelling. Overall, spelling instruction, with or without writing instruction, improved spelling of words taught to students. Writing instruction with or without spelling instruction, improved the quality of students' persuasive essay writing. Explicit instruction in both the alphabetic principle and its alternations improved the phonological-decoding component of spelling but did not improve word-specific learning of spelling words taught to students. Lastly spelling instruction that focused on the alphabetic principle and its alternations transferred to students' spelling while composing a persuasive essay. Berninger et al suggest students need writing instruction that combines both explicit instruction for spelling as well as composition.

Graham, Harris, and Chorzempa (2002) conducted a study of a supplemental explicit spelling instruction to explore effects on writing fluency and word recognition. The spelling instruction focused on analysis of phonemic and morphemic spelling patterns of words for students in urban areas who were at-risk for spelling difficulties. Participants included 77 students in the second grade who had difficulty spelling. Of the 77 participants, 23 students received school services for special education. Students who received the supplemental instruction made greater gains than their peers on spelling, writing fluency and word recognition measures. Six months after instruction, students who received the supplemental spelling instruction maintained their scores in spelling, and spelling instruction had a positive effect for maintenance of word recognition skills for students who scored the lowest in word recognition.

Explicit spelling instruction with manipulatives has been shown by researchers as an effective method of instruction for students with intellectual disabilities. Joseph (2002)

investigated the effectiveness of explicit spelling instruction with the use of word boxes and word sort instruction for students with intellectual disabilities. The use of word boxes and word sorts use manipulatives to teach spelling through phonemic awareness and letter-sound correspondences activities. All instruction was individual and took place over 29 days. Participants were two females and one male with an average age of ten years and two months. A multiple baseline design across participants was employed to examine changes across baseline, instruction, and maintenance conditions on spelling performance. All three students demonstrated increases in performance relative to baseline conditions for spelling accuracy during the intervention.

An explicit, whole-word approach to spelling has also been shown to be effective in teaching students to spell words (Pratt-Struthers, Struthers, & Williams, 1983). Explicit whole word spelling instruction employs individualized spelling lists. Typically the words in the lists are grouped together based on some similarity. For example words would have a common theme (i.e, words seen in poetry) or words would have common sounds such as words that begin or end with /th/.   Students study their lists daily using various techniques including the study, copy, cover, and compare strategy. At the end of each lesson, students take a test on their spelling words. A student is considered to have achieved mastery when he has spelled the word correctly for three consecutive days. The mastered word is then dropped from the list and a new word is added. In the study conducted by Pratt-Struthers at al in which they investigated if spelling instruction transferred into creative writing assignments for nine students who received special education for a specific learning disability. Students significantly improved in spelling words (an average of 0 % correct to 90 % correct) they were taught correctly in their journals.

Burnette, Bettis, Marchand-Martella, Martella, Tso, et al (1999) compared different explicit approaches to spelling instruction. One instructional method utilized phonetic and morphemic rule based learning and the other instructional method utilized a whole word approach. Specifically the researchers wanted to know if greater improvements in students' spelling over time on predictable and unpredictable words were found when correct letter sequences in words were analyzed. A total of 446 students participated in the study. Findings suggest spelling skills of students exposed to instruction that emphasized letter sound correspondence greatly improved compared to instruction that emphasized a whole word approach. It is important to note that students in this study were exposed to different reading instruction and curriculum formats, therefore confirmation of the effectiveness of one instructional approach over the other cannot be confirmed.

In conclusion, spelling is a critical feature for improving the reading and writing skills of students. All of these studies reported that when students were exposed to explicit instruction their spelling improved. Unfortunately, a survey found most teachers used practices that resemble the basal speller (Fresch, 2003). It is very important that studies focus on effective teaching strategies for students within the context of spelling. This research now poses the question, which of these strategies is the most successful?

Method

The purpose of this study was to examine explicit instruction as an instructional method to increase the spelling skills for students who have writing difficulties, who are from an urban elementary school, and who were identified with a specific learning disability or identified behavior problems. This study compared a traditional approach to spelling instruction (currently used in classrooms) and explicit instruction which teaches spelling rules students can employ to spell words. The traditional approached used a test-study-test method. While explicit instruction used six different strategies ranging from phonemic generalizations to dictation. The general research questions in this study were: (a) Are there specific methods of teaching spelling that are more successful for students with mild learning and behavior problems?, (b) To what extent are there differences in different instructional methodologies in teaching irregular words?, (c) To what extent are there differences in different instructional methodologies in teaching regular words?, (d) To what extent are there differences in different instructional methodologies in teaching morphographic words?, and (e) What

differences in   specific spelling error type when provided different methodologies of instruction?

Participants

There were a total of 41 participants from an urban elementary school in the Southeast area of the United States. Students in third through fifth grade were eligible for the study if they meet at least one category of the following three criteria. First, students who were considered at-risk and scored in the "intensive" (significantly at-risk) or "strategic" (one or more skill areas not mastered) categories of the Dynamic Indicators of Basic Early Literacy (DIBELS) were eligible for the study. These two DIBELS categories indicate that the students' present level of performance in reading is considerably below grade level. Second, students who qualified for Title I services according to state guidelines were eligible to participate in the study. Third, students who were identified as having a disability in accordance with the state guidelines for identifying students with special needs and according to the Individuals with Disabilities Improvement Act (IDEIA, 2004) were also eligible to participate in the study.

In addition to the criteria, all participants had to score 60% or below on the pretest to participate. This pretest established that participants were functioning below average in the area of spelling. Demographic information such as gender, exceptionality, ethnicity, and grade level are provided in Table 1 below.

The *Test of Written Spelling-4* (TWS-4) was administered to ensure equality among the two groups. The *TWS-4* is a standardized achievement test for measuring spelling achievement. This test was standardized on more than 4,000 students. Internal consistency and test-retest reliability coefficients are greater than .90. There is also support for construct, content, and criterion-related validity on the *TWS-4* (DeMauro, 1999). The test yields information such as standard scores, percentiles, spelling age, and grade equivalents. The *TWS-4* has four purposes, one of which is to identify students whose scores are significantly below those of their peers and who might benefit from interventions designed to improve spelling proficiency (Larsen, Hammill & Moats, 2005).

Table 1. Subject Demographics by Intervention Group

Traditional		Explicit Rule-based	
Characteristics	*N*	Characteristics	*N*
Gender		Gender	
Male	14	Male	10
Female	6	Female	7
Exceptionality		Exceptionality	
At-risk	11	At-risk	11
SPED	9	SPED	6
Ethnicity		Ethnicity	
African American	9	African American	13
Caucasian	2	Caucasian	1
Hispanic	2	Hispanic	0
Other	7	Other	3
Grade		Grade	
3rd grade	0	3rd grade	9
4th grade	14	4th grade	3
5th grade	6	5th grade	5
Traditional Method		Explicit Rule-based Method	

Assessments	SD	*M*	Assessments	SD	*M*
TWS-4	13.57	83.4	*TWS-4*	10.14	88.7

M = mean   SD = standard deviation

Instructional Procedures

The traditional spelling instruction and explicit rule-based instruction descriptions that follow will vary. The traditional spelling instruction is described by its weekly components, whereas the explicit rule-based instruction is described using a typical daily lesson. The rationalization for this is due to the variations between the overall instructional goals of these methods. The traditional method focuses on a set of words taught Monday through Friday, with little or no cumulative review. Explicit rule-based instruction develops spelling skills daily with consistent review and teaching to mastery through a variety of activities. Explicit rule-based programs generally have an extensive scope and sequence lasting over longer periods of time.

Procedures

To gain access to participants, a detailed, but brief research proposal was sent to a local school system for consideration. Once administrators had granted permission and designated an approved school, the researcher then contacted the principal and provided him with information about the study. Meetings with the principal, teachers and other personnel were scheduled so that an overview of the study could be presented. The presentation included suggested benefits to the school, and answered any questions or concerns the administration might have had. A letter of consent to parents was then distributed to all students identified as possible participants in the study. The letter explained the study, ensured confidentiality, and notified parents of their rights to disallow their children's participation at any time during the study. Parents were asked to provide written consent for their children to participate in the study.

Students who returned consent forms were randomly assigned to one of two treatment groups. Random assignment was used to control for the effects of history, maturation, testing, and instrumentation (Stanley & Campbell, 1963). Students' names were drawn from a hat and placed into two stacks representing the two treatment groups.

Control for extraneous variables. Since this study was designed to compare the effects of two highly dissimilar approaches to spelling, several controls were implemented to ensure that extraneous variables were not the cause of any differences between the dependent measures. Some critical variables were held constant throughout all treatment groups. Features of instructional presentations were controlled for across both groups. First, instruction was limited to four times a week (Monday through Thursday) with a spelling test on Fridays for the three consecutive school weeks (total of 15 days). Adhering to typical elementary spelling lesson lengths, instructional sessions lasted around 20-25 minutes. Instruction was administered in small groups with no more than nine students per group. Second, the spelling words used in each of the treatments were identical and represented the three types of spelling patterns. Third, lessons for each of the treatment groups were semi-scripted. All semi-scripted lessons included the essential components of each lesson, including daily objectives, teacher wording, and lesson concept(s) or strategy. Scripted lesson plans allowed the researcher to be guided through the lessons, and ensured consistent implementation across groups.

Several efforts were made to control for possible teacher effects. The researchers taught both treatment and experimental groups. There are variables associated with how a teacher's actions could be probable confounding variables. Any effect the teacher had was

equally distributed among all groups. In order to control for order effects, the teaching of two treatment groups were alternated.

Teacher Training. The primary researcher served as the teacher for all the intervention groups. The instructor has been a special education teacher for five years and has been thoroughly exposed to the explicit instructional methods. She has modeled and trained undergraduate and graduate students on the implementation of explicit instruction materials for three summer teaching clinics. A trained doctoral student with a background in explicit instruction and nine years of experience teaching special education students served as the trained observer and critiqued the experimental teacher. This critique was done before the intervention began in order to provide feedback to improve instruction. The observation forms, "DI Checklist" and "Traditional Checklist" were used as guides. Features such as following instructional formats, signaling, pacing, error-correction, and reinforcement were emphasized. Behavior management focused on using positive verbal reinforcement. The trained observer assessed the implementation of both teaching methods throughout the intervention.

Fidelity of treatment. To ensure fidelity of treatment, the teacher was visited and observed for at least 30% of the 12 sessions, over the duration of the study. Observations can be described as unobtrusive watching of behavior in a small group setting to ensure that teachers are implementing instruction correctly. The trained observer had a checklist to use for each lesson she observed. Checklists included length of lesson, students' time on task, implementation of lesson formats, pacing, and behavior management. These forms ensured that the two spelling instructional methods were administered appropriately.

Explicit Rule-Based Approach. The explicit instruction used for the study consists of six exercises. They are as follows:
Exercise 1. Students work on orally identifying sounds that compose words. This can be long or short vowel sounds, blends, or whole words.
Exercise 2. Students review previously taught phonemic generalizations (rules or sounds). For example, the sound /a/ is spelled –*ay* when it comes at the end of a word (day, play, stray). Practice allows for students to become automatic in their spelling.
Exercise 3. Students write two to three sentences from dictation. Sentences are made up only from words that have been previously taught. This exercise allows for a review of words, while modeling for different ways in which words can be used.
Exercise 4. A pair of commonly confused words are taught in the same sentence (where and were). Prompts are provided in order to prevent confusion among the words.
Exercise 5. Sets of five to eight words previously taught are dictated. This is a review and provides practice.
Exercise 6. Students are provided a picture and are asked to write a sentence that tells what the characters could be saying. This allows for transfer of words from practice into sentence writing. Students are encouraged to use previous words to compose their sentences.

Traditional Instructional Approach. Traditional spelling lessons are designed to last from Monday to Thursday with instruction varying each day. These programs describe the test-study-test method as the single most effective strategy for teaching spelling. Once students have seen their spelling words for the week, they take over responsibility for their own learning. Just as in the explicit rule-based approach, the lessons in the traditional approach were semi-scripted so the experimental teacher could follow the program just as the authors have intended. The instructional methods typically found in popular basal programs currently used in many schools were utilized. In general, these programs are designed to integrate spelling skills with everyday language arts skills. This is incorporated through a variety of activities (e.g., rhyming words, puzzles, find the misspelled word, vocabulary builders) that can be linked to other content areas. Furthermore, students are prompted to check their

spelling and grammar, and are encouraged to use dictionaries and spell checkers for clarification.

Measurement Procedures and Instrumentation

As mentioned before, students were administered the TWS-4 to identify group differences (Larsen & Hammill, & Moats, 2005). No differences were found among the groups of students who were to receive spelling instruction. During the three weeks, students were taught one of three different word types each week (regular words, morphemic words, and irregular words). On the 5th, 10th, and 15th days of the intervention, students were tested on their ability to spell the particular word type that had been taught earlier that week. Following the three weeks of intervention (15th day), students took the last unit test. Additionally, the following types of errors on the unit tests were recorded and analyzed: (a) orthographic errors, (b) phonological errors, (c) sequence errors, (d) substitution errors, or (e) gross errors (Gettinger, Bryant, & Fayne, 1982).

Three Weekly Unit Tests. After every fourth lesson (on the 5th, 10th and 15th day) a 20-word item test was dictated to the subjects in both groups. The purpose of the unit tests was to evaluate the participants' ability to spell words that were specifically presented in the groups. Students were given paper and instructed to number and write their spelling words as they were read aloud. If a student asked for help, they were reminded to use the skills they had been taught during the week. However, rate of word presentation was slowed when necessary.

Results

Findings for Unit Test Measures

A multivariate analysis of variance was used to determine the effects of the spelling instruction. Statistical differences were found using the Wilks' Lambda ($F = 93.715$, df = 2,37, $p < .05$. All students increased in their spelling performance, regardless of instructional type, however the students who received explicit rule based instruction had higher scores on all three unit tests which measured performance for spelling regular words, morphographic words and irregular words (see Table 2).

Table 2. Means and Standard Deviations for the Traditional and Explicit Rule-Based Groups

Measure	Mean	Standard Deviation
Pretest		
Traditional	43.90	16.79
Explicit rule-based	47.85	13.59
Unit Test 1 (regular words)		
Traditional	78.50	25.13
Explicit rule-based	84.71	17.45
Unit Test 2 (morphographic words)		
Traditional	45.50	25.64
Explicit rule-based	54.41	23.37
Unit Test 3 (irregular words)		
Traditional	43.25	27.44
Explicit rule-based	58.53	17.74
Posttest		
Traditional	62.19	23.72
Explicit rule-based	71.40	20.30

Findings for Error Analysis

The percentage of error types on the three weekly unit tests were analyzed to ascertain differences between treatment groups. The following five types of errors were recorded and analyzed:

1. Substitution errors—the error includes an incorrect placement of a digraph.
2. Orthographic errors—the error is phonetically correct but orthographically incorrect (i.e., cote for coat).
3. Phonological errors—the error includes one or more grapheme mistake that changes a word (i.e., barn for born).
4. Sequence errors—the error includes an incorrect order of two graphemes (i.e., baot for boat).
5. Gross errors—the error does not represent either correct orthographic or phonological presentation of the word (i.e., cote for soap).

   The results of spelling errors indicated that the effects of the treatments on error types differed according to instructional method. The explicit rule-based group made fewer total errors on all five-error types. The largest difference in scores was seen during Weekly Unit Test 3 (Irregular words) with 228 errors (traditional group) and 142 errors (explicit rule-based group). Table 3 presents error percentages for each type of error on the three weekly unit tests. Except for orthographic errors spelling morphemic words and gross errors spelling irregular words, students who received explicit instruction made fewer errors.

Table 3. Percentages of Spelling Error for Each Unit Test Based on Error Type

Error Type	Weekly Unit Test 1 (Regular words)	Weekly Unit Test 2 (Morphemic words)	Weekly Unit Test 3 (Irregular words)
Substitution Errors			
Traditional	5%	14%	6%
Explicit rule-based	2%	5%	5%
Orthographic Errors			
Traditional	6%	8%	17%
Explicit rule-based	6%	16%	14%
Phonological Errors			
Traditional	9%	4%	8%
Explicit rule-based	5%	1%	1%
Sequence Errors			
Traditional	0%	4%	8%
Explicit rule-based	1%	1%	1%
Gross Errors			
Traditional	0%	10%	11%
Explicit rule-based	1%	2%	17%

Discussion

   A large body of empirical data related to spelling instruction exists; however, there is a need for more research to be conducted that examines effective programs for students with learning difficulties and behavior problems in urban schools (Vaughn, Schumm, & Gordon, 1992). Researchers have shown students with mild behavior and learning difficulties have frequent questions when spelling and have greater difficulty with writing than their peers. Generally, students with specific learning difficulties have more problems producing writing that is polished, expansive and coherent than students without disabilities (Harris & Graham, 1999). Based on Graham and Harris (2013) this is problematic because the CCSS is limited in that foundational skills are not addressed, and students with disabilities must meet the writing benchmarks CCSS provides. Perhaps explicit instruction is a way of offering students more opportunity to practice foundational skills such as spelling with direct feedback.

   The explicit rule-based group outperformed the traditional group on all three unit tests (based on percent correct). For regular words, the explicit rule-based group had a mean

of 85% compared to the traditional group mean of 79%. For morphographic words, the explicit rule-based group had a mean of 54% compared to 46% average of the traditional group. Weekly unit test 3 of irregular words yielded a mean of 58.53% for the explicit rule-based group and 43.25% for the traditional group. The explicit rule-based group mean differences (58.53%) were highest for unit test three (irregular words) compared to the traditional group (43.25%). The multivariate Wilks' Lambda test for treatment was significant ($F = 93.715$, df $= 2,37$, $p < .05$). These findings mirror the results of Graham et al (2002) and Berninger et al (2002).

Results of this study suggest that features within the traditional method and explicit rule-based method are both effective in teaching students from urban schools with mild learning and behavior problems to spell. Error analysis indicates that students who received explicit instruction made overall fewer errors than students who received traditional basal instruction. Interestingly, students who received explicit instruction made fewer substitution, phonological, and sequencing errors even when spelling irregular words. Similar to Darch and Simpson's explanations, instructional features within the explicit rule-based group such as guided practice and immediate feedback on student performance could have caused the group who received explicit instruction to perform better.

Limitations

With any type of research, there are limitations and unforeseen circumstances that the researchers may encounter while collecting data in the field. Schools and classrooms also have preexisting situations that the researchers may not be able to anticipate. Although subjects represented different race, gender, disability, and spelling achievement, generalizations of the results to different populations may be problematic. The study was also isolated to one urban school in the Southeast region of the United States, which makes it difficult to generalize to other settings. The students were randomly assigned and not randomly selected due to the small sample size. There were some classroom situations the researcher was unable to overcome.

One teacher in particular was reluctant to release her students to go to spelling instruction. Pressures to increase student performance on federal and state tests concerned teachers who allowed their students to participate. Even though instruction lasted 20-25 minutes daily at a predetermined time, some teachers had changed their schedules to prepare for testing, and spelling small groups had become somewhat of an inconvenience.

During week two of the intervention, all students were preparing for the anti-drug assembly they were having on Friday. These daily preparations were unscheduled and also took place during small group spelling instruction Tuesday through Friday. Monday of that week was also a major holiday, so one day of instruction was not implemented. On Monday of week three, students began preparing for classroom Valentine's Day parties for Wednesday afternoon. This preparation also took place during small group spelling instruction. Friday of that same week, students also had to prepare for "Community Learning Friday." Once a month, a community leader or business comes to the elementary school to talk about their career or business. For this particular Friday, it was the local karate school that was performing and students had begun to practice their karate skills for the assembly. This too, took place during spelling instruction. These distractions may account for poor performance on unit 2 and 3 unit tests. Some students stated that they had some of their words as spelling words before. It would have been virtually impossible to construct a set of unfamiliar words for the study due to their prior exposure to spelling words.

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Zimbabwean Early Childhood Education Special Needs Education Teacher Preparation for Inclusion

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Abstract

The current study examined special needs education teachers' preparation for inclusion in Early Childhood Education (ECE). The present descriptive study drew on a sample of twenty-eight ECE special needs education teachers purposively drawn from Mashonaland West educational province of Zimbabwe. A constant comparative analysis of data organisation with continual adjustment was utilised throughout data analysis to identify recurring themes and discover common patterns while maintaining individual contextual information. Despite participants' Afrocentric and Eurocentric conceptualisation and support for inclusion, they were selective regarding children to serve based on the nature and severity of the children's disabilities. Limited capacity in teacher education for inclusion in teacher education institutions hampered participants' preparation. Infusion of training on inclusion across ECE teacher education curricula, affording teacher candidates teaching practice in inclusive settings, collaboration of teacher education institutions with other stakeholders and in-service training of teacher educators could enhance teacher preparation for inclusion. The present study is a baseline for future studies on special needs education teacher preparation for inclusion in ECE.

Keywords: *Children with disabilities, early childhood education, inclusion, mainstream teachers, teacher preparation, Zimbabwe*

Introduction

In compliance with civil rights movements as expressed in several international human rights declarations, conventions, statements, agreements and charters including 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 of the Rights of Persons with Disabilities (United Nations, 2006) to which Zimbabwe is a signatory, the country adopted inclusion in Early Childhood Education

(ECE) in 1994 (Chakuchichi 2013; Majoko, 2017; Mandina 2012; Mpofu, Kasayira, Mhaka, Chireshe and Maunganidze 2007). Since then, dramatic changes in the demographic profile have challenged ECE teachers in the country to confront the significantly increasing diverse needs of young children and their families including those with disabilities and vulnerable to underachievement, marginalisation and exclusion in education (Deluca, Tramonta and Kett 2013; Majoko, 2005; Mandina 2012; Musengi and Chireshe 2012; Mushoriwa and Muzembe 2011). A universally accepted definition of inclusion is illusive, thus far, as a result of the conceptual complications in defining it including what counts as evidence of its practice and model practice (Ainscow 2005; Black-Hawkins and Florian 2012; Dyson and Gallannaugh 2007). Nevertheless, the philosophy can be viewed as a process which involves transformation of mainstream pedagogical settings in order to ensure that all children including those with disabilities are supported to meet their academic and social potential (Chhabra, Srivastava and Srivastava 2010; Oliver and Reschly 2010). Inclusion involves removal of barriers in environment, communication, teaching, curriculum, socialisation and assessment at all levels (Batu 2010; Hornby 2010; Majoko, 2016c; Naicker 2007).

Inclusion, thus, includes a far wider range of children vulnerable to exclusion and marginalisation than those with special educational needs (Agbenyega 2007; Allan 2006; Ballard 2012; Deppeler 2006; Pantic and Florian 2015). It is entrenched in access, participation, acceptance and achievement of all children including those with disabilities and their families in the mainstream activities of the school community while meeting their full range of unique needs as well as contributing to the development of school community (Chakuchichi 2013; Donnelly and Watkins 2011; Flecha and Soler 2013; Florian and Rouse 2011; Slee 2011). Within an inclusive perspective on teaching and learning, children with disabilities are not only physically integrated, but also socially, culturally and emotionally integrated (Chireshe 2013; Ncube 2006; Pantic 2015; Slee 2010; Voss and Bufkin 2011). Inclusion thereby becomes a component of a broad human rights and social justice agenda that situates itself on the centre stage of the education of all children with unique needs in their neighbourhood mainstream school education systems (Agbenyega 2007; Dyson and Gallannaugh 2007; Florian and Spratt 2013; Rafferty and Griffin 2005; Rouse 2008).

In Zimbabwe, children with disabilities are learners with speech or language impairments, visual impairments including blindness, hearing impairments including deafness, mental retardation, emotional disturbance, orthopedic impairments, autism, traumatic brain injuries and other health impairments or specific learning disabilities. Consequently, they have needs that require special needs education and related services and programmes (Majoko, 2013; Mpofu et al. 2007; Mutepfa, Mpofu and Chataika 2007). In spite of the indispensability of current and reliable statistical data on the number and percentage of these children in planning policy and provision, a widely contrasting prevalence of disability is revealed in different studies that have been undertaken in the country. These include the Inter-Censal Demographic Survey Report of 1997, the last comprehensive study on the prevalence of disability among children, which estimated that there were 57 232 children with disabilities. In contrast, the United Nations Children Emergence Fund Report of 1997 approximated that there were 150 000 children with disabilities which was three times as many as the former survey report (Mandipa and Manyatera 2014). On the other hand, Chakuchichi (2013) reports that, at the time of his study, there were approximately 600 000 children of school-going age with disabilities in the country. This warrants a

comprehensive disability survey as a constituent of a national census process because a significant proportion of babies are currently born with HIV/AIDS, the majority of whom will also be orphaned (Deluca et al. 2013; Education For All 2013; Majoko, 2016c; Mandipa and Manyatera 2014). Despite the absence of recent and reliable statistical data on the prevalence of disability among children, research reveals that the most prevalent forms of disabilities among school-going age children in the country include hearing impairments, physical impairments, speech functional difficulties, mental impairments and intellectual and sensory impairments (Chireshe 2011; Majoko, 2016a; Mandipa and Manyatera 2014; Mpofu and Shumba 2012).

Consistent with the global pursuance of inclusion in ECE, the government, in consultation and partnership with other stakeholders, has institutionalised supportive management infrastructure. This includes the Ministry of Primary and Secondary Education (MoPSE) of Zimbabwe which is responsible for infant education which incorporates ECE A for 3 to 4 year-olds and B for 4 to 5 year-olds (Kuyayama-Tumbare 2013). Within the MoPSE of Zimbabwe, the Department of Schools Psychological Services and Special Needs Education delivers various services and programmes to facilitate accessible, equitable and quality neighbourhood education for all children including those with disabilities and vulnerable to underachievement, marginalisation and exclusion in education (Mugweni and Dakwa 2013). These include needs driven quantitative expansion and quality assurance of educational provision while advocating for awareness, responsiveness and inclusion of these children among stakeholders including parents, teachers, school heads, communities and the country at large. This involves staff development of Schools Psychological Services and Special Needs Education personnel, school heads, teachers and national, provincial and district education officers. The Ministry of Higher and Tertiary Education, Science and Technology Development (MoHTES and TD) of Zimbabwe in consultation and partnership with the MoPSE provides pre-service and in-service training to teachers in inclusive ECE (Chireshe 2013; Education For All 2015; Majoko, 2005; Mpofu and Shumba 2012). It also facilitates early identification, intervention, rehabilitation and inclusive interaction services and programmes (Chakuchichi 2013; Chireshe 2013; Deluca et al. 2013; Majoko, 2013; Mugweni and Dakwa 2013)

The Department of Teacher Education of the University of Zimbabwe in collaboration with the Department of Infant School Education, the Department of School Psychological Services and Special Needs Education, the MoHTES and TD and the MoPSE provides strategic support towards teacher preparation and development for inclusion in ECE (Majoko, 2016d; Mugweni and Dakwa 2013). Eleven of the twelve primary teachers' colleges and six universities in Zimbabwe provide full-time and part-time teacher professional preparation and development in inclusion in ECE at diploma and degree levels (Education For All 2015). Similarly, the Mother, Baby, Toddler programme in Harare provides a child caregiver programme that provides a forum for early intervention for children with special needs, discussions, parenting lessons and sharing ideas among parents and other childcare givers on best practices in parenting (Kuyayama-Tumbare 203).

In alignment with civil rights movements, as expressed in several international human rights legal infrastructure, the country passed and enforces several pro-inclusion legislations and policies. These include the Zimbabwe Education Act of 1987 as revised in 2006, the Disabled Persons Act of Zimbabwe of 1996 and the Zimbabwe Constitution Amendment Number 20 of 2013 section 75 (Majoko, 2016a; Kuyayama-

Tumbare 2013; Mugweni and Dakwa 2013). It has also produced circulars mandating the inclusion of children with disabilities in their neighbourhood mainstream ECE settings including the Secretary's Circular Number 2 of 2000, the Secretary's Circular Number 14 of 2004, the Director's Circular Number 7 of 2005, Director's Circular 12 of 2005 and the Principal Director's Circular Number 20 of 2011 (Chireshe 2011; Mandina 2012; Mpofu and Shumba 2013; Musengi and Chireshe 2012). According to the Ministry of Education, Sport and Culture of Zimbabwe's Annual Statistics Report of 2012, a total of 5 625 (98%) of primary schools in the country provide ECE classes (Education for All 2015).

Impelling the impetus for inclusion in ECE in Zimbabwe and the global world are its benefits to children with disabilities which include enhanced well-being, social skills and cognitive and language skills (European Agency for Development in Special Needs Education 2011; Florian and Black-Hawkins 2011; Forbes 2007) and benefits to children without developmental delays which include development of tolerance, compassion, empathy and awareness of their own abilities as well as learning to assist others (Florian 2009; Rafferty and Griffin 2005). Research, nevertheless, reveals that inclusion is one of the most challenging fundamental innovations confronting stakeholders including policy makers, teachers, principals and parents (Ballard 2012; Black-Hawkins and Florian 2012; Blanton, Pugach and Florian 2011; Hornby 2010). The lack of professional preparation and development of teachers in inclusion is a fundamental barrier to its successful and effective practice as they provide the necessary and appropriate services and programmes and can influence other stakeholders including the children in their classrooms, colleagues and parents (Berry 2010; Florian and Linklater 2010; Florian and Rouse 2009; Florian and Spratt 2013; Forbes 2007).

Research done in Cambodia (Kim and Rouse 2011), Malawi (Itimu and Kopetz 2008); Mozambique (Ncube 2006), Serbia (Pantic and Wubbels 2010) Tanzania (Kisanji and Saanane 2009), the United States of America (Blanton et al. 2011) and Zambia (Miles 2009) shows that teachers lack adequate professional preparation and development to successfully and effectively teach all learners including those with disabilities and vulnerable to underachievement, marginalisation and exclusion in education. In order to successfully and effectively practice inclusion, teachers need several competencies including skills, knowledge, understanding, values, moral sensibilities and professional identity (Ballard 2012; Edwards 2010; EADSNE 2011; Florian 2009). The subsequent section presents inclusive pre-school teacher competence in inclusion.

Pre-school teacher competence in inclusion

Since the global adoption of inclusion, the roles and responsibilities of teachers have changed as they are expected to understand the characteristics of children with disabilities and adapt the curriculum in tandem with their developmental level and interact in the classroom with all children, including those with disabilities (Bruns and Mogharreban 2009). Teachers are also charged with the development and improvement of all children in their classrooms through creation and establishment of an appropriate learning environment involving all the children in learning activities and using evidence-based strategies (Hundert 2007; Miles 2009; Rafferty and Griffin 2005). Furthermore, teachers are required to have skills, competencies, attitudes and understanding of methods for development, management and the implementation of individualised educational programmes. They are expected to collaborate with other

stakeholders, including families, in order to give them the support they need (Forlin 2010; Naicker 2007; Ncube 2006; Pantic and Wubbels 2010). Similarly, teachers should be knowledgeable and informed about using behavioural interventions and effective classroom management that can enhance teaching and learning of all children including those with disabilities (Arbetter and Hartley 2002; Forlin 2010; Miles 2009).

In order to realise successful and effective inclusion, teachers need to be knowledgeable about the characteristics of all the children in their classes (Oliver and Reschly 2010; Winn and Blanton 2005)**.** They must motivate positive social behaviour and allow all children to be exposed to creative experiences in pedagogical settings while also having the ability to adapt pedagogical content, process, environment and product/assessment to the unique needs of individual children. In addition, teachers should institutionalise strategies that facilitate quality teaching and learning for all in the mainstream classroom (Edwards 2007; Malak 2013; Oswald and Swart 2011; Slee 2011). Research, nevertheless, frequently reveals that teachers are professionally ill-prepared to teach children with disabilities (Bruns and Mogharberran 2009; Florian 2012; Hundert 2007; Malak 2013; Majoko, 2005) as they have insufficient knowledge, understanding, skills and competencies to serve in inclusive pedagogical settings (Batu 2010; Crane-Mitchel and Hedge 2007; Gok and Erbas 2011; Itimu and Kopetz 2008). This is due to a lack of adequate pre-service training (Jennings 2007; Lipponen and Kumpulainen 2011; Malak 2013). Teachers, consequently, require workshops, seminars and additional courses as well as the on-the-job/in-classroom experience in this subject (Crane-Mitchell and Hedge 2007).

Teachers' inadequate skills and experiences with children with disabilities result in their reluctance to accommodate these children in their classrooms (Allday, Neilsen-Gatti, Hinkson-Lee, Hudson, Russel and Kleinke 2012; Deppeler 2006; Edwards 2007). Frequently, teachers report that they need more information in areas such as the development of individualised educational plans, assessment of children's progress, adaptation and modification of the curriculum, motivation of all children to participate in academic activities and management of behavioural challenges in the pedagogical setting (Flecha and Soler 2013; Itimu and Kopetz 2008; Jennings 2007). Also, teachers often report that they need to learn special methods and strategies to facilitate learning of children with disabilities (Bruns and Mogharberran 2009; Oswald and Swart 2011; Voss and Bufkin 2011). Therefore, a lack of confidence in their ability to differentiate instruction and make necessary individual adaptations for children may be a negative experience for teachers (Crane-Mitchell and Hedge 2007; Gok and Erbas 2011; Hundert 2007).

Most teachers further experience complications in collaborating with other stakeholders, including families as they seek to motivate them to be involved in the education of their children and be a component of inclusive practices (Arndt and Liles 2010; Bessette 2008; Hornby 2010). Even though teachers report that they lack sufficient knowledge about inclusion and the competency to educate children with disabilities (Gok and Erbas 2011; Rouse 2008; Slee 2011), overall, many hold strong and positive attitudes towards inclusion and feel that children with disabilities should be educated in mainstream classrooms and that these children benefit from inclusion (Crane-Mitchell and Hedge 2007; Varlier and Vuran 2006). Some teachers, though, are hesitant about the inclusive school movement and believe that children with disabilities need to be educated at home or in special settings because they interfere with the learning environment and might hurt their typically developing peers

(Majoko 2017). Teachers report that the primary problems related to inclusion include the behaviour of children with disabilities, their social rejection by their typically developing peers, the challenges related to finding additional time for planning their work and a lack of motivation of the families regarding their children's education (Jung 2007; Kisanji and Saanane 2009; Majoko 2016c; Musengi and Chireshe 2012). Also, teachers state that they require training, support from special education teachers and additional materials and tools for inclusive pedagogical settings (Mutepfa et al. 2007; Oliver and Reschly 2010; Pantic and Wubbels 2010) and that their most fundamental need is learning to adapt the curriculum to meet the requirements of inclusion and engagement of children with disabilities (Hattie 2009; Slee 2011; Varlier and Vuran 2006).

Similarly, Bruns and Mogharberran's (2009) study found that pre-school teachers needed effective strategies and intervention techniques to enhance interaction between children in inclusive classrooms, to design and evaluate individualised educational plans, to collaborate with families in order to develop behavioural strategies for teaching positive behaviour and to institutionalise effective classroom management. These researchers recommend adequate professional teacher preparation in positive behavioural support and functional assessment that facilitates inclusive pedagogy.

Crane-Mitchell and Hedge's (2007) study established that pre-school teachers lacked understanding of the characteristics of young children with disabilities and knowledge related to meeting the needs of these children. These researchers also found that pre-school teachers needed more training which focused on their knowledge, skills and experiences on inclusive practices. Most of them stressed the need for hands-on training opportunities for working with young children with disabilities. Sadler's (2005) research established that many pre-service teachers did not know how to apply knowledge about children with speech and language disorders in inclusive settings as they had acquired such knowledge through instead of "hands on" experience. The researcher also revealed that simple provision of information to teachers is insufficient to professionally prepare them adequately to work with children with diverse disabilities. Hundert's (2007) study focused on the type of teacher training program required for inclusive practices. He stressed that the method used to teach new skills and knowledge needs to contain intervention strategies that can be included into daily instruction and routines.

Varlier and Vuran's (2006) study found that teachers needed seminars, courses, in-service training and training during their undergraduate studies in order to acquire knowledge and experience to serve children with disabilities. Similarly, because most teachers believe that they lack skills to meet the needs of children with special needs (Alborz, Slee and Miles 2013; Odom, Buysse and Soukakou 2011; Winn and Blanton 2005), they are keen to acquire the knowledge that they lack in order to support the development of these children (Florian and Linklater 2010; Forbes 2007; Idol 2006). Teachers also reported that the courses they were exposed to during pre-service training were inadequate to equip them with skills and competencies to work with children with different ability levels and solve the challenges confronted in inclusive classrooms (Alborz et al. 2013; Chhabra et al. 2007; Forbes 2007). Teachers further revealed that they did not get adequate support from principals and other professionals who served children with diverse needs. Other studies report that, if the teachers are afforded training which focuses on children with disabilities and inclusive practices, their attitudes will change (Alborz et al. 2013; Ballard 2012; Friend and Bursuck 2012).

Rationale

Research reveals that, globally, teachers have serious reservations about inclusion as they need to acquire new skills, understandings, competencies, attitudes, behaviours and beliefs in order to meet the full range of learning needs among all children including those with disabilities in their classrooms. Consequently, the current study is indispensable because of its focus on the transformation of teachers to optimise their capacity to accommodate all children regardless of their needs and to guarantee that they all belong to a school community. Teachers also report a necessity for more information, knowledge and expertise to support their attempts to include children with disabilities in their classrooms (Edwards 2007; Malak 2013; Pantic 2015). Studies reveal that when teachers acquire the professional knowledge needed in inclusion, they may support it (Arbetter and Hartley 2002; Florian and Rouse 2009; Kim and Rouse 2011). The findings of the current study can influence policy makers, researchers and professionals, among other stakeholders in Zimbabwe and elsewhere, to focus on developing and implementing pre-service and in-service programmes that will be beneficial to inclusive pre-school settings so that they can optimise development of all children.

Despite the institutionalisation of several initiatives in support of inclusion in Zimbabwe and the significant increase in the number of children with disabilities served in mainstream ECE settings coupled with the national and global pursuance of the philosophy, there is lack of research on ECE teachers' development in it. In Zimbabwe, the current study is seemingly the first of its kind entrenched in a qualitative research methodology for an in-depth understanding of special needs education teachers' preparation for inclusion in ECE. In spite of the pursuance of inclusion in the developed, developing and under-developed worlds, there are differences in practicing the philosophy, not exclusively between nations, but also within nations, continents, states, provinces, districts and schools. This is particularly the case in the Zimbabwean context because there are vast variations between mine, resettlement, rural, farm, town and urban localities and educational regions with significantly higher per capita incomes than those where the majority of the population survive below the poverty-datum line.

Research on teacher education is indispensable in the institutionalisation of needs-entrenched teacher development in inclusion (Berry 2010; Blanton et al. 2011; Naicker, 2007). The Zimbabwean and global pursuance of inclusion makes it imperative to interrogate ECE teachers' preparation for it. Because teacher education for inclusion is a relatively recent phenomenon in Zimbabwe and the global world, an examination of teachers' preparation in it is fundamental in informing individual and institutional capacity-building initiatives. The present study is timeous in the era of ground-breaking national and global paradigm shifts from exclusivity to inclusivity in ECE. This is because it can enable stakeholders, including policy makers, teachers and school administrators in Zimbabwe and elsewhere, to glean knowledge and information accumulated from other countries while they are institutionalising inclusion in ECE. Specifically, the current study addressed the following research question:

How do special needs education teachers in Mashonaland West educational province of Zimbabwe perceive their preparation for inclusion in Early Childhood Education?

Methodology

The current study adopted qualitative methodology in order to investigate special needs teachers' preparation for inclusion in ECE in Mashonaland West educational province of Zimbabwe. This is because it is often used to inform policy and practice as it captures the perspectives of people involved in complex contexts (Cohen, Manion and Morrison 2007; Creswell 2009). Qualitative methodology provides a systematic avenue to comprehend complex phenomena and events within a specific context. This makes it an ideal way to generate scientifically based thematic evidence and insight to inform practice in education and provides the basis for future research (McMillan and Schumacher 2006). It also yields detailed data from a small group of participants (Grbich 2007; Silverman 2009). Several factors, including the centrality of the researcher, the descriptive nature of the data, a concern with process rather than outcome, inductive analysis of data and the essential concern with meaning influenced the utilisation of qualitative methodology in the current study (Cohen et al. 2007; Creswell 2009). In order to carry out the current study, ethical approval was sought and obtained from the MoPSE of Zimbabwe, Mashonaland West provincial education offices and principals of participating ECE settings. Thereafter, participating ECE special needs education teachers were contacted for approval prior to the execution of the study. The above mentioned parties were provided with a brief, clear, concise and precise research profile to secure the needed approval, permission and informed consent for carrying out the current study.

Sampling

The study used purposive sampling to select participants. ECE special needs education teachers were recruited through contacts with Mashonaland West provincial education offices. Individual ECE special needs education teachers were screened telephonically for establishment of eligibility for participation and to schedule the day, time and venue of the interview. Participants' inclusion criteria were: (1) at least a primary school teacher's diploma with endorsement in ECE and a Bachelor of Education degree in special needs education; (2) at least four years of experience in teaching a child/children with disabilities in an inclusive ECE class; and (3) currently teaching in an inclusive class in an ECE setting in Mashonaland West educational province.

The sample comprised 28 ECE special needs education teachers (19 females and 9 males). All participants had pre-service training on inclusive education in their primary school teachers' diploma as a component of their core course, Theory of Early Childhood Development, which included fundamentals of inclusion including disability categories, curriculum management, assessment and evaluation and legal issues. Also, all participants had in-service training in Bachelor of Education in Special Needs Education which exposed them to several inclusive education issues. These included contemporary issues in special needs education, mental retardation, physical, motor and health related disabilities, stakeholders of special needs education, rehabilitation and transition of children and youth with disabilities, curriculum management in special needs education, visual and hearing impairment and disability and special needs education. Even though they had attended different teacher education institutions, all participants had been exposed to the same pre-service and in-service teacher education curriculum accredited by the main university of the country. In addition to the foregoing qualifications, three participants had

Bachelor of Primary Education and three participants had Bachelor of Sociology, Bachelor of Education Management and Bachelor of Arts respectively. Participants' teaching experiences ranged from 7 to 16 years and they were aged from 34 to 61 years. When theoretical saturation was reached, which occurred when no new or relevant data emerged concerning a category, and categories were well developed with regard to their properties, dimensions and variations, the adequacy of the sample was determined (Silverman 2009).

Procedure

Before the onset of the interviews, informed consent was sought and obtained from the participants and they were informed about procedures put in place to guarantee that their information was confidential. A signed consent form was obtained from each participant which consisted of specific information about procedures put in place including the use of pseudonyms in reporting findings in order to maintain confidentiality of participants. Since the interview allows for participants' opinions and perceptions about a phenomenon under research in their own words, it is a vital instrument in gathering data for the qualitative researcher (Cohen et al. 2007; Creswell, 2009). Semi-structured individual interviews were executed with 23 participants (14 females and 9 males) in English using an interview guide. They were audio-taped, with participants' consent, to enhance accuracy in data collection and assist the researcher to be more attentive to the participants during the interviews. The researcher scheduled and conducted interviews, which were carried out between March 2014 and October 2015, at a time and place of participants' choice including classrooms, homes and offices. The length of the individual interviews differed and ranged from 45 minutes to 80 minutes. Participants were asked about a range of issue pertaining to their preparation for inclusion in ECE including: (a) understanding of inclusion; (b) perception of inclusion; and (c) teacher education for inclusion. Although there was a degree of structure and organisation to the process as a result of the use of the interview guide, the approach was still flexible as probing questions were asked on certain issues.

Participants contacted the researcher for a copy of the interview script and the informed consent form. Participants filled in a demographic questionnaire upon completion of the interview. Following the individual interviews, a focus group was executed with a convenience sample comprising of seven participants (two males and five females) drawn from one educational district. Five female participants in the focus group were new to the study while two participants had participated in individual interviews. The focus group interview was audio-taped, with participants' consent, to enhance accurate capturing of data. The focus group was executed in one educational district. Since interview participants had been selected from multiple educational districts across Mashonaland West educational province, some up to 350 km from the location of the focus group, it was not feasible for all individual interview participants to attend the focus group. Focus group interviews afforded an opportunity to test the credibility of the findings with participants who were familiar and unfamiliar with the study. Opening up analysis to two critical readers for peer review assisted to safeguard bias and use multiple perspectives in data interpretation. Critical readers also reflected on whether the knowledge and information yielded from the study was authentic as regards identifying participants' perceptions regarding their preparation for inclusion in ECE.

Data analysis

Every tape-recorded interview was transcribed verbatim and, in order to identify recurring themes and discover common patterns while maintaining individual contextual information, the constant-comparative method was used to analyse the data. The researcher attended weekly research office meetings with two critical readers who were experts in qualitative research for data analysis. The researcher and the two critical readers read a few interviews at a time independently highlighting important quotes and listing themes that appeared to be present across interviews. At weekly research office meetings, the researcher and the critical readers would share the themes they had discovered and discussions were held until they reached a consensus on the quotes that best represented the themes that were tabled. This process was repeated until all the interviews had been read and the members of the research office reached a consensus on the list of important themes and quotes.

In order to ensure that any themes or quotes missed on the first reading were established, interviews that were read early in the process were reread. After a list of themes was generated which the researcher and the critical readers agreed were present, lists of quotes supporting each theme were gleaned from the interviews. Quotes that explained the themes and represented the views of multiple participants were finally selected. After reaching a consensus on the themes and supporting quotes and to enhance the reliability of the results, the researcher conducted a second level member check through the provision of a list of the themes and quotes to twelve randomly selected participants (Grbich 2007; Silverman 2009). After reading the themes and quotes, these participants confirmed with the researcher that the interpretation of the data appeared to be accurate. A thematic presentation of the findings is presented in the following section.

Findings

Through the analysis of the interview transcripts, five themes emerged which were: conception of inclusion, perception about inclusion, competence in inclusion, concerns about teacher education for inclusion and strategies to enhance teacher education for inclusion.

Conception of inclusion

Most participants (17) understood inclusion as both an Afrocentric and Eurocentric philosophy that is embedded in the achievement of all children including those with disabilities in neighbourhood mainstream school classrooms, as confirmed in the following selected excerpts (pseudonyms used in order to ensure privacy and confidentiality of the participants):

> "Inclusion is meeting the full range of needs of individual learners with and without disabilities in mainstream school settings. It is founded on Afrocentric and Eurocentric moral obligation, cultural and religious norms, national and international conventions which cherishes human differences and survival of people in their own homes, families, communities, countries and the continent" (Interview Participant [IP]: 21).

> "Inclusion is context-specific adaptations and modifications in teaching and learning strategies, subject matter, processes, evaluation, assessment and educational settings to facilitate access, participation and achievement

of all children including those with developmental delays and vulnerable to underachievement, marginalisation or exclusion in regular classrooms which are nearest to their homes" (IP: 2).

"Advancing Ubuntu and Western life tenets including communalism and interdependence and respect for human rights, inclusion is quality education for all children in their local rural, town, urban, ghost town or resettlement mainstream schools through identification and removal of barriers to learning" (Focus Group Participant [FGP]:3).

"[Inclusion] is a continuous process of problem-solving by individuals, organisations and institutions that are key role players to respond to the unique needs of all educands without their exclusion in their neighborhood mainstream classrooms. African moral and legal premise including respect of the right of everyone to a mainstream life regardless of their disabilities, abilities, race, gender, socio-economic status, language and any other differences underpins inclusion" (IP: 5).

Inversely, six participants viewed inclusion as a philosophy that is embedded in the advancement of human rights and social justice for children with disabilities exclusively, as confirmed in the following selected excerpts:

"Rooted in Eurocentricity and Afrocentricity including respect for human rights, dignity, diversity, and social justice principles, inclusion is a philosophy that is grounded in equity, equality, access, participation and achievement of children with disabilities in their neighbourhood mainstream classrooms" (IP: 13).

"Inclusion is accessible, equitable and quality education for children with developmental challenges in regular schools in their rural, farm, resettlement, township, town or urban areas. It speaks to African and European social, cultural and religious life including Christianity, African Traditional Religion and policy framework decreeing respect of human rights, tolerance of individuality, interdependence, survival and support of those with developmental delays in their birth homes, families, villages, communities and countries" (FGP: 1).

"Inclusion is human rights and social justice model of education delivery. It is education of children with developmental delays in mainstream classrooms within their localities in keeping with both the Western and African values and practices. Inclusion is about celebration and accommodation of individual differences, individual support, communalism and interdependence. International and national policies and legislations such as the Universal Declaration of Human Rights of 1948 and our [Zimbabwean] constitution as revised in 2006 informs inclusion. It is learner-responsive pedagogy to children with developmental delays in regular schools within their close proximity" (IP: 1).

Perception about inclusion

Most participants (17) held strong and positive perceptions and commitment to inclusion, based on the Eurocentric and Afrocentric moral and legal premise of the

philosophy and its criticality to humanity. For instance, IP: 17 expressed inclusion as a conduit for ensuring the right of all people to accessible, equitable and quality education in their neighbourhood educational institutions:

> "… inclusion enables both children and adults with and without developmental challenges to live and learn in their homes, communities and countries of citizenship thereby facilitating social cohesion and their social, political and economic contribution in these settings."

FGP: 6 elaborated:

> "Child-centred pedagogy in inclusion facilitates the realisation of the individual gifts and talents of both learners with and without developmental delays resulting in their contribution to the social, religious, political and economic lives of their families, villages, communities, societies, countries and the world. Equity, access, participation and achievement of all in education facilitates equal and competent serving by both individuals with and without developmental delays as breadwinners in their families and in different capacities including politicians, economists, lawyers, doctors and educationists in their villages, communities, countries and internationally."

Most participants (17) felt that inclusion benefited children with disabilities socially, academically and in their careers. For example, IP: 9 argued:

> "Inclusion "catches" [children with disabilities] young since they are acculturated to live and function in mainstream societies early their lives, afforded educational support by their typically developing peers and adults in mainstream settings and exposed to careers and professions in their mainstream localities."

IP: 19 further added:

> "Inclusion mandates the global world, countries and all other stakeholders to source resources and materials for children with disabilities for inclusion in their neighbourhood regular schools. Our government, teacher training colleges and universities, the Ministry of Primary and Secondary Education, the Department of Schools Psychological Services and Special Needs Education and the Curriculum Development Unit works in partnership with local and international agencies and other countries to support inclusion in compliance with policies and legislations."

From a different perspective, FGP: 4 argued that:

> "the treatment and education of children with disabilities has passed through several eras. The current era of inclusion is ground breaking nationally and internationally as it sanctions the right of children with disabilities to pedagogy in mainstream society and denounces societal malpractices including labelling and stigmatisation of these children."

All participants (28) felt that inclusion was beneficial to both children and adults without disabilities. For instance, IP: 15 expressed that inclusion socialises both children and adults without disabilities to tolerate human diversity as they live with

those with disabilities on a daily basis in their families, schools and communities. IP: 10 explained:

> "Learning and staying with educands with developmental challenges in neighbourhood schools, families and communities condition typically developing educands to accommodate individuality. As teachers and other typically developing adults serve and are served by educands with disabilities daily, they are accustomed to accept and stay with them as full-time and equally valued members of their schools, families, homes, communities and the country."

FGP: 2 further added:

> "As a result of inclusion, children and adults without disabilities engage in social, academic and physical activities with those with developmental delays which develop in them positive attitudes towards disability."

In the same vein, FGP: 1 reiterated that "in the African Traditional Religion and culture, personhood is being in community of others and being afforded equal treatment and recognition which are advanced in inclusion" while IP: 8 argued:

> "From both Christian and African Traditional perspectives, we are all of equal worth before the Creator. Therefore, everyone deserves respect, equity and equality in all spheres of life. Hence, inclusion is an extension of our religion and culture."

Teacher competence in inclusion

All participants (28) felt ill-prepared for inclusion despite their initial and in-service training on it, as highlighted in the following selected excerpts:

> "While our compulsory 'Theory of early childhood education' initial teacher training course component inculcated in us basic theory of inclusion including characteristics of various disabilities and their identification, in-service special needs education training fostered in us comprehensive theory of inclusion including disability and special needs education and stakeholders of special needs education. However, we lack practical grounding in inclusion" (IP: 18).

> "Pre-service training in 'Theory of Early Childhood Education' exposed me to fundamentals of theory of inclusion including classroom management and adapted assessment and evaluation. I also only learnt the theory of inclusion including its psychological and sociological foundations and rehabilitation and transition of children and youth with disabilities in my in-service training. I cannot practice inclusion" (IP: 6).

> "In my initial teacher education, I was placed in a mainstream classroom for my teaching practice. I had practicum in an inclusive classroom during my training in special needs education. However, my practicum was so short for me to master Braille. My peers who were at the schools for the deaf could also not master Sign Language due to the short-lived practicum" (FGP: 5).

All participants (28) were selective regarding children with disabilities they were most and least predisposed to teach, as highlighted in the following selected statements:

> "Throughout pre-service and in-service training, I had no teaching practice in educational settings with children with 'challenging to manage disabilities' including autism, intellectual disabilities and behavioural disorders. I have theoretical grounding including use of tokens in management of these children but I lack the practice. However, with the theory I have, I can handle children with other 'easy to manage disabilities' like learning and physical disabilities" (IP: 7).

> "I have the theory on characteristics of children with 'complicated disabilities' including behavioural and emotional behaviours and their management. However, I cannot serve them for I lack practice" (FGP: 12).

> "I cannot teach children with hearing and visual impairment. I did not train in Sign Language and Braille" (IP: 11).

Concerns about teacher education for inclusion

All participants (28) revealed several barriers to teacher competence in inclusion, as confirmed in the following selected excerpts:

> "We lacked teaching practice in inclusive classrooms in our diploma and degree training to be effectively prepared for inclusion. Most of us only taught in inclusive classrooms after qualification as our colleges and universities deployed us for teaching practice in their nearest mainstream schools to cut supervision costs" (FGP: 2).

> "The lack of adequate resources including assistive technology such as computers, curriculum resources and materials, finance and inclusive academics in teacher education institutions due to national economic downturn interferes with teacher preparation for inclusion. Due to brain drain, none of our lecturers was competent in Sign Language and Braille" (FGP: 1).

> "Zimbabwe lacks specific policy framework on teacher education for inclusion. Consequently, the government, universities, teachers' colleges and other stakeholders lack legal accountability as regards the pooling of resources and institutionalisation of services and programmes for teacher preparation" (IP: 14).

Strategies to enhance teacher education for inclusion

All participants (28) cited several strategies to enhance teacher education for inclusion, as highlighted in the following selected excerpts:

> "Teachers' colleges need to design and implement programmes that teach inclusion to pre-service teachers across ECE teacher education curriculum subjects including numeracy, literacy and physical education rather than offering it as a component of the core course, 'Theory of Early Childhood Education', as well as place them in inclusive settings for micro and macro teaching practice" (1P: 16).

"Universities can ensure that the duration that pre-service and in-service teachers spend in learning the theory of inclusion is the same as that of the teaching practice in inclusive classrooms to churn out graduates with balanced theoretical and practical professional know-with and know-how of the philosophy" (FGP: 3).

"Partnership and consultation of teachers' colleges and universities with the government, parents, organisations of and for people with disabilities, communities, districts and provinces, can assist in amassing resources including professionals, assistive technology and curriculum materials for teacher preparation for inclusion. Universities and teachers' colleges can establish inter-institutional partnerships with other teacher education institutions nationally and internationally and as well seek assistance and support from international and local donors, business people, parents, churches, political parties and national and transnational companies in pooling resources for teacher education for inclusion" (IP: 9).

"Teacher educators in universities and colleges need continuous in-service training to be equipped with the current theory and practice of teacher preparation for inclusion. Provision of state-of-the-art laboratories for practicums, information rich libraries, assistive technology and teacher educators' collaboration with parents and other professional staff including audiologists, occupational therapists, physiotherapists, lawyers, Braille and Sign Language specialists and medical doctors can facilitate sufficient teacher preparation for inclusion" (FG: 6).

Discussion

Using individual interviews and a focus group, the current study examined Zimbabwean special needs education teachers' preparation for inclusion in ECE. Overall, participants' conceptualisation of inclusion was embedded in education for all children, including those with disabilities, through institutionalisation of child-responsive pedagogy. This finding resonates with previous research which reveals that inclusion entails the optimisation of learning outcomes of all children through transformation of educational institutions into communities which respect and celebrate differences and whose curriculum is transformed to meet learner diversity (Donnelly and Watkins 2011; EADSNE 2011; Florian 2009; Florian and Linklater 2010; Hattie 2009; Idol 2006). In the same vein, previous research reveals that inclusion constitutes policies and practices developed to be inclusive of all families and teacher preparation designed for systematic addressing of the full diverse range of needs of children (Batu 2010; Deppler 2006; Friend and Bursuck 2012;). In the same vein, previous studies reveal that inclusion embodies access, acceptance, participation, achievement, belonging, nurturing and education of all children in mainstream school classrooms regardless of their gender, culture, language, class, ability and ethnicity differences (Ainscow 2005; Allan 2006; Berry 2010; Bessette 2008; Dyson and Gallannaugh 2007; Friend and Bursuck 2012; Hornby 2010; Majoko, 2005; Voss and Bufkin 2011).

Consistent with previous research which reveals that teachers need to recognise structural and cultural contexts that might enhance or hamper inclusive practices (Biesta and Tedder 2007; Florian and Spratt 2013; Lipponen and Kumpulainen 2011; Majoko 2017; Pantic 2015; Rouse 2008), participants' conceptualisation of inclusion

was ensconced in Afrocentric and Eurocentric legal, social, cultural and religious framework. Similarly, previous research reveals that effective teacher preparation for inclusion includes knowledge and information on social, cultural, policy and legislative issues that inform its theory and practice (Allan, 2006; Chhabra et al. 2010; Edwards 2010; Slee 2010). Similarly, embedded in both Afrocentric and Eurocentric knowledge bases, including legal, social, cultural, religious and moral facets, participants exhibited conceptualisation, positive dispositions, commitment and support for the inclusion of all children including those disabilities. This finding is consistent with previous studies which reveal a positive correlation between teachers' conceptualisation of inclusion and their positive attitudes and commitment to it (Agbenyega 2007; Allday et al. 2012; Arbetter and Hartley 2002; Berry 2010; Hornby 2010).

In alignment with previous studies that reveal that inclusion responds to individual differences, benefits all learners, changes attitudes towards diversity, is foundational to a just, non-discriminatory society and is cost-effective as all children are served in one pedagogical setting (Ballard 2012; Deppeler 2006; Biesta and Tedder 2007; Flecha and Soler 2013; Florian 2012), participants held strong and positive commitment and support for inclusion based on its perceived indispensability to both people with and without disabilities. This included facilitation of equitable and quality education for all, social cohesion and social, political and economic productivity. Participants also held strong and positive views towards inclusion premised on its perceived benefits to children with disabilities including facilitation of their social acceptance, early acculturation to live and function in mainstream societies and exposition to mainstream careers and professions. They also supported inclusion on the premise that it necessitated stakeholders' pooling of resources and materials and the establishment of collaborative structures and cultures such as inter-institutional partnerships in compliance with policy. This finding is consistent with previous research which reports that inclusion is a conduit for the provision of responsive pedagogy, social skills, well-being, cognitive and language abilities skills, support programmes and services and teaching and learning for children with disabilities (Black-Hawkins and Florian 2012; Deluca et al., 2013; Dyson and Gallannaugh 2007; Flecha and Soler 2013; Hornby 2010). Similarly, previous research reveals that inclusion optimises access, acceptance, participation and achievement of all children including those with disabilities and vulnerable to underachievement, marginalisation and exclusion (Berry 2010; Hornby 2010; Idol 2006).

Consistent with previous studies which reveal several benefits of inclusion to children without disabilities including development of empathy, compassion, tolerance and realisation of their own capabilities (Chireshe 2013; Idol 2006; Kisanji and Saanane 2009; Majoko 2017; Rafferty and Griffin 2005), participants further held strong and positive commitment towards inclusion based on its perceived benefits to both children and adults without disabilities, including fostering in them positive attitudes towards disability and children with disabilities, as they socialise with them in mainstream settings. The same commitment applied to inclusion premised on its perceived entrenchment in religious and cultural frameworks of Christianity and African Traditional Religion including respect, equity and equality for humanity in all facets of life. This finding resonates with previous studies which reveal that inclusion advances social justice (Ainscow 2005; Florian 2009; Odom et al. 2011; Pantic and Florian 2015; Slee 2010).

Although participants had pre-service and in-service training on inclusion and exhibited conceptualisation, positive perception and commitment to the philosophy, they felt ill-prepared to practice it citing limited exposition to its theory and a lack of teaching practice in inclusive settings. This finding resonates with previous research which reveals that, although teachers display understanding, commitment and positive attitudes towards inclusion, they repeatedly report that they are ill-prepared for its practice (Crane-Mitchell and Hedge 2007; Forlin 2010; Lipponen and Kumpulainen 2011). Inconsistent with previous studies which reveal that teachers need to believe that they are qualified and capable of teaching all children (Black-Hawkins and Florian 2012; Edwards 2010; Florian and Black-Hawkins 2011; Florian and Linklater 2010; Florian and Spratt, 2013; Pantic 2015), participants were selective regarding service to children with disabilities as they felt ill-prepared to teach children with behavioural and emotional disorders, autism, intellectual disabilities and visual and hearing impairments while they were prepared to teach children with learning and physical disabilities. Similarly, previous studies found that, overall, teachers hold positive attitudes and commitment to inclusion although they feel that they are ill-prepared to include certain children on account of the nature and severity of their disabilities (Arndt and Liles 2010; Chireshe 2011; Jennings 2007; Majoko 2016a).

Participants were ill-prepared to practice inclusion as a result of their lack of teaching practice in inclusive settings during their training. This finding contradicts with previous studies which found that teacher education for inclusion constitutes opportunities for teacher candidates to work in real classrooms to learn and apply critical competencies in inclusion (Friend and Bursuck 2012; Rafferty and Griffin. 2005; Jung 2007; Winn and Blanton 2005). Similarly, previous studies found that teacher candidates need adequate opportunities to see, experience and to be involved and participate in guided practice with feedback on model instructional strategies in inclusive pedagogical settings (Friend and Bursuck 2006; Jung 2007; Majoko, 2016b; Oliver and Reschly 2010; Rouse 2008).

Participants felt that inadequate resources, including assistive technology such as computers, curriculum resources and materials, finance and inclusive academics in teacher education institutions, due to the national and economic meltdown and brain drain, hampered effective teacher preparation for inclusion. Similarly, previous research established that, in most countries, the lack of individual and institutional capacity in teacher education institutions interferes with teacher preparation for inclusion (Musengi and Chireshe 2012; Slee 2010; Voss and Bufkin 2011). Consistent with previous research which found that the absence of an enabling legal framework globally impedes successful and effective inclusion (Alborz et al. 2013; Arbetter and Hartley 2002; Winn and Blanton 2005), participants revealed that the lack of supportive legal infrastructure impeded teacher preparation for inclusion as stakeholders, including the government, teachers' colleges and universities, were not legally bound to pool resources and institutionalise services and programmes.

In alignment with previous studies which found that analysis, revision and infusion of inclusion content across teacher education courses is integral in teacher preparation and development for inclusion (Donnelly and Watkins 2011; EADSNE 2011; Florian 2012), participants felt that exposure of pre-service teachers to inclusion across ECE teacher education curriculum subjects, including numeracy, literacy and physical education, rather than as component of a core course, could enhance their preparation

for it. Similarly, previous studies found that careful planning and monitoring of training on inclusion in general education subjects facilitates teacher preparation for it (Chireshe 2013; Majoko 2016c). Previous research also established that the provision of inclusion as a "core" subject instead of an "additional" subject in teacher education programmes is foundational in effective teacher preparation for the philosophy (Education for All 2015; Majoko, 2016b). Participants perceived that teaching pre-service and in-service teachers the theory of inclusion for a study duration, which is comparable to their teaching practice in inclusive settings, could equip them with both the theory and practice of inclusion for its successful and effective practice. Similarly, previous studies reveal that teacher education institutions need a balance between theory and practice and presentation of teaching as a problem-solving or research-in-action process entrenched in learning of all children including those with disabilities in order to close the theory-practice gap (Florian and Rouse 2009; Forlin 2010; Hornby 2010).

Participants perceived that the deployment of pre-service and in-service teachers in inclusive classrooms for teaching practice could enhance their preparation for inclusion. This finding resonates with previous research which reveals that a pre-practicum prior to initial teacher education programme, a practicum as a component of the teacher education programme, supervised school teaching experience, a monitored probationary period and induction with mentoring arrangements are integral in teacher preparation for inclusion (Donnelly and Watkins 2011; Majoko, 2013). Similarly, previous research established that teacher educators need to ensure that teaching practice is designed and well-focused to meet professional competences and standards (Allday et al. 2012) as it is foundational in moulding future teaching behaviour and provides an opportunity to resolve the research-to-practice gap (Chireshe 2011; Mandina 2012). Previous studies also reveal that teacher candidates need practicum experiences with opportunities to examine and foster their beliefs and learn about addressing child diversity in inclusive classrooms (Oliver and Reschly 2010; Rouse 2008).

Participants felt that consultation and partnership of teacher education colleges and universities with other stakeholder individuals, organisations and institutions, including parents, schools, the government, organisations of and for people with disabilities, districts and provinces, could help in pooling resources for teacher preparation and development such as professionals, assistive technology and curriculum materials and resources. This finding is in alignment with previous studies which found that teacher education institutions need links to other partners (EADSNE 2011) and that

> the enterprise of teacher education needs to venture out further and further from the university and engage even more closely with schools in a mutual agenda of transformation with all the struggle and messiness that that implies (Darling-Hammond, 2006:300).

Similarly, previous research reveals that teacher education for inclusion needs meaningful relationships between schools, universities and teacher candidates (Florian 2009; Friend and Bursuck 2012; Jung 2007). Consistent with previous studies which found that collaboration of stakeholders is integral in pooling expertise and other resources for effective service delivery in inclusion (Black-Hawkins and Florian 2012; Florian and Rouse 2009), participants perceived that teachers' colleges and

universities' establishment of collaborative structures could assist in the requisition of resources for teacher education for inclusion. This includes national and international inter-institutional partnerships with teacher education institutions and seeking assistance from individuals, organisations and institutions including parents, churches, political parties and national and transnational companies.

In alignment with previous research, which reveals that individual capacity building, including recruitment, induction and on-going professional development of teacher educators, can enhance service delivery in teacher preparation for inclusion, participants perceived that continuous in-service training could foster in teacher educators the theory and practice of teacher preparation for inclusion (Ainscow 2005; Allday et al. 2012; Bessette, 2008; Forbes 2007). Similarly, previous studies reveal that teacher educators need to be equipped with positive attitudes, knowledge, understandings, competencies and skills to prepare and develop teachers to confront the challenges of significantly increasing social, linguistic and cultural diversity in pedagogical settings for the development of equitable education systems and progression towards provision of equal opportunities for all learners including those with disabilities (Forlin 2010; Jennings 2007; Malak 2013).

Participants felt that institutional capacity, including the establishment of state of the art laboratories for practicums, information rich libraries and requisition of assistive technology, could enhance teacher preparation for inclusion. This finding is consistent with previous studies which reveal that responsiveness to a changing educational landscape demands that the professional development needs of teacher educators be addressed as a component of teacher education for inclusion as they share the same lack of preparation for inclusion as do teachers (Florian 2012). Similarly, previous studies show that teacher education institutions need to engage in capacity building of teacher educators which is embedded in embracing the complex nature of teaching and learning (Alborz et al. 2013; Edwards 2007; Oswald and Swart 2011). In addition, previous research indicated that effective teacher education for inclusion depends on the availability of human, material, financial and technological resources (Ainscow 2005; Batu 2010; Florian and Spratt 2013).

Participants felt that collaboration of teacher educators with parents and other professionals including therapists, audiologists, lawyers, medical doctors, Braille and Sign Language specialists could facilitate adequate teacher preparation for inclusion. Previous studies reveal that teacher education institutions need to establish and reinforce links with non-professionals, para-professionals and professionals in order to prepare and develop teachers to manage child diversity, disability and other differences (Ballard 2012; Biesta and Tedder 2007; Edwards 2010). Previous studies also show that teacher education institutions need to work with and through others, including liaison with professionals from other disciplines, for effective teacher education for inclusion (Pantic and Florian 2015; Forlin 2010; Hundert 2007).

Implications

Although participants held strong and positive perceptions and commitment to inclusion premised on both an Afrocentric and a Eurocentric knowledge base, they were selective as regards children with disabilities they felt prepared to serve citing their lack of teaching practice in inclusive classrooms during their training. The failure of teachers' colleges and universities to institutionalise needs responsive interventions to address feelings of ill-preparation of teachers to serve all children,

regardless of their disabilities, may negatively affect these teachers' commitment to inclusion. Teacher education institutions can, on the other hand, capitalise on teachers' strong and positive perceptions and commitment to inclusion to solicit their professional needs as a springboard for institutionalisation of responsive preparation and development which can culminate in improved service delivery.

Premised on the benefits of inclusion for children and adults with and without disabilities, and those vulnerable to underachievement, marginalisation and exclusion, it is incumbent on communities, societies, countries and the global world, stakeholder individuals, organisations and institutions including parents, teachers, schools, teacher education institutions, governments, academics and the donor community to work in collaboration in order to optimise teacher preparation for inclusion for optimum service delivery for the advancement of humankind. Based on inadequate exposure of participants to teaching practice in inclusive settings, teacher education institutions need to deploy pre-service and in-service teachers to inclusive school classrooms during their professional preparation and development to enhance their successful and effective practice of inclusion. Consistent with the participants' lobbying for exposure to "balanced" theory and practice of inclusion, teacher education institutions need to fuse theory and practice of inclusion in teacher preparation and development.

Based on the revealed centrality of Afrocentricity and Eurocentricity in inclusion, consideration of the African and Western philosophies and concerns of teachers and other stakeholders in designing, implementation, management and evaluation of teacher education programmes can optimise teacher preparation for inclusion. Likewise, the infusion of African and European philosophical values, norms, beliefs, practices and principles with regards to disabilities and inclusion in ECE curricula can develop in both children with and without developmental challenges, accommodation and celebration of human diversity thereby optimising inclusion in ECE.

Considering the lack of adequate resources in teacher education institutions, a multi-sectorial approach including consultation and partnership of these institutions with other stakeholders, including local and international communities, donors, other institutions and governments, can assist in pooling resources such as finance, technology and materials. In view of the inadequate professional preparation of teacher educators, including the lack of proficiency in Sign Language and Braille, institutionalisation of needs assessment based individual capacity building initiatives including provincial and national conferences, seminars and conferences can foster in teacher educators competencies and skills in effective teacher preparation for inclusion. Also, embodying in pre-service and in-service teacher education content on support infrastructure in inclusion including the legal framework, technological, material, human and financial resources, can optimise teacher preparation for inclusion.

The current study is a baseline for future studies on ECE special needs education teacher preparation for inclusion that could investigate and ascertain effective models for enhanced teacher capacity building. Research on models of ECE special needs education teacher preparation for inclusion needs to be undertaken to equip teachers with appropriate competencies and skills for successful and effective inclusion of all children regardless of their individuality. Needs assessments can be executed in future studies in order to identify and respond to the support needs of ECE special needs education teachers in initial and in-service preparation and development for inclusion.

While the current study used individual interviews and a focus group to collect data, future studies could use a combination of different instruments including self-administered questionnaires, participant observation, non-participant observation and document analysis.

Research limitations and future research

Since participants for the current study were drawn from one educational province whereas inclusion is practised nationally, the transferability of its findings to other provinces in Zimbabwe is unknown. It is, therefore, imperative to investigate the preparation of ECE special needs education teachers for inclusion across provinces in the country for a national representative sample for the transferability of findings. The perspectives, practices and experiences of other stakeholder individuals, organisations and institutions, including parents, children with and without disabilities, mainstream teachers, the donor community, school administrators, policy makers, educational psychologists and therapists were excluded from the present as it only involved ECE special needs education teachers as participants. It is, consequently, unknown whether the perspectives, experiences and practices of the aforementioned stakeholders who did not participate in the present study resonate with those of ECE special needs education teachers who participated in the study. Future studies could investigate these stakeholders to solicit their perspectives, experiences and practices for an in-depth understanding of ECE special needs education teacher preparation for inclusion. As participants were concerned about their lack of preparation for inclusion, future studies could examine successful and effective models of ECE special needs education teacher preparation for inclusion.

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Preparing New Special Education Teachers to Facilitate Collaboration in the Individualized Education Program Process Through Mini-Conferencing

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Abstract

It is no question that preparing teachers to work with the many facets involved in special education is a daunting task. Upon entering the classroom on the first day, special education teachers are expected to be prepared (Sayeski, 2015) when presented with numerous responsibilities (Collins, Sweigart, Landrum, & Cook, (2017), including parent collaboration and involvement in the individualized education plan (IEP) process. This article offers a strategy, mini-conferencing, for training novice special education teachers to foster the increased participation of parents in IEP meetings. Recommendations for best practice used to establish the mini-conference and a step-by-step guide for implementation are discussed.

Keywords: *novice special educators, parent participation, individual education process, collaboration*

Introduction

In recent years, the quality of teacher preparation has received increased national attention, with many states increasing accountability of teacher preparation programs (Fuchs, Fahsl, & James, 2017). One reason for this is that high rates of beginning special education teachers report feeling '*underprepared*' to effectively handle the many facets of the job thrown at them. Because there is such a high rate of teacher turnover in special education in

the first years, beginning special education teachers need a variety of supports to develop skills to persist in the teaching profession (Collins, Sweigart, Landrum, & Cook, (2017, p. 214). All too often though, one skill that graduating teacher candidates lack are the skills, attitudes, knowledge, and confidence necessary for building collaborative relationships with parents (Murray, Curran, & Zellers, 2008).   While many teacher preparation programs acknowledge the importance of parent involvement, frequently the preparation and training that teacher candidates receive in these programs falls short of what is needed to actually foster collaboration and partnership with parents (Caspe, Lopez, Chi, & Weiss, 2011; Dotger & Bennett, 2010; Flanigan, 2005; Giallourakis, Pretti-Frintczak, & Cook, 2005; Murray, Handside, Straka, & Arton-Titus, 2013; Rodriquez-Brown, 2009).

Family Collaboration in Special Education

Family involvement is known to be one of the greatest predictors of growth and well being for students with disabilities; collaboration and partnerships with families has shown significant benefits for students with disabilities across ages and grade levels (Colarusso & O'Rourke, 2007; Resch et al., 2010). Cook and Friend (2010) define collaboration as "the style professionals select to employ based on mutual goals; shared responsibility for key divisions; shared accountability for outcomes; shared resources; and the development of trust, respect, and sense of community" (p. 3). Parent/family collaboration is vital because parents are the primary advocates, speaking for their children regarding what services and supports are suitable to address their specific needs and have been critical factors for predicting successful student outcomes (Lo, 2012; McCoach et al., 2010).

The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) was specifically designed to recognize the importance of parent/family involvement, and mandated that schools take measures to include parents in the special education process. Research indicates however, that although the IEP is the foundation for the provision of special education services and is perhaps the most pivotal point in the provision of services, parental perceptions of IEP meetings are not always positive. For example, families report feeling that participation in this process leaves them feeling confused (Stoner et al., 2005), as though they had been treated badly by educators (Fish, 2006), and as passive receivers of information whose primary role was to answer questions (Childre & Chambers, 2005). Families also report feeling as though they have limited power in decision-making, they lack sufficient opportunity to fully participate in their child's education, and feel alienated when the IEP team emphasizes student needs rather than strengths (Resch et al., 2010). As a result, parents may feel anxious or stressed when attending IEP meetings (McNulty, Prosser, & Moody, 2010). While it is vital that educators are in communication with parents throughout the entirety of the school year, meetings in which their child's IEP is designed and/or reviewed, offer parents crucial opportunities to provide direct suggestions and input that could positively impact their child's education. Learning how to overcome obstacles when creating a collaborative environment includes developing skills and strategies conducive to open lines of communication.

Variables Impacting Parental Involvement in the IEP Process

Fish (2006) investigated parental perceptions regarding what schools could do to improve the IEP process. Findings from this study indicated that educators should: a) make the meetings more democratic so parents feel they are equal contributors; b) be open to parental input regarding placement, discipline, and instruction; c) be friendly; valuing and listening to parental input; d) be flexible and more willing to adjust to student needs; and, e) educate parents about the IEP process. In a follow-up study, Fish (2008) concluded that parents felt as though educators could improve the IEP process by allowing sufficient time

for the meetings, creating a welcoming environment, encouraging parents to bring an advocate familiar with the IEP process, using common terms instead of jargon to lessen confusion, refraining from completing IEP forms in advance of parental input, involving parents in writing the goals and objectives, and, providing parents with a copy of the IEP objectives prior to the meeting to allow time for review. Similarly, Simon (2006) suggested providing IEP forms in advance, thus prompting parents to think about issues that will be discussed at the IEP meeting to enhance parents' sense of ownership and foster increased communication both during and after the meeting. Esquivel, Ryan, and Bonner (2008) also note that educators must avoid generalizations and characterizations that insinuate a child be defined by his or her disabilities. Rather, education personnel should share their knowledge of the child as an individual with unique interests, strengths, and weaknesses.

As a roadmap to special education services, the IEP process is essential in planning appropriate instruction for students with disabilities and is intended to guide the integration of general and special education. The IEP meeting is designed to provide an open line of communication where parents and professionals discuss and exchange information to jointly create a plan that contains what will be of best interest for the child. However, it is asserted that each individual IEP team has its own culture (i.e., the attitudes and beliefs that are valued by a given team) that dictates the dynamics of the IEP meeting (Dabkowski, 2004).

IEP teams may demonstrate culture in the following ways: the procedures by which members share information, who speaks at the meeting, how influential members are in making decisions, the specific recommendations that various members make during the meeting, and the voiced beliefs regarding instructional strategies and their effectiveness. Further, team cultures can determine whether parents are encouraged to participate throughout the meeting or are merely asked to participate at the end (Dabkowski, 2004). Some challenges faced by IEP teams may include: frustration by perceptions of inequality among team members, unfamiliarity with school and/or legal procedures, and/or not understanding special education terminology or jargon (Lytle & Bordin, 2001; Jivanjee, Kmzich, Friesen, & Robinson, 2007). Perhaps exacerbating these issues is the fact that teachers and other professionals see each other every day and develop a form of intimacy, while parents may not always have this luxury. This, in turn, can cause professionals to read parental nonparticipation as apathy or a lack of appreciation.

The tone of the IEP meeting and the familiarity of parents with the procedures of IEP meetings and the IEP process can also have a tremendous impact on meeting outcomes and the parent-school relationship. Parents who feel respected and are considered as equal partners are more likely to continue to participate throughout their child's academic career (Lo, 2012). Furthermore, when parents see themselves, their children, and team members actively planning for the future by utilizing student centered planning, dynamics shift from general conversation to in-depth communication about specific issues and a higher level of satisfaction with the planning process occurs (Childre & Chambers, 2005; Reiman, Beck, Coppola, & Engiles, 2010).

New Special Education Teachers Preparedness to Conduct A Mini-Conference

Research indicates that the feelings of confusion and apprehension that parents often experience may be due to a lack of preparedness and experience, which often results in a lack of active participation in meetings (Fish, 2006, 2008). Parental anxiety can be minimized when parents are prepared and collect needed information in advance (Geltner & Leibforth, 2008).

Table 1. Mini-conference script that may be used by the special education teacher when communicating to parents during the mini-conference meeting

Pre-Meeting	*Is an interpreter/translator needed? Yes No*
1.	Thank you for taking time to meet with me briefly today. Your input is extremely important to the upcoming IEP meeting and one of the things I will do today is to try to help you feel comfortable in participating in that meeting. To accomplish this, we will practice coming up with questions that you might ask in the formal IEP meeting.
2.	What we are going to do today is discuss some of the things that we will talk about in your child's formal Individual Education Plan (IEP) meeting. The things we discuss today are just to help us get a better understanding of the IEP process and begin coming up with ideas about how to best help your child. This is only the *first* attempt to get some ideas down on paper, and the formal IEP will be developed when the entire IEP team can contribute to the decision-making process. *(Ask parent if they have any questions or need clarification. Wait for parent response and answer any questions.)* In addition to this purpose for today's mini-conference, do you have any other items you would like to discuss? *(teacher makes notes of any additional items to discuss between steps 16 and 1 of the script)*
3.	The purpose for having the IEP meeting is to look at how your child is performing in school, what additional things we can do to help your child do better in school, and to develop an individual education plan (IEP) for your child.
4.	Data indicates your child's present levels of performance are: *(show parents examples of student performance)*
5.	What is one question you have about your child's performance? (*Wait for parent response and answer any questions)*
6.	Now we are going to look at possible goals and objectives for _____ IEP. Goals are broad statements about what your child needs help with (example: subtraction) and objectives are more specific statements about exactly what your child needs to learn (example: borrowing when subtracting) in order to correctly perform the bigger goal (subtraction).
7.	(To be completed for an annual IEP meeting only) Because the data indicates your child is able to do the above things independently, we should consider mastering the following goals/objectives on your child's current IEP: (*can write on parent form and show parents proposed goals/objectives from a computerized version).*
8.	(To be completed for an annual IEP meeting only) Because the data indicates your child has not yet mastered everyone on their current IEP, we should consider rewriting and continuing the following goals/objectives on your child's IEP (*can write on parent form and show parents proposed goals/objectives from a computerized version).*

9.	For the coming year, here are some possibilities for goals and objectives that might work for _____ (*can write on parent form and show parents proposed goals/objectives from a computerized version).*
10.	What comments or suggestions would you like to make at this point? Are there any transition needs we need to think about as we draft _____ educational plan? *Wait for parent response and answer any questions/address any concerns.*
11.	What changes would you like to see? What other ideas do you have to make the IEP even better suited to meet the needs of _____? *Wait for parent response and answer any questions.*
12.	There are a variety of educational settings in which students can receive instruction *(explain all educational options; regular education, resource, content mastery, life skills, etc.)*
13.	Ask me a question about the different educational settings. *Wait for parent response and answer any questions.*
14.	For the coming year, here are some possibilities for educational environments that might work for _____.
15.	Based on what you know of _____, do you feel that this would be the best choice for him/her? *Wait for parent response and answer any questions.*
16.	What other questions do you have about the IEP process? Do you have any questions about the IEP meeting; what will happen, who will be there, etc.? *Wait for parent response and answer any questions.*
17.	I want to thank you for meeting with me today. It is important to me that you understand how valuable you are to the IEP process. We are all a team working to develop the best plan to help your child. Please do not hesitate to ask questions or make suggestions at the IEP meeting. We want to work together to make the best decisions for your child. *(If parents suggest something that you aren't comfortable with say, "That is certainly a possibility that the team should discuss. Please bring it up when we are all there to talk about it".)*

Table 2. Sample completed mini-conference parent form discussing individualized areas for consideration and pertinent information regarding a child's educational plan

Areas for Consideration	Information Pertinent to Sally's Educational Plan
___*Sally's*__ present levels of performance Sally is completing 3rd grade and we are planning for 4th grade.	Sally can successfully do each of these in 9 out of 10 trials: • multiply 3 digits by 1 digit • divide 3 digits by 1 digit • read 80 words correct per minute on a 3rd grade passage • identify the setting of a passage
(To be completed for an annual IEP meeting only; can reference printed IEP document) Because data demonstrates that ___ *Sally* ___ is able to do the above things independently, we should consider mastering the following goals/objectives on your child's current IEP:	Goal 1: Sally will correctly identify the setting of a selected passage in 9 out of 10 trials. Goal 3: Sally will correctly multiply and divide 3 digits by 1 digit in 9 out of 10 trials.
(To be completed for an annual IEP meeting only; can reference printed IEP document) Because the data indicates that __ *Sally* ____ has not yet mastered everyone on their current IEP, we should consider rewriting and continuing the following goals/objectives on your child's IEP.	Goal 2: When given a 3rd grade passage, Sally will read 100 words correct per minute in 9 out of 10 trials. Goal 4: Sally will correctly add and subtract fractions with like denominators in 9 out of 10 trials. Goal 5: Sally will correctly complete a summary of a selected passage in 9 out of 10 trials.
For the coming year, here are some possibilities for goals and objectives that might work for _ *Sally*_.	After instruction, Sally will correctly multiply and divide 2 digits by 2 digits in 9 out of 10 trials. After instruction, Sally will correctly add and subtract fractions with like and unlike denominators in 9 out of 10 trials. When given a 3rd grade passage, Sally will read 100 words correct per minute in 9 out of 10 trials. After strategy instruction, Sally will correctly summarize a passage on 3rd grade level in 9 out of 10 trials.
For the coming year, here are some possibilities for educational environments that might work for _ *Sally*_.	Inclusion support, via a special educator or paraprofessional, in general education for math, science, and social studies; Resource reading/language arts pullout 45 minutes daily.

As created, the mini-conference was intended to be a short (20-30 minutes), less formal meeting than a parent-teacher conference that might address a variety of purposes and occur between one to three weeks in advance of the IEP meeting. If the student's parents have limited English proficiency, the special education teacher should arrange for an interpreter to be present at the mini-conference. Additionally, to further plan for the needs of

culturally diverse parents and students, teachers can refer to the strategies provided by Williams, Jones, and Williams (2015) as they plan for teacher-parent communications in the mini-conference. Additionally, the use of electronic mediums can result in increased flexibility for members to attend the mini-conference and increase positive parent communication (Lavay, Sakai, Ortiz, & Roth, 2015; Vannest, Burke, Payne, Davis, & Soares, 2011; Williams, Noell, Jones, & Gansle, 2012;). Thus, to be cognizant of the time constraints involved for teachers and parents alike as well as recent research validating the use of electronic mediums, the mini-conference could be conducted via Skype, Zoom, or via smartphone video calls, provided the parents and staff alike have access to such technology. If the parents or staff does not have access or knowledge of technology, the mini-conference could be held via a phone call as well.
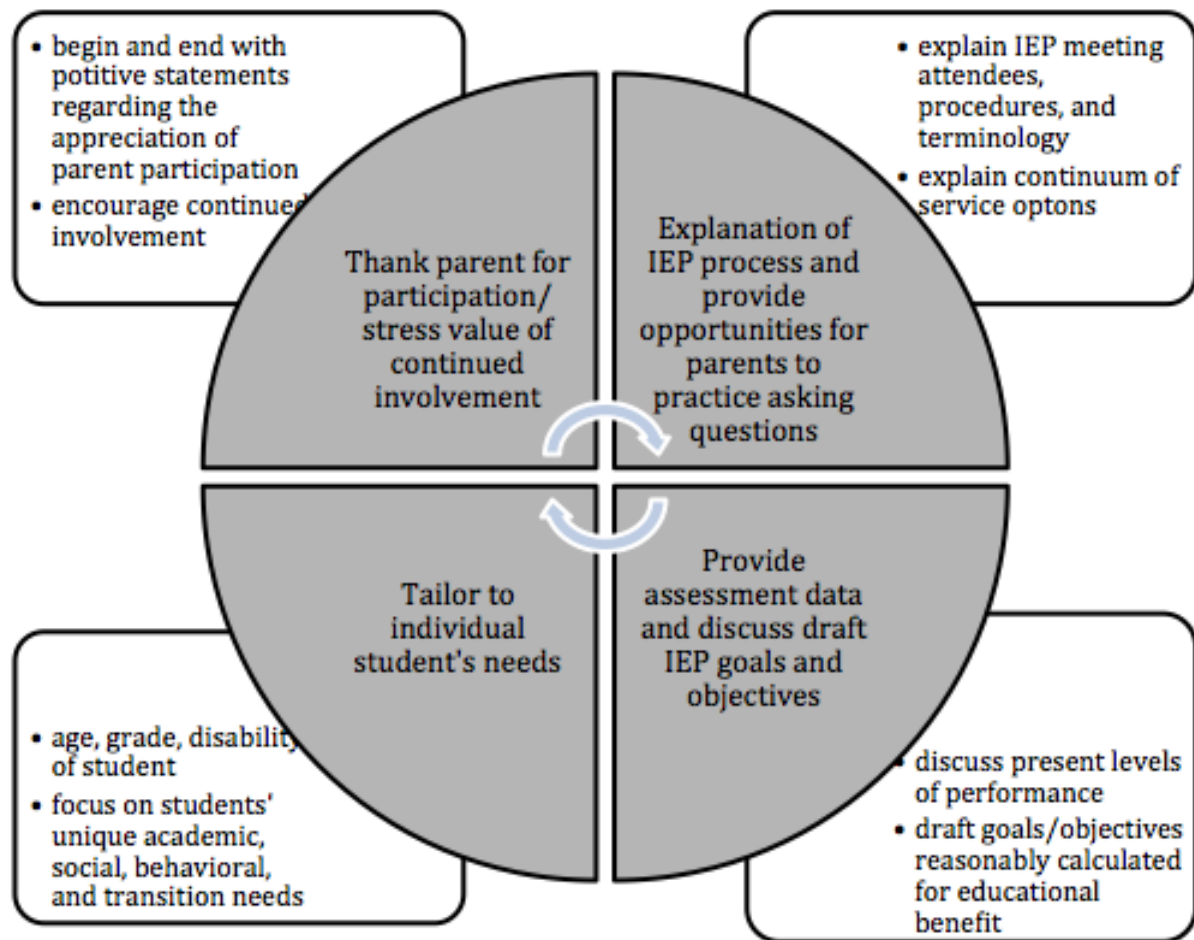
Novice teachers should be knowledgeable about how to conduct a mini-conference and how to utilize it with all parents of students receiving special education services. The mini-conference should allow for a structure in which parents are informed of the purpose for the mini-conference and to provide parents an opportunity have terms explained that will be used in the actual IEP meeting, as well as have the opportunity to practice asking pertinent questions. begin with positive comments thanking them for their involvement and focusing on the student's progress, then moving into statements regarding areas in which improvement is needed. It is likely that the novice special education teacher will need to consult the general education teacher(s) to solicit their input on present levels of student performance for initial IEPs or student performance on existing IEP goals.

IEP procedures and contents should also be discussed. This conveys to parents that the school (and by association, the IEP team) is open, demonstrates trust and respect, and fosters ongoing two-way communication about the child's strengths and needs. Specifically, the mini-conference should inform parents regarding their child's progress on previously established IEP goals and objectives (for annual IEP meetings), discuss possible new goals and objectives for the IEP, and help parents understand that their contributions are both important and valued. Finally, the mini-conference should begin and conclude with a positive statement regarding the importance of parental involvement in the educational process, thanking the parents for their attendance and participation.

Perhaps most importantly, instruction in the procedures of the mini-conference should clearly highlight the need to communicate to the parent that the mini-conference is a process, rather than a product. That is, all final decisions will be made during the IEP meeting, and the mini-conference is merely an avenue for brainstorming and facilitating the productivity of that meeting. As the special educator and parent are both required members of the IEP team, they should also both be in attendance at the formal IEP meeting. While there will, of course, be other participants at the IEP meeting, it should merely allow for further input on the items discussed initially at the mini-conference. What is more, no discussions held as a part of the mini-conference would have any legal implications for the IEP process, and a parent that wishes to utilize the services of a parent advocate or legal representative would do so at the formal IEP meeting.

A graphic representation of the key elements of the mini-conference is provided to further conceptualize the strategy and guide discussion (see Figure 1). In addition, a potential script, with a corresponding sample parent form, is included as a possible example for implementation (see Tables 1 and 2). Although it is not essential that teachers follow the sample script to have a successful mini-conference, if utilized, the parent form and teacher script may be used in conjunction with each other. To employ the provided forms, parents should be given a student-specific completed parent form for their reference, and teachers should conduct the mini-conference from the script corresponding to the items on the parent

form. In order to cover the contents of the completed parent form with the student's parents, the special education teacher should read from the teacher script that corresponds to the parent form. It should also be clearly explained to all parents that the mini-conference is simply a pre-meeting and that the IEP team would make all final decisions during the IEP meeting. Additionally, if school personnel wish to document the efficacy of the mini-conference on parent involvement in the IEP process, they may utilize the surveys for parents and professionals created and implemented by Jones and Gansle (2010) at the conclusion of the formal IEP meetings.

- begin and end with potitive statements regarding the appreciation of parent participation
- encourage continued involvement

Thank parent for participation/ stress value of continued involvement

Explanation of IEP process and provide opportunities for parents to practice asking questions

- explain IEP meeting attendees, procedures, and terminology
- explain continuum of service optons

Tailor to individual student's needs

Provide assessment data and discuss draft IEP goals and objectives

- age, grade, disability of student
- focus on students' unique academic, social, behavioral, and transition needs

- discuss present levels of performance
- draft goals/objectives reasonably calculated for educational benefit

Figure 1. Critical components of pre-IEP planning with parents

Conclusion

Parental participation in a child's education is positively related to student success and is mandated by IDEIA; however, parents report not being able to participate fully in IEP meetings (Resch et al., 2010). The present authors offered a strategy aimed at how novice teachers could facilitate and foster increased participation of parents in IEP meetings. Of course, individual IEP teams must use good judgment as to the format for implementation due to variables such as access and knowledge of technology, the needs of culturally and

linguistically diverse students and parents, and individual families' level of special education familiarity and/or experience.

When implemented as indicated, the mini-conferencing procedures have been shown to increase educators' perceptions of parental involvement (Jones & Gansle, 2010), serving to establish and maintain relationships built on trust between parents and educators. Furthermore, because parents who feel respected and are considered as equal partners are more likely to continue to participate throughout their child's academic career (Lo, 2012), it is possible that the mini-conferencing procedure will not only impact change for the present IEP meeting, but for future interactions as well. Through efforts to promote collaboration, teachers can create opportunities for and identify family perceptions of school interactions to create opportunities for learning; both essential components of family-centered practices in regards to special education and related services (Epley, Summers, & Turnbull, 2011).

The process of building school-family partnerships is dynamic and collaboration involves parents and teachers sharing resources, responsibilities, and decision-making roles in an effort to comprehensively address the needs of the whole child (Turnbull & Turnbull, 2001). Partnerships with parents enhance the planning and implementation of the goals and objectives of students' IEPs (Squires, 2001), therefore, teacher preparation programs can impact the nature of home-school collaboration when including reflective and intentional teaching practices enhancing teachers' willingness to develop school-community collaboration (Ritchhart & Perkins, 2000). In fact, Crais et al. (2004) found that graduates from teacher preparation programs that provided explicit school-community collaboration and partnership experiences were better prepared to communicate with parents and families with disabilities. Through efforts to promote collaboration such as mini-conferencing, novice special education teachers can learn early in a teacher preparation program about how to create opportunities for and identify family perceptions of school interactions to create opportunities for learning; both essential components of family-centered practices in regards to special education and related services (Epley, Summers, & Turnbull, 2011).

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The Diagnostic Competencies: Perceptions of Educational Diagnosticians, Administrators, and Classroom Teachers

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Abstract

The role that educational diagnosticians play in the educational process can vary across settings. In Texas, the Texas Education Agency oversees the State Board of Educator Certification (SBEC). SBEC certification standards outline knowledge and skills that are required for educational diagnosticians to practice in Texas. The Texas required endorsement is acquired by passing a state mandated assessment covering the standards set by SBEC (TAC§231.623). Given the evolving role of an educational diagnostician, this study examined the perceptions of educational diagnosticians, administrators, and classroom teachers of the competencies in regards to implementation, utilization, and importance. Furthermore, this study sought to determine if years of experience in education affects these perceptions. Results indicate that administrators and teachers perceive the utilization of competencies to occur at a lower rate than diagnosticians report utilizing them, and years of experience showed no statistically significant effect on perceptions. No statistically significant interactions were found among position, years of experience, and perceptions of the competencies.

Introduction

There is a problem in special education today, in that the role of the educational diagnostician is changing (De Zell Hall, 2014; Kwiatek & Schultz, 2014; NJCLD,

2011; Mastropieri & Scrugg, 2005). Currently, educational diagnosticians play a vital role in the identification of and continued support of students with educational disabilities. However, classroom teachers are the ones who implement recommendations and individualized education plans while administrators must ensure recommendations are being followed with fidelity. Teacher and administrator understanding of the roles of educational diagnosticians is important; however, there is a lack of research in this area. There are many reasons as to why this issue is important, among which are the increased demands on school personnel to increase student success rates and teach curriculum at a rapid pace (Caranikas-Walker, Shapley, and Cordeau, "Administrator's Views," 2006). Students receiving special education services are not exempt from this expectation. This study contributes to the body of knowledge needed to address this problem by identifying the level of understanding that teachers and administrators have on the role of educational diagnosticians on their campuses.

Two facets composed this study. One purpose of this study was to compare the perceptions of teachers and administrators to that of educational diagnosticians on the diagnostic competencies. The second purpose was to determine if years of experience in education impacts the perceptions that educational diagnosticians, classroom teachers, and administrators have on the diagnostic competencies.

A survey was utilized to obtain data on the perceptions of educational diagnosticians, administrators and classroom teachers on the state standards for educational diagnosticians, so that perceptions could be measured and compared to each other. It was then determined if years of experience impacted those perceptions.

This study adds to the body of literature which is lacking research on the comparison of perceptions of teachers, administrators, and educational diagnosticians in regards to responsibilities and roles. This study also adds to the research information on whether years of experience in education impacts those perceptions. Additionally, the educator standards as set forth by the Texas Administrative Code for educational diagnosticians have been examined in terms of importance to what the job entails on a day to day basis as reported by educational diagnosticians, administrators and classroom teachers, especially as roles and responsibilities change from day to day.

In order to maintain functional and efficient educational processes in the campus setting, it is essential to ensure that the competencies that are required of educational diagnosticians for certification are relevant. In the state of Texas, they are the standards as set forth by the State Board of Educator Certification, and these are the standards that have been reviewed in this study.

Review of Literature

Educational diagnosticians play a prominent role in the provision of special education services in Texas. These roles and expectations are outlined in the State Board of Educator Certification standards, overseen by the State Board of Educator Certification and the Texas Education Agency. Unfortunately, research regarding the specific tasks and role of educational diagnosticians in special education is limited. In looking at the history of special education, the path that was taken to get regulation to where it is today can be clearly seen. Federal and state standards today clearly outline expectations in regards to the identification of students with disabilities, as well as state assessment standards and expectations. These standards create significant implications for students with disabilities, impacting everything from student services to grade placement, and graduation plans. These situations make understanding the

current issues regarding educational diagnosticians in special education critical to furthering the progress of children with disabilities.

Educational diagnosticians are generally required to have three years classroom experience and a Master's level degree in special education (Texas Education Diagnostician Association, 2014). Once demonstration of mastery of these standards has been shown by passing a state certification exam, one may then begin to perform the duties of an educational diagnostician. Because educational diagnosticians are required to have some teaching experience, this allows them a unique perspective to add to the assessment data that can lead to more useful application of recommendations and resources.

In 2012, the competencies as set forth by SBEC were revised. These competencies reflect the expectations that educational diagnosticians are held to in order to work in Texas in special education evaluation. They are as follows:

• Knowing the motive, philosophy and legislative requirements of assessment and special education services is expected.

• Ethics are essential to providing services through practice.

• Establishing relationships with other players in the educational process, such as parents and outside and related services, is also required.

• Knowledge of assessment practices and utilizing that information to make appropriate educational decisions is another competency set forth. This includes having the ability to plan and make instructional decisions for students.

• Educational diagnosticians must also be able to identify students with disabilities and determine educational need for services.

• Formal and informal assessment methods should be known and utilized.

• It is essential that cultural, ethnic and linguistic issues be considered in evaluation and planning, and behavioral and social interaction must also be taken into consideration.

• Educational diagnosticians must be able to manage time and resources appropriately to maintain compliance with timelines and provide efficient services.

• Appropriate assessments, evaluation and strategies should be utilized to address students' behavioral and social needs.

• Because educational diagnosticians assist with creating educational plans for students, an understanding of curriculum and educational strategies is important. (TEA, 2012).

Cavin (2007) argues that in regards to educational diagnosticians, the standards do need to be examined to ensure that all areas of importance are reflected in preparatory and university classes. For example, while many programs that prepare educational diagnosticians focus on test administration, Cavin (2007) suggests that with the transition in how specific learning disabilities are identified, more emphasis should be placed on other standards. Because the identification of specific learning disabilities calls for the utilization of a multi-disciplinary team and the gathering of both qualitative and quantitative data, formal assessment is not weighted as heavily as a determinant factor as it was before. It is one piece of data that is utilized among many factors to help make the determination. Because research on the diagnostic competencies is limited, more needs to be done to investigate the quality of these standards (Cavin, 2007).

Role of the Educational Diagnostician in Special Education

The State Board for Education Certificcation office regulates standards for educational diagnosticians that are set forth by the Texas Legislative Code. Educational diagnosticians are obligated to abide by these standards (TEA, 2012). Assignments for an educational diagnostician can vary depending on the state or school district (Zweback & Mortenson, 2002); however, their main goal is to evaluate students to determine the educational need for special education services, informing teachers of appropriate instructional strategies to provide in the classroom, and make certain that schools are in compliance with the standards and guidelines as delegated in IDEA (NCPSE, 2011).

Educational diagnosticians utilize testing results from intellectual and achievement tests that are administered as diagnostic data to determine eligibility and service recommendations. This information is not the sole source of determining data, however. IDEA mandates that multiple sources of data be used, especially in regards to diagnostic purposes. Curriculum based assessments, observations, medical information, and interviews with parents and teachers are all information that should be included in an evaluation (Gartland and Strasnider, 2011). While most of that data can be obtained or collected by anyone, educational diagnosticians have specialized training that allows for analyzing the compilation of information to obtain a diagnosis (Texas Education Agency, 2015).

The Individuals with Disabilities Act (IDEA) requires that a group must assemble once a student is identified or suspected of having a need for special education (Aron & Loprest, 2012). That group must consist of parents and certain personnel that work within the school, and are charged with determining "whether a need for specialized educational services exists, and if so, to design, review, and periodically modify that child's education program" (p.3). In adjusting the approach, design, or subject within instruction to ensure that students with disabilities have as much access to grade level curriculum as is appropriate for them, teachers are creating specially designed instruction as specified by IDEA (Brownwell, Smith, Crockett, Griffin, 2012). Because assessment should drive individualized education plans, educational diagnosticians are crucial in the initiation of this process.

Educational diagnosticians must constantly collaborate with other school personnel in order to create effective plans for students to be academically successful. School administrators play an important part in ensuring that resources and supports are available to accomplish goals. While campus administrators are charged with facilitation of budgeting, personnel, curriculum and instructional development, public relations and management, special education has emerged as an additional undertaking (Capps, 2013).

Cavin (2007) found that when educational diagnosticians were asked to rank which SBEC standards were most relative to every day duties and responsibilities, diversity and its impact on assessment was deemed the lowest.

Current Issues of Educational Diagnosticians in Schools

Caranikas-Walker, Shapley, and Cordeau (2006) found a critical shortage of educational diagnosticians. The total vacancy rate at the time of the study was a reported 6.2%. There are several reasons for difficulties in hiring in special education professional positions. The first was noted as being a lack of personnel with the correct requirements and certifications. The second reason was low pay scales. Lastly, it was noted that other school districts, or other outside organizations (such as hospitals or private companies) often offered higher salary, benefits or incentives. Recommendations as to how to curb these shortages focused around the idea of recruitment and advertisement for positions. As retention of employees was the

highest concern, it was discovered that what made employees stay longer was when districts supported professional development by providing time and money, as well as providing adequate supplies and resources (Caranikas-Walker, 2006).

Another issue for diagnosticians is in regard to implementation of recommendations to teachers. Rueter and Simpson, (2011) interviewed educational diagnosticians in Texas and found that there are several obstacles that prevent effective implementation of strategy recommendations in the classroom. Additionally, several supports were noted that could improve the efficacy with which educational diagnosticians complete their jobs. The first theme that emerged was the lack of knowledge of research based interventions. Not only did educational diagnosticians report that they were not well informed in regards to what constitutes a research based intervention, but also noted a lack of available time to research said interventions to list as recommendations for the classroom. Directly stemming from the issue of time, educational diagnosticians reported that caseloads were too large to allow enough time to complete assessments or collaborate with classroom teachers. Finally, it was found within this study that administrator support was lacking in both applying research based practices in the classroom, and ensuring that these practices were put in place with fidelity. Educational diagnosticians noted feelings that assessment reports went unread by teachers, rendering recommendations non-pertinent to further classroom instruction. (Rueter & Simpson, 2011).

Indeed, it is possible that classroom teachers heed little consideration to the importance of educational, When asked to predict results of educational assessments for students who have been referred to special education, many times teachers accurately foretold the results. This finding has led to a belief that assessment personnel should play a larger role in the pre-referral process, and shape assessments in a way that will yield new information for teachers to utilize in the classroom. However, in looking at special education needs in the state of Texas in 2006, a shortage of educational diagnosticians restricts time and efforts to collaborate outside of assessment and Admission, Review and Dismissal (ARD) meetings.

Administrators currently do not receive adequate training in special education before they become managers in local education agencies. As a result, diagnosticians should be responsible for communicating laws, regulations, and criteria for eligibility to them as well as to parents and teachers. Having the ability to communicate this information to a variety of adults who come from differing backgrounds and experiences takes skill. Capps (2013) suggests that this calls for a look into the current training that diagnosticians get in preparation for their careers. While law, assessment and interventions are areas that are covered in depth, communicating this knowledge to others may take a separate course all on its own (Capps, 2013). Educational diagnosticians themselves report that their preparation programs under-prepared them for skills involving building relationships for collaborative efforts in planning (Cavin, 2007).

This role of educational diagnosticians becomes more essential in light of high administrator turnover. Administrators can have a monumental effect on implementation and sustainability of practices that benefit students with special needs (Strickland-Cohen, McIntosh & Horner, 2014). It is suggested that by utilizing strategies such as forming multi-disciplinary teams to monitor programming and keeping data on the effectiveness of plans that are in place, successful practices that have been in place may continue to thrive with a new administrator in place. Additionally, Franklin (2012) has found that when personnel within a school believes their principal to be more knowledgeable in special education practices, they often

also agree that the quality of the special education services provided on their campus is higher. This speaks to the impact that administrators can have on the special education population of their campuses.

As the responsibilities of educational diagnosticians are changing within schools, emphasis is being placed on them taking more responsibility in the pre-referral process (Sattler & Simpson, 2014). Educational diagnosticians are encouraged to gather more background information on family, school, and environment, since this information is often left out of referral information. Increased parental involvement is also encouraged. Good (2004) asserts that the research on the pre-referral process is almost non-existent, and may be because of the approach not being mandated by federal law. It is, however, promoted in the legislative wording explaining the procedures that encompass special education. Good (2004) states that while school districts have restructured their own pre-referral processes in response to legal demands, parents are the participants who have been omitted from the developed approach, even though it is essential to comprehend their point of view and insight into the system in place. As the new IDEA regulations require that interventions and progress monitoring be documented before a student is identified as having a specific learning disability, pre-referral information is essential in making appropriate recommendations for eligibility and services for children (§89.1040). Additionally, greater emphasis has been placed upon educational diagnosticians to "enhance the assessment and evaluation process, as well as link it to instruction" (Gartland & Strosnider, p. 4).

Cavin (2007) found that educational diagnosticians, upon entering the field, were most unprepared for the collaboration, team building, and time management that was required for their job responsibilities. While West and Pirtle (2014) emphasize the need to better align teacher preparation programs with parent perceptions of quality teachers, additional consideration should be paid to the relationship between the educational diagnostician and other school personnel. Throughout the literature, collaboration and organization are consistently mentioned as key characteristics of special education personnel. Educational diagnosticians should be better educated in these matters to more efficiently perform their jobs.

Methodology
Population and Sample

Convenience sampling was utilized, as participants were members of a regional service center, and the researcher chose a group from which it was known that information could be obtained (Laerd, 2012). The sample was determined by surveying those diagnosticians, administrators, and teachers who worked in districts within the chosen regional service center. The number of the sample was dependent on those who volunteered to complete the survey. A total of 28 diagnosticians, 74 teachers, and 25 administrators completed the survey. The population is diagnosticians, teachers and administrators across the state of Texas as the standards are applicable statewide.

According to the most recent Texas Academic Performance Report from TEA (2013-14) the service center region selected for this study services a total of 6,874.6 teachers. It was reported that the majority of these teachers, 27.1%, had between 11-20 years of experience. This same trend is found across the state, with 27% of teachers having the same amount of experience. Administrators served through this same region total 414.2. Educational diagnosticians were not represented in this

specific report, although special education teachers were listed at making up 9% of the region's educators, compared to the state's 8.5%.

Instrumentation

The survey instrument that was utilized for the purpose of this study was used in *Perceptions of Importance of Diagnostic Competencies among Educational Diagnosticians* (Cavin, 2007). The adapted survey contained a section with demographic data. Work history was addressed first, asking years of experience, certification route, title description, highest degree obtained, undergraduate degree title, master's degree title, doctorate degree title (if applicable), and grade level of current role. Age, gender, and ethnicity were then addressed.

Cavin (2007) used Cronbach's coefficient alpha to determine internal consistency (Hinkle, Wiersma, & Jurs, 1994, as cited in Cavin, 2007). A reliability coefficient of .794 was obtained from the test reliability subgroup. Validity is the accuracy of responses given. Cavin (2007) states, "content validity is assumed as a result of the expertise of those who developed the SBEC competencies. The SBEC competencies, as well as the TExES examinations, are developed by experts in the field of special education evaluation from locations throughout Texas" (p. 43).

Procedures

The adapted survey was then re-created on SurveyMonkey. A letter assuring anonymity and explaining the purpose of the survey, along with the survey, was distributed via e-mail among diagnosticians, teachers, and administrators from a regional service center. Additionally, staff was asked to announce the survey to those who were in attendance for workshops or trainings that were held at the regional service center. Review of demographic data allowed for desegregation of data to run results.

Results

Sample Description

For this research, 36 surveys were turned in by diagnosticians. Out of these, 13 were not counted in the data because they were not complete. One hundred and sixteen participants completed the teacher and administrator survey. Among these, 37 were discounted for not being complete. Additionally, 4 more surveys were excluded from the data due to them being completed by positions other than administrator or teacher (attendance clerk, paraprofessional, librarian, and school nurse) (Table 1).

Table 1. Descriptive Statistics

	Administrator	Teachers	Diagnosticians
Years of Experience			
0-15	4	34	17
16+	18	20	6
Gender			
Female	16	44	22
Male	6	9	1
Locale			
Rural	16	26	11
Urban	6	27	12
Ethnicity			
White, Non-Hispanic	10	22	11
Hispanic or Latino	12	31	10
African-American	-	-	1
Asian or Pacific Islander	-	-	1

Grade Levels			
Pre-K-5	12	24	8
6-12	7	26	4
All	3	3	11

Summary of Descriptive Statistics

Some noticeable patterns emerged from the descriptive statistical data. Although not statistically significant, on 22 out of the 30 survey questions, diagnosticians rated the highest on implementation, utilization, and importance of the diagnostic competencies. Additionally, diagnosticians rated the highest on every survey question involving utilization of the standards. Diagnosticians did not the rate lower than both administrators and teachers on any survey question except for implementation and importance of Competency 10, which states that the diagnostician will know and understand appropriate curricula and instructional strategies for individuals with disabilities. While not statistically significant, administrators and teachers overall rate this competency higher in consideration of implementation and importance than diagnosticians do. However, diagnosticians rated this competency higher than administrators and teachers in terms of utilization. Competency 10 is the only one in which teachers rated higher than both administrators and diagnosticians, in overall importance of the competency to the field of education.

Inferential Statistics

$H_{01:}$ There is no significant difference among teachers, administrators, and diagnosticians in education on the perception of the implementation of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. No significant differences were found among the diagnosticians (M=95.09, SD=6.05), administrators (M=94.18, SD=6.25) and teachers (M=92.25, SD=12.68) on the perception of the implementation of the Educational Diagnostician standards, $F_{(2,93)} = 1.14$, $p = .32$, $\eta^2 = .02.$ The effect size is considered small and 2% of the variance of of the implementation of the Educational Diagnostician standards is accounted for by position. Therefore, the null hypothesis fails to be rejected, there are no significant differences among diagnosticians, administrators and teachers. Means and standard deviations can be found in Table 2.

Table 2.   Means and Standard Deviations: Implementation of Diagnostic Standards, Position

Position	Mean	SD	N
Diagnosticians	95.09	6.05	23
Administrators	94.18	6.25	22
Teachers	92.25	12.68	53

$H_{02:}$ There is no significant difference among years of experience in education on the perception of the implementation of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. No significance differences were found between those with 0-15 years of experience (M=94.52, SD=10.91) and those with 16 or more years of experience (M=91.91, SD=9.24) on the perception scores for implementation of competencies, $F_{(1,93)} = .75$, $p = .39$, $\eta^2 = .01.$ The effect size is considered small and 1% of the variance of of the implementation of the Educational Diagnostician standards is accounted for

by years of experience. Therefore, the null hypothesis fails to be rejected, there are no significant differences among years of experience. Means and standard deviations can be found in Table 3.

Table 3. Means and Standard Deviations: Implementation of Diagnostic Standards, Years of Experience

Years Experience	Mean	SD	N
0-15	94.52	10.91	54
16+	91.91	9.24	44

H_{03} There are no significant interactions between personnel type (teachers, administrators and diagnosticians) and years of experience in education on the area of the perception of implementation of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. An interaction considers the relationship among three or more variables, and describes a situation in which the concurrent influence of two variables on a third is not effective. Looking at the graph, there appeared to be an interaction between diagnosticians with 0-15 years of experience (M=9.88, SD=6.70) or 16 or more years of experience (M=95.67, SD=4.13) and administrators with 0-15 years of experience (M=96.50, SD=4.36) or 16 more years of experience (M=93.67, SD=6.58). There was no interaction found between administrators with 0-15 years of experience (M=96.50, SD=4.36) or 16 or more years of experience (M=93.67, SD=6.58) and teachers with 0-15 years of experience (M=94.09, SD=13.12) or 16 or more years of experience (M=89.20, SD=11.61). There was no interaction found between teachers with 0-15 years of experience (M=94.09, SD=13.12) or with 16 or more years of experience (M=89.20, SD=11.61) and diagnosticians with 0-15 years of experience (M=94.88, SD=6.70) or with 16 or more years of experience (M=95.67, SD=4.13). However, the null hypothesis failed to be rejected, there is no significant interaction among positions (diagnosticians, administrators, teachers) and years of experience on implementation, $F_{(2,93)}$ = .51, p = .61, η^2 = .01. The effect size is considered small and 1% of the variance of the implementation of the Educational Diagnostician standards is accounted for by position and years of experience. Means and standard deviations can be found in Table 4.

Table 4. Means and Standard Deviations: Implementation of Diagnostic Standards by Position and Years of Experience

Position	Years Experience	Mean	SD	N
Diagnosticians	0-15	94.88	6.70	17
	16+	95.67	4.13	6
Administrators	0-15	96.50	4.36	4
	16+	93.67	6.58	18
Teachers	0-15	94.09	13.12	33
	16+	89.20	11.61	20

$H_{04:}$ There are no significant differences among teachers, administrators and diagnosticians on the total utilization of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. The null hypothesis was rejected, $F_{(2,93)}$ = 3.93, p = .02, η^2 = .08. The effect size is considered medium and 8% of the variance of the utilization of the diagnostic standards is accounted for by position. The null hypothesis is rejected, there are

significant differences among diagnosticians, and administrators and teachers. Post hoc LSD tests indicate that the diagnostician and administrator perceptions on utilization of the standards differed significantly, $p<.02$, diagnosticians (M=93.48, SD=6.70) scored higher than the administrators (M=81.82, SD=19.07)). Likewise, there was also statistically significant mean difference found between diagnostician and teacher perceptions on utilization of the standards $p<.02$, diagnosticians (M=93.48, SD=6.70) scored higher than teachers (M=84.39, SD=16.66). There was no statistically significant mean difference found between administrators (M=81.82, SD=19.07) and teachers (M=84.39, SD=16.66) ($p<.52$). Means and standard deviations can be found in Table 5.

Table 5. Means and Standard Deviations: Utilization of Diagnostic Standards, Position

Position	Mean	SD	N
Diagnosticians	93.48	6.70	23
Administrators	81.82	19.07	22
Teachers	84.39	16.66	54

Source	df	MS	F	p	η^2
Between	2	966.86	3.93	.02	.08
Within	93	245.89	245.89		

$H_{05:}$ There is no significant difference among years of experience on the total utilization of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. No significance differences were found among those with 0-15 years of experience (M=86.80, SD=18.13) and those with 16 or more years of experience (M=84.84, SD=13.03) on the perception scores for utilization of competencies, $F_{(1,93)}$ = .59, p = .44, η^2 = .01. The effect size is considered small and 1% of the variance of of the implementation of the Educational Diagnostician standards is accounted for by years of experience. Therefore, the null hypothesis fails to be rejected, there are no significant differences among years of experience. Means and standard deviations can be found in Table 6.

Table 6. Means and Standard Deviations: Utilization of Diagnostic Standards, Years Experience

Years of Experience	Mean	SD	N
0-15	86.8	18.13	55
16+	84.84	13.03	44

$H_{06:}$ There is no significant interaction between personnel type (teachers, administrators and diagnosticians) and years of experience on the total utilization of the Educational Diagnostician standards.

Levine's test was not significant and therefore homogeneity of variances was met. There was no interaction between diagnosticians with 0-15 years of experience (M=93.35, SD=7.51) or 16 or more years of experience (M=93.83, SD=4.17) and administrators with 0-15 years of experience (M=72.75, SD=40.73) or 16 more years of experience (M=83.83, SD=11.52). Looking at the graph, there appeared to be an

interaction found between administrators with 0-15 years of experience (M=72.75, SD=40.73) or 16 or more years of experience (M=83.83, SD=11.52) and teachers with 0-15 years of experience (M=85.18, SD=17.63) or 16 or more years of experience (M=83.05, SD=15.21). There was no interaction found between teachers with 0-15 years of experience (M=85.18, SD=17.63) or with 16 or more years of experience (M=83.05, SD=15.21) and diagnosticians with 0-15 years of experience (M=93.35, SD=7.51) or with 16 or more years of experience (M=93.83, SD=4.17). However, the null hypothesis failed to be rejected, there is no significant interaction between position (diagnosticians, administrators, teachers) and years of experience on utilization, $F_{(2,93)} = .92$, $p = .40$ $\eta^2 = .02$. The effect size is considered small and 2% of the variance of of the implementation of the Educational Diagnostician standards is accounted for by position and years of experience. Means and standard deviations can be found in Table 7.

Table 7. Means and Standard Deviations: Utilization of Diagnostic Standards by Position and Years Experience

Position	Years Experience	Mean	SD	N
Diagnosticians	0-15	93.35	7.51	17
	16+	93.83	4.17	6
Administrators	0-15	72.75	40.73	4
	16+	83.83	11.52	18
Teachers	0-15	85.18	17.63	34
	16+	83.05	15.21	20

$H_{07:}$ There is no significant difference among teachers, administrators and diagnosticians on the variable of the total importance of the Educational Diagnostician standards in the field of educational evaluation.

Levine's test was not significant and therefore homogeneity of variances was met. No significant differences were found among the diagnosticians (M=94.61, SD=6.42), administrators (M=93.78, SD=6.63) and teachers (M=91.63, SD=13.16) on the perception of the importance of the Educational Diagnostician standards, $F_{(2,93)} = 1.39$, $p = .26$, $\eta^2 = .03.$ The effect size is considered small and 3% of the variance of of the implementation of the Educational Diagnostician standards is accounted for by position. Therefore, the null hypothesis fails to be rejected, there are no significant differences among diagnosticians, administrators and teachers. Means and standard deviations can be found in Table 8.

Table 8. Means and Standard Deviations: Importance of Diagnostic Standards, Position

Position	Mean	SD	N
Diagnosticians	94.61	6.42	23
Administrators	93.78	6.63	22
Teachers	91.63	13.16	54

$H_{08:}$ There is no significant difference among years of experience in education on the total importance of the Educational Diagnostician standards in the field of educational evaluation.

Levine's test was not significant and therefore homogenity of variances was met. No significant differences were found between those with 0-15 years of experience (M=93.87, SD=11.56) and those with 16 or more years of experience

(M=91.45, SD=9.42) on the perception of the importance of the Educational Diagnostician standards, $F_{(1,93)}$ = .91, p = .34, η^2 = .01. The effect size is considered small and 1% of the variance of of the importance of the Educational Diagnostician standards is accounted for by years of experience. Therefore, the null hypothesis fails to be rejected, there are no significant differences between years of experience. Means and standard deviations can be found in Table 9.

Table 9. Means and Standard Deviations: Importance of Diagnostic Standards, Years of Experience

Years Experience	Mean	SD	N
0-15	93.87	11.56	55
16+	91.45	9.42	44

$H_{09:}$ There is no significant interaction between personnel type (teachers, administrators and diagnosticians) and years of experience on the total importance of the Educational Diagnostician standards in the field of educational evaluation.

Levine's test was not significant and therefore homogenity of variances was met. An interaction considers the relationship among three or more variables, and describes a situation in which the concurrent influence of two variables on a third is not effective. Looking at the graph, there appeared to be an interaction found between diagnosticians with 0-15 years of experience (M=94.24, SD=7.26) or 16 or more years of experience (M=92.83, SD=6.95) and administrators with 0-15 years of experience (M=98.00, SD=2.31) or 16 more years of experience (M=92.83, SD=6.95). There was no interaction found between administrators with 0-15 years of experience (M=98.00, SD=2.31) or 16 or more years of experience (M=92.83, SD=6.95) and teachers with 0-15 years of experience (M=93.21, SD=13.79) or 16 or more years of experience (M=88.95, SD=11.87). There was no interaction found between teachers with 0-15 years of experience (M=93.21, SD=13.79) or with 16 or more years of experience (M=88.95, SD=11.87) and diagnosticians with 0-15 years of experience (M=94.24, SD=7.26) or with 16 or more years of experience (M=92.83, SD=6.95). The null hypothesis failed to be rejected, there is no significant interaction between position (diagnosticians, administrators, teachers) and years of experience on importance, $F_{(2,93)}$ = .53, p = .59, η^2 = .01. The effect size is considered small and 1% of the variance of the importance of the Educational Diagnostician standards is accounted for by position and years of experience. Means and standard deviations can be found in Table 10.

Table 10. Means and Standard Deviations: Importance of Diagnostic Standards by Position and Years of Experience

Position	Years Experience	Mean	SD	N
Diagnosticians	0-15	94.24	7.26	17
	16+	95.67	3.27	6
Administrators	0-15	98.00	2.31	4
	16+	92.83	6.95	18
Teachers	0-15	93.21	13.79	34
	16+	88.95	11.87	20

Conclusions

While an abundance of literature can be found concerning teacher's perceptions on inclusion services and needs regarding special education services (Cassale-Giannola, 2012), there is a lack of such research covering the perceptions of the implementation, utilization, and importance of educational diagnostician's duties and responsibilities on school campuses. Additionally, the depth of the understanding that teachers and administrators have of the day to day activities and undertakings on the campus level is still unknown.

In the process of educating students requiring special education services in the state of Texas, educational diagnosticians play a vital role. Some of the responsibilities of an educational diagnostician include, but are not limited to, assessment professional, meeting facilitator, and legal guide (Kwiatek, 2014; TAC, 2012). In addition to those responsibilities educational diagnosticians must also possess effective communication skills, delegation skills, and collaborative skills to ensure that programming is implemented effectively. However, it is essential that educational diagnostician's duties and responsibilities on school campuses are understood and perceived as critical to the provision of special education services in the campus setting. Without this understanding and positive perception, the collaborative model essential for providing effective services in special education may be compromised.

Once it can be identified which duties educational diagnosticians are spending most of their time completing, and discovering what tasks might require more time, then that information could be vital to not only preparation programs but also for district personnel planning. In addition, because the roles and responsibilities of an educational diagnostician can vary across school districts depending on needs and personnel concerns (De Zell Hall, 2014), understanding the competencies from differing perspectives (educational diagnosticians, administrators, and teachers) may assist in improving competencies.

The results of this study indicate that teachers and administrators do not see competencies utilized by educational diagnosticians on the campus setting to the same degree that diagnosticians report utilizing them, although they agree that they are important in regards to implementation and to the field of educational evaluation. It also was found that years of experience do not significantly affect these perceptions.

The results of this study suggest that teachers and administrators, overall, do not see educational diagnosticians utilizing the diagnostic competencies to the extent that diagnosticians report performing them. This leads to several implications for practice on both local and state levels. Collaboration is required in order to create effective educational programs for students, as well as an understanding of the responsibilities of educational diagnosticians as a way to improve that collaboration (Capps, 2013).

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Can Teachers' Self-Reported Characteristics and Beliefs about Creativity Predict their Perception of their Creativity Practices in the Classroom

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Abstract
The purpose of this study was to examine 197 Jordanian primary school teachers' creative personality, their beliefs about creativity, and creativity fostering practices. The researcher developed a questionnaire which consisted of three self-reported scales: teachers' creative personality, teachers' beliefs about creativity and teachers' creativity fostering practices. The results indicate that teachers' creative personality characteristics and teachers' beliefs about creativity are aligned with their perception of their practices for fostering children's creativity. In addition, gifted resource-room teachers, teachers from private schools and teachers with less than 10 years' experience were found to hold stronger and more positive beliefs concerning creativity than their colleagues working in regular classrooms or in government schools, and those with more than ten years' teaching experience. Moreover, teachers from private schools were found to have a more creative personality compared to teachers from government schools.

Keywords: *creativity, mainstreaming, gifted children, gifted resource-room, teachers' beliefs and practices.*

Introduction
Creativity is a human characteristic that helps young people to develop a level of adaptability to ensure that they can become part of an effective future workforce (Fazelian and Azimi, 2012). Related literature emphasises the effect of creativity on a

child's holistic development and the importance of fostering it during the early years (Starko, 2005). Since most theories of child development view young children as highly creative, many may lose their sense of creativity (Sternberg, 2003) if they miss the opportunity to develop it through a lack of encouragement and support in school settings (Farella, 2010; Asih, 2014; Hui et al., 2015). Based on this fact, socioeconomic demands and learning theories, fostering children's creativity is regarded today as a key education target by a number of education systems around the world (Kampylis, 2010) in both Eastern and Western countries (Cheung and Leung, 2014), including Australia (Kampylis, 2010), China (Chan, 2015), Finland (Saarilahti et al., 1999), Greece (Greek Pedagogical Institute [GPI], 2003), the United Kingdom (Qualifications and Curriculum Authority [QCA], 2005), the United States (Davis, 2004), and in the Middle East, including Jordan (Al-Dababneh et al, 2010).

However, despite the international and national interest in fostering children's creativity, some researchers have shown that the classroom does not appear to be a place where this occurs (Plucker et al., 2004; Aish, 2014). Some research explains this by reporting that the teaching approach employed is mainly teacher-centred, which smother opportunities for creativity by being overly didactic, have low expectations of children (Stojanova, 2010), and focus on correct responses and students' incapacity, rather than on their competencies (Alencar, 2002). Hui et al. (2015) added that teachers prefer expected ideas and discourage further exploration of unexpected creative ideas. These findings have led some theorists and researchers to study creativity and the factors that restrict the fostering of children's creativity (Kampylis et al., 2011).

Since teachers spend a considerable amount of time with children, they play a critical role in fostering or inhibiting creativity in the classroom (Aish, 2014). However, it has been recognised that in order to promote creativity there are three issues that require attention, including understanding what creativity means to teachers (Bramwell et al., 2011; Cropley, 1997; Sak, 2004), teachers' creative characteristics, and their practices for facilitating creativity (Chan, 2015; Aish, 2014). Thus, it is important to understand teachers' beliefs and personalities in relation to creativity, because when teachers are unaware of the meaning and importance of fostering creativity and how this can be accomplished, they may ignore teaching creativity (Sak, 2004; Chan, 2015).

Creative Personality

Encouraging teachers' creativity is the first step and a prerequisite for education that encourages children's creativity (Stojanova, 2010). Research has found that a teacher's creative personality will impact upon their practices for fostering children's creativity (Farella, 2010; Lee and Kemple, 2014; Chan, 2015). A teacher's creative personality is described as professional development, being highly motivated, open minded, having a high feeling of security, a tendency for novel and flexible products (Farella, 2010), goal orientation towards learning (Hong, Hartzell, and Greene, 2009), having personal intelligence, and being a hard-worker, energetic, intuitive, and confident (Bramwell et al., 2011). Hamza and Griffith (2006) added that teachers should be approachable, friendly, knowledgeable, interesting, caring, leaders, insightful, imaginative, be able to manage conflicts, minimise disruptions, and create innovative classroom activities. Similarly, Lee and Kemple (2014) noted that teachers who are open to experience and have more creativity-related experiences are more likely to espouse creativity-fostering teaching styles.

Beliefs about Creativity

Understanding teachers' beliefs about creativity plays a crucial role in altering teaching behaviours regarding the fostering of creativity (Pajares, 1992). Many researchers have tried to understand teachers' beliefs about creativity and view creativity as an abstract concept with many aspects, which make it difficult to define (Farella, 2010). Generally, creativity is considered as a process, and that all individuals are born with a different combination of personality traits (e.g. self-confidence, tolerate ambiguity, curiosity and motivation, emotional fantasy, find pleasure in challenges, involvement in tasks and tolerance of anxiety), abilities (e.g. thinking divergently, changes to their perception, and sensitivity to problems), and experiences that make them more or less able to express their creative potential (Hamza and Griffith, 2006). In this context most of the definitions agree that creativity is the production of novel ideas by individuals achieved by using their creative abilities and being open to experiences (Farella, 2010).

Many studies have revealed that teachers' beliefs regarding creativity and children's creative traits are mixed and tend to be vague (Diakidoy and Phtiaka, 2002; Fryer and Collings, 1991; Kampylis et al., 2011; Fleith, 2000; Sak, 2004). For example, Chan and Chan (1999) found that the most teachers believed that creative attributes were being imaginative, questioning, and being quick in responding, and that creativity was also related to attributes such as being conventional or timid, lack of confidence, and conforming, while others have reported that teachers believe that creativity is related to fluency, elaboration, complexity, and making connections (Alhusaini et al., 2011). In addition, cognitive component originality, problem solving, thinking ability, and academic achievement were mentioned by teachers as components of creativity more than environmental, and personal components (Lee and Seo, 2006), while others believe that creativity is a personality trait (Fleith, 2000). However, many teachers have misconceptions concerning creativity; some believe that creativity is a rare trait of gifted people (Kampylis et al., 2011), others tend to perceive creativity as a general ability primarily in the context of artistic projects (Diakidoy and Kanari, 1999; Kampylis et al., 2011; Craft, 2005), and that creativity is irrelevant in abstract subjects, such as science or mathematics (Cropley, 2010), although research supports that children's creativity can be fostered in all subject areas (Craft, 2005; Kampylis et al., 2011; Starko, 2005).

Beliefs and Practices

It can be said that teachers come to the classroom with their own beliefs, which determine many of their choices regarding how they employ creativity in the teaching process (Pajares, 1992). Some will ignore fostering creativity if they have not received the necessary and appropriate training (Kamplyis et al., 2011), or do not understand natural creativity (Kampylis et al., 2011; Sak, 2004), and have narrow views about it (Plucker et al., 2004). Thus, if they are aware of the relationship between their beliefs about creativity and their practices in fostering it, children will do better if they are given the chance to foster their creativity (Cheung, 2012). Many studies have investigated the relationship between teachers' beliefs and their creativity practices, and have found that the nature of this relationship is still unclear, with some indicating that teachers' practices are not based on their beliefs (Cheung, 2012), although others have noted that teachers' beliefs impact upon their practices (Chan, 2015; Hamza and Griffith, 2006; Sak, 2004). However, despite the fact that fostering children's creativity is valuable and necessary, and that teachers of children, including gifted children, value creative thinking (Chan 2015; Comerford, 2012), recognising

the importance of developing children's creativity and being aware of the teaching models and strategies that promote creativity among children (Rash and Miller, 2000), it is rarely employed it in their teaching (Bain, Bourgeois and Pappas, 2003). Margrain and Farquhar (2012) and Kampylis et al. (2011) emphasise this result, reporting incongruence between teachers' beliefs and their practices in the classroom regarding creativity.

Alencar (2002) tried to understand the profile of teachers who facilitate children's creativity, and found that they have good preparation, a high level of interest in their students and are disciplined. Some studies have reported that teachers involved in gifted education programmes are more likely to encourage creativity in their classroom (Hansen and Feldusen, 1994; Chan, 2015). There is a need to highlight the professional development of teachers, and to support children's self-confidence and creativity (Brinkman, 2010).

Creative teachers and creative teaching are key components in fostering creativity in young children. Recently, many countries have emphasised fostering creativity in education and have focuses attention to identifying effective creative teaching methods. Cheng (2011) suggested some creative teaching strategies involved encouraging children to make connections and see relationships between unconnected items and ideas, and to employ analogies and metaphorical thinking in the teaching process. There can also be a focus on finding out about a child's own interests and encouraging them, and children should actively participate in their learning process (Stojanova, 2010). Some researchers have highlighted the role of teachers in supporting unusual ideas, providing freedom of choices, and providing an optimum balance between curriculum and freedom of expression (Runco and Albert, 1990). Such studies note that teachers can encourage creativity by asking open-ended questions, tolerating ambiguity, modelling creative thinking and behaviour, encouraging experimentation and persistence, and praising unexpected answers. Teachers who foster creativity encourage children to build their own personal interpretations of knowledge and actions (Runco, 2003), stimulate them to search for new information, respect students contributions, use various teaching strategies, are open to criticisms made by students, and believe in their students' abilities (Alencar, 2002). Runco (2003) emphasises that one of the main roles of a teacher is providing children with the means and opportunities to become more aware of their creative potential and to develop it.

Internationally, research has been undertaken to investigate teachers' practices to foster children's creativity (Fryer and Collings 1991; Fleith, 2000; Rash and Miller, 2000; Tan, 2001; Chan, 2015; Diakidoy and Phtiaka, 2002; Kampylis, 2010), whilst others studies have examined teachers' beliefs about creativity (Beghetto and Plucker, 2006; Cassidy et al., 1995; Chang, 2003; Chan, 2015; Aish, 2014), and teachers' creative personality (Chan, 2015). However, few provide in depth information about the relationships between teachers' personality, beliefs, and practices related to creativity (Chan, 2015), either in regular schools implementing gifted education within mainstream settings or regular schools without gifted education, which remains an under-researched area internationally (Fryer and Collings, 1991; Fleith, 2000; Peter-Szarka, 2012; Rash and Miller, 2000), and in Jordan (Al-Dababneh, Ihmeideh & Al-Omari, 2010). Such comparisons could provide new insights into understanding and teaching all children, including gifted children.

The Jordanian education system has paid much attention to developing creativity among children, and there is a growing body of research related to fostering children's creativity, although creativity is still not employed effectively in most schools (Al-

Dababneh, et al., 2010). During her visits to primary schools, the researcher has noticed that creativity is not widely employed in the classroom and teachers usually depend on recalling information during the teaching process. It is unclear as to whether teachers do not employ creativity in the teaching process because they do not believe that developing creativity has a significant effect on children's development, or because they are not aware of the importance of developing creativity.

This study aims to addresses the gap in the research literature regarding creativity in the teaching process based on studying and comparing teachers' creative personality, beliefs, and practices in the Jordanian educational system context, which have been hypothesised to be correlated in studies undertaken in other countries (Chan, 2015; Lee and Kemple, 2014). Furthermore, gifted resource-room teachers are rarely studied compared to regular teachers who are not directly involved in gifted programmes in Jordan. Better information about the relationship between beliefs, characteristics and practices could help Ministry of Education (MoE) curricula designers, policy-makers, and training course providers, in their planning and evaluation efforts to facilitate teachers' practices for fostering children's creativity. It may also provide teachers and children's parents with valuable information concerning to what extent teachers foster children's creativity in the classroom. To achieve this aim a quantitative method of investigation was used to answer the following research questions:

•	What are regular primary-school teachers' self-perceptions creative personality, beliefs about creativity, and classroom behaviors fostering children's creativity?

•	Is there a connection between teachers' self-perceptions of their personalities, beliefs about creativity and classroom behaviors fostering children's creativity?

•	How do regular primary-school teachers' self-perceptions of their creative personalities and classroom behaviors vary in terms of placement (gifted resource-room teachers, regular teachers), type of school (public and private schools), and level of teaching experiences (less than 10 years, more than 10 years)?

Jordanian Context

In Jordanian schools the international trend in fostering creativity has been followed and has recently been recognised as one of the aims of the educational process for all children, including gifted and talented children. In order to achieve this goal the last decade the MoE has implemented in some regular schools gifted education programmes within a gifted resource-room. Children are withdrawn from their normal education classroom for two hours each day and provided with an enrichment programme for promoting their talents and creative potential. In addition, there are creativity programmes in regular classrooms for all children (MoE, 2016).

As implementing gifted education in schools is not compulsory, the number of regular schools with gifted resource-rooms is limited, just 48/1805 primary schools (MOE, 2016). Staff work as a team in these resource-rooms, consisting of the supervisor resource-room teacher, who is usually a specialist in special education, in addition to teachers specialised in Arabic language, mathematics, science and English, who teach eight classes in a resource-room each week. Due to the Jordanian MoE's awareness of the importance of developing children's creativity and talent, curriculum designers are keen to consider creativity as an aim of the curriculum and to provide all children with appropriate opportunities to develop their creativity in the classroom (MOE, 2016). Although the increased interest in Jordan has aided the development of all children's creativity, including gifted children, it is not clear to what extent

teachers are prepared to foster creativity either in regular classrooms for all children or in gifted resource-rooms (MoE, 2016).

Research Methods and Procedures
Research Design
A quantitative method was adopted in this currently study as quantitative surveys have been previously used to examine teachers' perceptions of creativity, including 'breadth and flexibility' (Punch, 2003, p.4). Such a design can be used in different contexts, and there can be various combinations of variables, as well as different numbers of variables involved. Some teachers were directly involved with children, including gifted children in regular schools in inclusion settings, and are called 'gifted resource-room teachers' while others were not. A total of 197 usable questionnaires were analysed and three instruments were included in the survey questionnaire in order to collect data on teachers' creative personality, beliefs about creativity, and creativity fostering practices. Demographic data were also collected from the participants.

Sample and Setting
This study focused on primary school teachers in Jordan, as the primary years are crucial for promoting creativity in children, and there is a relationship between people's childhood experiences in creativity and their creativity as adults (Starko, 2005). For the purpose of this study the MoE in Jordan was contacted and asked to provide a list of regular primary schools which have or do not have gifted resource-rooms in two governorates in Jordan, Amman, and Arbid; 30% of these primary schools had gifted resource-rooms, with 80 resource-room teachers.

The first sample consisted of the gifted resource-room teachers who represent all teachers working in regular primary schools and who are directly involved in the creativity and gifted programmes which were implemented in 16 of the selected schools as a withdrawal programme into resource-rooms in order to promote children's creativity and talent. Surveys were addressed to the teachers of the resource-room for the gifted who specialised in special education, in addition to teachers of four main school subjects (Arabic language, mathematics, science, and English). Five surveys were sent to each school, addressed to the 'gifted resource-room teacher', and 66/80 teachers completed the study questionnaire. For comparison purposes other randomly selected teachers from 30 schools which did not have gifted resource-rooms were also sampled. Surveys were addressed to special education teachers and teachers of each of the four main school subjects (Arabic language, mathematics, science, and English). Five surveys were sent randomly to each school, and a total of 133 teachers completed the study questionnaire. Therefor the total number of participants was 197 primary teachers (see Table 1).

Table 1: Demographic Information of the Participants (N=197)

Variable		No.	%
Teacher gender	Male	45	22.8
	Female	147	74.6
	Missing	5	2.5
Level of experience	Less than 5 years	86	43.7
	5-10 years	57	28.9
	More than 10 years	43	21.8

	Missing	11	5.6
Type of school	Private school	93	47.2
	Public school	104	52.8
Placement	Gifted resource-rooms	66	33.5
	ordinary teachers	131	66.5

Ethical Considerations
Official ethical approval was obtained from the MoE. Participants were initially contacted and invited to participate, and consent was obtained from the participants prior to beginning the research. Participants were informed of the research objective, assured of their rights, anonymity and confidentiality, and the proposed use of the collected data was stated clearly at the beginning of the questionnaire. The study was conducted under the ethical code of the International Review Board (IRB) at Hashemite University.

Instrumentation
The researcher developed the instrument used in this study after reviewing the literature worldwide, especially research related to teachers' creative personality, beliefs about creativity, and their creativity-fostering practices (Chan, 2015; Chan and Yuen, 2014; Aish, 2014; Soh, 2000; Al-Dababneh et al, 2010). The questionnaire included two sections; a demographic section which yielded a description of the sample used in the study, such as type of school, placement, and level of teaching experiences, while the second section examined teachers' self- perceptions of their creative personality, beliefs about creativity, and practices for fostering children's creativity in the classroom, measured using a five-point Likert-type scale ranging from [5] 'strongly agree' to [1] 'strongly disagree'. Section two consisted of three scales:
Scale 1. The teachers' creative personality (CP) scale consisted of 13 items designed to investigate the teachers' personal characteristics related to creativity (e.g. openness to experience, coping well with novelty, flexibility).
Scale 2. The teachers' beliefs about creativity (BC) scale included 8 items measuring deeply held personal viewpoints and beliefs that teachers have concerning the conception of creativity.
Scale 3. The teachers' fostering creativity practices (FCP) scale was designed to measure the behaviour and strategies displayed by teachers that foster creativity among children in the classroom. Each item in this scale tested the degree to which teachers practice fostering children's creativity in the classroom according to their perspectives. This scale consisted of 38 items with seven domains: opportunities, 7 items which refer to creating opportunities for children to work with a variety of educational materials under a variety of conditions; flexibility, 5 items indicating promoting flexible thinking in children, as well as taking children's suggestions seriously; motivation, 4 items on children's mastery of knowledge which enables them to think divergently; independence, 6 items referring to encouraging independent learning among children; self-confidence, 7 items including providing children with opportunities to deal with frustration and failure and to strengthen self-concept; judgment and evaluation, 5 items on postponing judgment on children's ideas and encouraging them to formulate their ideas more clearly before judging them, together with encouraging children to be autonomous with their own ideas; and finally, cooperative learning, 3 items relating to following a cooperative and integrative style of teaching. The domains in this scale were based on Cropley's

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(1997) principle for the creativity fostering of teachers' behaviour which was adopted by Soh (2000) when compiling the creativity fostering teacher behaviour index (CFT Index).

The researcher administered the proposed questionnaire to an exploratory sample of twelve of teachers. This pilot study was designed to enable the researcher to examine the transparency of the items and the goodness-of-fit of the scale, and allowed improvements to be made to the scale to ensure its overall acceptance by the respondents. The process provided insight into how each item was understood, as well as the strategies used in formulating responses. Each respondent was asked to examine the scale items for clarity, to suggest additions, deletions, and to correct any errors in wording or procedures. Most of the suggestions were related to unfamiliar concepts and items considered irrelevant to these teachers' classroom situations. Suggestions from the pilot study were considered and some minor changes were made to the questionnaire; most of the changes were rewording and rephrasing of the scale items and no item was added or deleted.

Validity and Reliability of the Instrument
The original instrument went through a process of validation by a panel of ten experts from several Jordanian universities, including university faculty teaching staff who specialised in special education, gifted children and creativity, and teacher training. Their suggestions and comments were considered and changes were made accordingly. Items were revised until all reviewers agreed on the words used and the content validity. Following the experts' suggestions, two items were deleted from the scale and one item was added. The validation process included face validity, logical validity, content validity, and construct validity.

In order to improve construct validity a Pearson correlation matrix was used. The correlation between scale items and the total score for the scale was 0.27- 0.94, which was significant at $p=0.01$, thus the scale can be considered to be generally valid (see Appendix 1). Moreover, reliability was assessed by calculating Cronbach's alpha coefficient during a pilot study when the survey was administrated to 50 teachers who were not included in the final study sample. The coefficient alphas for the CP Scale, BC Scale, and FCP Scale were 0.96, 0.81, and 0.92, respectively, and 0.93 for the three scales overall, which reflects a good level of internal consistency.

Data Collection
The researcher conducted personal visits to schools and met with the teachers in order to acquaint them with the aim of the study. Questionnaires were then hand-delivered by the researcher directly to classrooms during the second semester of the academic year 2015/2016. Teachers were encouraged to read the items carefully before selecting the appropriate choice, and none of the survey questions were discussed. Additionally, the participants were ensured of their confidentiality and anonymity. The researcher made appointments to collect the completed surveys one week later.

Data Analysis
The survey questionnaire was analysed quantitatively using the Statistical Package for the Social Sciences (SPSS) version 22. The data collected were analysed and then expressed via means and standard deviations to answer question one. For question two, the correlations between teachers creative personality, beliefs, and practices were examined, and multiple linear regression analysis was used to identify the effect of teachers' beliefs about creativity and their creative personality on teachers' creativity-

fostering practices. An analysis of group differences using T-tests was employed for question three.

Results
Teachers' self- perceptions of their creative personality, beliefs and practices

Research question one examines teachers' creative personality, their beliefs about creativity, and practices for fostering creativity among children. Descriptive statistics, including means, standard deviations, and percentage were used to analyse the responses. As shown in Table 2, the mean value of the FCP Scale were higher (M=4.04, SD=0.41) than the CP Scale (M=3.68, SD=0.66), and the BC Scale (M=3.36, SD=0.43).

Table 2: Means and Standard Deviation

Scale	Mean	Std. Deviation	Rank	Agree %	Neutral %	Disagreed %
Creative personality	3.688	0.660	2	45.9	52.3	1.8
Beliefs about creativity	3.366	0.428	3	36.3	53.2	10.2
Fostering-Creativity practices	4.018	0.407	1	53.3	44.2	2.5

Table 3 shows that items 11, 12, 1, 7, and 13 from the CP scale had the highest mean values (3.96, 3.74, 3.73, 3.72, and 3.69, respectively), and for the same items 63.4% of teachers strongly agreed or agreed that that they were working on increasing their knowledge of their specialty, with 47-49% considering themselves to be committed, to enjoy new ideas and things, and to like to discover and notice things, as well as having a strong personality. Interestingly, 35%, 51.3%, 51.3%, 52.8%, and 50.8%, respectively, indicated that they were neutral or did not know for these items, and the responses 'strongly disagree' or 'disagree' were rarely indicated for these items. In contrast, items 2, 3, 6, 10, and 16 received the lowest mean values (3.55, 3.58, 3.62, 3.63 and 3.64, respectively), and for item 2, 25.9% and between 42.1-45.2% for items 3, 6, 10, and 16, of the participants strongly agreed or agreed that they have unique ideas, think from different perspectives, enjoy making changes, are highly motivated and energetic, and enjoy teaching. Approximately half of the participants indicated a neutral response or moderate agreement with these items.

For the BC Scale, Table 3 shows that items 4, 1, 6, 2 had the highest mean values (3.77, 3.69, 3.62, and 3.58, respectively), and for these same items 62% of teachers strongly agreed or agreed that children's creativity can be improved, while approximately half strongly agreed or agreed that creativity can be achieved by all children, that children can learn how to deal with the explosion of knowledge in the world, and that child creativity is not a heavy burden in a classroom for his/her chaotic way of thinking. For the same items between 36-46% of teachers indicated they were neutral or did not know, and e responses 'strongly disagree' or 'disagree' were rarely indicated for these items. Items 5, 8, 7, and 3 had the lowest mean values (2.94, 2.99, 3.16, and 3.18, respectively), as 7.6% of teachers strongly disagreed or disagreed that there is a small percentage in every thousand children who are creative, and 10.2% of teachers strongly disagreed or disagreed that teaching children to be creative contributes to creating individuals who are incompatible with each other. In total, 17.7% strongly disagreed or disagreed that creativity is a genetic ability which cannot be learnt, while 36% of teachers strongly disagreed or disagreed that creativity is natural in some child and not in others. The majority of participants (79.7%, 77.7%,

75.1% for items 5, 8 and 7, respectively) and some participants (42.6% for item 3) indicated that they were neutral or did not know with regards to these items. It should be noted that a few also indicated that they strongly agreed or agreed with the content of these items.

Table 3: Means, standard deviation, rank, and percentages for teachers' creative personality, beliefs about creativity, and their perception of their practices for fostering children's creativity in the classroom

No.	Scale/ items	Mean*		Std	Agree %		Neutral %	Disagree %
	Scale1. Creative Personality							
11	I am working on increasing my knowledge in the field of my specialty	3.96		.871	63.4		35	3
12	I am committed	3.74		.838	48.4		51.3	0
1	I enjoy new and different things and ideas	3.73		.847	48.2		51.3	0
7	I like to discover and notice things around me	3.73		.847	47.2		52.8	0
13	I have a strong personality	3.72		.813	49.2		50.8	0
9	I have a flexible mindset and accept different points of view	3.69		.839	46.8		52.3	1
8	I easily express my thoughts and my views	3.69		.828	45.2		54.8	0
14	I have a strong sense of security.	3.65		.798	46.7		52.3	1
16	I enjoy teaching	3.64		.860	43.6		54.8	2
10	I possess high motivation and the energy to accomplish	3.63		.788	45.2		54.3	1
6	I enjoy making changes.	3.62		.815	42.1		57.4	1
3	I think from different perspectives	3.58		.736	43.1		56.9	0
2	I have unique ideas	3.55		.695	25.9		55.3	0
	Scale 2.Beliefs about Creativity							.
4	Children's creativity can be improved in the classroom	3.77	.753		62.2		36.5	2
1	It is expected that creativity in all children can be achieved	3.69	.776		54.9		42.1	3
6	Children can learn how to deal with the explosion of knowledge in the world	3.62	.827		50.5		46.2	3.5
2-	A child's creativity is a heavy burden in the classroom due to his/her chaotic way of thinking	3.5	.869		51.7		41.1	7.1
3	Creativity is natural; some child has it and others don't	3.18	.971		36		42.6	21.3
7-	Creativity is a genetic ability	3.16	.779		17.7		75.1	7.2

which cannot be developed in the classroom					
8- Teaching children to be creative contributes to creating individuals who are incompatible with each other	2.99	.639	10.2	77.7	12.1
5- There is a small percentage in every thousand children who are creative	2.94	.594	7.6	79.7	12.6
Scale 3. Fostering Creativity Practices					
1.Self- confidence	4.223	.462	76.6	22.4	1
2.Motivation	4.079	.476	69.5	29	1.5
3.Opportunities	4.052	.454	69	28.5	2.5
4.Flexibility	4.039	.494	64.5	34.5	1
5.Self-evaluation and judgment	3.941	.518	57.4	39.6	3
6.Independence	3.920	.477	57.9	40.9	2
7.Collaboration	3.869	.684	58.4	34.5	7.1

*ranging from 1= strongly disagree to 5= strongly agree

When considering the FCP Scale, Table 3 shows that most practices that teachers reported represent fostering children's self-confidence, with a mean of 4.22, and the majority of participants (76.6%) indicated that they strongly agreed or agreed. This was followed by teachers' self-perceptions of their practices to foster children's motivation, opportunities, flexibility, self-evaluation and judgment, and independence (mean values 4.07, 4.05, 4.03, 3.94, 3.92, respectively) with 69.5%, 69%, 64.5%, 57.4% and 57.9%, respectively, of participants indicating that they strongly agreed or agreed. Teachers' self-perceptions of their practices for encouraging collaboration received the lowest mean value of 3.8, with 58.4% of participants strongly agreeing or agreeing that they teach children in a way that promotes collaboration between children in their classroom (see Appendix 2).

Relationships between Variables
Research question two examines the connection between teachers' creative personality, beliefs, and their self-perceptions of their practices regarding creativity. The Pearson correlations between these three scales are shown in Table 4. As can be seen, teachers' self-perceptions of their creativity practices were significant and moderately positively correlated with teachers' creative personality and with beliefs about creativity. However, although teachers' beliefs about creativity correlated positively and significantly with their creative personality, this correlation was weak. This result reflects the fact that teachers are more likely to put their own creative personality and beliefs into practices for fostering children's creativity.

Table 4. Correlations analysis between Teachers' CB Scale, CP Scale, and FCP Scale

Scale	BC	CP	FCP
BC		.165[*]	.441[**]

CP			.333[**]

p< 0.01; * p < 0.05; n=197; BC= Beliefs about Creativity; CP= Creative Personality; FCP= Fostering-Creativity Practices

To determine the effect of teachers' beliefs and creative personality on the total sum on the scores from all seven sub-scales of creativity-fostering practices, a multiple linear regression was performed to determine the overall strength of the relationship, R², between the dependent variable (creativity-fostering practices) and each independent variable combined, (Keith, 2015). A summary of the regression analysis is presented in Table 5. This was a statistically significant model (F (2/194)=34.871, p<.001), with the adjusted R² indicating that 25.7% of the variance in fostering creativity practices could be explained by the variances in the two predictor variables. Both teachers' beliefs (B= 0.377, *p*<.001) and creative personality (B=0.165, p<.001) were shown to be significant predictors of teachers' self-perceptions of fostering creativity practices.

Table 5. Summary of Regression Analysis for Variables Predicting teachers fostering children's creativity.

Independent variable	Dependent variable	B	Std. Error	□□	*T*	Sig
BC	FCP	.377	.059	.345	6.358	0.000**
CP		.165	.039	.466	4.290	0.000**

Differences between Groups

The final objective of this study is to answer research question three which is concerned with any significant differences between the three scales and the following independent variables: type of school, placement, and level of experiences. A t-test for independent samples was employed to answer this research question.

Placement was used as an independent variable to determine whether teachers' creative personality, beliefs about creativity, and practices for fostering children's creativity in the classroom differ for gifted resource-room teachers (n=66) compared to ordinary teachers who are not involved directly with gifted education programmes (n=133). Table 6 shows that for the BC Scale, gifted resource-room teachers scored significantly higher (M=3.662, SD=0.248) compared to ordinary teachers (M=3.21, SD=0.42); t(190.48)= 9.292, p= 0.000). For the CP and FCP scales, the results reveal that there were no statistically significant differences between these two groups of teachers.

Table 6. Results of the T-test According to Placement

Scale	Resource room teachers (n=66)	Other teachers (n=133)	Degrees of freedom		P
	M(SD)	M(SD)	t-value	df	
BC	3.662(0.248)	3.217(0.422)	-9.292	190.48	.000**

The type of school was also used as independent variable to determine whether teachers' self-perceptions of their creative personality, beliefs, and practices regarding creativity differ between teachers working in public schools (n=93) versus private

schools (n=109). Table 7 shows that for the CP and FCP scales, private school teachers scored higher (CP: M=4.07, SD=0.56; FCP: M=4.09, SD=0.40) than public schools teachers (CP: M=3.34, SD=0.53; FCP: M=3.95, SD=0.39). There was no statistically significant difference between these two groups of teachers for the BC Scale.

Table 7. Results of the T-test According to Type of School

Scale	Private schools(n=93)	Public schools (n=109)	Degrees of freedom		P
	M(SD)	M(SD)	t-value	df	
CP	4.0703(0.5686)	3.346(.5388)	9.174	195	0.000**
FCP	4.0931 (0.4086)	3.951 (0.3958)	2.478	195	0.014*

Note: **p<.01; *p<.05

Data concerning teachers' experience were grouped and a t-test for an independent sample was used to determine whether teachers' self-perceptions of their creative personality, beliefs and practices related to fostering creativity differed for teachers with less than 10 years' experience (n=144) compared to teachers with more than 10 years' experience (n=44). As shown in Table 8, teachers who have less than 10 years' teaching experience BC Scale scored significantly higher (M=.3.44, SD=0.39) for the BC scale than teachers with more than 10 years' experience (M=3.17, SD=0.49). The results for the CP and FCP scales reveal that there were no statistically significant differences between these two groups of teachers.

Table 8. Results of the T-test According to teachers' level of experiences

Scale	Less than 10 years (n=140)	More than ten years (n=44)	Degrees of freedom		P
	M(SD)	M(SD)	t-value	df	
BC	3.440(.3928)	3.176(.4943)	3.646	182	0.000**

Note: **p<.01

Discussion

Fostering children's creativity is considered a key objective of educational systems around the world including Jordan. As teachers are the main people who are responsible for this process, assessing Jordanian regular primary school teachers' self-perceptions of their creative personality, beliefs about creativity, and practices for fostering children's creativity was the major aim of this study. In total, 197 primary school teachers were asked to respond to three scales through a questionnaire.

Teachers' Creative Personality, Beliefs and Practice

The results indicate that teachers' perceptions about their practice for fostering children's creativity were higher than their perceptions about their creative personality and beliefs about creativity, although the mean score for the CP scale higher than that for the BC scale. This means that although teachers have moderate beliefs about creativity, and about half of teachers reported that they are unsure about the nature of creativity, although some have positive beliefs, they reported that they were working to foster children's creativity and they have a creative personality. These results are in line with findings from other studies (Cheung, 2012), which highlight discrepancies between teachers' self-perceptions of their beliefs and their practices. This may indicate that teachers have a lack of knowledge about the meaning of creativity, which

may due to pre-services programmes rarely addressing the topic of fostering children's creativity in Jordan (Abu-Hamour and Al-Hmouz, 2013). This result also suggests that not only is having appropriate beliefs about creativity a factor that contributes to fostering creativity practices in the classroom. However, these results should be treated with caution as they are from teachers' self-reported data, and practices were not observed directly. This needs to be taken into consideration, as it has been found in other studies that teachers' self-perceptions of their beliefs are not always in line with their perceptions of their practices to foster children's creativity (Aljughaiman and Mowrer-Reynolds, 2005; Fleith, 2000; Fryer and Collings, 1991).

The results reveal that the majority of teachers employ instructional practices to promote children's self-confidence, motivation, flexibility, self-evaluation and judgment, and independence, through providing children with opportunities to engage in creative activities. Teachers practice in fostering collaborations between children received the lowest scores with more than half of the participants reporting that they teach children in a way that promotes cooperative groups. This result is not surprising for teachers in Jordan, who usually undergo high quality pre-and in-service teaching preparation (Moe, 2016), in addition to their high commitment to their duties to teaching children, as noted by the researcher during her visits to the primary schools. This result is consistent with the results of Fleith (2000) and Fryer and Collings (1991).

Teachers' creative personality was represented in their professional development, which had the highest mean values, while around half of the teachers considered themselves to be committed, to enjoy discovery, and have a strong personality. In contrast, some frequently teachers characterising themselves as possessing originality received the lowest mean values, followed by flexibility (thinking from different perceptions), being motivated, and enjoying teaching. This means that teachers consider themselves to have a good background, to be committed and have a strong personality, but they need training to demonstrate more originality and flexibility. Motivation was influenced by low salary, crowded classrooms, and curriculum requirements which take time to complete, and such factors are considered challenges for Jordanian teachers (Studies Informatics and Economics for Center Phenix, 2014).

The most frequently expressed belief was that children's creativity can be improved, which had the highest mean values. Of teachers in this sample, 62% believed this, followed by around half of teachers who believed that creativity can be achieved by all children, that children can keep themselves up-to-date with knowledge, and that they welcome children's creativity. These results are consistent with those of other studies (Aljughaiman and Mowrer-Reynolds, 2005; Fleith, 2000; Diakidoy and Phtiaka, 2002; Aish, 2014), and several theories of creativity (Kampylis, 2010), which stipulate that the creative potential is a common characteristic of all children that can be improved with appropriate interventions. However, other studies disagree with the results of this study and have found that teachers believe that creativity is a rare phenomenon which not all people possess (Diakidoy and Kanari, 1999; Fryer and Collings, 1991), as indicated by a few teachers in this study. It can be concluded that there is some disagreement and inconsistency between teachers' beliefs around the world concerning children's creativity. It is worth noting that more than half of the teachers in this study seemed to contradict themselves, as just a few disagreed and the majority responded that they did not know if there is a small percentage of children who are creative, if fostering children's creativity leads to creating incompatible individuals, that creativity is a genetic ability which cannot be learnt, and that not all children are naturally creative. This inconsistency in teachers' beliefs could mean that

they lack appropriate knowledge concerning the nature of creativity, or that most of the teachers in this study believed that all children have a creative ability, but few may develop it in clear way or to a high level, as Asih (2014) confirmed. This explanation is supported by creativity theories which see creativity as a general ability which all children have. Gardner (in Davis, 2004) referred to this as 'little C' creativity, and most of the teachers in this study, as well as many other teachers have indicated that only a few individual or gifted persons can display high levels of creativity, described as 'big C' in the creativity model (Fryer and Collings, 1991; Plucker et al., 2004). Thus, teachers in this study may present practices for fostering creativity only for children with high level of abilities.

Relationships between Variables

It was found that teachers fostering creativity practices were significantly and moderately positively correlated with their creative personality and beliefs about creativity. This means that these teachers' perception is that they practise what they themselves believe about creativity. Regression analysis found that both teachers' beliefs about creativity and their creative personality were significant predictors of teachers' perceptions of their practices. This result is supported by theories (Runco and Albert 1990) and studies (Asih, 2014; Chan, 2015), which have revealed that there is a relationship between individual beliefs, personality and behaviours. However, other studies disagree with this result and have reported that teachers' motivation and beliefs do not significantly predict most of the creativity-fostering instructional practices (Hong et al., 2009).

Demographic Variables and Group Differences

Obviously there are other factors which influence teachers' perception about their perceptions of their creative personality, beliefs, and practices regarding creativity. The results show that gifted resource-room teachers scored significantly higher than regular teachers for the BC scale. This can be attributed to a number of different reasons. It could suggest that ordinary teachers as well as gifted resource-room teachers have an adequate ability to foster children's creativity, since both groups of teachers are graduates from the same universities, and have the same opportunities to work in schools with or without gifted resource-rooms. In contrast, gifted resource-room teachers, whose job it is to develop children's gifts and creativity, may have more understanding in terms of creativity, although they may not foster more creativity or have a more creative personality compared to ordinary teachers. This result is similar to the findings of Chan (2015), who reported a significant but small difference between teachers' beliefs for those who were directly involved with gifted education and who were not, but did not find differences in creativity-fostering practices between the two groups of teachers. This may indicate that training in gifted education may not be the only/primary indicator of fostering children's creativity, and that there are other factors of greater influence, such as environmental support. However, Cheung and Hu (2011) found that teachers who are in directly involved in gifted education rate themselves higher in terms of their creative characteristics and competencies compared to those who were not.

The results also showed that for the CP and FCP scale, private school teachers scored higher than public school teachers. This may be due to a lack of opportunities, facilities and encouragement in government schools compared to private schools. A similar finding was reported by Tasaduq and Azim (2012), who noted the effect of environment support on developing children's creativity and teachers' perceptions of

their practices. Private schools in Jordan usually employ standards when selecting teachers according to their professional and high level of skills through interviews; although government schools use the same standards, there are no interviews and so the interpersonal skill and competences of candidates cannot be examined in the same detail.

Finally, it was shown that teachers who have less than 10 years' teaching experiences scored significantly higher for the BC scale compared to teachers with more than 10 years' experience. This result is similar to that of Forrester and Hui (2007), where differences were found for teachers' experiences relating to teachers' creative personality and creativity practices.

Conclusions and Recommendations

In light of the above discussion, it can be concluded that teachers are more likely to put their beliefs and creative personality into their practice. In addition, gifted resource-room teachers, teachers from private schools, and those who have less than 10 years' experience, hold stronger and more positive beliefs about creativity than their colleagues working in regular classrooms or in government schools, and those with more teaching experience.

To advance our understanding of how teachers think and act, future research should be undertaken in order to obtain a complete picture of creativity and practices used to foster children's creativity as perceived by teachers, principals, and students using qualitative methods. To increase teachers' awareness of the importance of fostering children's creativity, conducting further studies to investigate the effectiveness of fostering children's creativity in developing Jordanian children's thinking skills is also recommended. Finally, it is hoped that this study might provide valuable insights for decision-makers regarding the importance of fostering creativity and its integration into teaching.

Implications

This study has addressed a research gap in creativity studies, as no previous studies in Jordan have focused on the relationship between teachers' perceptions of their beliefs, personality, and practices related to creativity, and gifted resource-room teachers. Although the small sample size of this study limits the generalisation of the findings, it nevertheless contributes some evidence about how teachers promote creativity, and has implications for teachers' professional development. It can also help teachers to increase their knowledge of what creativity is, improve teachers' characteristics, and encourage practical help for fostering children's creativity. Although current reforms in Jordan call for more creative education, change is not likely to occur without proper support to help teachers to translate policy into actual practice. The results of this study can be used by educationalists to aid in understanding teachers' beliefs and practices in order to help them to develop sensitive and relevant programmes that support using creative teaching strategies. This study could also help the MoE and universities to provide teachers with pre-service and in-service training programmes for establishing inclusion settings in schools, with the aim of fostering all children's creativity, including gifted children and children with disabilities. The MoE needs to provide government school teachers with a more supportive environment for fostering children's creativity and talents. In future research, other research techniques could be used, including classroom observations and interviews, while other factors which influence teachers' practices should be examined.

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Appendix 1. Pearson correlation coefficient

	CP Scale		BC Scale			FCP Scale		
Item No.	Item correlation with Total Score	Item No.	Item correlation with Total Score	Item No.	Item correlation with Total Score	Item No.	Item correlation with Total Score
1	.941[**]	1	.652[**]	1	.275[**]	20	.431[**]
2	.830[**]	2	.629[**]	2	.631[**]	21	.410[**]
3	.820[**]	3	.625[**]	3	.544[**]	22	.588[**]
4	.806[**]	4	.589[**]	4	.573[**]	23	.556[**]
5	.882[**]	5	.414[**]	5	.565[**]	24	.559[**]
6	.870[**]	6	.682[**]	6	.545[**]	25	.602[**]
7	.879[**]	7	.406[**]	7	.387[**]	26	.407[**]
8	.913[**]	8	.307[**]	8	.504[**]	27	.484[**]
9	.353[**]			9	.455[**]	28	.455[**]
10	.865[**]			10	.593[**]	29	.506[**]
11	.928[**]			11	.389[**]	30	.532[**]

12	.899**			12	.404**	31	.459**
13	.902**			13	.481**	32	.511**
				14	.517**	33	.447**
				15	.642**	34	.518**
				16	.449**	35	.594**
				17	.614**	36	.534**
				18	.584**	37	.531**
				19	.474**	38	.513**

** $p < 0.01$; * $p < 0.05$

Appendix 2. Teachers' creativity fostering practices

No.	Domain / items	Mean*	Std	Agree %	Neutral %	Disagree %
Domain 1. Opportunities						
26	I encourage children to take the initiative and to ask questions of themselves	4.18	.726	84.2	14.2	1.5
6	I am keen on creating a quiet classroom environment that enables students to understand what is expected of them	4.18	.724	84.2	14.2	1.5
27	I expose children to educational situations that provoke thinking	4.18	.724	81.2	18.8	0
22	I use a variety of sensory experiences (experiences, events, methods, phenomena) and help students practice to use them to produce ideas	4.04	.794	75.2	23.4	2
1	I expose children to learning situations that challenge their ability	3.97	.735	82.2	14.7	3
8	I offer rich and diverse educational resources for use by children to accomplish the required tasks	3.96	.810	73.6	26.4	4.1
4	I show children's work to others	3.85	.823	59.9	39.1	1
Domain 2. Flexibility						
29	I encourage students to observe what is	4.18	.673	84.8	15.2	0

	happening in the educational situations they face as this allows students to get more out of what they are told to do					
16	I encourage children to discover different point of views and ideas, in order to rearrange their ideas	4.11	.765	83.3	15.2	3
3	I encourage children to diversify their ideas, and reformulate them in different way	4.04	.703	79.2	20.8	1
30	I teach my students to find and understand the relationships between seemingly unconnected ideas and to complete them	4.01	.763	76.6	20.8	2.5
5	I use open-ended questions such as: "What happens if ..?, What do you think ..?, What do you see ..?" To help students to think in unconventional ways	3.87	.871	58.3	40.6	2
Domain 3. Motivation						
32	I discuss with the children their ideas, and urge them to think	4.21	.694	84.7	14.2	1
13	I am keen on children acquiring basic skills and knowledge	4.15	.719	81.2	17.8	1
9	I am keen to provide children with clear directions inside my classroom	4.09	.774	76.1	22.8	1
2	I offer enough time for students to achieve the planned objectives, each according to their abilities	3.87	.692	74.1	24.9	1
Domain 4. Independence						
10	I encourage students to show what they have learned on their own	4.13	.721	80.5	19	1
34	I encourage children in their achievement to satisfy themselves and their interests.	4.04	.785	76.1	21.3	2.5
20	I offer enough space to practice independent activities and work	3.90	.764	69.9	28.6	2
12	I encourage pupils to collect evidence by searching the	3.89	.906	71.1	22.3	8.1

#	Statement	Mean	SD	%	%	%
	available resources using clear search mechanisms					
21	I teach children to identify problems and define them by themselves	3.82	.896	67	26.4	8.1
24	I encourage children to explore and search when necessary to clarify the ideas presented to them	3.77	.871	67.5	24.4	9.1
Domain 5. *Self-confidences*						
31	I use positive feedback and reinforcement to encourage children to create unique solutions and to assess their performance	4.39	.688	88.3	11.7	0
38	I provide my frustrated students with psychological support	4.30	.705	87.8	11.2	1
28	I respect children's suggestions and accept them, even if they do not agree with my own	4.27	.659	88.3	11.7	0
36	I am keen to listen to my students	4.25	.804	84.3	13.7	2
11	I display to children my confidence in their ability and potential.	4.13	.709	80.7	19.3	0
19	I listen to my students' suggestions and questions even if they are not practical or useful	4.13	.859	78.2	18.8	4
33	I focus on children's achievements and not on their mistakes	4.09	.730	78.2	20.8	1
Domain 6. *Assessment and Judgment*						
35	I encourage children to experiment with what they have learned in different situations	4.11	.789	81.2	16.8	2
37	I encourage children to present their ideas, and analyse and evaluate them before I do	4.11	.748	80.2	18.3	1.5
14	I involve children in choosing methods that they can learn through	3.98	.782	75.6	20.8	3.6
25	I encourage children to generate unique ideas	3.78	.838	58.3	39.1	3
18	I am keen on sharing with children assessments of their work	3.74	.952	63.9	24.9	12.2
Domain 7. *Collaboration*						
17	I offer opportunities to children for free and autonomous expression of their ideas in the classroom in different ways (verbal, written, graphic, motion, work, etc.)	3.90	.739	72.6	24.9	2.5
15	I encourage students to ask questions and make suggestions	3.88	.805	63	36	1
23	I allow children to show other	3.83	.969	70.6	18.8	12.7

children their work and then modify it				
				745

ranging from 1= strongly disagree to 5= strongly agree

Evaluation of Special Education Preparation Programs in The Field of Autism Spectrum in Saudi Arabia

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Abstract
The purpose of this study was to provide information about the effectiveness of the autism *spectrum disorders (ASD) preparation program of Saudi universities from the perceptions of pre-service teachers that are currently studying in autism program. It was also to provide information about the number of Saudi universities that offer personal preparation programs for special education teachers preparing to serve individuals with ASD. An ANOVA was conducted to compare the level of satisfaction in five domain areas assessed across university training programs. The results indicated that, overall, students were satisfied with the special education programs quality offered in various Saudi Universities. Only a few concerns related to the ASD teacher's preparation programs have been found. There are public calls for Saudi Arabia higher-education institutions to be accountable to the importance of producing well-prepared professionals to work with ASD students.*

Keywords*: Special education teachers in Saudi Arabia, autism spectrum disorders (ASD) teacher preparation program, special education, pre-service teachers-preparation, special education pre-service teachers' knowledge in ASD.*

Introduction and Literature Review

Alnefaie (2014) pointed out that the number of students diagnosed with autism is increasing dramatically, and this increase raises concern among parents, physicians, and scientists. Alnefaie stated that in 1980, the incidence of autism was low, at a rate of five in 10 000. However, in 1990, many of the studies carried out in Japan, England, and Sweden determined the incidence of autism to be 37 in 10 000. He also pointed out that a recent study conducted in the United States indicated that for 8-year-olds, one child in 110 had autism spectrum disorder (ASD).

Ness and Chia-ling (2013) reported the number of students diagnosed with autism in Saudi Arabia. They noted: "the incidence rate for autism is 1.8 per 1,000—approximately

the same as that of most European countries" (p. 34).   However, many studies have indicated that as the number of children diagnosed with ASD increases, special education teachers report challenges in meeting the unique needs of these students. Furthermore, there is a lack of adequate training and preparation to teach ASD students in the school system (Barnhill, Polloway, & Sumutka, 2011; Barnhill, Sumutka, Polloway, & Lee, 2014; Donaldson, 2015; Hart & Malian, 2013; Loiacono & Valenti, 2010; Mazin, 2011; Scheuermann, Webber, Boutot, & Goodwin, 2003; Simpson, Mundschenk, & Heflin, 2011).

Almasoud (2010) reported that in Saudi Arabia, teachers who teach students with autism lack knowledge and understanding of the disability and are incapable of adjusting their classroom environments. Haimour and Obaidat (2013) reported that general and special education teachers have a weak to acceptable level of knowledge about ASD. They found that general education teachers in the city of Jeddah had a weaker knowledge of autism compared with their knowledge of special education in general. Aldabas (2015) indicated that general education teachers are unprepared for inclusive education because no general teacher preparation programs in Saudi Arabia offer any courses that address special education. Al-Faiz (2006) stated that teachers in Saudi Arabia face challenges when working with children with autism because not all universities in Saudi Arabia offer a Bachelor or Master of Arts degree in Special Education. Al-Faiz also noted that in 2006, only one university of 10 universities in Saudi Arabia, King Saud University, offered a Bachelor's or Master of Arts degree in Special Education.

All in all, in reviewing the literature, researchers found that there has been no recent study that examines the number of universities in Saudi Arabia that offer a degree specialization in autism. The researchers also found only one study that investigated a schoolteacher's knowledge about ASD in Jeddah that was by Haimour & Obaidat (2013). However, that study did not examine all personal preparation programs in Saudi Arabia for future special education (pre-service) teachers (Haimour & Obaidat, 2013).

Few studies have evaluated the special education teacher preparation programs at the one university in Saudi Arabia, King Saud University, that offers degrees in special education (Althabet, 2002; Hussain, 2009). Hussain (2009) studied the perceptions of previous students who graduated from King Saud University to evaluate the effectiveness of the learning disability (LD) specialization area within the special education department. The targets of his study were teachers who graduated from the special education department at KSU, majoring in LD. The data were collected by using a survey consisting of five subscales that measured the perceptions of LD teachers about their preparation program: coursework, internship quality, classroom applications, professors' teaching skills, and personal learning experience. A total of 291 LD teachers were surveyed, and only 160 out of 291 (or 55%) responded to the study. ANOVA methods were used to determine whether certain independent variables—gender, teaching experience, and/or LD as the first choice of specialization—were significantly associated with the teachers' perceptions of their preparation program. The results indicated that no statistically significant differences in perceptions existed for any of the independent variables used. In general, results indicated that most LD teachers agreed their preparation program was effective.

In a related study, Althabet (2002) evaluated the effectiveness of the intellectual disability specialization area within the special education department at King Saud University. Althabet surveyed 255 teachers who graduated between 1992 and 2000. Those teachers were working in special education programs in regular education schools and in special education institutes. The surveys used in his study measured five domains: (a) coursework, (b) internship, (c) professors' grading, and (d) professors' teaching skills. Althabet found that teachers were mostly positive about their overall preparation experiences and content. The results showed significant differences between male and

female teachers in their perceptions of their preparation in the Special Education Program at King Saud University. Results also showed that no significant differences existed among recently graduated special education teachers in their perceptions of the effectiveness of their preparation program. Results showed that teachers did not perceive the effectiveness of the coursework to be strongly positive or negative.

It must be remembered that the increasing number of students diagnosed with ASD has led to a call for legislation, requiring more effective professional development programs in order to produce high-quality teachers. Thus, the concept of preparing those teachers must be taken into account and continues to be an area of concern. "Teachers with college degrees have been found to be more successful in working with children with ASD than are teachers with less training" (Alotabi, 2015, p.3) Therefore, there is a great need for trained special education teachers who are capable of serving students with autism. Al-Faiz (2006) stated that "without such preparation, teachers cannot prepare students with autism to become functioning and contributing members of the classrooms and, later, of society" (p. 4).

Research Purpose/Questions

This study is conducted to gather information about the effectiveness of the ASD preparation program of Saudi Arabia universities based on the perceptions of pre-service students who are currently studying in the autism program in Saudi Arabia. It is also conducted to provide information about the number of Saudi universities that offer personal preparation programs for special education teachers in the field of autism and to examine if Saudi Arabia has enough of these institutions. This study uses a survey method to answer the following questions: 1) How many universities in Saudi Arabia offer personal preparation programs for special education teachers in the field of autism? 2) Are there any differences in level of satisfaction among pre-service teachers enrolled in special education program majoring in ASD in the five domain areas of coursework, internship quality, classroom application, personal learning experience, and professors' teaching skills?

Null Hypotheses

H0: there are no statistically significant differences in the levels of satisfaction of pre-service special education teachers majoring in ASD and in the five domain areas.
H1: there are statistically significant differences in levels of satisfaction of pre-service special education teachers majoring in ASD and in the five domain areas.

Methodology

Research Design

The primary purpose of this study was to obtain the perceptions and opinions of a large number of special education teachers studying in Saudi universities. The design chosen for the current study was a descriptive non-experimental research design. According to Johnson and Christensen (2014), "The primary purpose of descriptive research is to provide an accurate description or picture of the status or characteristics of a situation or a phenomenon" (p. 407). The study is nonexperimental in nature because the researchers wanted to learn what pre-service teachers in Saudi Arabia are doing and thinking. Specifically, the researchers used a survey data collection approach to evaluate individuals' perceptions of pre-service teacher training within those special education programs

specializing in ASD. McMillan and Schumacher (2006) stated the following regarding the use of surveys:

> *Surveys are used to learn about people's attitudes, beliefs, values, demographics,*
> *behavior, opinions, habits, ideas, and other types of information. They are used*
> *frequently in business, politics, government, sociology, public health,*
> *psychology, and education because accurate information can be obtained for*
> *large numbers of people with a small sample. (p. 233)*

The design used in this study had two purposes: (1) to assess overall levels of satisfaction in five domains regarding special education programs offered in various Saudi Arabian university programs, and (2) to comparatively test if differences in satisfaction in these domains were associated with certain factors. An example of the latter purpose was to compare the level of satisfaction between male and female pre-service special education teachers specializing in ASD.

Data Collection Instrument

As mentioned above, Hussain conducted research about the perceptions of learning disability teachers regarding their preparation program at King Saudi University (KSU) in Saudi Arabia. His survey used a series of questions asking for responses on a four-point Likert rating scale where 1= strongly disagree (SD), 2= disagree (D), 3= agree (A), and 4= strongly agree (SA). That survey instrument was used for data collection purposes in the present survey. In addition, the questions in that survey were grouped into five subscales that are retained: (a) coursework, (b) internship, (c) professors' teaching skills, (d) classroom application, and (e) personal learning experience.

In addition, since the main purpose of the current study was to assess the perceptions of ASD teachers regarding their preparation at various Saudi Arabian universities, some terms on the Hussain survey were changed to fit the present study purpose. For example, learning disabilities (LD) was changed to autism spectrum disabilities (ASD).

The researchers also deleted the following questions that were unsuitable or unrelated to the present study's purpose from the demographic section: what types of certificates did pre-service teachers hold (because all of them currently are undergraduates), and "Would you recommend a friend to select the special education field?". The researchers also named the new survey *ASD in Saudi Arabia Universities* and adopted Hussain's (2009) four-point Likert rating scale response format: 1= strongly disagree (SD), 2= disagree (D), 3= agree (A), and 4= strongly agree (SA). This Likert scale was used to measure special education teachers' satisfaction in the five domain areas of coursework, the internship quality, classroom applications, and professors' teaching skills. In addition, the personal learning experience subscale had a five-point Likert self-assessment response format as follows: 1= inadequate, 2= weak, 3= average, 4= moderately strong, 5= very strong, and 9= N/A. Overall, the present survey had three sections: 1) 9 demographic questions, 2) 37 close-ended questions in four-point Likert scale format, and 3) 6 close-ended questions in five-point Likert scale format for a total of 52 questions.

Hussain (2009) used a content validity method to measure the validity of the King Saud University (KSU) LD survey. He used three Arab graduate scholars from English-speaking universities who were studying English literature and who specialized in translating documents from Arabic to English as judges. He then allowed their survey version to be examined and revised by different professionals from different university departments who were interested in the field of special education. Those departments

included special education, educational psychology, and curriculum and instructional education. Finally, 12 LD teachers (six males and six females), who had graduated from the special education department at KSU, changed and revised some questions in his survey.

In the present study, content validity was measured by having a second researcher who was familiar with the study purposes examine and revise English items to verify if what was supposed to be measured was actually being done. This person served as a George Mason University (GMU) expert. After the survey was reviewed and examined by that professional, the survey was translated into the targeted language (Arabic). Then, one Arab graduate scholar from GMU's special education department checked the target response with the original English survey.

To ensure reliability, Cronbach's alpha for estimating the internal consistency across items was used to determine the survey's reliability. The alpha coefficient was computed for the combined group of items in the five subscales and for each of the five survey subscales. Cronbach's alpha for the five subscales is presented below in Table 1.

Table 1. Internal Consistency Reliability of Instrument Subscales

Five Domains/Subscales	Number of Items	Cronbach α
Course Work	10	.694
Internship Quality	8	.792
Classroom Application	11	.875
Teaching Strategies	8	.813
ASD Program Effectiveness	5	.793
Total Questions	42	.914

Table 1 indicates overall high reliability of the instrument (Cronbach $\alpha = 0.914$) with high reliability coefficients of individual scales. However, items measuring coursework quality expressed moderate reliability (Cronbach $\alpha = 0.694$).

Study Population and Participants

The study population of universities included 13 public Saudi Arabian universities that offer special education programs. The curriculum of these 13 universities was examined to identify which of these offered teacher preparation programs specifically in ASD. The participant sample for this study consisted of male and female pre-service special education teachers attending one of these universities and specializing in ASD. All of these teachers were in the final years of their undergraduate programs. Thus, it represented a group with enough program experience that they could rate their satisfaction with all parts of the program, including their culminating internship experiences. All pre-service teachers specializing in ASD were invited to participate in the study on a voluntary basis, so the researchers could describe the scope of service teacher training offered within special education programs in Saudi Arabia.

A total of 467 teachers specializing in ASD were invited through requests forwarded them by their university professors, a procedure discussed later in this document to participate in this study. Of 467 teachers only 180 (39%) completed the survey. It is believed that most of those not participating did so for reasons unrelated to the survey content, such as the time of year during which data collection took place. Of the 180 teachers who participated, 84% were female pre-service special education teachers

specializing in ASD, and 16% of them were male pre-service special education teachers. Most (67%) of these participants were between the ages of 18 to 24 years. Almost half (48%) were enrolled in autism courses in two out of the 11 universities, with 25% of them in King Saud University and 23% in Princess Nora University. Of the 11 universities in Saudi Arabia, almost all of these students (99%) were working towards degrees in special education, and only 1% working towards degrees in humanities or social services. Of the specific majors these students had, 81% of them were had a joint major of behavioral disorders and autism, whereas 19% were specifically majoring in autism. However, the average number of student responses per university was 16. Given that 5 of the 11 universities are represented by student responses of 2-7 students, this may have contributed to the differences in university ratings that were found. Table 2 presents demographic information for the 180 pre-service teachers who completed the survey.

Slightly more than half (53%) of these participants had teaching experience of less than one year, while 34% of them had 1-4 years' experience, and 3% had five years of teaching experience. Among these 180 pre-service teachers, 73% of them reported that an Autism degree program was their first preference, and the remaining 27% stated that an Autism degree program was not their first preference.

Table 2. Demographics of the Participants

Variables	Categories	Frequency	Percentage
Gender	Female	151	84
	Male	29	16
Age	18-24 years	120	67
	25-34 years	52	29
	35- 44 years	10	4
University where you studied	King Saud University	45	25
	Almajmaah University	3	2
	Princess Nora University	42	23
	Talbah University	6	3
	Umm-al-Qura University	13	7
	Taif University	21	12
	Qassim University	13	7
	Tabuk University	2	1
	Al Jouf University	4	2
	King Faisal University	7	4
	King Faisal University	7	4
Department of Study	Special Education	178	99
	Humanities and Social Services	2	1
Major in Degree	Autism	34	19
	Behavioral Disorder and Autism	146	81

Stating their reasons for becoming ASD teachers, 68% indicated it was their personal interest to join the ASD teaching profession, 12% reported that doing so was their only available alternative, while 13% joined this profession because they had been guaranteed a job in it. Only 1% of students attributed their choice to become an ASD teacher to the field offering a better salary package. Regarding their academic averages,

almost 60% of students graduated with excellent GPAs, and there were 34% with very good and only 6% with good GPAs (See Table 3).

Table 3. Demographic Information

Variables	Categories	Frequency	Percentage
Experience	Less than a year	96	53
	1-4 years	62	34
	5 years	6	3
Autism as First Choice	Yes	131	73
	No	49	27
Reason for Becoming ASD Teacher	Only Alternative	22	12
	Personal Interest	122	68
	Ease of Major	1	1
	Job Guarantee	23	13
	More Salary	2	1
GPA	Excellent	108	60
	Very Good	61	34
	Good	11	6

Data Collection Procedures

Approval for conducting research with human subjects was obtained from the Institutional Review Board (IRB) at GMU and from the Ministry of Education in Saudi Arabia. To facilitate approval for the study, the major advisor professor at GMU (the second researcher on the present study) wrote an official letter to the Saudi Arabian-Cultural Mission of the United States. The letter explained the purpose of the study and how important it was to conduct the study in Saudi Arabia. Then, the Saudi Arabian-Cultural Mission of the United States gave the first researcher approval to have a field trip during the summer of 2016 for data collection. This student researcher had difficulty in collecting sufficient data and obtaining official approval for such collection from the Saudi Arabian Ministry of Education, thus making it difficult to contact each relevant university in Saudi Arabia.

The researcher, therefore, turned to an alternative method: contacting many professors in the field of special education program by posting a suitable recruitment notice on social media (using Twitter, Facebook, WhatsApp, and e-mail methods). Those professors who were interested were then re-contacted, provided a link to an online survey webpage created on SurveyMonkey, and asked to forward that survey link to their pre-service teacher students. This process occurred in mid-June 2016. At that time, likely participants were advised that their names were not required, demographic information would be kept confidential, and that participation was voluntary.

A follow-up message reminder was sent to these professors in July by e-mail and a group message on WhatsApp, again asking them to distribute the survey to those pre-service teachers to whom they thought might not have had any chance to look at to the survey link during the summer. Thus far, the combination of these two forms of contact with professors asking them to forward the survey link to suitable pre-service teacher students only produced 75 survey completions. Therefore, to supplement the number of ASD respondents, the researcher then relied more extensively on Twitter and Facebook and targeted the

academic accounts for each university in Saudi Arabia. This produced an additional number of 105 pre-service teachers specializing in ASD with usable returns. Other returns were eliminated because they were submitted by people outside Saudi Arabia and thus were not within the scope of the study, and others were discarded because enough survey questions for useful data analysis purposes were not completed.

Data Analysis

The survey data collected via SurveyMonkey was reviewed for basic distributional characteristics including incomplete responses. All missing responses were removed by list wise deletion and preserved completed responses only. Eleven universities were included in final analysis because no response was received from two universities. Once the data was verified for completed surveys, the data was exported to Microsoft Excel format for editing and finally to the Statistical Package for Social Sciences (SPSS) for more advanced data editing and analysis. In addition to eliminating missing data, outliers and other assumptions such as normality and homogeneity of the total and group scores were evaluated by statistical tests, however, no potential outliers were found in the data. The survey administered contained three negatively worded items which were reverse coded before performing statistical analysis.

Descriptive statistics, such as frequencies and percentages, were used to analyze the number of universities offering degree programs for special education teachers in the field of autism and to determine the demographic characteristics of those students. Descriptive statistics, including standard deviations followed by Analysis of Variance (ANOVA) methods, were used to analyze differences in satisfaction levels between subgroups of these students. Independent sample t-tests were also run to test if any significant differences existed between male and female students in the level of satisfaction among five domain areas: coursework, internship quality, classroom application, satisfaction concerning professors' teaching skills, and personal learning experience.

Results

The results presented here in summary form first show (in Tables 4-8) the variability in answers for each of the survey questions that are phrased in English, although they were administered in Arabic, that are then grouped into the five domain areas of interest in this study: coursework, internship quality, classroom application, satisfaction concerning professors' teaching skills, and personal learning experience. Tables show the percentage distribution of responses across each of the Likert rating scale categories followed by each question's mean based on assigning values of 1= strongly disagree through 4= strongly agree and standard deviation.

Table 4. Frequencies of Responses and Means for Coursework

#	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	SD
1	The number of courses given in the ASD major was sufficient	9%	39%	42%	10%	2.54	.801
2	The ASD courses given in the ASD major program do not need to be updated.	70%	27%	1%	2%	1.36	.623
3	The content material in the ASD courses was sufficient for teachers	10%	46%	37%	7%	2.38	.799

#							
	in the field						
4	Coursework in the ASD major was not too theoretical.	43%	42%	13%	2%	1.74	.763
5	Textbooks in the ASD major were written clearly	3%	24%	64%	9%	2.78	.665
6	The coursework gave me a good understanding of ASD	5%	28%	55%	12%	2.74	.733
7	Argumentative alternative communication (AAC) was covered in sufficient depth for teachers in the field	11%	47%	34%	8%	2.34	.828
8	Argumentative alternative communication textbooks and materials were written clearly.	8%	41%	43%	8%	2.45	.800
9	I had extensive practical experience with AAC applications or devices.	5%	50%	37%	8%	2.47	.735
10	There is no gap between university coursework and the reality of ASD in the resource room.	42%	42%	13%	3%	1.66	.807
	Total					2.25	0.39

Table 4 shows slight agreement (M=2.25, *SD*= 0.39) of students regarding course work offered in special education degree programs at various universities in Saudi Arabia. Detailed analysis of responses confirmed their satisfaction level with course work, and almost 97% of students stated that their course work needed to be updated. Similarly, 85% of students considered their coursework as not being balanced and very theoretical in nature. Almost 84% of students indicated that their course work is not providing them with skills needed to practice in real situations and that a gap exists between university course work and the reality of ASD practices in the resource room.

Table 5. Frequencies of Responses and Means for Internship Quality

#	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	SD
1	The length of the internship was sufficient.	23%	33%	32	12%	2.25	1.02
2	Students received timely feedback from their supervisors during the internship	13%	19%	46%	22%	2.62	1.11
3	The internship was more useful than the classroom work	2%	7%	21%	70%	3.54	.87
4	The internship provided practical experiences for dealing with school administration	2%	8%	40%	50%	3.32	.83
5	During the internship, I applied instruction methods that I learned in the coursework of teaching students with ASD	10%	18%	57%	15%	2.69	.96
6	The internship allowed me to use my thoughts/ideas of special education in a practical way	10%	12%	55%	23%	2.87	.96
7	The internship provided practical	16%	15%	35%	34%	2.79	1.14

	experiences for dealing with parents of students with ASD						
8	During the internship, I provided assistive technology support for students with ASD	20%	26%	36%	18%	2.42	1.09
	Total					2.81	0.64

Table 5 shows overall moderately high agreement (M=2.81, *SD*= 0.64) regarding the quality of internship offered in special education degree programs in the field of autism in Saudi universities. However, 56% of students indicate that they are dissatisfied with the length of internship program and 46% of students indicated a lack of assistive technology support exists for students with ASD.

Table 6. Frequencies of Responses and Means for Classroom Application

#	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	SD
1	Develop and implement Individualized Education Plan	2%	6%	52%	40%	3.29	.68
2	Develop and implement Applied Behavior Analysis (ABA)	12%	21%	46%	21%	2.74	.96
3	Implement effective behavior management techniques	3%	8%	56%	33%	3.17	.75
4	Implement effective teaching techniques	4%	11%	62%	23%	3.03	.74
5	Implement effective methods of evaluation and diagnosis	8%	20%	49%	23%	2.84	.90
6	Implement effective language and development techniques for ASD students	10%	29%	49%	12%	2.53	.94
7	Implement effective social and interpersonal development techniques for ASD students	8%	21%	52%	19%	2.80	.87
8	Implement effective techniques such as the using of sign language to support non-verbal students with autism	21%	37%	34%	8%	2.22	.95
9	Develop and implement smart devices such as the iPad and computer that contribute in developing students with autism	21%	27%	34%	18%	2.42	1.08
10	Collaborate with Parents	10%	21%	49%	20%	2.73	.96
11	Collaborate with professionals at school (e.g., Psychologist)	7%	23%	45%	25%	2.84	.94
	Total					2.78	0.60

Table 6 shows an overall moderately high agreement (M=2.78, *SD*= 0.60) with classroom application of the special education programs offered in various universities in the field of autism. Overall, 58% of students disagreed with the provision regarding implementation of effective techniques such as sign language to support students with autism. Moreover, almost half of the surveyed students (48%) disagreed with the need to

develop and implement smart devices such as iPads and computers toward helping students with autism.

Table 7. Frequencies of Responses and Means for Teaching Strategies

#	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Mean	SD
1	Use many instruction methods	9%	28%	48%	15%	2.69	.83
2	Maintain students' attention	8%	22%	62%	8%	2.69	.74
3	Fit their teaching methods for students of different levels	4%	31%	54%	11%	2.73	.71
4	Guide students to ASD websites	10%	33%	44%	13%	2.58	.86
5	Meet the individual needs of students	10%	28%	53%	9%	2.61	.79
6	Use technology in their instruction	10%	22%	54%	14%	2.72	.85
7	Provide sufficient time for office hours	10%	29%	50%	11%	2.61	.85
8	Maintain students' interaction outside of the classroom	6%	30%	52%	12%	2.68	.80
	Total					2.66	.53

Table 7 shows overall moderate agreement (M=2.66, *SD*= 0.53) regarding teaching strategies used in classrooms by professors. Overall, all students expressed their agreement for the quality of teaching strategies; however, a good number of students (43%) indicated that students are not guided to ASD websites.

Table 8. Frequencies of Responses and Means for ASD Program Effectiveness

#	Statement	Inadequate	Weak	Average	Moderate-ly Strong	Very Strong	Mean	SD
1	Provide relevant examinations/assessments. [either/or NOT both]	6%	14%	38%	32%	10%	3.25	1.05
2	Implementation various of assessment, such as testing, research, or field visits	11%	21%	27%	26%	15%	3.12	1.25
3	Providing sufficient time to complete examinations, field visits, or coursework	6%	19%	38%	25%	12%	3.17	1.08
4	Working with students to promote academic success	11%	13%	33%	22%	20%	3.25	1.26
5	Providing opportunities to discuss academic progress	10%	23%	32%	21%	14%	3.04	1.20
	Total						3.16	0.87

Table 8 indicates an overall high agreement (M=3.16, *SD*= 0.87) regarding program effectiveness offered at various universities in Saudi Arabia. Detailed analysis of responses indicated that their programs were considered average (38%) in terms of providing relevant exams and assignments with sufficient time to complete them (38%). Almost 42% of students felt that working with other students to promote academic success was their program's strength.

Comparisons

As shown in Table 9, independent sample t-test results of possible gender differences on five domains of special education programs in field of Autism in various universities of Saudi Arabia indicated that four of the five domains had non-significant differences between male and female students. These four domains include course work, internship quality, classroom application, and teaching strategies. However, a significant difference in male and female students' views was found regarding program effectiveness. Female students were found to be more satisfied than male students (*M*=2.82, *SD*=0.95).

Table 9. Mean Comparisons for Gender Over Five Domains

Five Domains	Male (n=29)		Female (n=151)		t-value	df	p
	Mean	SD	Mean	SD			
Coursework	2.18	0.38	2.26	0.39	0.92	178	0.36
Internship Quality	2.77	0.62	2.82	0.65	0.41	178	0.68
Classroom Application	2.59	0.60	2.82	0.59	1.91	178	0.57
Teaching Strategies	2.55	0.56	2.69	0.52	1.30	178	0.19
ASD program effectiveness	2.82	.95	3.23	0.84	2.37	178	0.02*
Note. * Statistically significant, p<.02							

The next section of results presents differences in perceptions of different domains across groups of students attending different universities. To better highlight the differences, each table is followed by a graph of each university's mean result in that domain.

ANOVA Results

Table 10. One-Way Analysis of Variance of Coursework by Universities

Source	df	SS	MS	F	P	η2
Between Groups	4.317	10	.432	3.16	0.001	.157
Within Groups	23.111	169	.137			
Total	27.427	179				

One-way ANOVA results were found to be highly significant in perceptions of Special Education preparation programs' course work among students attending various universities in Saudi Arabia, F (10, 179) = 3.16, p=0.001, η^2=.157. The eta-squared result of .157 also reflects the strength of relationship, which highlights that definite differences in perceptions by university attendance were found. Post-hoc pairwise comparisons indicated that only Princess Nora University (*M*=2.41, *SD*=0.36) was offering significantly better course work than Taif University (*M*=1.96, *SD*=0.31), while students at all other universities rated their coursework as relatively similar. The wide disparity between students' ratings at

these two universities is shown in Figure 1. However, the pairwise comparisons were conducted by using the Bonferroni procedure, dividing the overall alpha level of .05 for all tests by the number of tests.
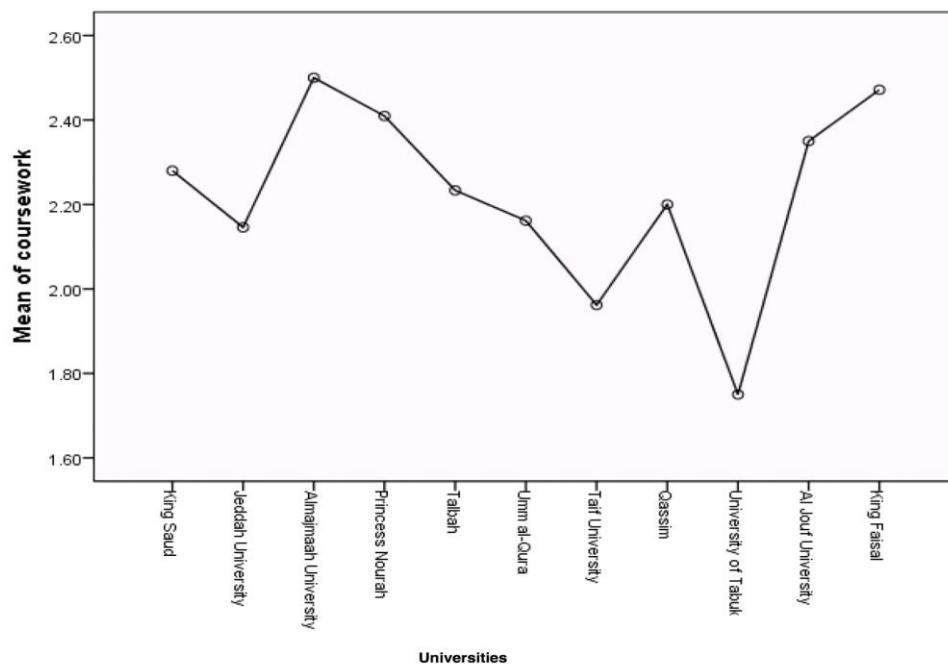
Figure 1. Mean Comparison for Coursework Quality Over Universities

Table 11. One-Way Analysis of Variance of Internship Quality by Universities

Source	df	SS	MS	F	p	η^2
Between Groups	11.789	10	1.179	3.23	0.001	.160
Within Groups	61.727	169	.365			
Total	73.516	179				

As in Table 11 shows, one-way ANOVA results were found to differ significantly in perceptions of special education preparation program internships' quality among students attending various universities: F (10, 179) = 3.23, p=0.001, η^2=.160. Post-hoc pairwise comparisons again indicated that only Princess Nora University (M=3.10, SD=0.45) was offering significantly better internship quality programs than those of Taif University (M=2.32, SD=0.66). No other universities' results differed significantly from any other.

Table 12. One-Way Analysis of Variance of Classroom Application by Universities

Source	df	SS	MS	F	p	η2
Between	8.448	10	.845	2.57	0.006	.132

Groups						
Within Groups	55.461	169	.328			
Total	63.909	179				

Table 12 presents one-way ANOVA results; these differ significantly in students' perceptions of the classroom application quality found in degree programs at various universities: F (10, 179)= 2.57, p=0.006, η^2=.132. Post-hoc pairwise comparisons indicated that only students at Princess Nora University (M=3.04, SD=0.57) considered their setting to provide significantly better classroom application of special education than students at Taif University (M=2.39, SD= 0.59). All other universities were rated as relatively similar in this domain and did not differ significantly.

Table 13. One-Way Analysis of Variance of Teaching Strategies by Universities

Source	df	SS	MS	F	p	η^2
Between Groups	8.578	10	.858	3.48	0.001	.171
Within Groups	41.656	169	.246			
Total	50.234	179				

Table 13 presents one-way ANOVA results, that like earlier tables, show highly significant differences in students' perceptions of teaching strategies used by professors and found in degree programs offered at their universities. Post-hoc pairwise comparisons indicated only Princess Nora University (M=2.96, SD=0.45) was significantly higher rated in their use of teaching strategies in special education programs when compared with Taif University (M=2.32, SD=0.56). The nine other universities were rated as relatively similar to each other in this domain and thus did not significantly differ.

Table 14. One-Way Analysis of Variance of ASD Effectiveness by Universities

Source	df	SS	MS	F	p	η^2
Between Groups	26.795	10	2.680	4.21	0.001	.199
Within Groups	107.671	169	.637			
Total	134.466	179				

As in earlier tables, one-way ANOVA results were found to differ significantly in students rating the ASD effectiveness in Special Education degree programs offered at various Universities: F (10, 179) = 4.21, p<0.001, η^2=.199. This domain showed the greatest degree of relation or differences across universities since the eta-squared value was greatest, explaining almost 20 percent. Post-hoc pairwise comparisons indicated significant differences across pairs of three universities. Princess Nora University (M=3.74, SD=0.75) was rated as offering significantly effective programs in ASD related to special education when compared with either Jeddah University (M=3.05, SD=0.69), Qassim University (M=2.71, SD=0.66) or Taif University (M=2.62, SD=1.07). All other universities were rated as similar in this domain.

Discussion

This study was designed to assess the effectiveness of autism spectrum disorder (ASD) special education teacher preparation programs offered by Saudi Arabian higher education public universities. Its data source came almost entirely from contacting pre-service students currently enrolled in these autism training programs. Using this data source, the study attempted to estimate the number of Saudi universities that offer such autism training programs. The study asked these students to complete a self-administered online survey dealing with their perceptions concerning the quality of these programs. Analyses focused on differences by gender and university used Likert scale ratings for five different domains: coursework, teaching strategies, internship quality, classroom application, and overall autism program effectiveness.

In gauging the number of autism teacher preparation programs, it is possible that study results were reasonably close to that actual number. Results found that 11 public universities in Saudi Arabia currently provide teacher preparation programs for special education teachers in autism. But did the 180 survey respondents represent a sufficiently representative sample of all of Saudi Arabia's graduate students? To examine that, Saudi Arabia's education system is known to currently include 25 publics and 27 private universities (Alqassem Dashash, Alzahrani, 2016). Let us exclude the at least eight institutions known by their titles to offer specialized, non-ASD-related educations, in areas including: Petroleum and Minerals, Science and Technology, Public Administration, Health Sciences, Business and Technology, Dentistry and Pharmacy, Medical Studies, or Science. ("Top Universities in Saudi Arabia," 2016). That would still suggest that study findings were based on roughly 40% of all public universities not dedicated to a specific content area.

The coverage of universities across the target universe of Saudi Arabian institutions may be even stronger. When comparing the listing of universities (shown in Table 2) that the 180 survey respondents reported attending with the "Top Universities in Saudi Arabia" (2016) listing cited above, one sees that survey respondents reported attending: 3 of the top 4 universities listed there (excluding one specialized institution), 4 of the next 8 listed (and non-specialized) institutions, and 4 were included of the next 9 listed (and non-specialized). Thus all 11 universities included in the study were in the top 21 (excluding 4 specialized) higher education institutions in Saudi Arabia, a coverage rate of 52%.

The study findings reported here may be somewhat exploratory but still represent a step forward in addressing the research goals of this study. In part, this may be due to the two-stage sampling process used, in which all likely professors in all likely Saudi universities were contacted and asked to forward the survey link to students. That process may not have produced a representative sample of student respondents, which may have resulted in a possible skew in findings.

For example, there appear to be few, if any, accurate counts of the proportion of females and males enrolled in teacher preparation programs in Saudi Arabia or reports of how many graduate students specialize in ASD coursework. It is true that a broader set of statistics come from a Statistical Summary of Higher Education Students by Agency for 2015-2016 provided by the General Authority for Statistics, the official governmental statistics unit of Saudi Arabia, in its Statistical Yearbook of 2015, Chapter 03, called "Education and Training." According to this source, 44% of all university students were males, and 52% of graduate students were females (General Authority for Statistics, 2015-2016). However, these statistics represent much broader categories than the present survey's findings, in which only 16% of those in graduate teacher preparation programs having an ASD

emphasis were male. The study also found that autism courses were offered at two out of eleven universities.

Nonetheless, this study produced useful findings that were not obtainable elsewhere to the best of the researchers' knowledge. The survey instrument was flexible: it was adapted through content validity reviews and parallel translation methods so that it could be administered in either Arabic or English. This ensured that students primarily comfortable with either language could readily understand the survey content. This likely increased its validity. Thus, it is possible that despite the disparity in gender counts, the results gathered may be plausible. Some of these results indicated that 68% of students were specializing in ASD studies due to their personal interest, 12% of them had joined the profession as the only available alternative for them, and another 13% had joined this profession since it provided a guaranteed job.

The survey also extended the utility of Hussain's 2009 survey by conducting Cronbach's alpha internal consistency reliability analyses of the same five scales that Hussain had used, although with a wider sample. Whereas Hussain's study focused on teachers majoring in Learning Disabilities and graduating in special education from one Saudi higher education institution, King Saud University, the present study included ASD students at 11 universities. Given that breadth of educational exposure, the present study showed that the same survey questions were quite reliable. As Table 1 showed, reliability coefficients ranged from .694 (Course work) to .875 (Classroom Application), with a median of .793 across the five scales.

Turning to the second study objective, there seemed to be an overall pattern that a fairly high proportion of respondents believed that their coursework and program scope needed updating and revision to be more practical and better meet their workplace needs. Almost 97% of pre-service teachers agreed that their coursework needed updating, with 85% considering it unbalanced and very theoretical in nature, and troublingly, 84% of pre-service teachers surveyed believed that a gap existed between their university course work and the reality of teaching students with ASD in the resource room. Other indications of this were that more than half (56%) of pre-service teachers were dissatisfied with the length of internship programs and close to half (46%) believed that students with ASD were suffered from a lack of assistive technology support. This view was supplemented by almost half of surveyed teachers (48%) not being well satisfied in the use of "smart devices" such as iPads and computers. A related survey item found that more than two-fifths (43%) of these teachers complained that their professor had not guided them to valuable ASD websites so that they could learn more about children with autism.

These problems directly affect the knowledge, skills, and quality of affected pre-service special education teachers and make them unprepared to deal with students with autism. Donaldson (2015) indicated that students with ASD often require more specialized services in schools because of their social, behavioral, and communication needs. Therefore, policy makers in Saudi Arabia should make appropriate decisions regarding the design and delivery of professional development related to educating students with ASD to produce highly qualified special education teachers with appropriate and adequate training.

These views were generally held by both male and female students alike, as ANOVA results found no statistically significant differences in mean ratings of four of the five domains that were measured: course work, internship quality, classroom application, and teaching strategies. Female students were found to be more satisfied than male students. However, this may be due to male participants possibly being underrepresented in this study, making the male results less statistically reliable. Therefore, future research into students' ratings of their program quality and what factors are associated with these

perceptions should use a more rigorous sample design and larger, more representative sample size.

Limitations of the Study

Several limitations may have influenced outcomes of this study. A major limitation in this study is that of having a smaller sample size than expected. The study began with a pool of 467 likely participants that shrank to 180 actual participants. This may have occurred because, due to circumstances beyond the researchers' control, the survey was distributed during the summer, when most students and professors in Saudi Arabia were on vacation. The survey was initially sent to more than 200 professors at Saudi Universities teaching special education by social media methods and by a group messaging app called WhatsApp. This approach was used so that professors could then send a notification or email to their students studying in autism programs. However, using this method, only 70 students responded to their messages and completed the survey. A follow-up message sent to the professors before the end of the summer also did not result in many more students deciding to participate in the survey after they returned from vacation. This smaller sample size should be noted as it may indicate relatively atypical or fewer male students who took part in the study, producing a possible shift in the direction of survey findings. In addition, those with relatively less computer access, or those with less familiarity with online survey completion may have chosen to leave the survey incomplete.

Second, the target population of the study was limited to those students currently majoring in ASD in Saudi Arabia. The study did not seek the perceptions of professors teaching and researching in this area at the 11 universities studied. Third, the study only used a survey instrument asking for perceptions as the primary method of gathering data. Respondents' attitudinal views could not be verified by gathering factual information, such as specific features of these teacher preparation programs.

Conclusion and Recommendation

The results indicated that, overall, students are satisfied with the quality of special education programs offered in various Saudi universities. The satisfaction expressed by these respondents extended to the coursework offered, quality of internship provided, teaching strategies, classroom applications, and effectiveness of autism programs.

Only few concerns related to applicability of coursework were found for the degree programs. These concerns included the following ideas: the coursework needed to be updated, need to be more practical than theoretical, and need to be well-versed with technological advancements. Similarly, internship length should be increased to provide hands-on experience to students in pre-service special education programs. However, it is essential for future researchers to conduct a qualitative study that examines reasons for why coursework in the field of ASD in Saudi universities is thought to need updating. Is it because the content of the coursework is very old or because the sequence of courses offered on various topics is not covered very well? Masterson et al. (2014) indicated that as part of undergraduate autism coursework, it is beneficial that students in ASD courses receive a solid overview of topics in ASD followed by diagnostic, assessment, etiological, biological, and theoretical courses focused on applied behavior analysis and empirically supported treatments as well as learn how students with ASD communicate communication.

In addition, Masterson et. al (2014) recommended an undergraduate intervention specialist program in ASD serving as an empirical guide for curricular development, and that it should be more practical and be based on evidence-based practices rather than

theoretical ones. They stated that evidence-based practices in ASD can serve as a valuable supplement to coursework. Therefore, as part of their coursework, students could be assigned to complete interview assignments (i.e., having students interview individuals impacted by ASD), and include them in group presentations to discuss a current or controversial topic in the literature. Masterson et. Al (2014) also posit other ideas: "it is also possible to have the class take part in a service-based activity or advocacy project aimed to improve the lives of individuals with ASD and their families…expert guest lectures [could be] presented through videoconferencing" (Masterson et. al, 2014, p.2648).

Shyman (2012) illustrated that because language and communication challenges are a central issue in ASD, a substantial amount of coursework in special education preparation programs should provide teachers with knowledge about natural and typical language development as well as potential differences in language development for individuals with ASD. Therefore, coursework in special education teacher preparation programs should explore theories of how language development is different for those with communication disorders and ASD specifically. Coursework should emphasize that "children with autism can develop solid functional language skills as well as other types of expressive symbolic communication skills through sign language, pictures, or an augmented communication device with picture symbols and voice output" (Kansas State Department of Education, 2009, p.3) Coursework should also emphasize how technologies such as computers and touch screen tablets can support students with ASD in overcoming communication barriers or even help them to develop new language skills (Sula & Spaho, 2014). Therefore, additional research is needed to describe strategies for improving the current practice for integrating assistive technologies coursework into ASD pre-service teacher education program preparation (Van Laarhoven & Conderman, 2011).

More importantly, pre-service ASD teachers believe that there is a gap between coursework and reality in a practicum setting. They also believe that their training time dealing with ASD students is insufficient. Strong (2014) states that a gap exists among what is known about instructional methods, what is learned from coursework, and what is implemented in a school setting during a practicum experience. Therefore, preparation and special education professional development programs should be scrutinized for their content, processes, and outcomes. This would serve to identify changes that could contribute to the implementation and improving of ASD teacher effectiveness.

In this survey, the quality of programs across various universities was found to be quite similar, except for some differences observed between Princess Nora University and Taif University. Both universities differed in coursework, quality of internship, teaching strategies and classroom application. However, for autism program effectiveness, three universities differed. Princess Nora University was found to differ significantly from Taif, Jeddah, and Qassim University in terms of ASD program effectiveness. Therefore, additional research is needed to conduct in-depth interviews and examine why these survey results were found. This will more clearly identify factors that impact teacher satisfaction within teacher preparation programs in the field of autism in Saudi Arabia.

Lastly, results of this survey were based on data collected during the summer, and only 180 out of 467 participants completed the survey. That may be why only 11 universities out of 25 Saudi public universities were found to provide special education teachers with preparation in ASD. Therefore, this study should be re-conducted during other months of the school year to bring about more statistically reliable findings.

In sum, the results of this study suggest that higher education institutions are responsible for the quality of their pre-service teachers, especially for those who are dealing with children with ASD. It is possible that Saudi Arabia higher education institutions need to become even more aware of the need to increase the preparedness and effectiveness of

special education teachers and create an even more conducive environment to effectively prepare teachers for working with children with ASD.

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Successful Inclusion of Adolescent Students with Mild Intellectual Disabilities - Conditions and Challenges within a Mainstream School Context

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Abstract
The present study examined the conditions and challenges of successfully including adolescent students with mild intellectual disabilities within a mainstream school context. The study was based on qualitative interviews with nine special education teachers who worked in special education groups in lower secondary schools. A thematic structural analysis was performed to identify themes. The need for an overarching inclusive philosophy at school and adequate organizational, social, and academic facilitation were considered essential conditions for successful inclusion. Organizational constraints, inadequate facilitation and a lack of self-confidence among students were identified as challenges. Successful inclusion was found to depend on extraordinary engagement among special education teachers due to a lack of support and commitment in the school organization. The fundamental objectives of the successful inclusion of students with mild intellectual disabilities within a mainstream school context requires a basic monitoring on all levels of the school organization, i.e., management and the entire school staff—including general education teachers. However, students' own experiences and perceptions of inclusion are considered the greatest indicators of success.

Keywords: *adolescent students, inclusion, lower secondary school, mainstream school context, mild intellectual disabilities*

Introduction
        The Norwegian school system has an overarching goal to include all students successfully. According to the Salamanca Statement (UNESCO, 1994), inclusive education refers to the responsibility of mainstream education to adapt to all children,

regardless of physical, intellectual, social, emotional, linguistic or other constraints. Community affiliation is deemed to be a matter of course (Tøssebro, 2004), and each individual is recognized as an equal participant. The goal of inclusive education is to provide all students an experience of community and belonging and the right to learn the same curriculum as classmates their age (Ainscow, Booth, & Dyson, 2006). A modification of this objective is defined as the attempt to educate students with special needs by integrating them as closely as possible into normal structures of the educational system (Michailakis & Reich, 2009).

Inclusiv education comprises three different dimensions: a physical/organizational dimension, a social dimension and an academic/cultural dimension (Nilsen, 2008). Each of the three dimensions further consists of an objective and a subjective aspect. The subjective aspects are students' evaluations of the objective aspect of each dimension, i.e., the degree of inclusion they experience. The physical/organizational dimension is related to location, e.g., the extent to which students are placed in a mainstream school, in proximity to typically developing students in the classroom and outdoor areas. The social inclusion dimension is the extent of students' experience of belonging, cohesion and fellowship at school. The academic/cultural dimension is the extent to which the school succeeds in creating fellowship and simultaneously adapting the training content. The operationalization of the concept of inclusive education thus emphasizes criteria for what a qualitative good education should entail. These criteria may thus constitute a basis for assessing the extent to which inclusion has been successful.

According to Farrell (2000), inclusion in a school context enables students to take part fully and actively in the life of the mainstream school, to be valuable members of the school community and to be considered integral members of it. According to the current definition, inclusion presupposes a responsibility for the community; thus, inclusion assumes reciprocity. However, inclusion involves facilitation in many different areas. Mitchell (2008) refers to different structural changes to make this happen, such as adaptation of curricula, teaching methods, assessment techniques, physical facilitation, and accessible teacher support.

Although mainstream schools in Norway intend to include all students, there are alternative solutions, such as separate special education schools or special education groups within the mainstream schools. In accordance with Norwegian law, all parents have the right to send their children to their local school (Kunnskapsdepartementet, 2016). For several reasons, many parents of children with special needs prefer inclusive education in a mainstream school. One of the main reasons is the opportunity for their children to interact with their typically developing peers (Koster, Nakken, Pijl, & van Houten, 2009; Pijl, Frostad, & Flem, 2008; Siperstein & Parker, 2008). Parents expect that inclusion is primarily intended to offer increased opportunities for peer interactions. In some cases, parents also determine inclusive education to be the most favorable solution regarding their children's school performance (Gasteiger-Klicpera, Klicpera, Gebhardt, & Schwab, 2013). As long as children receive sufficient support, inclusive education is often preferred (Elkins, van Kraayenoord, & Jobling, 2003).

Several studies have been conducted to examine the possible impacts of inclusion on academic, functional and social development among students with special needs (Carter, Bottema-Beutel, & Brock, 2014; de Boer, Pijl, Post, & Minnaert, 2013; Wendelborg & Tøssebro, 2011). Wendelborg and Tøssebro (2011) note the importance of social benefits for all students and highlight that segregated solutions may hinder social

participation among peers. However, with age, social interactions between students with intellectual disabilities and their typically developing peers become less frequent (Carter & Hughes, 2005). Compared with primary school, secondary school is more interactive both socially and academically, in terms of the structure and focus in teaching (Rosetti, 2012). It is claimed that the teaching structures in regular classrooms at higher levels of schooling increase academic engagement among students with intellectual disabilities; however, it has been found that such students are nevertheless frequently unengaged in the instructional activities that take place in regular classrooms (Carter, Sisco, Brown, Brickham, & Al-Khabbaz, 2008). The focus of a school appears to contribute to increasing the academic gap between students (Carter & Hughes, 2005; Siperstein, Parker, Bardon, & Widaman, 2007). Several research studies have demonstrated how in a number of cases, inclusion may to be limited only to the physical/organizational dimension (de Boer et al., 2013; Laws & Kelly, 2005; Nilsen, 2008; Pijl et al., 2008).

Presence and proximity are necessary conditions for social inclusion to be successful. The teacher plays an important role in facilitating social interaction among students with and without disabilities (Carter & Hughes, 2005; Rosetti, 2012; Siperstein & Parker, 2008). Teachers' attitudes towards inclusion appear to be of crucial importance. Teachers may function as vital supporters; however, extensive support and close assistance have also been shown to prevent social interaction in regular classes (Wendelborg & Tøssebro, 2011). An awareness of the use of support is thus needed.

Placement in regular classes is widely considered a requirement for successful inclusion (Ferguson, 2008), but it alone is not sufficient for inclusion to succeed. Students' own experience is thus an essential criterion for assessing the success of inclusion; cf. the subjective aspect of inclusion (Nilsen, 2008). It is not given that all students with learning disabilities prefer to learn in regular classrooms at all times, particularly if they do not receive adequate support (Brackenreed, 2008). Optimal inclusion thus appears to involve certain dilemmas (Michailakis & Reich, 2009), but we know that proximity to peers is an important prerequisite for social interaction; establishing social relationships across and to bring common learning about (Feldman, Carter, Asmus, & Brock, 2016; Koster et al., 2009). Facilitating optimal inclusive practice may thus seem to be challenging.

Critics argue that mainstream education has failed to respond adequately to students' inequalities (Ainscow & Cèsar, 2006; Ferguson, 2008). The placement of all students within common areas in mainstream schools has not always been accompanied by sufficient organizational solutions, changes in curricula or amendments in teaching strategies. In some cases, a basic understanding of inclusion established in schools' organizational structure seems to be absent. Prerequisites for success appear to depend on education based on an overall inclusive philosophy, in which the instructions are adapted to individuals' learning abilities (Nilsen, 2008). Inclusive education also seems to be more successful in contexts with a culture of collaboration that helps promote joint problem solving (Courela & Cèsar, 2004) and seriously considers students' points of view (Vaugn, Elbaum, & Boardman, 2001). For inclusive practice to be successful, Mitchell (2008) identifies numerous conditions that must be fulfilled: a common vision, placement in age-appropriate classrooms, adapted curricula, adapted assessment, adapted teaching, acceptance of the underlying idea of inclusion, adequate access, and sufficient support and resources. Leadership is also emphasized as being significantly important. In this context, leadership refers to management at all levels, and leadership must be able to explain the underlying philosophy and show through their actions that they are committed to achieving successful implementation. However, successful inclusion also depends on

teachers' ability and motivation to work with people with special needs (Michailakis & Reich, 2009). Without dedication and commitment to the underlying idea of inclusion, it may be difficult to facilitate inclusive education.

Previous studies have noted various conditions that must be met to achieve effective inclusion. However, research has insufficiently described the perspectives of special education teachers regarding the various challenges involved in ensuring a quality education for students with special needs in an inclusive mainstream school setting.

The present article describes part of a previous study of peer relationships among adolescents with mild intellectual disabilities, in which teachers, students and parents were invited to participate (Sigstad, 2016, 2017). In the interviews, teachers shared information regarding their experiences with the inclusion of these students within a mainstream school context. The data are considered essential and valuable for further analysis.

From an educational perspective, this article illuminates what special education teachers responsible for students in special education groups experience as the prerequisites and constraints of successful inclusion within a mainstream school context. These teachers' own descriptions of an inclusive school are analyzed through the lens of the following research questions: What conditions are necessary for the successful inclusion of students with mild intellectual disabilities in lower secondary school, and what limits the opportunities for inclusion within such a mainstream school context?

Method

The study focused on students with mild intellectual disabilities who were attending lower secondary schools in Norway and was designed in the form of qualitative in-depth interviews with nine teachers of these students. Mild intellectual disabilities were defined according to The International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) (World Health Organization, 2016).

The Sample and the Selection Process

To strengthen education for students with special needs, special education groups are occasionally organized within mainstream schools in Norway. In these cases, students are educated partly in these groups and partly in regular classes. Belonging to such a special education group in an ordinary school was chosen as one selection criterion. This allowed for including special education teachers of adolescent students who had relationships with peers both with and without intellectual disabilities. Special education teachers belonging to special education groups in four ordinary schools were invited.

The researcher made initial contact with the heads of special education at each school. Then, informational meetings were held for the special education group teachers. The schools provided feedback on 13 potential teacher interviewees. Teachers in the special education groups were asked to provide an information sheet about the project to the students and the parents concerned. Teachers, students and students' parents were asked to give permission for the teacher interviews by sending one reply form directly to the researcher.

Nine teachers from three schools responded to the inquiry (seven women and two men), ranging in age from 25 to 65 years. In two of the schools, the teachers taught partly in special education groups and partly in regular classes. In the third school, the teachers performed all their instruction in special groups. All teachers but one was qualified as

special education teachers or general teachers. In this study, all respondents are called special education teachers.

The Interviews

The interviews were conducted at school. The study involved nine interviews, each of which lasted approximately one and a half hours. The interviews were taped on a digital recorder and transcribed verbatim as soon as possible after the interviews were completed. The interviews were conducted using a semi-structured guide with predetermined issues but with openness to new topics that might emerge during the interviews. Based on research questions from the original study about peer relationships among adolescents with mild intellectual disabilities (Sigstad, 2016, 2017), examples of predetermined themes were as follows: the students' social participation and well-being at school in the special education group and at school in general, what the teachers did to facilitate social interaction between the students, the teachers' opportunities to influence the facilitation of peer interactions, and current barriers in relation to the facilitation of peer relationships in the school context. Topics regarding opportunities and limitations for successful inclusion were additional information that emerged and appeared to be particularly relevant in the interviews and thus were assessed as relevant topics for analysis in this article.

Ethical Considerations

The study was conducted in accordance with the World Medical Association Declaration of Helsinki (World Medical Association, 2016) and approved by Norwegian Centre for Research Data (NSD, 2016). The respondents were guaranteed anonymity and the right to withdraw from the project at any time. In addition, the respondents' statements were anonymous in terms of names, dialects, positional information and other recognizable characteristics.

Data Analyses

The analysis was conducted by a data-driven process. The primary material consisted of interview dialogues with the teachers. The current data analysis within present article is only reserved for the topics including opportunities and limitations for successful inclusion. A thematic structural analysis was conducted to identify themes (Lindseth & Norberg, 2004). Using condensed descriptions, attempts were made to capture the essential meaning of lived experiences. The meaning units were further condensed into sub-themes, which were assembled into themes (see table 1).

Table 1. Examples of a thematic structural analysis (Lindseth & Norberg, 2004) - interviews with the special education teachers

Meaning unit	Condensation	Sub-theme	Theme
T: It's hard to benefit academically in a regular class. At the lower secondary level, the academic gap starts to be quite large. They need individual adaptation, and it is difficult to achieve adequate support within the classroom.	Challenging dilemma – Academic discrepancy – Individual facilitation	Inadequate facilitation	Constraints of achieving successful inclusion
T: Inclusion is inspiring. I could never only have a special education group in a	Teacher engagement	Good facilitation	Conditions of successful

small room by myself. I enjoy being in the ordinary school life. If you will succeed in including students, primarily, you have to be included yourself in the teacher collegium.			inclusion

A thematic analysis of the level of self-understanding based on the respondents' own thematizing is used to present the qualitative empirical data, as described in the Results section (Brinkmann & Kvale, 2014). The empirical findings are further discussed on an overarching theoretical level (Discussion). The thematic analysis was used to identifying implicit and explicit ideas within the data material (Meaning units in Table 1). Themes were seen by similarities across the data that were important to describe the phenomenon. The process was done by generating initial codes (by Condensation of Meaning units), searching for themes among codes (Sub-themes), reviewing sub-themes, and defining and naming main-themes (Themes). To improve the trustworthiness of the study, the interpretations were presented in sub-themes and themes in line with the transcriptions from the interviews, and with help of clarifying discussions with colleagues, further discussed from several perspectives throughout the analysis. The remaining data collected from the interviews with students and parents (Sigstad, 2016, 2017) were also used to strengthen the credibility of the teachers' interpretations.

Results

The special education teachers' descriptions of the conditions and challenges of the successful inclusion of students with mild intellectual disabilities in lower secondary school were categorized into two themes: conditions of successful inclusion and constraints of achieving successful inclusion. The findings presented below are divided in accordance with these two main themes. Quotes are used to exemplify the themes from the conversations.

Conditions of Successful Inclusion

The conditions of successful inclusion included four sub-themes: inclusion as a core value, organization that promotes inclusion, good facilitation, and awareness of student-specific conditions.

Inclusion as a Core Value

The rooting of inclusion as a basic idea within the whole school community seemed to be a crucial prerequisite for inclusion to work. Inclusion as a core value initially applied the school's management and its basic philosophy for education, but such positive values also seemed to influence special education teachers' attitudes.

The importance of an overarching vision of inclusion within school management was highlighted as a force for inclusion. In one case, the school principal emphasized that students with special needs enriched the entire school. Such attitudes thus helped increase the opportunities for inclusion.

Inclusion as a core value in the school community also appeared to affect teachers' attitudes and their daily work in teaching. One teacher emphasized that successful inclusion was conditional on teaching with a focus on social interaction: "I think inclusion

is all about social interaction. The most important thing is to get in touch with the other students. They cannot be sitting by themselves within small groups all the time; it becomes a poor quality of life."

Organization that Promotes Inclusion

Certain organizational prerequisites seemed necessary for successful inclusion. Inclusion presupposed a physical presence; thus, locations were essential. For two of the three schools, the special education groups were partly isolated from the other classrooms. The special education teachers described this location as limiting opportunities for successful inclusion. On the other hand, the teachers stressed that the students needed to be organized in small groups as a condition for successful inclusion in a mainstream school context. Belonging to a group of likeminded individuals was highlighted as an essential factor for well-being within such environments: "Within a special education group, they have several potential friends. I am quite sure that the special education group is a very good structure and a crucial condition for well-being."

Good Facilitation

In various ways, inclusion was dependent on good facilitation in general. It was all about an awareness of finding adequate common avenues of inclusion, compliance in teaching topics in regular classes and in special education groups, and facilitation with a focus on social interaction. However, adequate facilitation presupposed close teacher collaboration and teacher engagement.

Special education teachers selected certain lessons in the regular classes that they deemed best suited for inclusion. Frequently, in those lessons, academic qualifications were not so significant: "The lessons that are best suited for inclusion are instruction involving joint activities that do not require high academic competence but primarily have a focus on social interaction." As much as possible, the special education teachers attempted to prepare their students on the relevant education subjects before they entered the regular classes in according to one of the special education teachers: "We try to teach the same material within the special education group before they enter their regular classes so that they may be better equipped to participate."

Good facilitation and academic compliance in teaching within regular classes and special education groups was dependent on close teacher collaboration. One of the teachers highlighted as follows: "It requires quite a lot of teacher collaboration. I am included in the planning in the regular classes, as well. We have team meetings together, even though it is challenging to participate in team meetings for all three grades!" The special education teachers noted certain teacher-specific characteristics that could help promote inclusion. These qualities focused on the teachers' involvement and special obligation with regard to the vision (i.e., inclusion). Successful inclusion depended on extraordinary engagement. One teacher emphasized clearly such an involvement:

Inclusion is inspiring. I could never only have a special education group in a small room by myself. I enjoy being in the ordinary school life. If you will succeed in including students, primarily, you have to be included yourself in the teacher collegium.

Awareness of Student-Specific Conditions

Inclusion depended not only on teachers' facilitation but on an awareness of students' individual needs. The teachers had a particular focus on the students' individual

needs: "Inclusion in regular classes depends on the students themselves. There are always the needs of the students, which govern the need for support."

One of the teachers emphasized that the opportunity for successful inclusion could be a matter of students' ability to be independent: "If the subjects are too theoretical, it is completely wrong. However, inclusion within practical subjects works if the students have a certain degree of independence."

Constraints of Achieving Successful Inclusion

In the current study, the constraints of achieving successful inclusion included three sub-themes: organizational constraints, inadequate facilitation, and lack of self-confidence.

Organizational Constraints

In addition to the challenges that appeared to be caused by human limitations, there were organizational constraints of achieving successful inclusion. In several cases, the special education teachers underlined the physical location of the room that housed special education groups was a limitation for social interaction with the other students: "We are slightly isolated on campus; thus, there is no close contact. There are not many meeting points with the others."

Likewise, an overall common organization of the timetables was frequently lacking and represented a real challenge to achieving inclusion according to one of the teachers: "We have our activities in the special education group, and we really want to work inclusively and based on themes, but it is difficult because of challenges in the timetables." Some special education teachers also lacked additional resources: "We have worked extensively to achieve better inclusion, but it is not easy, and there are no extra resources reserved."

Inadequate Facilitation

Constraints in achieving inclusion frequently also appeared to be related to inadequate facilitation and insufficient teacher engagement. First, this revolved around insufficient academic arrangements. One of the special education teachers emphasized the lack of adaptation:

I want a better facilitation of teaching to ensure that the students with special needs are academically included in the regular classes. They often are assigned two desks back, or maybe a desk at the front. They have a numerous bad experiences. It is difficult to be in the classroom when none of the others do turn to them.

A lack of facilitation was often related to the overall academic focus in teaching, with overly high academic expectations of students: "The limitations are about the academic ambitions of the mainstream school. You cannot lose anything. And the teachers' adjustment revolves around the curriculum, grades and exams. It is a completely different focus."

The special education teachers experienced an increasingly challenging dilemma regarding the growing academic gap and the need for individual facilitation: "It's hard to benefit academically in a regular class. At the lower secondary level, the academic gap starts to be quite large. They need individual adaptation, and it is difficult to achieve adequate support within the classroom."

The limitations of teacher cooperation between the special education teachers and the general teachers were also an obstacle to success: "We have teacher collaboration, but it is not so permanent. We have shared time on Mondays, and the other teachers have planning time where we can be invited or we can invite ourselves to attend. But there is an obstacle: they are not so focused on all other students." However, constraints in achieving successful inclusion might be due to a lack of ambition and insufficient engagement. Some of the special education teachers emphasized that inclusion in regular classes was suited only for the cleverest students. One teacher indicated that a lack of inclusion could be caused by insufficient involvement of the teachers: "Successful inclusion requires more organization. You need to have a fundamental inclusive understanding as a part of your job. The effort does not always get rewarded in cash."

Lack of Self-Confidence

Challenges in inclusion were due not only to a lack of facilitation but to specific limitations of the students. These constraints were related to psychosocial factors and academic difficulties. Students had low self-confidence due to previous bad experiences, which were a common problem:

In sixth and seventh grade, it becomes really visible that they do not master as much as the others. They are struggling with bad self-confidence. Thus, it is highly difficult to motivate the students to participate in their regular classes.

A lack of academic confidence was a cause for participating in regular classes, and inadequate academic benefit was also a real experience for several students:

They find it difficult to participate in mainstream teaching lessons. The teachers are talking too fast, writing too much on the blackboard, and using difficult words. They are anxious about being asked questions they are not able to answer. They are spending more time having stress about it than listening to what is being said.

The teachers described that their students with intellectual disabilities experienced being outside the community. A lack of involvement and interest among the regular students prevented the school from fostering successful inclusion: "They do not want be with their regular class. They have no relation to the others, and when they might participate only four times a week, they are regarded as weird, and they get a sense of being outsiders."

Discussion

In the discussion of the conditions for successful inclusion in a mainstream school context, key themes were found to be particularly relevant: inclusion as an overarching philosophy in school, necessary organizational arrangements to adapt to individual needs, academic/cultural and social facilitation depending on extraordinary engagement, as well as an understanding of students' own experiences as current indicators of success.

Teachers' descriptions of the constraints they faced in achieving inclusion will hopefully contribute to illustrating the necessary nuances and facilitating reflection in the discussion.

Inclusion as an Overall Philosophy

In the present study, the school's overall core values were emphasized as relevant conditions for successful inclusion. The anchoring of inclusion as a basic idea in the school appeared to be crucial. The school management's basic philosophy for education functioned as a management tool. Those ethical principles had also an impact on teachers' dedication and commitment to inclusion in terms of being an overall objective in their efforts. Inclusion as an overall fundamental perspective seemed to be a basic prerequisite for success. Inclusion of all students, according to the original definition, means that every student has an obvious place in the school and that the education is adapted to their individual learning abilities (Nilsen, 2008). In the school community, such a common vison is essential (Mitchell, 2008). However, school leadership has a particular responsibility with regard to explaining the fundamental philosophy for everyone involved. Simultaneously, they have a responsibility for ensuring implementation is successful. A positive school ethos associated with proactive leadership has also been demonstrated in previous research to be a significant factor in establishing inclusive learning environments (Shevlin, Winter, & Flynn, 2013).

However, successful inclusion also depends on teachers' own dedication and motivation (Michailakis & Reich, 2009). In the current study, the teachers' commitment and willingness to be included in the collegium of teachers was highlighted as a prerequisite to the successful inclusion of their students. In contrast, a lack of ambition and insufficient involvement among teachers were identified as particularly relevant barriers in this context.

A basic understanding of inclusion appears to demand commitment and efforts at all levels in the organization. Schools must able to respond positively to the diversity among students and assess the individual differences as opportunities to enrich the education for all those involved (Ainscow & Cècar, 2006).

Necessary Organizational Arrangements Adapting to Individual Needs

The successful inclusion of students with intellectual disabilities in a regular school requires organization, which may involve factors concerning location, time schedules and teacher resources. In this study, the special education teachers were particularly concerned about the physical location of the students with special needs in relation to the other students in the school. In two out of three cases, the special education classrooms were isolated from the other classrooms. Moreover, the students spent only part of their school time in regular classes. Creating class schedules that ensured shared time and fellowship among all students could be a challenge. Some teachers also emphasized that the school did not have sufficient teacher resources to facilitate successful inclusion.

A school that includes all students presupposes a community in which there is space for each individual (Tøssebro, 2004). The basis for the present study was the perspectives of teachers in charge of students with intellectual disabilities who belonged to smaller groups within mainstream schools. Students' time was divided between lessons in special education groups and lessons in regular classes. In some cases, the majority of instruction occurred in special education groups. If the purpose of inclusion is for all students to develop social interaction and to achieve an academic community, the

classroom locations and lesson distributions reported by teachers in this study may have been suboptimal. We know that proximity to peers is of essential significance for establishing social relationships and improving academic competence (Feldman et al, 2016; Koster et al., 2009). However, inclusion understood only as the physical localization of students in the same classroom has been shown to be inadequate with respect to the students' dividends (Ainscow & Cèsar, 2006; Ferguson, 2008; Wendelborg & Tøssebro, 2011). Some of the special education teachers in the present study stressed that belonging to a special education group was just a prerequisite for students' experience of wellbeing in a mainstream school setting. This viewpoint was based on the students' need for belonging in a smaller context with likeminded individuals.

In many cases, an inclusive school is understood as the placement of all students in regular classrooms for all classroom instruction time (Wendelborg & Tøssebro, 2011). In this sense, the organization of schools in the current study was not the optimal solution. According to Mitchell (2008), such a partial organization in mainstream school cannot be defined as full inclusion; rather, it is integration. Full inclusion assumes that all criteria are met. In a Norwegian context, the school system has recognized the need for establishing more so-called segregated solutions within school communities (Nilsen, 2010). A crucial discussion point has revolved around the relationship between adapted education within regular classes and the need for special education, often outside regular classrooms. Such practical organizational solutions challenge the objective of full inclusion in school. Nevertheless, physical distance, a lack of coordination of time schedules, and lack of teacher resources should not be obstacles to achieving successful inclusion. It is not guaranteed that presence in regular classrooms ensures students' inclusion (Nyborg, 2011). Nevertheless, in several cases, adapted special education outside the regular classrooms may be the optimal solution. The overall aim may be to attempt to achieve the best possible organizational, academic and social inclusion for each individual. To that end, access to the school community seems to be essential.

Academic/Cultural and Social Facilitation Depending on Extraordinary Engagement

Successful inclusion in school involves social, academic and cultural aspects of teaching. When the physical and organizational conditions have been met, the question is about the extent to which the school creates an environment to facilitate strong academic and social inclusion.

In the present study, this applied to lower secondary school students with mild intellectual disabilities. Strong facilitation revolved around the identification of suitable inclusion avenues, cooperation on common teaching topics in regular classes and special education groups, and adaptation with a focus on social interaction. Although teachers attempted to achieve the best possible academic inclusion of students with intellectual disabilities, social interaction with typically developing peers was the primary goal. However, successful inclusion was conditional upon strong teacher collaboration and commitment.

We know that lower secondary school is characterized by increased academic requirements, objectives and evaluations (Carter & Hughes, 2005). Students this age are in a challenging stage of development characterized by self-development and insecurity, and thereof less attention to peers and their needs (Brown & Clute, 2003). In this context, inclusion of all students may be particularly challenging. In the present study, the special education teachers underlined the academic discrepancy between the students as an

essential challenge. The challenges were associated with the overall academic focus in school, expressed through the other teachers' academic ambitions and the high expectations for students' academic performance. The teachers felt that they were not able to provide the students adequate support inside the classroom. To address these challenges, the special education teachers attempted to select appropriate lessons within regular instruction in which academic qualifications were less relevant. They also tried to follow up with the same teaching topics in the special education groups that were taught in regular classes. They hoped the students were thus able to be more prepared to take part in ordinary lessons. However, successful inclusion in regular classes was dependent on close teacher collaboration. Inclusive education has been demonstrated to be more successful in contexts with cultures of qualitatively good collaboration (Koster et al., 2009). Achieving well-functioning cooperation in practice could be challenging given the time-consuming nature of such collaboration, based on the engagement of each teacher. The teachers stressed the necessity of cooperation but emphasized that possible limitations could be due to lack of dedication or time.

Inclusion in a regular class also seemed to be guided by the education focus among the general teachers and the typically developing students. The special education teachers had to ensure the adaptation of the students into the community within the regular classes. They attempted to facilitate inclusion via engaging in collaborative meetings, preparing for lessons in advance and prioritizing additional support to the students in the classroom. The special education teachers' efforts to make this happen thus seemed to be dependent on an extraordinary commitment.

The academic and cultural dimension of inclusion is related to the school's success in creating fellowship and simultaneously ensuring the adaptation of the training content (Nilsen, 2008). In the present study, the responsibility for inclusion appeared to be slightly fragmented: The special education teachers had been assigned responsibility for "their" students, and their efforts were intended to ensure the best possible inclusion for these students. Thus, the responsibility seemed to be restricted in view of the other general education teachers. The question is whether a lack of commitment to the idea of inclusion was due to negative experiences of being the sole bearer of the responsibility. In the case of a school with an overall inclusive philosophy, inclusion was implemented into the school practice only to a small extent.

According to Mitchell (2008), successful inclusion depends on structural changes in education. In addition to physical arrangements and adequate teacher support, he refers to the need to adapt curricula, teaching methods and assessment techniques. In the present study, the special education teachers provided limited information on the need for such adjustments. Their statements primarily concerned their efforts to adapt learning in regular classes by making preparations for small groups in advance. Thus, both the academic and the social inclusion of students with intellectual disabilities mainly seemed to be conducted on typical developing students' terms. However, such an education practice is common at higher levels in school, even when students with intellectual disabilities are involved (Carter et al., 2008).

Student's Experiences of Being Included – Current Success Indicators

Social inclusion involves students' experience of belonging, cohesion and fellowship in school (Nilsen, 2008). The essential criteria to assess the success of inclusion are also dependent on students' own evaluation of their experience of being included.

In the current study, the students' perspective was examined through special education teachers' point of view. The study is limited as such. Nevertheless, the teachers helped illuminate students' situation in an inclusion context. A lack of self-esteem due to negative prior experiences was a common problem. Several students preferred not to participate in their regular classes; they experienced being outside the community, and the academic dividends were inadequate. However, the special education teachers stressed that successful inclusion was dependent upon sensitivity for the students' individual needs. In this study, the special education teachers demonstrated that successful inclusion depended on their own dedication and effort to make it happen.

According to Ainscow et al. (2006), the goal of inclusive education is to give all students an experience of community and belonging and the right to learn the same curriculum as their peers. However, in accordance with Farell (2000), the question is whether inclusion really is a human right in significance of being an education for all. With such an overarching objective of inclusion, there may be a risk that individuals' needs are overlooked; thus, inclusive education is not very successful.

Methodological Limitations

The present study was limited by the sample size. However, the sample included nine in-depth, richly descriptive interviews in which the participants highlighted the contemporary problems in this field. It is important to emphasize that these findings are described based on the perspective of special education teachers employed within special education groups. To varying extents, their students were involved in inclusive classes. Therefore, the present study may provide only a limited focus and an outside perspective on inclusive education. The special education teachers illustrated the intentions to include all students in a mainstream school context and described what may be considered success for students with intellectual disabilities in lower secondary school.

A natural question may be whether the findings of the current study would have differed if a different sample had been used. It is possible that special education teachers who spent all their time in regular classrooms would have given different responses regarding the extent to which the school succeeded in the full inclusion of all individuals. Likewise, other views of inclusion issues—such as those of school management, general education teachers, and students—could have been useful.

Nevertheless, the current study presented rich descriptions of how the special education teachers interviewed perceived the opportunities for achieving the successful inclusion of adolescent students with mild intellectual disabilities within a mainstream school context. Further research is needed. These findings provide examples of key issues that may form the basis for new questions within research studies in this area.

Conclusion

In many ways, adolescent students with intellectual disabilities in lower secondary school appear to be an appropriate target group for discussing the current issue. With age, the requirements for academic competence and an adequate level of development become increasingly greater. For students with intellectual disabilities in lower secondary school,

the distance from their peers increases, and the academic and the developmental gap increases correspondingly. In view of an inclusion perspective, the growing gap between students appears to require a greater level of integrity in terms of the school's value-based foundation. Including a student group that differs both academically and socially from the majority may thus challenge the success criteria for inclusion in a particular way.

This study referred to essential conditions that must be in place to make inclusion successful. In essence, the study indicated the need for an overarching inclusion philosophy at school and adequate organizational, social, and academic facilitation as essential conditions. Finally, the students' own perception of inclusion was highlighted to be of significant importance. Thus, the conditions for successful inclusion appear to be interrelated. Fundamental core values associated with inclusion in a school organization are likely not to be adequate unless the objective is followed up with by school management in terms of appropriate organizational solutions, the support and guidance of the school staff, and the facilitation of academic instruction and social interaction. Students' own experiences and what they consider to be the best arrangement for them ultimately indicate the extent to which the inclusion has been successful.

The special education teachers attempted to facilitate the inclusion of students with intellectual disabilities into regular classes, although the operation involved numerous challenges. In these cases, it appeared that the school lacked sufficient follow-up on several levels. This study highlighted the increasing academic and social differences between students in lower secondary school and noted the current challenges of the ultimate goal of full inclusion. Inclusion required extraordinary engagement among the special education teachers and appeared to be only their responsibility; they did not experience sufficient involvement from the other general teachers.

This study also stressed the importance of seriously considering students' perceptions. However, the primary issue is whether the full inclusion of lower secondary school students with intellectual disabilities in a mainstream school context necessarily requires that the students constantly be taught alongside their typically developed peers. Successful inclusion is dependent on overriding values in school, in school management and in the practical implementation at all levels in general. However, successful inclusion assumes that organizational, social and academic/cultural conditions are present. Unless the school's teaching aims capture students' individual needs and views, the inclusion has failed.

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School Supervisors in South Korea's Special Education Support Centers: Legal Duties and Preparation for Their Supervisory Responsibilities

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Abstract

In 2001, the government of the Republic of Korea (South Korea) first established Special Education Support Centers (SESCs) to provide appropriate services to students identified as having disabilities based on Korean special education law. School supervisors in the local offices of education across the nation oversee the SESCs. Despite the important role of school supervisors in special education, challenges related to the management of the SESCs have been reported, including the supervisors in the local offices having to play too many roles and lacking professionalism. In this paper, we examine the legal duties of school supervisors overseeing the SESCs and provide recommendations for their preparation for those duties.

Keywords: *disabilities, school supervisors, special education support centers, South Korea, special education policy.*

Introduction

Special Education Support Centers (SESCs) in the Republic of Korea (South Korea) were first launched in 2001 based on the *Special Education Promotion Act* (SEPA, 1994). Specifically, SEPA (1994) mandated that central and local governments carry out tasks such as improving and supporting service delivery systems to promote special education (Article 3, Clause 1). Clause 1, in turn, influenced the establishment of SESCs (Ministry of Education and Human Resources Development [MEHRD], 2001). Further, in 2004, administrative guidelines were put

into place to ensure that the operation of the SESCs fell under the responsibility of special education school supervisors at local offices of education (MEHRD, 2004).

Students with disabilities received special education-related services at the SESCs; however, such services suffered from limitations stemming from a lack of legal foundations for the establishment of SESCs and placement of professionals at these centers (Ministry of Education, Science and Technology [MEST], 2008). With the help *of Special Education Act for Individuals With Disabilities and Others* (SEAIDO, 2008), all SESCs (182) were established as part of the 182 local offices of education in 2009 (MEST, 2009). This number increased to 199 in 2016 (Ministry of Education [MOE], 2016a).

Similarly, the number of special education teachers and school supervisors has increased throughout the decade. For example, the number of special education teachers increased from 257 in 2009 to 362 in 2016, demonstrating somewhat fluctuating trends. Namely, 362 full-time special education teachers working under the SESCs provided special education-related services to 87,950 students with disabilities across nation (MOE, 2016a). By comparison, the number of school supervisors increased slightly from 182 in 2004 to 203 in 2016. Thus, in 2016, 203 school supervisors in 17 municipal and provincial offices of education across the nation were responsible for overseeing SESCs. Among these 203 school supervisors, only 31.03% ($N = 63$) held special education certification (MOE, 2016b). Further, of the 203 school supervisors, only 19.21% ($N = 39$) worked exclusively within special education. The remainder (80.79%, $N = 164$) were responsible for other tasks in the local offices of education in addition to special education. Figure 1 shows detailed information regarding the number of full-time special education teachers and school supervisors in SESCs across the country.
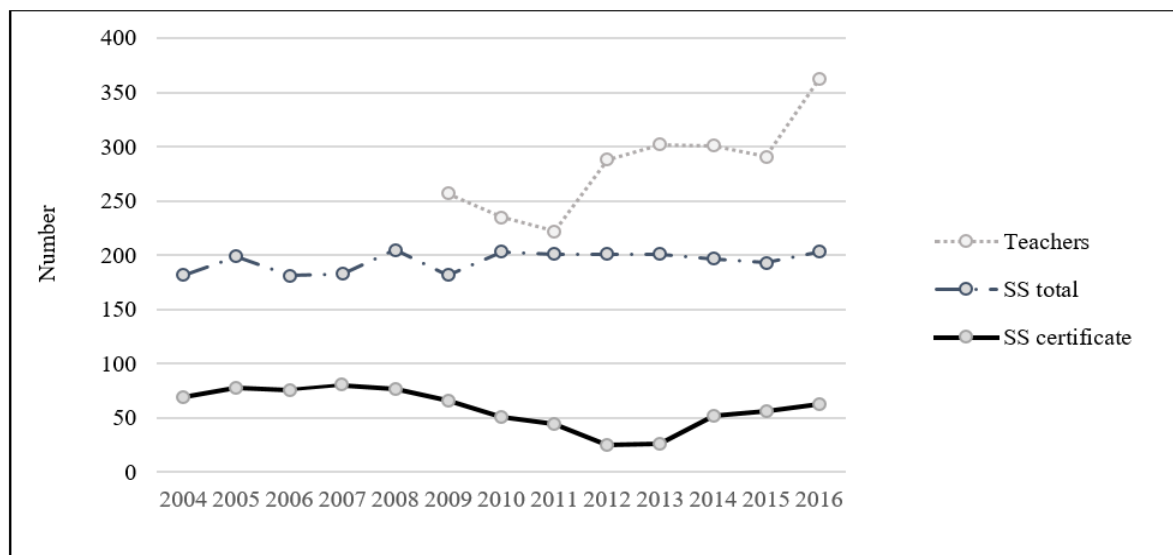
Figure 1. Change of the number of full-time special education teachers (SPED teachers) and school supervisors (SS) in SESCs from 2004 to 2016. Data from the Ministry of Education, Science, and Technology (2011) and Ministry of Education (2016).

To date, limited research has been conducted into school supervisors' qualifications for their work of overseeing SESCs. Furthermore, despite the need for administrative guidelines for school supervisors in the local offices of education, few

studies have investigated school supervisors' duties in the SESCs (e.g., Choi, 2010; Lee, Lee, Cho Blair, & Kim, 2006; Woo, 2013). In particular, there is an apparent lack of research targeting special education supervision of school supervisors (MEHRD, 2004). Among the existing studies, Woo (2013) found that heavy workloads and additional roles of school supervisors could prevent students with disabilities from receiving proper special education services. Thus, it is necessary to understand school supervisors' duties in SESCs and how they are prepared for their duties in order to ensure that students with disabilities receive appropriate services for students.

To fill this void in the research literature, we reviewed laws and regulations regarding school supervisors, the roles of SESCs, and special education supervisions. First, we examined the roles of SESCs under SEAIDO (2008). Second, we reviewed the mandated qualification tests and trainings for school supervisors. Third, we examined issues related to special education supervision. Fourth, we reviewed school supervisors' duties, including overseeing SESCs. Finally, based on our findings, we suggested policy recommendations for the field of special education.

The Roles of Special Education Support Centers (SESCs)

The first step toward understanding the legal duties and preparation for school supervisors' supervisory responsibilities is to understand what SESCs are and how supervisor candidates become supervisors in these centers. As a result of the enactment of SEAIDO (2008), SESCs were mandated and established under the control of subordinate offices of education (local offices of education) for the purpose of (a) administering assessments and evaluations for eligibility for special education services; (b) early identification and interventions for at-risk students; (c) special education inservice trainings; (d) information management; (e) instructional and educational supports; and (f) itinerant services and related services in special education (Article 11).

According to the mandates of SEAIDO (2008), superintendents of municipal or provincial offices of education should appoint special education professionals to take responsibilities exclusively for operating SESCs efficiently (Article 7, Clause 2). However, while the need to assign professionals at SESCs is emphasized, this goal has not been fulfilled. Thus, the school supervisors in only 8 out of the 17 municipal and provincial offices of education majored in general education as the director of SESCs. In the report of a pilot study for *The 5th Five-Year Development Plan for Persons With Disabilities in 2018-2022*, Jeong et al. (2016) suggested that senior school supervisors majoring in special education be appointed at municipal or provincial offices of education to overseeing SESCs. Furthermore, the authors recommended that professional development opportunities be expanded for professionals at SESCs. Finally, the revision of SEAIDO in 2013 also mandated that teachers receive inservice trainings to improve the quality of instruction (Article 8).

Legal Qualification Tests and Trainings for School Supervisor

The Public Education Officials Act (2008) included two criteria that a teacher must meet in order to become a school supervisor working under a district office of education: (a) graduation from a university, college of education, national university of education, with at least five years of teaching experience or five years of a research or administrative education career, including two years of education research

experience; or (b) at least nine years' teaching experience or nine years of a research or administrative education career, including two years' teaching experience (Article 9).

Nevertheless, Jeon, Joo, and Jung (2010) insisted that there is a gap between these legal standards and current realities with regard to appointments of school supervisors, which is 10-18 years of teaching experience across local offices of education. The Chungcheongnamdo Office of Education (2013) requires that in order to be a school supervisor in charge of special education a teacher must have a minimum of 20 years' teaching experience and been recommended by the superintendent from a local office of education as well as a school principal for whom the candidate works. By comparison, the Seoul Municipal Office of Education (2012) requires a minimum of 12 years of special education teaching experience and a recommendation by a superintendent and school principal and taking a paper test in order to be a school supervisor in charge of special education.

When teachers are eligible to apply for a school supervisor position, they must submit a record of their teaching experiences, including teacher evaluation results, research performance, and awards, and then take a paper test covering education in general, their subject area, as well as education plans (Lee, 2012). According to the Chungcheongnamdo Office of Education (2013), the paper test covers supervision research, administration practices, and education plans. The Chungcheongbukdo office of education (2013) included education plan evaluation as well as essay test of current educational policy for the paper test.

Once candidates pass a personal interview as the final stage of the application process, they receive four weeks of professional development training at the National Training Institute of Education, Science and Technology (Lee, 2012). However, according to Lee, there is no specific legal basis for the duration of training and time per each session for school supervisors before they start working their work responsibility. Further, according to Lee's study, which included the training contents for future school supervisors, special education contents were excluded. As a result, school supervisors who oversee special education have limited special education backgrounds (Choi, 2010; Woo, 2013).

Issues Related to Special Education Supervision

Despite the expansion of SESCs under local offices of education, the findings of previous studies of the current state and practices of SESCs have uncovered several issues, including a lack of professionals among SESCs' personnel (Choi, Shin, & Cho, 2017; Lee & Kwon, 2006). Specifically, school supervisors' limited background in special education influences SESC management (Woo, 2013). As the 2016 annual special education statistics showed, a limited number of school supervisors (31.03%) held special education certification (MOE, 2016b). This lack of special education background among school supervisors may have a negative effect the quality of the management of SESCs. According to Choi (2010), who interviewed 10 staff members at 8 SESCs and 10 special education teachers who had previously worked at SESCs, school supervisors have difficulty successfully administering special education programs when they have no background in special education. Additionally, they reported difficulties in communicating with school supervisors, highlighted lack of autonomy within SESC to make decisions regarding official documents for SESC administration, and noted that their suggestions were not reflected in SESC administration practices.

In addition, previous studies have found that (a) SESCs cannot adequately fulfill their mission (Jang, 2008; Jung, Han, & Kim, 2004; Lee, 2002; Yoon, 2001); and (b) current teachers reported low utilization of SESCs as well as low satisfaction after use of SESC services and supports (Kwon, Shin, & Shin, 2008). Further, Lee et al. (2006) summarized findings by Lee, Kim, Lee, and Cho Blair (2005) related to the management status and the needs of SESCs. Of the 182 school supervisors surveyed, 144 responded. In addition, 126 teachers at SESCs also responded to the survey questions. The results showed that lack of specialized staff and overworked school supervisors were the reasons for the inadequacies of SESCs. As a result of these findings, the authors recommended that future school supervisors who will oversee SESCs should have many years of special education teaching experience, and that current school supervisors should receive inservice training to acquire the knowledge and skills necessary for effectively administrating SESCs.

No specific legislative regulations regarding supervisors' responsibilities and their preparedness for working at SESCs are stated in current law. That is, neither *the Public Education Officials Act* (2008) nor SEAIDO (2008) requires that school supervisors in charge of SESCs receive professional development or inservice training to manage SESCs. This means that any school supervisor would be able to oversee SESCs because public office appointment management stipulates that every school supervisor must be transferred to other duties every year to prevent depression resulting from long-term service in the same role. Shin (2009) asserted that without assigning professional special education school supervisors to local offices of education and support, proper implementation and development of special education services is not possible. Further, he pointed to a need to enact special legislation by the Ministry of Education for appointing professional special education school supervisors rather than school supervisors in general. Finally, Jung and Lee (2004) suggested that "future policy tasks to allow school inspectors in charge of special education supervision to meet special class teachers' expectation in special education supervision" (p. 104).

School Supervisors' Duties, Including Overseeing SESCs

In Gyeongsangbukdo, in southeastern South Korea, school supervisors generally assume three main duties: (a) they work as education administrators by administrating school affairs, school life counseling, curriculum, lifelong education, and special education management; (b) they oversee supervision work by aligning with schools at the local level; and (c) they serve as mediators between staff in local offices of education and teachers in local schools by supporting and motivating them to collaborate (Kang, 2003).

However, school supervisors who manage SESCs undertake other duties as well. Woo (2013) argued that heavy workloads and additional duties typical of school supervisors prevent students with disabilities from receiving appropriate special education services. Specifically, the Ministry of Education (2016b) reported that only 39 supervisors took exclusive responsibility for special education service delivery, while 164 supervisors managed both general and special education programs. For example, a school supervisor in charge of SESC among 14 school supervisors in the Gyeongju Office of Education (n.d.) additionally performs other tasks such as special education supervision, teacher appointments, salary upgrades, teacher management, re-appointment of teachers, inservice training for teachers, awards for teachers,

incentives for teachers, senior teacher systems, teacher association groups, evaluation systems for secondary school teachers, school evaluation, and research schools.

Another school supervisor managing SESC among five school supervisors in the Bonghwa Office of Education (n. d.) performs other duties such as advising physical education, after-school programs, private education, educational information systems, gifted education, reading and discussion education, and special education (including SESC administration).

In addition to heavy workloads, school supervisors in charge of SESCs must be transferred to other positions every year due to *the Public Office Appointment Management Regulations* (2012). Woo (2013) insisted that newly appointed school supervisors are usually put in charge of special education, claiming that over a 10-year period, 12 school supervisors revealed the need for professional special education school supervisors who are only responsible for special education rather than taking both general and special education.

In addition to overseeing SESC staff, school supervisors are also responsible for managing students with disabilities and special education teachers, which is one of the barriers to effective special education supervision (Jung et al., 2004). During the 2003 school year, each school supervisor ($N = 180$) in charge of supervising special education was responsible for managing an average of 172 students in special schools, 6.5 students in special classes, 1.5 students in inclusion classes in South Korea (Jung et al., 2004). Based on the 2013 special education annual report (MOE, 2013a), school supervisors ($N = 201$) oversee an average of 125 students in special schools, 225 students in special classes, and 80 students in inclusion classes. In addition, each supervisor oversees an average of 37 special education teachers in special schools and 48 special education teachers of special classes in general education schools (MOE, 2013a).

Even though some of the research to date has focused on school supervisors many duties in addition to overseeing SESCs, few studies have examined the school supervisor role. Jung and Lee (2004) from the Korea Institute for Special Education compared teachers' expectation of supervisors overseeing special education supervision with supervisors' perception of their performance. They classified special education supervision of school supervisors into the following areas: management, instruction, administration, and curriculum. A total of 166 school supervisors managing special education from 180 schools and 308 teachers participated in the survey.

The results indicated that teachers' expectation was higher than school supervisors' role performance, suggesting stricter criteria for hiring school supervisors managing special education supervision, assigning special education supervision exclusively for school supervisors, and reducing the number of roles of school supervisors.

Policy Recommendations and Concluding Remarks

Based on the findings of the current study, three main policy recommendations are suggested. First, school supervisors at local offices of education should hold special education teacher certification and have experience teaching students with disabilities. Although the government mandates that students majoring in general education take one course related to special education to be prepared for teaching inclusive classrooms and has strengthened the standards for teacher credential qualifications (MEHRD, 2007), these regulations are not enough. In South Korea, the

teacher training courses at university programs for general education and special education are restricted to each track. That is, general education curricula do not include courses about instructional accommodations and interventions for students with diverse disabilities (Ahn, Park, Kim, & Choi, 2014); thus, without taking special education classes and having teaching experiences in the field of special education, it is challenging to fully understand and even manage all the administrative aspects of special education.

Second, school supervisors at the local offices of education who have not majored in special education should receive intensive and ongoing inservice training. Previous research has shown that teacher training was effective at enhancing special education job-related tasks (e.g., Cho, 2007; Lee, Kang, & Jeong, 2014); however, there was a profound lack of training among administrative personnel such as school supervisors (Park, Lee, Lee, Lee, & Kang, 2015). Moreover, although the revised mandates of SEAIDO (2013) stated that both general and special education teachers must receive training in both special and general education curriculum (Article 8), there are no regulations about the training of school supervisors. There is a growing need in the field of special education for legislative efforts to advance the quality of special education by enhancing the professionalism of special education teachers since the stipulation of *The 4th Five-Year Development Plan for Persons With Disabilities in 2013-2017* (MOE, 2013b). It is important to expand the notion of professionalism to include the administrative system so as to emphasize and enhance special education supervisors' professionalism (Jeong et al., 2016).

Third, school supervisor overseeing SESCs should mainly be responsible for special education. The heavy workloads of special education supervisors and their status under the local offices of education have been noted for several years (Park et al., 2016), yet there are no clear legislative movements or efforts to specify special education school supervisors' duties and tasks. The roles and duties of special education school supervisors should be specialized, leading to enhanced operation of SESCs. More important, the status of special education supervisors and SESCs at the local offices of education should be improved, and both should be entitled to an independent status (Choi, 2010).

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Cultural and Linguistic Diversity in Special Education in the United States and South Korea: Exploring Current Practices and Recommendations

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Abstract

In the spirit of moving toward a more "global community", multicultural special education practices designed to reach culturally and linguistically diverse (CLD) students represent an imperative in countries world-wide where education is a core value, including the United States (U.S.) and South Korea. As CLD students in the U.S. and South Korea attend public schools at increasing rates, exploring current education practice and policies is warranted. The authors conducted a comprehensive review of the literature as well as an exploration of educational policies and laws across both countries. As a result, the authors identified: the latest student demographic trends and issues, and current policies and practices addressing the education of CLD students with and without disabilities in both countries. Implications and recommendations for special education teacher educators will be provided.

Keywords: *culturally and linguistically diverse students, multicultural education, special education, preservice teachers, South Korea, United States.*

Introduction

Globalization has impacted educational practices in special education worldwide including, but not limited to, the United States (U.S.) and South Korea. The populations from diverse cultural and linguistic backgrounds have been increasing in both the countries. As culture and language play an important role in student learning and educational needs, it becomes crucial to provide training for future teac-hers to be responsive to the cultural and linguistic backgrounds of all of their students.

A closer look at the demographic profiles of public school students in the U.S. and South Korea reveal that there have been changes over time. First, according to the U.S. Department of Education (USDOE) and the National Institute of Child Health and Human Development (NICHD), 20% of individuals above the age of five speak a language other than English at home in the U.S. and it is estimated that by the year 2030 nearly 40% of the K-12 school population will speak English as a second language (USDOE & NICHD, 2003). Further, projections from the National Center for Education Statistics suggest a steady increase in the number of students who are Hispanic, Asian, Pacific Islander, and from two or more races, and a decrease for White and American Indian/Alaska Native student populations (Hussar & Bailey, 2016). As a result, public school educators will be responsible for teaching an increasingly culturally and linguistically diverse student population.

According to the Ministry of Education in South Korea (2012, 2014), the number of CLD students enrolled in primary school through high school rose from 9,389 to 55,780 from 2006 to 2013. This represents over a remarkable 600% increase in growth over only seven years. At the same time, this trend is occurring while the total number of children attending public schools has been slowly decreasing over the past five years (Ministry of Education, 2014). The ratio of CLD students attending the public schools, in proportion to their non-CLD Korean peers does remain small, but is increasing. In 2009, 0.35% of the students were reported as belonging to a CLD community, increasing to 0.85% in 2013 (Ministry of Education, 2014). As the proportion of CLD students attending schools in South Korea has been increasing, more attention has been placed on multicultural education (MCE) and the need to support teachers in training (Um & Won, 2012).

Meeting the needs of these diverse students across both countries has, therefore, become a "demographic imperative" (Banks, 1995). That is to say, in order to ensure appropriate and meaningful educational practice, attention to the changes in demographics and other student characteristics is necessary. In the U.S., the multicultural education (MCE) movement evolved to examine and advance the curricula and teaching practice to ensure that the needs of all students would be met in the public schools. A fundamental belief of this movement has been to advocate for social justice and equity for all students, including those who are receiving special education services (Banks, 2008; Smith, 2009). The U.S. has a comparatively longer history with MCE and culturally responsive teacher preparation than South Korea. However, MCE has been gaining considerable traction in the country, as suggested by the recent allocation of funds to support culturally responsive practices from the Ministry of Education (2009). In this manner, examining current education practices and research on MCE and culturally responsive practices in both countries is important.

With this background established, the goals of this paper are to: (1) identify the latest CLD student demographic trends and issues in both countries, (2) explore

current policies and practices that address educating CLD students with or without disabilities, and (3) provide implications and recommendations for special education teacher educators, as they are charged with training their teacher candidates to serve students in either country. To accomplish these objectives, factors operating in the U.S. and South Korea will be explored separately, followed by a summary of the findings and recommendations.

Trends and Issues Within Special Education Impacting CLD Learners

In the U.S., the latest reports on student demographics and special education status suggest that many CLD students continue to be over-represented in certain special education programs, compared to their White peers. While in South Korea, the country has a long-standing history of being culturally and linguistically homogenous; therefore, it is not surprising that limited research would be available to suggest any correlation between a student's special education status and his or her cultural or linguistic background. Nonetheless, culturally and linguistically diversity, as well as other forms of student diversity (i.e., socioeconomic status, religion), present unique educational needs and considerations for teachers and teacher educators in both countries. The next subsections will explore these topics in greater depth.

Demographic Trends and Issues Impacting CLD Learners in the U.S

According to the U.S. Department of Education's Office of Special Education Programs in 2014-15, 13% of the eligible public school-aged population between the ages of 3 and 21 years received special education services (USDOE, 2016). This percentage includes: 13% White students, 15% African-American, 12% Hispanic, 7% Asian, 12% Pacific Islander, 17% American Indian/Alaskan Native, and 13% Two or more races (USDOE, 2016). African-American and American Indian/Alaskan Native students were statistically more like to qualify for special education services than the other racial/ethnic groups. As noted by Artiles, Kozleski, Trent, Osher, and Ortiz (2010), this data underscores the over-representation of CLD students in special education classes. Over a seven-year period, between 2007 and 2015, the percentage of representation within special education services increased for all racial/ethnic groups of students.

Over-representation of CLD students in the U.S. special education system is accompanied by findings that suggest that many of these students do not reach their academic goals despite the required federal and state accommodations and modifications (Artiles et al., 2010; Ford, 2012; Harry & Klingner, 2006). Research over time indicates that the special education system has not always provided appropriate remedial services for its students, noted by a persistent failure to narrow the gap of high school dropout rates (Artiles et al., 2010; Patton, 1998), poor post-secondary outcomes (Artiles et al., 2010; Patton, 1998), and social stigma associated with the label of a disability (Harry & Klingner, 2007; Shifrer, 2013) that too often separates students with a disability from students without a disability.

Furthermore, the eligibility criteria for intellectual disabilities (ID), emotional disturbance (ED), and learning disability (LD) rely on the clinical decision-making of a school-based multidisciplinary team, and criteria that varies not only from across states but across school districts. Researchers argue convincingly that both the referral

processes for disability testing and the criteria used for diagnosing disabilities are associated with a number of confounding issues such as testing bias (Klingner, Artiles, & Barletta, 2006; Skiba et al., 2008) and deficit-oriented models of classification (Artiles et al., 2010; Harry & Klingner, 2007; O'Connor & Fernández, 2006) that have resulted in a higher likelihood of diagnosing a student from a CLD background with a disability. Researchers who have examined such issues (e.g., Losen & Orfield, 2002; O'Connor & Fernández, 2006) have focused on these school-determined special education categories of ID, ED, and LD because it is in these areas that databases have revealed the greatest disproportions of CLD students in special education (Donovan & Cross, 2002). For example, African American youth disproportionally received special education services in the areas of LD, ED, and ID and this has remained constant even after more than 40 years that this discrepancy was recognized, beginning with the research of Deno (1970) and Mercer (1973) and continuing today (Ford, 2012; Skiba et al., 2008).

Donovan and Cross (2002) calculated a risk ratio for racial/ethnic group to qualify for each special education disability category, using data from the U.S. Office of Civil Rights (OCR). Their study revealed that African American and American Indian/Alaskan Natives were at the highest risk identification of ID when compared to their peers, while Hispanics and Asian/Pacific Islanders were at least risk. Using the same OCR survey, they showed that the odds were greatest for American Indian/Alaskan Natives, African Americans, and Hispanics for LD determination while Asian/Pacific Islanders were underrepresented. Donovan and Cross also found that African American students were at the highest risk for being identified as having a LD, while Hispanic and Asian/Pacific Islander students experienced the lowest rates.

While the discussion of disproportional representation within special education in the U.S. has been extensive, it is compelling to see whether or how the discussion has relevance in another country such as South Korea, as the country continues to experience a shift in the cultural and ethnic composition of its public-school student population.

Demographic Trends and Issues Impacting CLD Learners in South Korea

South Korea has a long-standing history of being a culturally and linguistically homogeneous country. Historically speaking, South Koreans have tended to view themselves as belonging to a connected, cohesive, and national community that shares a common identity and takes pride in its ethnic homogeneity (Lee & Shon, 2011). Researchers have found that this belief has been reflected in the public schools' curricula, reinforcing the strength of homogeneity over the recognition of multiculturalism (Lee & Shon, 2011). It has also been suggested that the notion of a South Korean national identity has a history of excluding those who are not culturally or ethnically Korean (Choi, 2010). For example, the notion of *danil minjok*, or one-blood ethnicity remains a widely-held belief among many Koreans, suggesting that genetic and cultural homogeneity should be a source of pride. It is therefore unclear how non-native born Korean individuals fit in under *danil minjok*, leaving such students in the schools at risk for marginalization (Watson, Park, & Lee, 2011).

South Korea has a different history compared to the U.S. in its relationship with CLD learners in its public schools. It was not until the early 1900's when South Korea experienced a more culturally diversity country with the immigration of foreign-born workers. Migrant workers sought economic opportunity, increasingly

taking jobs previously held by native-born Koreans (Choi et al. 2009) and roughly 350,000 migrant foreign workers chose to stay longer than their visas permitted, making the country their new permanent residence (Park & Watson, 2011).

A closer analysis of the immigration patterns over the past twenty years reveals that the majority of these immigrants are arriving from other Asian countries. According to 2011 data from the Ministry of Security and Public Administration, approximately 80% of the immigrants to South Korea came from within the continent. Specifically, 55.1% (696,861 out of 1,265,000) immigrated from China (including Chinese people of Korean descent), 22% from Southeastern Asian countries, and 4% from Southern Asia (MPAS, 2011). Over this same time period, between the 1990's to the present day, there has also been a spike in the number of rural Korean males who marry non-native females, marking an increase in the number of multicultural families within the country (Choi et al., 2009). Eight percent of native Korean men have married non-native women, resulting in a total of 1,265,006 multicultural families with 151,154 school-aged children (MHW, 2009; MEST, 2011). The number of school-aged children from multicultural families is projected to increase and continue to change the demographic profile of the South Korean K-12 student population. Along with this wave of immigration and new marriage patterns arrive school-aged children, each with his/her own unique educational needs and considerations – something that the U.S. and South Korea have in common.

According to a survey issued by the Korean Ministry of Health and Welfare, 17.3% of multicultural families had at least one child with a disability enrolled in South Korean public schools compared to 5.61% of Korean-born families (MHW, 2009). Similarly, through his survey data, Kang (2010) found that CLD students were: (a) more likely to be identified as having a LD, and (b) more likely to experience *wangatta*, or group exclusion as a form of social punishment. Kang's data also revealed that social struggles characterized by *wangatta*, were linked to a higher dropout rate for CLD students compared to their native-born peers similar to the social stigma associated from receiving a disability label in the U.S. (Harry & Klingner, 2007; Shifrer, 2013). Nonetheless, at this time there still remain little data revealing the relationship between special education status and membership to a CLD community in South Korea; however, the existing literature suggests that this could emerge soon.

Current Policies and Practices Addressing Educating CLD Students

In this section, current policies and education practices related to CLD students with or without disabilities in the U.S and South Korea will be examined. Also, recent research exploring MCE and its impact CLD students and MCE in both countries will be introduced.

Current Policies and Practices in the U.S. Supporting CLD students

Beginning with the reauthorization of Individuals with Disabilities Education Act (IDEA) in 1997, all fifty states have been required to monitor representation by race/ethnicity in disability categories in order to receive funding for special education services (IDEA, 1997; Skiba et al., 2008). Further, the U.S. Office for Civil Rights (OCR) requires that state and local education agencies monitor the representation of CLD students in special education every two years. If disproportionality by students'

race/ethnicity is found, OCR requires that local education agencies put into place specific steps to reduce it. When this occurs, OCR first alerts the district that they have disproportionate representation(s) in the disability category. Then, the Office works with districts to create an action plan that outlines approaches that must be taken, along with a timeline to report back to the Office on how they eliminated the over- or under-representation (Elementary and Middle School Technical Assistance Center, n.d.). In this manner, U.S. public schools must now carefully consider disproportionality in order to comply with the law and receive funding.

Multicultural Education and Culturally Responsive Teaching

Concerns of disproportionality in the U.S. illuminate a problem that could emerge in South Korea. Data from the U.S. underscore the importance of ensuring that teachers implement culturally responsive instructional practices that afford all students optimal opportunities to learn before referring them for special education services. While many students may not enter school with the skills expected for their age and grade, teachers must use all methods available to determine if a student's performance is due to a lack of social, cultural, or educational opportunities that can be advanced with good instruction or if a student has a biologically-based disability that impacts learning at the expected rate in spite of adequate quality and quantity of instruction (Ortiz & Yates, 2002). Given this expectation, it becomes crucial to prepare preservice teachers (PSTs) by using MCE and culturally responsive teaching practices at the onset of their academic programs.

Multicultural education courses and culturally responsive teaching (CRT) are two movements that support teacher-training programs in the U.S. Multicultural education is an idea, an educational reform, and a process to create educational equity for all students (Smith, 2009), influenced by a constructivist orientation of learning that uses the students' socio-cultural backgrounds (Berger & Luckmann, 1967; Vygotsky, 1978). Many MCE courses offers ways for teachers to develop culturally responsive practices that feature the students' cultural and linguistic backgrounds in the teaching and learning. To help conceptualize CRT, Villegas and Lucas (2002) offer six intersecting characteristics of culturally responsive teachers' classrooms. They are: (a) developing a socio-cultural consciousness, (b) developing an affirming attitude towards students from CLD backgrounds, (c) committing to act as an agent of change, (d) possessing constructivist views of learning, (e) continuing to learn about students, and (f) applying specific culturally responsive teaching strategies. These approaches build upon the students' familiar knowledge bases to attach new meanings (Bergeron, 2008; Gay & Kirkland, 2003). If realized, MCE can empower the PSTs with a toolkit of mental models, mindsets, and methods to actively support and promote the learning of all of their students, leading to more confidence in their own professional efficacy (Gay & Kirkland, 2003). It has also been found that when students' cultures are included in the classroom, positive academic outcomes follow (Ware, 2006).

Yet, implementing multicultural curricula in the U.S. is not simple. Its implementation is also made more complex as PSTs consistently do not represent the range of the cultural, ethnic, and racial diversity of their students. Instead, the PST population mirrors the backgrounds of current teachers, remaining predominantly White, middle-class, monolingual, and female (Boutte, 2012; Bales & Saffold, 2011). Thus, it is important to promote practice in field experiences that take place in racially and ethnically diverse settings. Furthermore, the PSTs' practicum needs to be coupled with a culturally competent mentor teacher or supervisor to promote effective

teaching across diversity in their field experience. Various studies found that a mentor teacher, supervisor, and/or university supervisor can support PSTs in promoting culturally responsive teaching (e.g., Achinstein & Athanases, 2005; Zozakiewicz, 2010). The mentor should be appropriately trained and supported to ensure effective supervision. With these combined efforts, teacher preparation programs can help better prepare future teachers to reach the diverse needs and backgrounds of all of their students.

Preservice Teacher Education in the U.S.

In addition to federal mandates regarding the issue of disproportionality among racial/ethnic groups in special education programs, many professional organizations have voiced serious concerns over this disproportionality, which has led to the development of diversity criteria for accreditation standards, indicators, and requirements of teacher performance. For example, the Council for Exceptional Children (CEC), a leading organization in special education professional standards, includes several standards that highlight diverse cultural perspectives of relationships, biases, and differences under CEC's Initial Preparation Standards (CEC, 2015). Teacher education programs are taking heed, requiring that their teacher candidates engage in some form of MCE coursework prior to licensure.

It is helpful to contextualize how integrating MCE course within a teacher preparation program is done, with an example. According to Robertson, García, McFarland, and Rieth (2012), at one large research university in the southwestern U.S., specific classes that address diversity issues are part of the core special education curriculum. Specifically, this teacher preparation program offers a class on the sociocultural influences on teaching and learning for its special education teacher candidates. This particular course is a prerequisite for student teaching and interning and addresses such as: (a) dynamic cultural interrelationships, (b) language disabilities versus language differences, (c) second language acquisition, and (d) culturally responsive practices through personal reflections and dialogue with a person from a different cultural background (p. 119). A second class on intercultural communication and collaboration, offered by the same teacher preparation program at the university, aligns with the final semester of student teaching and addresses such issues as developing: (a) inclusive special education practices for students with disabilities from diverse socio-cultural and linguistic communities, (b) collaborative practices with families and other educators, and (c) new knowledge to manage the classroom environment (p. 120). This course also features the opportunity for PST to work with other teacher candidates in the university's bilingual education program to develop collaborative skills with their future colleagues (p. 121).

In sum, IDEA (1997, 2004) indicates that U.S. states are to monitor their students' representational patterns in the special education system. Turning to the literature, there is plenty of guidance available to teachers, administrators, and teacher educators seeking to support culturally responsive teaching and other practices supportive of reaching the full diversity of the students.

Now we will explore current educational practices and policies designed to support CLD students in South Korea.

Current Policies and Practices in South Korea for CLD students

When considering MCE in South Korea, it is important to begin with the

federal government's policy and guidelines for the educational needs of the country's growing CLD population. To begin, the Ministry of Health and Welfare officially enacted the "Multicultural Family Support Act" of 2008. Under the definition of the Act, a "multicultural family" refers to any family that is comprised of a marriage between an individual of immigrant-status to a citizen who had previously acquired the citizenship of the Republic of Korea (i.e., through birth). This Act mandated that the minister of education and superintendents of municipal and provincial offices of education formulate plans to better understand multicultural families within their schools and provide them with after-school programs or extracurricular activities. The Act also calls for more comprehensive multilingual services for Korean language learners and support centers for multicultural families, designed to support the families as they continue to build their lives and networks within South Korea.

Further, the Ministry of Education began allocating funds in 2009 to implement specific programs to support multicultural families through its "Educational Support Plan for Children from Multicultural Families" (2009) and assigned National Institute for Lifelong Education to establish National Center for Multicultural Education in 2012. Currently, the National Center for Multicultural Education supports schools that feature Korean as a Second Language (KSL) curriculum and provide professional development for multicultural coordinators and multicultural education specialists of both municipal and provincial offices of education. Also of relevance, the Enforcement of Elementary and Secondary Education Law was partially amended in 2013 to allow CLD students to be admitted or transferred to multicultural special classes in elementary schools, as well as codifying the specific qualification standards of instructors to teach the Korean language learners. Each of these laws signified noteworthy developments and provides evidence that the federal government is taking heed of the growth of multicultural families and other demographic changes within the country.

Advancements of Multicultural Education in South Korea

Over the past decade, there has been quite a bit of research featuring students and families from CLD backgrounds and their interactions within the public schools in South Korea. The topics of the research are multifaceted, although predominantly focused on teachers' perception of MCE (e.g., Kwon, 2010; Kim., & Kim, 2008; Park, 2011). Examples of the topics of past research include: multicultural curriculum (Park et al., 2008; Jang, 2009; Chang, 2006); rights protected under education laws (Park & Kwak, 2008); inclusion in Korean textbooks (Cho, Yoon, & Jin, 2008); and, language education programs (Kim & Shin, 2008; Seo, 2007). Recent immigrants' limited fluency of the Korean language and the challenges they face in supporting their children's acquisition of the language have also been reported (e.g., Sul, Han, & Lee, 2003).

Other relevant studies completed in the country have included the public-school teachers as the focus of the research. For example, two qualitative studies explored teachers' perceptions of CLD students' difficulties in school (Kim, Kong, & Lee, 2007; Kim, Kim, & Yoo, 2012), while one study looked at students' emotional and academic challenges related to their limited Korean proficiency status (Park & Lee, 2010). It is not surprising that yet other researchers have suggested that many learners from CLD communities experienced academic under achievement and are more delayed in using the Korean language when compared to their native-born peers (Pae & Kim, 2010; Hwang & Jeong, 2009). Finally, and in a more favorable light,

additional research has been conducted on specific interventions designed to improve CLD learners' language proficiency and academic achievement (e.g., Kim & Kim, 2011; Cho & Jeong, 2009).

Among the corpus of literature on cultural and linguistic diversity in South Korea, there remain considerably fewer sites that focus on the intersection of culture, language, and disability. The studies that are present focus solely on language disabilities (Lee & Kim, 2010; Lee & Seok, 2010). The convergence of students with disabilities and CLD backgrounds in South Korea is, therefore, a newly emerging focus of empirical study and warranted. This gap in the literature should provide the impetus for future educational research. It also follows that it could prove helpful for South Korean teachers to participate in training on: (a) cross-cultural communication and (b) interventions that have been normed on CLD learners that represent the diversity found in the public schools. Although the CLD population remains relatively small, estimated to be 1% of the total student population in 2014 (Ministry of Education, 2014), the numbers are projected to increase. Furthermore, students belonging to such communities, along with their peers, will continue to enter the workforce, so even from an economic perspective, it would be quite beneficial for educators, teacher trainers, and administrators to be in tune to the unique needs of their CLD students with or without disabilities.

There remains a scant amount of literature exploring the intersection of MCE with special education. However, Kang's (2010) was one exception, reporting data suggesting that CLD students were more likely to be identified as having an LD. Given a larger corpus of literature supporting MCE in the training of teachers in the U.S., support for MCE as a component to South Korean teacher training was also identified (Park & Watson, 2011; Watson et al., 2011). It remains the case that possessing and enacting on a knowledge base of culturally responsive practices can support PSTs to teach their CLD learners and empower the teachers to make appropriate decisions when it comes to referral for special education services. It is therefore worthwhile to explore the practices, trends, and curriculum from the U.S. to consider whether it could be adapted to fit a Korean public school context.

Preservice Teacher Considerations in South Korea

The field of MCE and the curriculum available to support culturally responsive practices for PSTs are emerging in South Korea. For example, Watson et al. (2011) completed survey research to better understand PST university students' perceptions of MCE while they were completing their required coursework. The majority (72.5%) of the participants (53 out of 82 participants) had no experience working with children from CLD communities, even in their teacher training prior to this program under the study. A portion of the remaining participants (9 out of 82) had fieldwork experiences teaching in a mentoring program for CLD students in collaboration with several universities, with the support of the South Korean government. They were members of a government-led program designed to support, mentor, and meet children from multicultural families (Watson et al., 2011). As a result of their experience mentoring CLD students in South Korea, the vast majority (96.2%) of the participants (78 among 82 of the respondents) indicated that MCE was an important or very important component of teaching (Watson et al., 2011). It is equally compelling that the majority of the participants (71%) expressed concern that CLD families were being treated unfairly in South Korean society and many of them noted that CLD students were having difficulties in schools. This awareness led

Watson et al. to conclude that these PSTs were emerging with a sense of responsibility to these students.

Um and Won (2012) analyzed 62 studies to explore current trends in research, as well as directions for future research regarding multicultural teacher education. Of the 62 studies, 39 focused on general education teachers' perceptions regarding MCE and current multicultural teacher education practices. All 39 articles were published after 2006. The participants in 8 of the 39 articles were preservice K-12 teachers. However, studies of special education teachers' perceptions pertaining to MCE with CLD learners with exceptionalities were not included in this review.

Several studies that examined special education teachers' perceptions and/or experiences with MCE and few studies included preservice special education teachers as the participants. Shin, Han, and Yi (2011) study explored the meaning of special education teachers' education practices and experiences teaching CLD learners with exceptionalities through interviews with three teachers. The data from the interviews suggested that the participants rarely were able to communicate with general education teachers and students' parents due to the lack of time and opportunity to meet with them. The participants also noted that parents/caregivers tended to have their own responsibilities outside of school and would sometimes have to leave the parent meeting early. When parents were present at the meetings, they were also described as being reserved. Special education teachers indicated that most of their CLD students were receiving some of their instruction in special education classes even though they were not formally identified as having disabilities. They also reported they perceived that support from general education teachers, as well as from the South Korean government for the families, were essential components in achieving success with CLD learners with disabilities.

In a very recent study, Lee (2012) investigated both general education (n = 68) and special education teachers' (n = 75) competences in their experiences, knowledge, attitudes, and beliefs pertaining to MCE. Her findings revealed that general education teachers had more experience delivering multicultural content in their classrooms and took more multicultural classes than those taken by special education teachers. Thus, Lee recommended that multicultural classes be provided to PSTs in special education university programs, in accord with Kim (2013). Through interviewing current special educators in South Korea (N = 12), Kim (2013) concluded that MCE classes should be embedded within the preservice teacher education curriculum.

Kwon, Kwon, and Lee (2012), who conducted a survey with a large sample of special education PSTs (N = 481) reported that the respondents agreed that academic instruction in MCE is very important in helping them prepare to work with CLD learners. However, this still does not remain a common practice. For example, according to Park and Kwon (2013), only 10% (n = 22) of their early childhood special education PST respondents took multicultural classes. As a result of their respondents' feedback, Park and Kwon (2013) concurred with Kwon, Kwon, and Lee that there is a need for MCE classes within general and special education university teacher preparation programs.

In summary, to meet CLD students' needs and appropriately identify CLD students with exceptionalities, both general and special education teachers should be taught both instructional and collaborative strategies for meeting the social and academic needs of struggling CLD learners. In the words of Watson et al. (2011): "The collective process of schooling and the mindsets of teachers and administrators, rather than the students themselves, is the key to addressing this challenge" (p. 4).

Implications and Recommendation

Over-representation experienced by CLD students within the U.S. special education system would not be a concern had the service system been fulfilling its intended goals of accommodating and modifying the classroom content to allow full access to its learners. Yet, research over time has suggested that the special education system stops short of achieving these goals (e.g., Artiles et al., 2010; Ford, 2012; Harry & Klingner, 2007; Skiba et al., 2008). As a consequence, diverse students are being inappropriately categorized for special education and related services, which in return results in repetitive and continuous failure in the U.S. public schools.

Recognizing over-representation of certain CLD communities in special education has already received attention in the laws and policies in the U.S., such as the procedures identified in the Exclusionary Clause of IDEA (2004) and those of monitoring proportionality. Indeed, South Korea has begun paying attention to this issue. The Ministry of Education (2009) has allocated money to implement more programs for students from multicultural families while supporting universities that have teacher credential or certification programs that include MCE courses. However, it remains the case that South Korea still does not have a system to monitor proportionality in education similar to IDEA (2004) in the United States.

Due to the increasing number of CLD learners in public schools in South Korea, proper multicultural education to ensure each student's education equity (e.g., Park & Watson, 2011; Watson et al., 2011) and specific MCE training for all teacher candidates are needed. South Korean educators, administrators, and policy makers would benefit from proactively taking heed of the disproportionate issues in the U.S.

There are many promising sources to further inform teachers' instructional judgments when they are considering how to provide appropriate services to their students from diverse backgrounds in the U.S. Training at the PST level, by using the body of literature on MCE and culturally responsive teaching (e.g., Bales & Saffold, 2011; Gay & Kirkland, 2003) can be one method, along with featuring a culturally competent mentor to facilitate the PSTs' new professional learning and practice (Achinstein & Athanases, 2005; Zozakiewicz, 2010).

Recommendations

First, best teaching practices for the CLD learners must include and ensure a collaborative relationship between general education and special education practitioners to reach the needs of all of their shared students. Courses on individual learning differences are now required in PST training programs or institutes designed for general and special education in the U.S. While in South Korea, the PSTs in general education teaching credential programs usually take one course in special education with limited discussion covering the causes and characteristics of disabilities, rather than education practices and interventions for all students (Heo & Lee, 2011). To support all students, including the CLD learners, the two fields must continue to share their knowledge and experiences.

Second, further study is recommended to discover more quality indicators of successful MCE programs, both in the United States and South Korea. The literature has suggested various practices for incorporating MCE in their PST training, but nearly unanimous among them was the need for the PST to pair their coursework with field experiences. The combination of field experience with coursework has been described as a necessary part of the PSTs' training (Fitchett, Starker, & Salyers, 2012)

and leaving a lasting impression, long after certification (Ladson-Billings, 2000).

Third, further attention is needed in the process of making an appropriate distinction between two groups of students: English language learners and English language learners with a learning disability (LD). A student who is acquiring an additional language, such as Korean or English, is different from the one who may also have a LD. Clearly, the former learner needs extra time to acquire the second language while the learner with a language-based LD may still need additional instructional supports to acquire his or her second language. Both groups of learners have been emerging in the schools, not only across the U.S. but also in South Korea and around the globe wherever the acquisition of second and third (plus) languages is the norm. Therefore, in the spirit of equity and justice, it is crucial that teacher educators begin or continue to train new general and special education teachers in the implementation of CRT practices, as offered in the field of MCE.

Fourth, at the center of MCE and CRT practices are the calls to use students' own diverse experiences as a familiar knowledge base to attach new meaning, informed by a constructivist orientation to learning (Berger & Luckmann, 1967) and socio-cultural theories of education (Vygotsky, 1978). Activating students' personal and previous experiences from various cultures into the classroom empowers the students to deepen their understanding of the context. Failure to adequately address the insights offered by diversity could not only harm the student's self-concept and self-determination, but also jeopardize equity, which is essential to maintaining and supporting a civic democracy (Banks, 2008; Smith, 2009).

Fifth, MCE must be appropriately implemented in order to empower the PST with a toolkit of mental models, mindsets, and methods to actively support and promote all of their students' learning. Failure to implement MCE appropriately could actually reinforce deficit thinking about cultural differences, so training is needed for professional staff and teacher educators that work with PST. Indeed, these five recommendations for teacher preparation programs in both the U.S. and South Korea should be professional responsibilities and warrant continued research.

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Self-efficacy of General and Resource Teachers in Education of Children with Disabilities in India

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Abstract

A prerequisite for espousal of inclusive beliefs, values and practices in schools is the involvement and coordination of both general and specialised resource teachers. Since buoyancy in tackling educational challenges stems from the knowledge and experience, self-efficacy of both the groups of teachers is imperative for inclusive education. With this as a rationale, a study was undertaken to compare the self-efficacy of general and resource teachers in education of children with disabilities in India. Bandura's 'Teacher Self-Efficacy Scale' (TSES, n. d.). was used for the survey-based descriptive study. Opinion of 60 general and 60 resource teachers from the mainstream schools in Mumbai was collated. The schools were under the Sarva Shiksha Abhiyan (SSA) meaning 'Education for all'- a flagship program of Govt of India. Results indicate a significantly greater self-efficacy of resource teachers as compared to general teachers in educating children with disabilities. This was specifically found in the tasks of influencing decision making, use of school resources and enlisting parental and community involvement for education of children with disabilities.

Keywords: *Inclusive Education, Self- Efficacy, Teachers*

Introduction:

Equity and equality in education are essential aspects of modern day education. These have resulted in the change in philosophy of education and hence, different models such as segregated, integrated and inclusive education have evolved. The current

trend of including children with disabilities in the mainstream schools is a global phenomenon and India has endorsed it. In fact, India is one of the many countries who have ratified the UNCRPD (United Convention of Rights of Persons with Disabilities) in 2007. The Sarva Shiksha Abhiyan (SSA) (2002) a flagship program of Ministry of Human Resource Development under the Government of India, has a 'zero rejection' policy and is suggestive that each child with special needs be provided appropriate environment so that children receive meaningful and quality education. According to the Synopsis of Inclusive Education of SSA (2007), about 29.57 lakh children with special needs have been identified, out of which 24.77 lakh children with special needs (83.78%) have been enrolled in regular schools.

Lindqvist, (1999) stated that a dominant problem however, in the disability field, is the lack of access to education. Though physical access has been ensured by way of legislations and policies, children need to be learning and participating in schools. In many instances, there is a dramatic difference in the educational opportunities provided for the disabled and the non-disabled children. With this situation it will simply not be possible to realize the goal of 'Education for All' (as cited in Peters, 2004). Inclusive education as a movement and a philosophy has the potential to address many such issues if the essential aspects such as infrastructure, environment, teacher's attitude & skills and resource support in schools is adequately provided. Way back UNESCO (1970) had recommended "inclusive education as a cheap alternative" to other special education programs, specifically for developing countries. Further, the 'Salamanca Statement and Framework for Action' (1994) had emphasised that regular schools with inclusive orientation are the most effective means of combating discrimination, creating welcoming communities, building an inclusive society and achieving 'Education for All'. Further the Delor's commission (1996) had reiterated that the fundamental principle of inclusive schools is that all children should 'learn together' so that they 'live together in order to foster an inclusive society. Hence, wherever possible regardless of any difficulties or differences that children may have, education must be inclusive. Inclusive schools must recognize and respond to the diverse needs of their students, accommodating both different styles and rates of learning and ensuring quality education to 'all' through appropriate curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities. There should be a range of support and services to match the continuum of special needs encountered in every school. The concept of inclusion is based on the right of every child to have enabling learning environments. It is a well-documented fact that children with disabilities benefit more in regular school environment by interacting with the diversity in the classroom. Hence, India has been undertaking proactive steps through: Schemes such as Integrated Education of the Disabled Child (1974,2014) revised in 1992 and further replacing this by Inclusive Education for Disabled at Secondary Stage (IEDSS) in 2009-10, Acts like Right to Education (2009), programmes like SSA & Rashtriya Madhyamik Shiksha Abhiyan (RMSA) (2009) and the recent recommendation of NITI Aayog (2016) to improve the potential abilities of children with disabilities through inclusive education

In spite of these positive measures, India continues to face challenges in implementing the provisions of inclusive education especially with reference to socio economic and cultural, governmental policy and educational and teacher training issues (Sharma &Das,2015). Inclusive education connotes 'students with disability attend general education in mainstream schools primarily under the accountability of

regular teacher'. The resource teachers are appointed to provide supportive role for the fulfilment of special needs of these children in resource units under SSA (Mastropieri & Scruggs, 2004, p.7). Both general and resource teachers play a pivotal role in realising the goals of inclusive education in mainstream schools. These teachers need to work collaboratively and share the responsibility of teaching students with special needs arising out of disability. Keeping this in view, some states in India have mandated appointment of resource teachers in mainstream schools to facilitate inclusive practices. Jones & Fuller (2003) (as cited in European Agency for Development in Special Needs Education, 2010) stated that "research has evidence to show that teachers are the key to success of inclusive education". Teachers' beliefs, practices and attitudes are important for understanding and improving educational processes (OECD, 2009).

Self-Efficacy of Teachers
Confidence about one's own ability to achieve predetermined results is termed as 'Self-efficacy'. Teachers' self-efficacy influences the students' outcome and has been an important predictor to teachers' performance in the classroom (Ahsan, M. T., & Burnip, L. (2007). Bandura's (1977) Self Efficacy theory supports these findings. The theory is based on Social Cognitive theory by Bandura (1986). According to Social Cognitive theory human behaviour is correlated with personal and environmental factors

(Malinen, 2013.p.27).

 Self-efficacy affects human behaviour through cognitive, affective, motivational, and decisional processes. It determines whether people think optimistically or pessimistically and in self-enabling or self-disabling ways. Self-efficacy influences behaviour both directly and indirectly (Bandura, 1977). Soto and Goetz stated, self-efficacy as "the beliefs that individuals hold about their abilities and about the outcome of their efforts powerfully influence the ways in which they behave"(as cited in Schwarber.L,2006.p.1).

Self-efficacy has a more direct influence on behaviour than the self-concept (Bandura, 1977). Teachers' self-efficacy is defined as the teachers' own belief in his or her capability to organize and execute courses of action required to successfully achieve a specific task in a particular context (Tschannen-Moran, Hoy & Hoy, 1998: 233). It is known to create a positive impact on students' progress. According to Woolfolk (2007), evidence shows that teachers' self-efficacy has an impact on students' academic achievement. To sum up teachers' self-efficacy seems to be the key element influencing one's confidence to apply their knowledge/skills in differing situations (Gorrell& Capron, 1994)

Rationale for the study:

Achieving the objectives of inclusive education poses multiple challenges in the

Indian context. Prominent among these are the multi-lingual and a multi-cultural

nature of the country. According to UNESCO (2001) lack of awareness and synergy amongst the various bodies involved, so also the task of capacity building of teachers in inclusive set ups are some of the issues in facilitating inclusive education. Rao (2003) observed that mainstream schools refuse to admit children with special needs. Myreddi and Narayan (2000) argued that general teachers' limited knowledge about practical strategies of dealing with disability as the reason for such refusal. To address these issues pertaining to the teachers, the SSA in India has undertaken sensitization of general teachers, parents and community (Yadava, 2013). The training of teachers varies in duration.

About 88.46%percent general teachers have received less than one week of training and 0.46% percent have received around three months training in inclusive education. The specialised resource teachers who have been trained in the single disability also receive cross disability training under SSA. The initiatives undertaken by National Council for Teacher Education (NCTE) (1985,2016) and the Rehabilitation Council of India (RCI) (as cited in NPE,2016) both statutory bodies of Govt. of India are noteworthy. NCTE under the Ministry of Human Resource Development (MHRD) has introduced a special course on 'Inclusive Education' at the pre- service teacher training of general education program and similar efforts have been initiated by RCI under Ministry of Social Justice & Empowerment (MSJE). In its two years teacher training course RCI has also included cross disability and 'Inclusive Education' course. From such initiatives it can be assumed that the long term and shortterm trainings would have enhanced teachers' self-efficacy in dealing and handling educational issues of children with disabilities and consequently their attitude towards these children. This is hypothesised on the justification of Banduras' self-efficacy theory (1977) which suggests that knowledge is linked with self-efficacy which further has a direct influence on behaviour.

The present study has its rationale rooted in the trainings of general and resource teachers. Until recently the general teachers were trained to teach the non-disabled children and the resource teachers were trained in single category training i.e. specialised to teach any 'one category' of disabled children. However, both these teachers are currently handling diverse learners in inclusive classrooms. Assuming that general teachers would have attended foundation courses in teaching children with disabilities and the resource teachers would have attended short term courses in teaching other disabilities, the question arises how confident do both of them feel in handling educational issues in inclusive classrooms. A study was hence undertaken to comparatively study the self-efficacy of general and resource teachers with reference to the parameters given in the Bandura's Instrument of 'Teacher Self-efficacy Scale', so that specific recommendations can be charted based on the needs of the teachers.

Review of Literature :

Bandura (1977) introduced the concept of self-efficacy through "Theory of Self Efficacy based upon unifying Theory of Behavioural Change". He further elaborated this theory as Social Cognitive Theory (Bandura, 2001). Accordingly self-efficacy is related to one's self judgement of competencies used under different conditions. In the social cognitive theory self-efficacy concept is at the ground level '(Bandura, 2001)', if a person has positive self-efficacy then he can do any activity confidently (Tschannen-Moran, Hoy, & Hoy, 1998: p.233). Gibson &Dembo (1984) recognised two types of self-efficacy specific to teachers: personal teaching efficacy and general teaching efficacy. Personal Teaching Efficacy (PTE) represents a teacher's belief that he/she possesses the skills and abilities to facilitate student learning, that is, it is the teacher's overall sense of his/her own teaching effectiveness. General Teaching Efficacy (GTE) represents the belief that teaching (as an organisational form of education) can affect pupils positively, even in light of external factors or conditions such as low motivation or poor home environment.

There is some evidence that teacher efficacy is related to academic achievement and teacher behaviours known to foster academic achievement (Ashton & Webb et al. as cited in Coladarci,1992.p.326);. Self-efficacy is also said to be an integral part of success of our life. It is developed through our belief about how we feel, think, motivate ourselves and behave. Self-belief produces diverse effects through cognitive, motivational, affective and selection processes. It has a strong sense to enhance human accomplishment and personal wellbeing in many ways. Hence, the Social Cognitive theory (1986) related to self-efficacy theory (1977) has been used in teaching too. A teacher is a good agent to improve students' performance (Klassen &Lynch, 2007). Tschannen-Moren & Woolfolk Hoy (2001)defined teachers efficacy as "Teacher's judgement of his or her capabilities to bring about anticipated outcomes of student engagement and learning, even among those students who may be difficult or unmotivated"(p.783). Mojavezi&Tamiz (2012) found that teacher self-efficacy has a positive influence on the students' motivation and achievement (Muijs&Rejnolds, 2001; Tournaki & Podell, 2005). Similarly Akbari &Allvar (2010); Caprara, Barbaranelli, Steca& Malone (2006); Moore & Esselman   (1992) & Ross (1992) have reported that teachers' self-efficacy is found to be an important factor influencing student attainment. Moran & Hoys (2001) ideas also elaborated that teacher self-efficacy is powerfully related to many meaningful educational outcomes

such as teacher persistence, enthusiasm, commitment and instructional behaviour, as well as student outcomes such as achievement and motivation (p.783). Shreve (2006) further observed that teachers' self-efficacy mediated by academic achievement predicts students' social skill development.

Positive self-efficacy is also known to be directly affecting actions and efforts taken to teach children with disability. According to Abdul Rahim (1994), some prerequisites are important for the success of inclusive education. These prerequisite are understanding, acceptance and the capability of teachers to implement inclusive education (Hashim, Ghani, Ibrahim & Zain, 2014). The adaptation of the learning process requires creativity of teachers as per the time provided for teachers to teach in inclusive schools. However, many teachers are not able to change their classroom instructional style of involving students with special needs (Baker & Zigmond, 1995, Hashim, Ghani, Ibrahim & Zain, 2014).

A study conducted by Ibrahim (1998), concluded that a total of 66.9% of mainstream teachers have negative perceptions of inclusive education. Weaker strategies are reflections of low self-efficacy which further impact teachers' attitudes and behaviour in inclusive classroom (Baker &Zigmond, 1995). As against this teachers with high self-efficacy put in more efforts in teaching children with disability which results into positive student outcomes.

Research documents that many teachers lack confidence in their abilities to teach students with special needs in their inclusive classrooms (Bender, et al., 1995; Buell, et al., 1999; Jordan &Stanovich, 2004; Poulou, 2005). As seen already, teachers' Self Efficacy is a significant factor which affects children's achievements. Hence it can also be assumed that teachers with different self-efficacy will impact children's learning differently. With respect to inclusive education both general and resource teachers are accountable for many essential functions in the classrooms. Hussien and Qaryouti (2014) investigated general education teachers' preference of the best educational settings for the students with disabilities and their attitudes toward inclusive education settings. It was found that general education teachers had lower levels of self-efficacy than special education teachers.

Training as a means of improving self-efficacy has also been indicated in the literature (SchwarzerandFuchs, 2009; Horne and Timmons, 2009). Some researchers have studied whether mere training and professional programs will be effective without providing adequate support to inclusive teachers (Hashim, Ghani, Ibrahim & Zain, 2014). Bandura's theory states that self-efficacy is not fixed but constantly changes with their experiences and information (Bandura, 1977; Pajares, 2003). Consequently, it is derived that self-efficacy is not static, it is dynamic and changes with experience. In the present day Indian context, it is known that the objectives and hence the training content and the knowledge imparted about handling children with disabilities is different in the training of both general and resource teachers. So the question arises that since the awareness is different whether the experience in handling helps to build self-efficacy? Studies addressing such issues need to be undertaken for the knowledge of planners of inclusive education.

Since no published report in the Indian context was available, the present research hypothesised that 'there is no significant difference between general and resource teachers' self-efficacy in education of children with disabilities'. Further, for the purpose of analysis sub-hypothesis on each of the subscale of the tool were also formulated.

Methodology:

The study adopted the descriptive research design and the data was collectedusing Bandura's Teachers' Self Efficacy Scale (TSES, n.d.). TSES is a nine point Likert scale consisting of 30 items having Cronbach's Alpha 0.861. It has seven subscales namely Efficacy to influence Decision making, Efficacy to influence School Resource, Instructional Self-Efficacy, Disciplinary Self Efficacy, Efficacy to enlist parental involvement, Efficacy to enlist community involvement and Efficacy to create positive school climate. For the present study some subscales were combined. The Instructional and Disciplinary self-efficacy (IDE) items were combined to form one subscale. This is because items pertaining to some aspects of Disciplinary self-efficacy were found to be overlapping with items covered under Instructional self-efficacy. Secondly, Efficacy to Enlist Parental and Community Involvement (EPCI)were also combined because parents are a part of the community and hence while enlisting community involvement, automatically parental involvement is also solicited. The finalised tool comprising of five subscales namely Self Efficacy: to influence decision making; to influence school resources; to create positive school climate; to enlist parental and community involvement; and to influence disciplinary and instructional activities were studied. Data was collected by administering the TSES to 60 general and 60 resource teachers identified randomly from mainstream schools under SSA.

Table 1: Result of t- test comparing the self-efficacy of general & resource teachers

Parameter	Group	Mean	SD	N	df	M1-M2	t - cal	t - table	Significant level at .05
Efficacy to Influence Decision Making	*G T	10.00	4.0	60	118	2.88	3.81	1.98	Yes
	**RT	12.88		60					
Efficacy to Influence School Resources (ESR)	G T	06.12	2.83	60	118	1.21	3.07	1.98	Yes
	RT	07.33		60					
Instructional and Disciplinary Self-efficacy (IDE)	G T	80.75	18.50	60	118	3.68	1.25	1.98	No
	RT	84.43		60					
Efficacy to Enlist Parental and Community Involvement (EPCI)	G T	40.11	12.75	60	118	8.68	5.26	1.98	Yes
	RT	48.08		60					
Efficacy to Create a Positive School Climate	G T	56.15	11.46	60	118	1.6	0.97	1.98	No
	RT	57.75		60					

(ECPSC)									
Total self-efficacy in education of children with disabilities	G T	193.33		60					
	RT	211.2	32.42	60	118	18.06	3.41	1.98	Yes

*GT=General Teachers &** RT=Resource Teachers

Inference from the Table 1

(i) There is a significant difference between resource and general teachers' self-efficacy to influence decision making (IDM) (obtained t'value 3.81> 1.98 table't'value' at 0.05 level). The Mean of resource teachers' IDM i.e. 12.88 is significantly greater than mean of general teachers' IDM which is 10. It is therefore, inferred that the resource teachers have greater efficacy to Influence Decision Making than general teachers.

(ii) There is a significant difference between resource and general teachers' self-efficacy to influence School Resources (ESR) (3.07>1.98 at 0.05 level). The Mean of resource teacher ESR (7.33) is significantly greater than mean of general teachers' ESR (6.12). It is therefore inferred that the resource teacher have greater efficacy to influence school resource than general teacher.

(iii) There is a no significant difference between resource and general teachers' Instructional and Disciplinary Self-efficacy (IDE) (1.25=1.98 at 0.05 level). The mean of resource teachers' IDE (84.43) is not significantly different than the mean of general teachers' IDE (80.25). It is therefore inferred that resource teacher have not significant at the level of 0.05 for instructional and disciplinary self-efficacy than general teacher.

(iv)There is a significant difference between resource and general teachers' self-efficacy to Efficacy to Enlist Parental and Community Involvement (EPCI) (5.26 >1.98 at 0.05level). The mean of resource teachers EPCI (48.08) is not significantly different than the mean of general teachers' EPCI (40.11). It is therefore inferred that self-efficacy to enlist parental and community involvement of resource teacher equally with general teacher.

(v) There is a no significant difference between resource and general teachers' Efficacy to Create a Positive School Climate (ECPSC) (0.97=1.98 at 0.05 level). The mean of resource teachers' ECPSC (57.75) is not significantly different than the mean of general teachers' ECPSC (56.15). It is therefore inferred that efficacy to create positive school climate of resource teacher have equal with general teacher.

(vi) There is a significant difference between resource and general teachers' self-efficacy in Education of children with disabilities (3.41>1.98 at 0.05level). The Mean of resource teacher (211.2) is significantly different than mean of general teacher (193.33) for the Total self-efficacy in education of children with disabilities. It is therefore inferred that Total Self-Efficacy of resource teacher have greater than general teacher.

Discussion:

Efficacy to Influence Decision Making (IDM) and School Resources (ESR)

Resource teachers are recruited in fewer numbers in inclusive schools under SSA. The appointed resource teachers in a mainstream school are specialised professional who are solely consulted for any requirements pertaining to inclusive teaching learning material, seating arrangement and other adaptations for the children with disabilities. Since all other teachers in the mainstream schools are generalist i.e. have had training in general education, the resource teachers may be considered as the most knowledgeable person for education of children with disabilities in mainstream schools. This may be because as compared to the general education teachers the resource teacher has more in-depth training and hence more experience in education children with disabilities. So, the school management may be giving a free hand to the resource teacher for decision making and also must be taking their views into consideration for all issues pertaining to education of children with disabilities. Hence, the resource teachers in the present study may have reported to have greater efficacy to influence decision making and school resource than general teachers in the Indian context. Similar findings have been documented in other countries by Avramidis et al, (2000) & Avramidis and Norwich (2002). These studies found that teachers with training in special needs education themselves are confident enough to handle students with disabilities in their classroom and appeared to hold more positive attitudes towards inclusive education in general.

Efficacy for Positive School Climate and Instructional & Disciplinary Self Efficacy

School climate refers to the quality and character of school life. It reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (Cohen, J., McCabe, L., Michelli, N. M. &Pickeral, T, 2009). According to Loukas (2007) the school climate includes the physical dimension like appearance of school building infrastructure, school policy of safety etc. The social dimension includes creating cordial relationship between different stakeholders of school. The academic dimension includes student achievements, evaluation and monitoring.

In TSES the components listed for the School climate are an outcome of the Vision, Mission and Quality objectives of the school. These are mostly under the purview of the School Management who is the decision maker and the general and resource teachers are the implementers. Since both the groups of teachers have the same role responsibilities they   seem to be at par, hence no significant difference was found among the two groups of teachers in the present context.

Efficacy to Enlist Parental and Community Involvement (ECPSC)

In the Indian context, the resource teachers have close collaboration with parents & community. They are required to undertake home visits, undertake door to door surveys and also create awareness about early identification and intervention. Resource teachers are also closely associated with community and health workers for

prevention of disabilities. The nature of their work and their role responsibilities would be adding to their experience in this regard and hence the resource teachers might have exhibited greater self-efficacy in these areas.

Total Self Efficacy

The resource teachers have exhibited higher total self-efficacy in education of children with disability than the general education in the study. This could be attributed partly to the nature of the pre-service training that they get and partly due to the onsite experience that they might have gathered in handling various disabilities. Similar findings have been reported by Hussien and Qaryouti (2015). Their study indicated that a considerable number of general education teachers reported low to moderate levels of self-efficacy than resource teachers in education of children with disabilities. Studies undertaken by Ahsan, Sharma & Deppeler (2012), Das, Kuyini, & Desai (2013),Loreman, Sharma and Forlin (2013) also suggest that participation in training programs in teaching in inclusive classrooms had a positive significant impact on self-efficacy.

Conclusion

Out of the 5 areas of self-efficacy studied, the self-efficacy of resource teachers was found to be more in three areas namely influence decision making, school resources & education of children with disabilities. The overall self-efficacy is also significantly higher of resource teachers than the general teachers in the mainstream schools in the Indian context.

Implications& Recommendations:

The outcomes of this study suggest that it is essential to work towards capacity building of general teachers in order to achieve the goals of inclusive education. Hence, the implications are geared towards drawing attention of both policy makers and curriculum designers to take appropriate measures like appointing resource teachers in all mainstream schools and also give more opportunities for general teachers to learn about diverse learners especially those with disabilities.
It is recommended that certificate courses be made mandatory for both resources and general teachers in inclusive pedagogical practices. Add-on Certificate courses for resource teachers for sensitising in other disabilities other than the ones they have graduated in would increase their self-efficacy in handling educational needs of different disabilities. The present study was limited to schools in the Mumbai district in India. Periodic studies and documentation of teacher's self-efficacy should form a regular feature by all the state education departments. This will be beneficial in enhancing the self-efficacy of teachers and help foster inclusive pedagogical practices.

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Examining the Relationship of Individual Resources and Burnout in Mothers of Children with Disabilities

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Abstract

The relationship between two key factors of parental burnout of mothers of children with disabilities was studied on a population of 69 women. Exhaustion and helplessness - two subscales of the new instrument: Parental Burnout Measure-12 - showed a decreasing correlation with coherence and personal resiliency. Multiple regression analysis showed coherence as more predicative of exhaustion, while personal resiliency of helplessness. The research did not present any relation between sociodemographic factors or the type of disability (Autism Spectrum Disorder versus Cerebral Palsy) and the level of parental burnout. The results can be considered as significant in designing actions that would support the activities of mothers in the rehabilitation of their children.

Keywords: *burnout of mothers of children with disability, Parental Burnout Measure-12, personal resiliency, sense of coherence, autistic spectrum disorder, cerebral palsy*

Introduction

Over the last forty years, the construct of burnout has attracted considerable attention among both researchers and practitioners. Burnout designates a state of chronic physical and mental fatigue (Kristensen, Borritz, Villadsen & Christensen, 2005; Burisch, 2006; Pines, 1993, 2000) and is often

experienced by people working in the helping professions. Whether its onset is sudden or slow, it is comprised of correlated physical and emotional symptoms. Thus, burnout is fundamentally a psychosomatic phenomenon. It is caused first of all by persistent stress that is not modified by the subject's coping activity measures (Sęk, 2000). Sources of occupational stress are multiple. It can originate from the experience of incongruity or discrepancy between professional expectations and actual job realities (Maslach & Leiter, 1997; Chan & Hui, 1995).

Professional burnout was first described by Freudenberger (1980), who listed the following symptoms characteristic of this chronic condition: irritability, chronic fatigue, dejection, aggravating apathy, emotional lability, frequent headaches and increased morbidity. Although discussions on the factors in and theoretical models of burnout have continued for decades now, no homogeneous, universal burnout model adequate to various professions has been developed yet. The very structure of burnout is still subject to controversy. In some frameworks, burnout is perceived as a coherent set of strongly correlated symptoms, which leads to regarding burnout as a homogeneous dimension (Pines, 1993, 2000). Other scholars argue that burnout is multidimensional (Maslach & Leiter, 1997; Schaufeli & Enzmann, 1998). Following Maslach (1976), three components of the professional burnout syndrome are distinguished (emotional exhaustion, depersonalization and reduced personal accomplishment), while their sources are located primarily in the individual him/herself, in interpersonal relationships, and in the conditions and organization of work, though macro-social and cultural factors are also considered relevant. Endorsement of the multidimensional model of burnout entails accepting that each of its components has its own complex buildup, which, theoretically, leads to generating more complex causal models of burnout. The multidimensional model demands also identifying interrelations among the components. The easiest solution is to assume that particular components are different indicators of the same phenomenon while the specificity of the components represents mainly measurement errors. On this account, burnout would be diagnosed if a person scores high in each component. But there is another possible solution, namely a sequential one. In this approach, particular burnout components are seen as causally related, or emerging as a result of expansion of the original disorder (dysfunction spreading over successive spheres of the individual's activities in life). Researchers differ on the causal sequencing of burnout components. Maslach argues for the following sequence: emotional exhaustion → depersonalization → reduced personal accomplishment. Golembiewski and Munzenrider (1988) put forward another model: depersonalization → reduced personal accomplishment → emotional exhaustion. As both accounts are empirically supported, it cannot be ruled out that they represent different mechanisms of initiating an equifinal process, which ultimately leads to accumulation of all three key symptoms of burnout by adding them in a particular succession. As the controversy still remains unsettled, we adopt the multidimensional model, however without positing any causal relations among its components. Consequently, we shall look for determinants of particular burnout components, taking into account also their sum as a dependent variable.

Nearly simultaneously with the publication of the first studies on professional burnout, Sullivan and colleagues (1979) explored burnout in another – non-occupational – context. Specifically, it concerned burnout in parents taking care of a child with disability. Parents of children with developmental disorders face increased tasks related to education, care, therapy. This situation can be a source of serious physical and mental strain for many parents, especially for mothers. Handling the burden requires adequate resources and coping skills. Sullivan concluded that mechanisms leading to professional burnout and parental burnout are similar. She proposed that parental burnout is a progressing process of strength depletion resulting from the daily needs of permanent child-care and accretion of various difficulties in everyday life. Mothers are particularly vulnerable to burnout. It is so probably because they are traditionally responsible for child-care and -rearing while active involvement in the education of the child with disability is also inscribed in their role. Mothers often report difficulties in coping with problems caused by the child's disability (Ryman & Kucyper, 1994). The daily problems most frequently reported by mothers include: too little sleep, necessity to constantly pay attention to the child, being with the child all the time, lack of leisure time, impossibility to rest, necessity to rely on the public means of transport, arduousness of frequent consultations with specialists, lack of physical strength, sense of being constantly "tied" to the child, other people's lack of understanding for the problems the mother of a child with disability confronts, unsatisfying conjugal life, estrangement from friends and colleagues, disappointment with them, considerable financial burdens, misery of giving up on earlier plans and dreams, hardships resulting form the child's continuing reliance on others, having no time for themselves ("I look so unkempt"), chronic fatigue, and fear of the future. These problems and concerns of daily life, combined with the constant care for the child, upset adaptive processes and coping. As a result, emotional tension persists, as do physiological reactions correlated with it. In a longer perspective, this may lead to a gradual depletion of strength and burnout.

A few years after the pioneering studies by Freudenberger (1976) and Maslach (1976), the first book addressing parental burnout was released (Procaccini & Kiefaber, 1983). Although the publication was a manual for parents rather than a strictly scholarly study, its authors proposed an interesting model of parental burnout. They drew on pioneering research on burnout in practitioners of the helping professions and referred to Selye's (1956, 1974) concept of stress as a general adaptive syndrome. The authors claimed that the burnout problem could be explored in relation to all people who become parents since not everybody is well prepared for performing parental roles, and the resultant problems – with child-care and -rearing – trigger burnout. According to the authors, parental burnout is a function of chronic stress that arises from enduring maladjustment between constant demands on and needs of parents, on the one hand, and the available possibilities to meet them, on the other. The pressure of requirements and responsibilities, combined with frequently experienced frustration, anxiety and guilt feelings, exhausts parents' energy and motivation. This account of parental burnout clearly corresponds to the notion of *psychological costs* (Ratajczak, 1996). The essence of psychological costs lies in that negative emotions (especially fear and anger) emerge and persist as an individual finds

him/herself in an unacceptable situation that he/she can neither change nor pull back from nor prevent. Usually, cost-generating situations are characterized by an imbalance of desires, obligations, and capacities (the individual desires the impossible, must meet demands that exceed his/her capacities, and/or is forced to choose between desire and obligation). Most generally speaking, psychological costs are emotional outcomes of motivational conflicts and self-regulation competence deficits. Importantly, however, the regulation system overload is caused not only by emotional burdens but also by other kinds of efforts related to how the mind functions in task situations – for example, the strain caused by prolonged attention focus and/or necessity to control one's behaviors, thoughts, or feelings. This means that burnout is caused not by emotions and activities as such, but rather by excessive effort invested in regulating them in continually experienced, adverse circumstances. This corresponds to the definition of stress proposed by Kozłowski (1990; 1986), who insisted that stress is an organism's excessive response to any (emotional or neuropsychological) burden including neurohormonal changes. The strain is caused by maladjustment between the individual (with his/her resources and needs) and the environment (with its demands and resources). The maladaptation affects the regulation system in three ways: (1) by generating purposive activity in the sphere of mind and behavior; (2) by monitoring the course of this activity in unfavorable conditions; and (3) by the consequences of the activity (therein-possible decision errors and restoring the impaired balance in the regulation system). The individual fulfills his/her needs and meets the demands placed on him/her using the internally and externally available resources. To function normally, the individual must maintain the system of his/her internal and external resources in a dynamic equilibrium. The system of resources is permanently fluid, and as the resources are continually being used, they should be, on the whole, utilized with prudence, and, when running out, they must be immediately compensated for and, in a longer perspective, rebuilt. According to Hobfoll (2002), as an individual develops, he/she learns how to manage his/her resources – how to identify them, accumulate and replenish them after a loss, transform/utilize, improve and invest them, etc. In this context, stress can be understood as (1) a signal alerting the individual to harmful developments in his/her resources system (loss, risk, waste, or failure to replenish them, etc.); and (2) a source of strain for the regulation system, leading to increased expenditure of resources, while burnout can be comprehended as a persistent shortage of resources as compared to the individual's needs, demands and social roles, combined with entrenched disturbances in self-regulation processes. Hobfoll proposes various definitions and classifications of resources. He is not very precise with his terminology, which is explicable insofar that, from an adaptive or developmental perspective, it is hardly possible to produce a complete list of what an individual might find necessary or potentially useful in the adaptation process. In this sense, any classification of resources is only provisional, and can be legitimately contested on scholarly grounds. Attempts at inventorying human needs stumble over a similar obstacle. However, it is certainly valid to distinguish the category of *key resources* that is resources that are particularly relevant to the functioning of the entire system of resources and their regulation. Key resources are the ones on which utilization of all other resources depends as does the capacity to efficiently replenish them and

prevent their excessive depletion. Hobfoll (2002) lists a few personal resources that he sees as vital in this special sense. In our view, there are two key resources, namely *sense of coherence* and *personal resiliency*. They are essential because they reflect two important aspects of regulation. Sense of coherence represents the motivational aspect of regulation processes (it determines an individual's engagement in the realization of values and the building of the resources system by helping him/her understand the surrounding world, feel a sense of agency, and perceive his/her activity as valid and meaningful from a variety of perspectives). Personal resiliency reflects the competence aspect of regulation as it determines an individual's capacity to flexibly adjust to changing situations while retaining the integration of central personality components, such as attitudes, beliefs, life goals, self-concepts, etc.

Both these constructs – sense of coherence and personal resiliency – can be viewed as related to the effectiveness of coping with stress. However, they carry also another essential connotation, as they are involved in cognitive processes and decision-making. We believe that both features not only express resistance to adversity and character strength (cf. Peterson & Seligman, 2004) which derives directly from their scientific genesis (both constructs were generated by research on people in extremely adverse situations), but also – first of all perhaps – reflect wisdom (Sternberg, 1998), self-care capacity (Khantzian & Mack, 1983), and the ability to regulate emotions and establish constructive relationships with others (Goleman, 1995).

The aim of our research is to examine the relationship between the levels of these two key resources (sense of coherence and personal resiliency) and the level of burnout in parents of children with disability. Consistent with our earlier research findings, parental burnout has two major components: exhaustion and helplessness. We believe that exhaustion reflects the regulation system overload and/or entrenched deficits of energy resources while helplessness represents deficits in competences necessary to effectively solve problems arising from the role of the parent of a child with disability. The depersonalization/cynicism dimension is very rarely found in parental burnout since an overwhelming majority parents love their children with disability and feel responsible for them, which by default forestalls depersonalization and cynicism. Besides, even if some of the parents who report burnout are jaded with the excessively distressing circumstances surrounding their child, the social norm that commands caring for one's child impedes any expression of such attitudes.

We expect that both dimensions of parental burnout – exhaustion and helplessness – are associated with both sense of coherence and personal resiliency. Besides these correlations, we intend to examine possible connections between parental burnout levels and selected sociodemographic characteristics, though this is a secondary issue in our research design. Importantly, the analysis results presented below are part of the validation program of our tool for measuring parental burnout. In nearly all, rather scarce, quantitative studies of parental burnout so far, modified professional burnout tests have been used based on the MBI questionnaire (*Maslach Burnout Inventory*) developed by Maslach, or on the SMBM questionnaire (*Shirom-Melamed Burnout Measure*) developed by Shirom and Melamed, (2006). Parental burnout or mental health scales are used more frequently, but

they only help infer about parental burnout without diagnosing it directly. Therefore, we have concluded that a special instrument should be constructed to measure burnout in parents of children with disabilities (see Sekułowicz & Kwiatkowski, 2013; Sekułowicz, 2013; Kwiatkowski & Sekułowicz, 2016).

Method

Participants

This cross-sectional study targets a population of mothers of children with a disability (Autism Spectrum Disorder and Cerebral Palsy) Non-randomly selected subjects (N=69) agreed to complete a questionnaire (burnout measure, measures of sense of coherence, personal resiliency, and socio-demographic variables). The study was granted approval by the institutional review board of research ethics prior to the study being initiated. The characteristics of the study's sample are presented in Table 1.

Table 1. Sample characteristics (N=69).

Variable	Statistics
Mothers - gender (% female)	100.00%
Mothers - age, avg±sd	33.89±4.40
Mothers − in education (%)	
Primary or basic vocational	13.04%
Secondary degree	37.68%
Higher degree	49.28%
Child with disability - gender (% male)	69.56%
Child with disability - age avg±sd	6.48±3.44
Disability type (%):	
Cerebral palsy	55,07%
Autism Spectrum Disorder	45.93%
Family type (%):	
Both parents	84.05%
Mother only	15.96%
Number of children in the family (%)	
One	43.47%
Two	37.68%
Three or more	18.84%
Residency (%):	
Rural	24.63%
Small town	40.58%
Big city	34.78%

Measures

Parental Burnout Measure (PBM-12). The questionnaire was explained in our previous publications (Sekułowicz & Kwiatkowski, 2013; Sekułowicz, 2013; Kwiatkowski & Sekułowicz, 2016). It is a simple instrument with a 4-point Likert scale. The measurement is carried out in two dimensions: exhaustion (E) and helplessness (H). Both dimensions are measured as a sum of 6 items (see Table 2).

Table 2. Parental Burnout Measure (PBM-12). Items of subscales – Exhaustion (E) and Helplessness (H).

1. I feel very tired of taking care of my child. (E)
2. I feel completely exhausted with my family situation. (E)
3. I find the world a gray place. (E)
4. I get irritated. (H)
5. I raise my voice at my child with disability. (H)
6. I feel that I work too hard with my child; this situation depresses me. (E)
7. I feel hopeless taking care of my child. (H)
8. Taking daily care of my child at home is a true struggle for me. (E)
9. I feel that my efforts providing care for my child are inefficient. (H)
10. I feel as if I was on my last legs; I cannot cope anymore. (E)
11. I think I'm trying really hard but I'm not reaching the goals I set up for my child's development (H)
12. I feel bad because of the way I treated my child. (H)

In previous studies (Sekułowicz, 2013), confirmative factor analysis PBM-12 was conducted on the sample of mothers of children with disabilities for three solutions: one-dimensional, two-dimensional orthogonal and two-dimensional oblique structures. The two-dimensional orthogonal model was least supported. The one-dimensional model showed somewhat better results. The best fit was noted for the two-dimensional oblique model. In the case of two-dimensional models, subscales were tested in line with previously established keys in the former studies. The results corroborate the theoretical assumption that parental burnout is a relatively coherent composition of two factors: exhaustion and helplessness. Therefore, both factors should be taken into account in the measures of parental burnout, in parents of children with disabilities. Fully satisfactory internal reliability indicators (Cronbach's alpha) were reached by all burnout measures – PBM-12 total score (.90), exhaustion subscale (.88), and helplessness sub-scale (.80).

Sense of coherence. The SOC-29 questionnaire measures "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement" (Antonovsky, 1987, p. 19). Each of the aforementioned dimensions (comprehensibility, manageability, and meaningfulness) contributes in a distinct way to an effective use of adaptive resources in difficult situations. SOC-29 is a widely used tool for measuring the sense of coherence. The author of this tool, Antonovsky (1993), is the founder of the salute-genic theory. In Antonovsky's study (1998), Cronbach's alpha for the SOC-29 scale ranged from .86 to .95. In our study, the internal reliability indicators for he subscales were considerably lower: .71 for comprehensibility, .56 for manageability, .76 for meaningfulness, and .85 for the complete SOC-29 scale. The manageability subscale had unsatisfactory internal reliability indicators.

Resiliency. A Polish questionnaire has been employed, namely *Resiliency Assessment Scale – SPP-25* (Ogińska-Bulik & Juczyński, 2008). It resembles in a way to the ego-resiliency construct (Block & Block, 1980). The efficiency of the processes of self-regulation is measured with this instrument. The efficiency manifests itself in five correlated dimensions: (1) persistence and determination (SPP1); (2) openness to new experiences and a sense of humor (SPP2); (3) personal competence of coping with and tolerating negative emotions (SPP3); (4) tolerance of failure and treating life as a challenge (SPP4); and (5) an optimistic attitude to life and the ability to gather strength in difficult situations (SPP5). The designers of the tool (Ogińska-Bulik & Juczyński, 2008) give reliability indicators for the subscales as ranging from .67 to .75, and .89 for the total scale. In our study, Cronbach's alpha figures were similar: from .70 to .79 for the subscales, and total score .94 for SPP-25.

Statistical procedure

The cross-sectional data presented here was collected from a non-random, small sample of 69 mothers of children with disabilities. Descriptive statistics were performed on all measures. One-way variance analyses (ANOVA), Pearson correlation analyses, and multiple linear regression analyses were performed. Significant effects were at $p < .05$. All analyses were done using the *Statistica* package.

Ethics

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants (parents) included in the study, which was approved by the […] University.

Results

Key analyses in our study focus on the relationship between burnout and mothers' individual resources (sense of coherence and personal resiliency). Before these data are presented, however, it makes sense to analyze associations between burnout and sociodemographic variables (see Table 3) and interrelations between the measures of individual resources used in the study (see Table 4 and Table 5).

None of the sociodemographic variables (Table 3) had a differential effect on the level of burnout reported by mothers in our sample. Only age of the child with disability was associated with the mothers' burnout in the degree that approximated statistical significance: (F(1.68) = 3.22; $p = 0.07$). Mothers of older children scored slightly higher (M = 15.39; SD = 4.28) on the exhaustion scale than mothers of younger children (M = 13.51; SD = 4.27).

The data in Table 4 shows that the constructs of sense of coherence and personal resiliency are not fully discrete. The two coherence subscales (*manageability* and *meaningfulness*) have factor loadings over .30 for the first factor, which is strongly marked by the resiliency dimensions. The two resiliency subscales (*competencies to cope and tolerance of a negative affect*, and *tolerance of failures and treating life as a challenge*) have factor loadings over .30 for the second factor, which is strongly marked by the sense of

coherence dimensions. Importantly, however, personal resiliency and sense of coherence are singled out as separate factors (in the principal component analysis). Considerable consistency of the sense of coherence and personal resiliency scales, expressed in high factor loadings (from .77 to .89 for the sense of coherence, and from .76 to .90 for resiliency) and in strong intercorrelations (from .61 to .71 for the sense of consistency, and from .56 to .84 for resiliency; see Table 5), justifies using the global measures of SOC and SPP rather than particular subscales later in multiple regression analysis.

Table 3. Sociodemographic characteristics and parental burnout levels: Analysis of variance.

Sociodemographic characteristics	Parental burnout in inter-group comparisons *test F* and means (standard deviation)		
	Exhaustion	**Helplessness**	**Total score**
Disability type	*F=.74; ns*	*F=.01; ns*	*F=.59; ns*
Cerebral Palsy (N=38)	14.68 (4.36)	13.58 (3.67)	28.26 (7.62)
Autism Spectrum Disorder (N=31)	13.77 (4.34)	13.45 (4.39)	27.23 (8.22)
Child with disability – gender	*F=.34; ns*	*F=.52; ns*	*F=.47; ns*
Male (N=48)	14.47 (4.20)	13.75 (3.82)	28.29 (7.58)
Female (N=21)	13.81 (4.71)	13.00 (4.36)	26.81 (8.57)
Child with disability – age	*F=3.22; p=.077*	*F=.21; ns*	*F=1.46; ns*
<= *me* (N=41)			
> *me* (N=28)	13.51 (4.27)	13.34 (3.89)	26.85 (7.67)
	15.39 (4.28)	13.78 (4.16)	29.18 (8.05)
Parent's age	*F=1.02; ns*	*F=1.24; ns*	*F=1.26; ns*
<= *me* (N=37)	13.78 (4.12)	13.02 (3.73)	26.81 (7.30)
> *me* (N=32)	14.84 (4.58)	14.09 (4.24)	28.94 (8.43)
Parent's education	*F=.40; ns*	*F=1.32; ns*	*F=.52; ns*
Elementary or basic vocational	13.11 (5.09)	13.11 (3.22)	26.22 (8.09)
(N=9)	14.26 (4.89)	12.65 (4.70)	26.93 (9.20)
Secondary (N=26)	14.59 (3.74)	14.29 (3.48)	28.88 (6.70)
Higher (N=34)			
Family type	*F=.57; ns*	*F=.27; ns*	*F=.46; ns*
Both parents (N=58)	14.10 (4.23)	13.41 (4.03)	27.52 (7.78)
Only mother (N=11)	15.18 (5.02)	14.09 (3.81)	29.27 (8.49)
Number of children in the family	*F=.10; ns*	*F=.01; ns*	*F=.03; ns*
1 (N=30)	14.37 (4.28)	13.60 (3.82)	27.97 (7.59)
2 (N=26)	14.00 (4.33)	13.50 (4.26)	27.50 (8.09)
3+ (N=13)	14.62 (4.81)	13.38 (4.06)	28.00 (8.62)
Residence	*F=1.33; ns*	*F=.90; ns*	*F=1.23; ns*
Rural area (N=17)	14.12 (4.54)	13.71 (4.13)	27.83 (8.35)
Small town (N=28)	13.43 (4.32)	12.79 (3.98)	26.21 (7.85)
Big city (N=24)	15.38 (4.16)	14.25 (3.88)	29.63 (7.43)

me = median; *ns* = insignificant result (*p*>0.10)

Table 4. Individual resources in mothers of children with disabilities: Results of factor analysis of the sense of coherence and personal resiliency subscales (N=69). Exploratory factor analysis: Principal components method, Varimax rotation, factor extraction at eigenvalues >1.

Subscales of Sense of coherence (SOC) and Resiliency (SPP)	Factor 1	Factor 2
SOC – Comprehensibility	.11	.89
SOC – Manageability	.38	.80
SOC – Meaningfulness	.43	.77
SPP-1	.76	.18
SPP-2	.84	.29
SPP-3	.88	.31
SPP-4	.83	.39
SPP-5	.90	.23
Accounted-for variance	49%	30%

Tables 6-8 show multiple regression analyses conducted to establish predictability of sense of coherence and personal resiliency for parental burnout indicators. Burnout was measured based on two correlated subscales of exhaustion and helplessness. When assessing predictability of sense and coherence and personal resiliency for exhaustion, helplessness was entered in the equation as a predictor of exhaustion, which allowed assessing the pure predictability of both resources against the background of their correlation with helplessness and the correlation of helplessness with exhaustion. A similar procedure was used in assessing predictability of resources for helplessness (in this case, exhaustion was entered in the first position of the regression equation, followed by the resources).

Table 5. Pearson's correlation coefficients – parent's age (PA) and child's age (CA), sense of coherence subscales (Co, Ma, Me), resiliency subscales (SPP1-SPP5) and parental burnout (E, H, PB) in the sample of mothers of children with disabilities (N=69).

Var.	M	SD	CA	Co	Ma	Me	SPP 1	SPP 2	SPP 3	SPP 4	SPP 5	E	H	PB
PA	33.83	4.40	.49*	.13	.19	.12	.22	.09	.11	.07	.02	.03	.04	.04
CA	6.48	3.44		.09	.03	.11	Ma	-.00	.14	.09	-.02	.20	.07	.15
Co	39.65	9.29			.63*	.61*	.33*	.33*	.42*	.43*	.31*	-.58*	-.46*	-.55*
Ma	44.99	9.05				.71*	.42*	.50*	.57*	.60*	.55*	-.67*	-.47*	-.60*
Me	39.06	7.74					.41*	.64*	.55*	.65*	.54*	-.59*	-.46*	-.56*
SPP 1	15.19	2.53						.56*	.73*	.56*	.64*	-.37*	-.41*	-.41*
SPP	15.0	2,9							.75*	.83*	.79*	-	-	-

2	6	1											.50*	.47*	.52*
SPP 3	13.74	3,04									.82*	.84*	-.54*	-.55*	-.58*
SPP 4	13.80	2,89										.83*	-.63*	-.55*	-.62*
SPP 5	12.99	3,19											-.59*	-.60*	-.63*
E	14.28	4.34													.78*	.95*
H	13.52	3.98														.94*
PB	27.80	7.86														

PA=parent – age; CA=child with disability – age; sense of coherence subscales (Co=comprehensibility, Ma=manageability, Me=meaningfulness); resiliency subscales (SPP1-SPP5); E=exhaustion, H=helplessness, PB=parental burnout – total score. Marked correlation coefficients are significant at $p < .05$.

Table 6. Predictability of sense of coherence and personal resiliency for the total burnout indicator as established in multiple regression analysis (N=69).

Components	Statistics									
	B	B SE	t	p	-95% ci	+95% ci	β	β SE	-95% ci	+95% ci
Constant	61.57	4.16	14.79	.000	53.26	69.88				
SOC	-.15	.04	-3.94	.000	-022	-.07	-.43	.11	-.65	-.21
SPP	-.22	.07	-3.26	.002	-.35	-.08	-.36	.11	-.58	-.14

Model's predictive power: $R^2 = .51$; $R^2_{adjusted} = .49$

B – regression coefficient; B SE – error of regression coefficient; t – t test value; p – significance of regression coefficient; -95% ci – lower limit 95% of confidence interval; +95% ci – upper limit 95% of confidence interval; β – standardized regression coefficient; β SE – error of standardized regression coefficient.

Table 7. Predictability of helplessness, sense of coherence and personal resiliency for exhaustion as established in multiple regression analysis (N=69).

Components	Statistics									
	B	B SE	t	p	-95% ci	+95% ci	β	β SE	-95% ci	+95% ci
Constant	15.73	3.07	5.12	.000	9.59	21.86				
BS	.62	.09	6,85	.000	.44	.79	.56	.08	.40	.73
SOC	-.07	.02	-4,50	.000	-.10	-.04	-.38	.08	-.55	-.21
SPP	-.01	.03	-.37	.712	-.07	.05	-.03	.09	-.21	.14

Model's predictive power: $R^2 = .73$; $R^2_{adjusted} = .72$

B – regression coefficient; B SE – error of regression coefficient; t – t test value; p – significance of regression coefficient; -95% ci – lower limit 95% of confidence interval; +95% ci – upper limit 95% of confidence interval; β – standardized regression coefficient; β SE – error of standardized regression coefficient.

The effect of both sources of variance on the parental burnout level is similar. Standardized regression coefficients are similar the sense of coherence (β = -.43; $p < .001$) and for personal resiliency (β = -.36; $p = .002$). They are both negative, which means that high levels of these individual characteristics are associated with low burnout scores. The data presented in two subsequent Tables show that if predictions for burnout components (exhaustion and helplessness) regarded as separate dependent variables are taken into account, sense of coherence (β = -.38; $p = .000$) is associated with exhaustion more strongly than personal resiliency is (β = -.03; $p = .712$) (Table 7), while personal resiliency (β = -.22; $p = .031$) is associated with helplessness more strongly than sense of coherence is (β = .13; $p = .255$) (Table 8). What matters most in both cases is that the regression coefficient values are negative, which means that high levels of resources are conducive to lower levels of burnout. Thus, sense of coherence likely expresses the capacity to manage energy resources effectively (which seems to result directly from the theory of salute-genesis), while personal resiliency is more closely linked to life problem-solving competencies.

Discussion

Our research has not corroborated associations between socio-demographic characteristics and parental burnout levels. Neither age of the child with disability nor age of the parent (significantly correlated, r = .43; $p < .05$) had a significant differential effect on parental burnout levels. We conclude that the duration of care for a child with disability does not necessarily cause burnout. Single parenthood has not shown any association with burnout either. Single mothers did report slightly higher levels of burnout than mothers in two-parent families, but the differences are very far from being statistically significant. This finding differs from the findings reported in the literature, which show higher levels of parental stress and well-being in single parents (Voydanoff, & Donnelly, 1998; Coombs, 1991). It cannot be ruled out that this correlation does not appear in our study because our sub-population of single mothers was relatively small (N=11). However if we assume that, though burnout is a consequence of stress, other variables, therein-individual resources promoting good outcomes despite the experienced stress (resilience processes), can mediate between the stress-inducing strain and burnout, and moderate the latter, burnout does not seem inevitable. This interpretation cannot be tested, however, because our sample was not big enough, and the variables we analyzed did not include mothers' experienced stress. Disability type also turned out to be an insignificant factor. Not much can be concluded from this finding, as our sample was comprised only of two disorders in children: autistic spectrum disorder and cerebral palsy. The literature indicates that children's autism is a greater burden to parents than other disabilities types (Donovan, 1988; Koegel et al., 1992; Abbeduto et al., 2004; Pisula, 2007; Davis & Carter, 2008; Estes, Munson, Dawson, Koehler, Zhou & Abbott, 2009; Dąbrowska & Pisula, 2010; Pisula, 2011; Kirby, White & Baranek, 2015). In our study, however, slightly higher burnout levels were reported by parents of children with cerebral palsy. It is possible that cerebral palsy causes a particular strain to parents (Ong, Afifah, Sofiah & Lye, 1998; Cheshire,

Barlow & Powell, 2010; Parkes, Caravale, Marcelli, Franco & Colver, 2011; Olawale, Deih & Yaadar, 2013) which is as challenging as that caused by autism. Rural or small-town residence can be a stress-promoting factor in parents of children with disabilities since it aggravates problems with rehabilitation of children, which is, as a rule, available in bigger cities (commuting to therapy and/or rehabilitation facilities is cost-inducing and time-consuming). The research, however, did not confirm the correlation between place of residence and parental burnout. This finding can be due to possibly stronger informal support from the local community that families in rural areas and small towns can count on. The number of children in the family also turned out to be insignificant even though, in general, families with many children are more prone to poverty and other family problems, which may increase their vulnerability to stress. Nevertheless, a big family does not entail daily predicaments only. In favorable conditions, it can be a flexibly organized system, capable of effectively supporting its members and modifying the ways it functions when faced with difficult situations. Interrelations between parental burnout and parents' education, as well as those between parental burnout and the child's gender, also proved insignificant. Admittedly, parents of boys with disabilities and parents with relatively low level of education reported higher burnout levels than parents of girls with disability and parents with higher education, yet the differences between the groups were slight.

Our study showed, however, the relevance of individual resources as factors promoting good outcomes in parents of children with disabilities. Both sense of coherence and personal resiliency turned out to be significant predictors of burnout. Jointly, they accounted for over 50% of variance of parental burnout, and the effect of each of these characteristics separately was of a similar magnitude. These findings are consistent with the data from studies on the role that sense of coherence plays in maintaining mental wellbeing by parents of children with disabilities (Mak, Ho & Law, 2007; Oelofsen & Richardson, 2006; Olsson & Hwang, 2002). It should be noticed, however, that the literature documenting correlations between personal resiliency (resilience-trait, ego-resiliency) and stress or parental burnout is rather scarce. It is interesting that each of the variables in our analyses is predictive for another burnout dimension: sense of coherence protects against accumulation of exhaustion, while personal resiliency safeguards against chronic experience of helplessness. We believe that sense of coherence plays a key role in effective management of adaptive resources (therein, likely, in regulating energy resources and retaining optimum mobilization levels), whereas personal resiliency in all probability has a bearing on selection of action modes in difficult situations. Certain doubts arise, however, from a very strong correlation between sense of coherence and personal resiliency ($r = .62$). The range of common variance of the two factors is considerable. Consequently, it is possible that, besides specific protective impact of the two personal resources, parental stress levels can be affected by a latent variable determining their covariance. Such a latent factor of a higher order can be responsible for the quality and availability of personal resources as well as for the effectiveness in applying them in problem solving.

Notably, theoretical accounts of how people effectively handle life problems distinguish adaptive resources from coping resources (Pearlin & Schooler, 1978). What appear to be the two most prominent accounts of

psychological stress, put forward by Lazarus (1990) and Hobfoll (1989, 2002), respectively, seem to put a different emphasis on the two factors. Lazarus focuses first of all on information processing (cognitive assessments) and coping. He needs the notion of resources just to define stress as an imbalance of demands and resources, which is supposed to initiate regulation processes leading to reducing this discrepancy. Hobfoll is clearly more interested in the very process of managing resources – acquiring, strengthening, using and investing them. Stress is a response to a real or anticipated depletion of resources. The state of resources determines goals, and goals are subordinated to resources (the aim of regulation processes is to retain the balance of the resources system). According to Lazarus, stress arises when an individual realizes that resources necessary to perform an important task in particular conditions are insufficient or when he/she fails in performing such a task. Resources are thus subordinated to goals. Further research is needed to further contribute to bettering our understanding of these relationships and mechanisms by which to provide supports to children with disabilities and their families.

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Understanding Adverse Experiences and Providing School-Based Supports for Youth who are High Risk with and without FASD

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Abstract

Youth who are high risk (YHR) face numerous adversities, and those with Fetal Alcohol Spectrum Disorder (FASD) may experience even more complex challenges due to the compounding impact of brain dysfunction. However, very little research has

been conducted to understand or characterize this vulnerable group, or explore potential strategies for supporting their specific needs. In the current study, we sought to characterize some of the adverse experiences of YHR with and without FASD (N = 90) who were attending an innovative school that supports students who have struggled in other educational settings. We also examined services offered at this school and explored whether service access and several social and educational factors differ between youth with and without FASD. Findings indicate that YHR with FASD have more complex needs and a different pattern of service use than YHR without FASD. These findings are discussed in the context of how we might better support YHR and foster successful outcomes.

Keywords: Fetal Alcohol Spectrum Disorder, youth, high risk, education, school-based supports; promising practices

Introduction

Youth who are high risk (YHR) tend to experience various complex needs and an array of vulnerabilities, including social isolation, health and behavior problems, poor relationships, and other adverse life events (Smyth & Eaton-Erickson, 2009). These youth are often disconnected from supportive resources and struggle to access services (Smyth & Eaton-Erickson, 2009). Several factors that may strengthen youth connection to services include meaningful relationships with service providers, support during life transitions, a network of support programs accessible outside of standard business hours, a sense of "being heard," and service providers who work *with* youth by acknowledging that youth are the experts of their lives (Smyth & Eaton-Erickson, 2009). Tyler and colleagues (2012) reported that other factors such as gender, sexual orientation, age, history of abuse, being forced to leave home, and living on the street or in a group home are significant correlates of service access among youth who are homeless. In the health care literature specifically, research is emerging related to the promising role of technology (i.e., mobile apps) in increasing access to health and other resources (Sheoran et al., 2016). In the school context, researchers have explored potential models for service delivery aimed at supporting students with complex needs (e.g., Sulkowski & Michael, 2014), but there is less work specifically on factors influencing access to such school-based supports.

Fetal Alcohol Spectrum Disorder

Fetal Alcohol Spectrum Disorder (FASD) is a neurodevelopmental disorder resulting from prenatal alcohol exposure (PAE). Individuals with FASD may experience a myriad of challenges related to physical, cognitive, emotional, behavioral, social, and adaptive functioning (Chudley, et al., 2005), which endure across the life span. FASD is a spectrum disability, with a great degree of variability and heterogeneity in clinical presentation and profile of functioning. FASD is also associated with adverse outcomes that may result from the combination of the primary injury to the brain and environmental interactions. These adverse life outcomes may include trouble with school, problems with mental health and substance abuse, victimization, inappropriate behaviors, legal issues, confinement (hospitalization or incarceration), and challenges with employment and independent living (Streissguth,

et al., 2004).

Youth with FASD are a subgroup of the YHR population who may present with especially complex challenges, due to the complicating issue of brain damage related to PAE; however, few studies have been conducted to understand or characterize this group. Evidence-based interventions for YHR in general are vast, but none focus specifically on YHR *with* FASD (see Rebus, et al. in press for a review). School tends to be a comfortable and convenient setting and may enable connections between multiple individuals in a student's life, thus it may be an ideal venue for interventions with this group. Unfortunately, little to no research has been conducted in terms of educational best practices for YHR with FASD. Although there are several studies on service utilization in the FASD population, most explore trends in accessing and implementing intervention recommendations following clinical diagnosis of FASD (e.g., Pei, Baugh, Andrew, & Rasmussen, 2017), and none examine YHR with FASD specifically.

FASD in schools. Individuals with FASD are often impaired in numerous cognitive domains (see Mattson, Crocker, & Nguyen, 2011 for a review), and tend to experience specific problems with learning and achievement across academic areas (Goldschmidt, Richardson, Cornelius, & Day, 2004; Howell, Lynch, Platzman, Smith, & Coles, 2006), with particular difficulty in mathematics (Rasmussen & Bisanz, 2009). In their longitudinal research, Streissguth and colleagues (2004) reported a high prevalence of school-related challenges among individuals with FASD, with 60% of adolescents and adults reporting problems with expulsion, suspension, and drop out. In spite of these concerns, school practitioners report a lack of familiarity and knowledge of FASD, limited strategies or resources for working with this student group, and systemic stigma related to FASD in schools (Koren, Fantus, & Nulman, 2010).

Supporting Students with FASD

Researchers have described some promising strategies for addressing school-related challenges in FASD. For instance, high school students with FASD report that school persistence may be fostered by parental advocacy and social and academic integration, such as peer interaction and suitable curricula (Duquette, Stodel, Fullarton, & Hagglund, 2006a; 2007). Moreover, students with FASD note preference for teachers who are patient, flexible, and knowledgeable about FASD over those who are disorganized or unavailable to help, embarrass students or put them down, are sarcastic, brush off student questions, or single them out (Duquette, Stodel, Fullarton, & Hagglund, 2006b). Other researchers working with families and school professionals have emphasized the importance of educators understanding students' levels of development and functioning, how brain development is impacted by PAE, and the positive influence of experienced teachers who employ a range of teaching strategies (Ryan & Ferguson, 2006). Caregivers and other educational stakeholders report a need for increased awareness and education of FASD, funding for service access, multi-system collaboration, enhanced assessment services, and additional research on screening, interventions, and collaboration (Duquette & Orders 2010; Job, et al., 2013; Pei, Job, Poth, & Atkinson, 2013).

Educational Strategies

Evidence-based interventions. There are a limited but growing number of evidence-based interventions for individuals with FASD in general, and few of these focus specifically on the school setting. Two academically focused interventions

found to be efficacious with young children with FASD are a language and literacy intervention (Adnams, et al., 2007) and a math-tutoring program (Kable, Coles, & Taddeo, 2007; Coles, Kable, & Taddeo, 2009). For adolescents, the Wellness, Resiliency and Partnerships Project (WRaP), developed in Alberta, Canada, aims to support students with FASD with the help of success coaches. Preliminary results suggest that WRaP has helped to improve student engagement, support academic successes, and enhance social, emotional, and physical well-being (Alberta Government, 2012).

Best practices for FAASD

Several general educational guidelines for students with FASD have been recommended, including using multi-modal, holistic approaches, building scaffolding skills, supporting sensory integration and self-regulation, and focusing on attention, speech/language, communication, social functioning, and student motivation (Mitten, 2013). A number of "best practice" resources are available through government agencies and education boards (Alberta Learning, 2004; British Columbia Ministry of Education, 1996; Florida Department of Education, 2005; Healthy Child Manitoba, 2009; Lutherwood, 2012; NoFAS South Dakota, 2009; Yukon Department of Education, 2007; Zieff & Schwartz-Bloom, 2008), most of which emphasize a brain-informed, wrap-around, flexible, individualized, and strengths-based approach involving environmental modification and collaboration.

Boyle Street Education Center

The Boyle Street Education Center (BSEC) is a public charter school located in the inner city of Edmonton, Alberta, Canada, serving YHR (aged 14 to 19 years) who struggle to complete high school through traditional means. A number of the students attending BSEC have been diagnosed with FASD, or are suspected of having PAE, and many experience multiple life adversities. In response to the complex needs of their student population, BSEC offers a wide range of unique services and engages in a number of innovative and non-traditional practices with the goal of inspiring and supporting educational and social success, and a positive transition to adulthood. Students at BSEC attend classes that are part of the standard curriculum, as well as a wide variety of option classes, such as Physical Education, Audio and Video Production, Construction and Fabrication, Cosmetology and Aesthetics, Digital Media, Fine Art, Fashion Studies, Food and Culinary Arts, Work Readiness, and Work Experience. BSEC also has a variety of holistic wrap-around services, to which students can either self-refer, or are referred by staff (see Table 1 for a more in-depth description of these services).

Table 1. Description of BSEC wrap-around services.

Service	Description
Psychological Testing	• On-site psychologist to assess students with learning and/or behavioural ...ues, and inform individualized learning plans
Counseling &Health Services	• Psychological counselling: Psychotherapy provided by community ...chologists with expertise in trauma and resilience • School counselling: On-site BSEC counsellor specializing in indigenous ...tural issues and addictions, who provides general support and guidance, and support or ...erral for substance abuse and detox/treatment if needed • Addictions counselling: Weekly visits from an Alberta Health Services ...rapist • Weekly drop-in animal-assisted therapy group co-facilitated by a BSEC staff ...mber and a counselling psychologist

	• Weekly visits from a community health nurse for sexual health, flu shots, and er health consultations
Alternative Classes	• Drop-in drama, improvisation, yoga, meditation, physical education, art • Designed to help students manage stress and remain engaged at school when y are finding it difficult to focus on their academic studies
Youth Worker	• On-site student support for legal issues (e.g. warrants, charges, court dates, ets, community service hours, accessing a court worker or lawyer, etc.), advocating to ess resources (e.g. housing, access to a social worker, transportation, etc.), or accessing ancial resources (e.g. Alberta Works Learner's Benefits, Alberta Assured Income for the erely Handicapped [AISH], etc.).
Cultural Activities	• Sweat lodges, pipe ceremonies, and smudging that students can attend on a untary basis • Students are also connected with an Elder should they request the desire to ak to one
Work-Related Services	• On-site and off-site work experience programs, and assistance with resumes
Incentives &Other Services	• Current event seminars, free breakfast and lunch, transportation (i.e., bus ets), and field trips • Referrals to specialists (e.g., psychiatrist, neuropsychologist), and support for ic needs (e.g., winter clothes, eyeglasses, sanitary supplies)

BSEC aims to maximize student success by creating a flexible learning environment tailored to the specific needs of each student. An in-depth intake process involves assessment of academic, social, and psychological needs through collaboration among the student, teachers, psychologists, and administrators. Small class sizes, continuous enrolment, self-paced learning, and differentiated versus grade-level teaching in each classroom further contribute to the flexibility of the program. Teachers and staff at BSEC focus on building trust, respect, and healthy relationships through engaging students in conversation about matters that are important to them, and using a first name basis and casual dress to break down authority or power issues. BSEC teachers and staff work closely with outside organizations including group homes, social workers, and probation officers to ensure that students' complex needs are supported. For students with FASD specifically, their diagnosis is identified at intake and they are prioritized for counselling and other support services when needed. Information about their diagnosis and functioning is communicated to teachers and other support staff, and used to modify course work and classroom behaviour expectations.

Transition to Adulthood

For students struggling with severe learning difficulties, BSEC focuses more on citizenship and employment than academics and post-secondary goals. Basic literacy and vocational skills are developed across standard, option, and work experience classes. Students can also access a success coach who partners with external work placements and supports the student with resume-building, interview skills, and funding applications. For students who may not be competitively employable, support staff assist the student in applying for income supports and specialized government services for adults with disabilities. Additionally, staff administering the work experience program have been trained in FASD and work to mitigate the unique challenges of youth affected in both off-site and on-site work experience by educating job placements about issues related to FASD and by advocating for the youth.

Current Study

Given our relatively limited understanding of YHR with FASD, and the paucity of research on evidence-based best practices and school strategies for this group, we sought to 1) characterize some of the adverse life experiences of YHR with FASD including instability, mental illness, and trouble with the law, 2) explore the services and programs currently employed at BSEC to support students with FASD, and examine whether services differ between students with and without FASD, and 3) examine the association between service access and school attendance rates, co-morbid mental health diagnoses, and legal issues. Ultimately, the goal of this research was to increase our understanding of the complex needs and service utilization trends in this vulnerable group of students.

Method

Data collection. This was a community-based participatory action research study conducted in collaboration between researchers and staff at BSEC. A retrospective review was conducted by BSEC staff on school files from students who attended BSEC between 2010 and 2014. Data was collected on demographics, living arrangement, legal issues, student attendance, FASD and other co-morbid diagnoses, and school services recommended and accessed. All data was coded anonymously and an Institutional Ethics Review Board approved the study.

Participants. Two groups of students were identified: 1) those with a documented FASD diagnosis (FASD group, n = 45), and 2) those with no FASD diagnosis or documented PAE (Comparison group, n = 45). Students with suspected PAE or undiagnosed FASD were removed from the participant pool. Eighteen students were randomly selected for each year in the study, beginning in 2010 (i.e., 9 in the FASD group, 9 in the Comparison group). After students were selected, they were removed from the participant pool for the remaining years.

Data analysis. Independent samples *t*-tests and one-way ANOVA were used to explore differences in demographics and student attendance at BSEC. Descriptive statistics were used to examine co-morbid diagnoses and the types of services recommended to and accessed by students in both the FASD and Comparison group. Pearson Chi-Square tests were conducted to examine group differences in legal issues, co-morbid diagnoses, and service recommendation and access. Finally, gender differences were explored using Chi-Square tests and one-way ANOVA.

Results

Demographics. Data was collected from students aged 15 to 19 years (see Table 2). There were no significant differences in age, gender, or ethnic background between the two groups. The majority of students in both groups first entered BSEC in grade 10 or 11, and students spent, on average, approximately 1.5 years at the school. There were no group differences in school attendance. With regard to residential stability, students with FASD were more likely to have multiple living situations, X^2 (1, $N = 90$) = 3.60, $p = 0.046$, and live on the streets or in a shelter, than the Comparison group.

Table 2. Group demographics.

	FASD (n = 45)	Comparison (n = 45)	*p*-value
Mean age in years (standard deviation; range)	16.80 (1.14; 15 to 19)	16.91 (1.41; 14 to 19)	0.682
Gender	60% male	49% male	0.199

Ethnicity	91% Aboriginal 9% Other	89% Aboriginal 11% Other	0.646
Grade of BSEC entry	10: 67% 11: 27% 12: 7%	10: 40% 11: 44% 12: 16%	0.037
Years attended at BSEC	1: 67% 2: 22% 3: 7% 4: 4%	1: 58% 2: 29% 3: 11% 4: 2%	0.680
Average class attendance (range)	29.5% (0.5 to 73.9%)	28.4% (1.8 to 66.2%)	0.803
History of living on the streets or in a shelter	37.8%	8.9%	0.001
Current living situation	Parents: 4% Other Family: 7% Partner: 4% Alone: 7% Friends: 2% Shared/Group: 16% Shelter: -- Multiple: 60%	Parents: 24% Other Family: 11% Partner: 7% Alone: 7% Friends: -- Shared/Group: 9% Shelter: 2% Multiple: 40%	--

Adverse life experiences. A high number of students in both groups had a criminal record (75.6% FASD, 55.6% Comparison), a history of incarceration (37.8% FASD, 26.7% Comparison), or were on probation at the time of intake (35.6% FASD, 17.8% Comparison). There were significant group differences in criminal record, X^2 (1, $N = 90$) = 3.99, $p = 0.038$ and probation status, X^2 (1, $N = 90$) = 3.64, $p = 0.047$, with higher rates in the FASD group. There was no group difference in incarceration history ($p > 0.05$).

Figure 1 illustrates mental health co-morbidities across groups. Students from both groups experienced a high number of co-morbid mental health diagnoses other than FASD (mean of 5.7 and range of 1 to 10 in the FASD group; mean of 3.2 and range of 0 to 8 in the Comparison group), and the FASD group had a significantly higher number of total co-morbid diagnoses, $t(88) = 5.58$, $p = 0.000$. The most common of these diagnoses were Learning Disability (LD) and substance abuse, and there were statistically significant group differences (greater proportions in the FASD group than Comparison group) in LD, Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), delayed cognitive ability, Reactive Attachment Disorder (RAD), and *"other"* diagnoses.
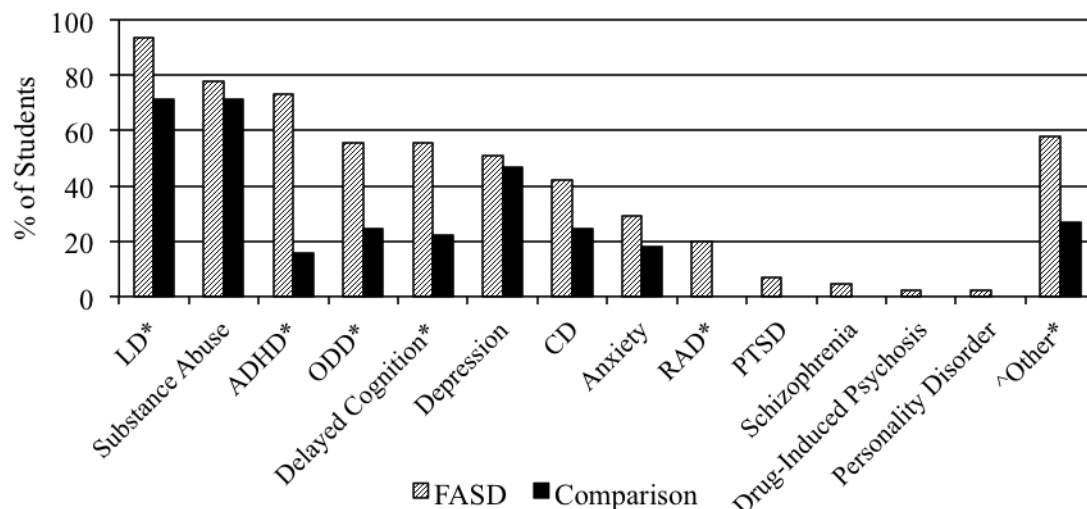
Figure 1. Percentage of co-morbid mental health diagnoses across the FASD and Comparison groups (*$p < 0.01$ based on Chi-Square analysis). ^"*Other*" mental health diagnoses included language delays, sleep problems, sensory and motor delays, and adjustment disorder.

Service recommendation and access. Across all BSEC students, services most commonly *recommended* were psychological testing (91.1%), bus tickets (70%), and psychological counseling (58.9%). Services most commonly *accessed* were bus tickets (68.9%), psychological testing (52.2%), and school counseling (52.2%), with over half of BSEC students accessing each of these services.

See Figure 2 for service recommendations across groups. Among students with FASD, the services most commonly *recommended* were psychological testing, psychological counseling, and school counseling. In the Comparison group, the most common recommendations were psychological testing, bus tickets, and psychological counseling. There were several group differences in service recommendations, with higher rates among students with FASD for general school counseling, school counseling for substance abuse, psychological counseling, and addictions counseling. There was also a significant reverse group difference in bus ticket recommendations, with higher rates in the Comparison group.
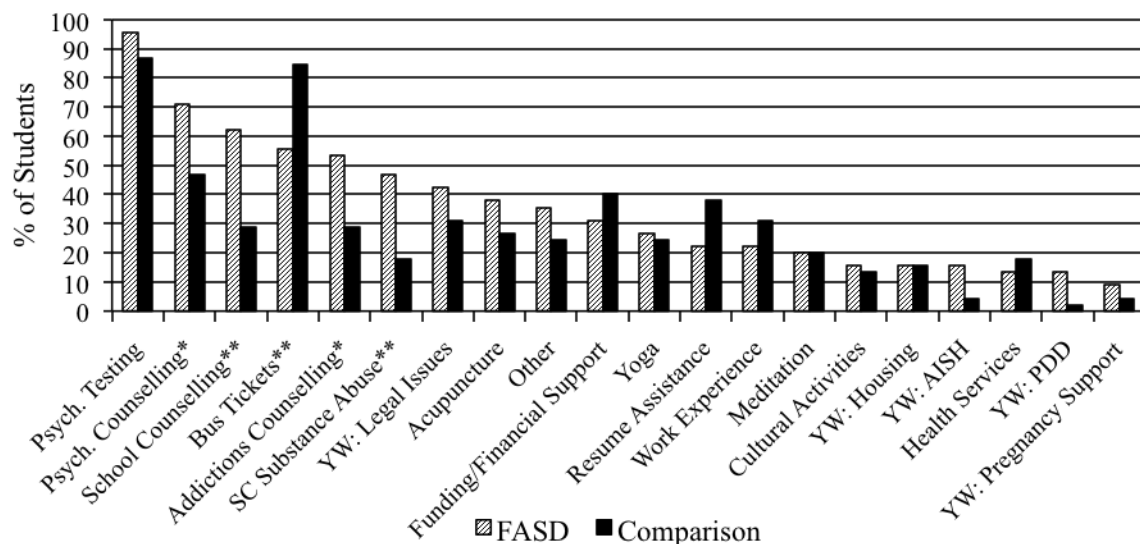
Figure 2. Group differences in service recommendations. (*p < 0.05, **p < 0.01).

Note. SC = school counseling; YW = youth worker; AISH = Assured Income for the Severely handicapped, which is financial and health-related support provided by the Alberta government for adults with disabilities; PDD = Persons with Developmental Disabilities, which is an Alberta Government funded program offering services and supports for adults with developmental disabilities.

See Figure 3 for service access across groups. The most commonly *accessed* services for students with FASD were school counseling, psychological testing, and bus tickets, and for students in the Comparison group were bus tickets, psychological testing, and funding/financial support. Students in the FASD group accessed significantly more school counseling and school counseling for substance abuse than the Comparison group, and conversely, students in the Comparison group accessed more bus tickets and funding/financial support than students with FASD.
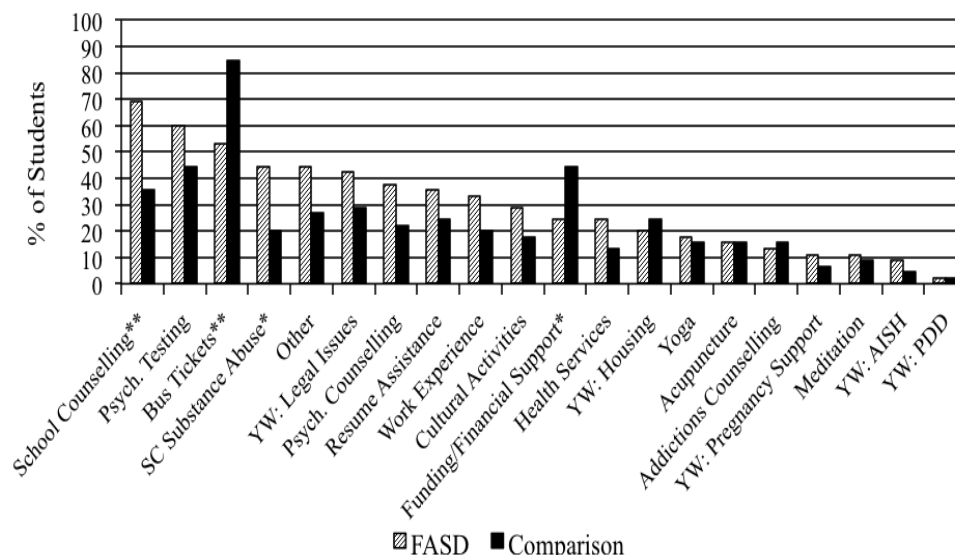
Figure 3. Group differences in service access. (*p < 0.05, **p < 0.01).

Note. SC = school counseling; YW = youth worker; AISH = Assured Income for the Severely handicapped (financial and health-related support provided by the Alberta Government for adults with disabilities); PDD = Persons with Developmental Disabilities (Alberta Government funded program offering services and supports for adults with developmental disabilities).

Gender effects. Gender trends within both groups were examined using one-way ANOVA and Chi-Square analyses. There were no significant gender differences in the FASD group in attendance, service recommendations, service access, mental health comorbidities, or legal issues (all $p > 0.05$). In the Comparison group, males had significantly higher rates of attendance, $F(1, 44) = 5.74$, $p = 0.021$ and probation status, $X^2 (1, N = 90) = 5.81$, $p = 0.021$, than females, but there were no gender differences in service recommendations or access, mental health co-morbidities, criminal record, or incarceration history.

Factors related to service access. Next, associations were examined between service access, attendance rates, co-morbid mental health diagnoses, and criminal record (thought to be the most broad indicator of history of legal problems), in order to explore whether service utilization related to more positive outcomes (i.e., better school attendance, fewer co-morbidities, less legal trouble). In both groups, students who had better school attendance accessed more services. In the FASD group, students who had more co-morbid diagnoses also tended to access more services (see Table 3).

Table 3. Correlations between service access, attendance, comorbidities, and legal issues.

	Total Attendance	Total # Co-morbidities	Total Service Access	Criminal Record
Total Attendance	--	0.217	0.478**	-.094
Total # Co-morbidities	-.133	--	0.372**	0.116
Total Service Access	.593**	.142	--	0.131
Criminal Record	.105	-.022	-.095	--

Note. FASD group correlations are above the diagonal, Comparison group correlations are below the diagonal. **$p < 0.01$

Summary and Discussion
In the current study, we explored some of the adverse experiences of YHR with FASD, examined BSEC services, and ascertained whether students with FASD differ in their service referral and access relative to students without FASD. Lastly, we explored the relationship between service access, school attendance rates, mental health diagnoses, and legal issues. The goal was to better understand and characterize the needs of YHR with FASD, and identify what school-delivered services are most common in this group.

Adverse Life Experiences
Youth with FASD presented with a more complex array of needs than youth without FASD. Relative to the Comparison group, more students with FASD experienced unstable living situations including multiple placements at the time of BSEC intake, and a history of living on the streets or in a shelter. Significantly more youth in the FASD group had criminal records and were on probation at the time of BSEC intake compared to students without FASD. Additionally, relative to the Comparison group, youth with FASD experienced higher rates of ADHD, delayed

cognitive functioning, LD, RAD, and ODD.

These findings align with trends found in the broader FASD literature, describing the population as experiencing a "double jeopardy" of risk based on the two-fold insult of PAE and adverse life experiences (Carmichael-Olson, Oti, Gelo, & Beck, 2009). Similarly, our findings indicate that youth with FASD attending BSEC tend to experience risk factors above and beyond students without FASD. This strengthens the call for early interventions and ongoing supports aimed at preventing adverse conditions in this doubly marginalized group. Researchers have previously underscored the necessity of individualized, comprehensive, coordinated, and long-term services to prevent adverse outcomes, particularly during transition to adulthood (Petrenko, Tahir, Mahoney, & Chin, 2014). The current study indicates that this support may be especially critical for YHR with FASD.

BSEC Services and Group Differences

Youth across groups were most commonly referred for psychological testing, bus tickets, and psychological counseling, and most commonly accessed bus tickets, psychological testing, and school counseling. The finding that the most common services for youth largely related to psychological needs aligns with the BSEC approach, where there is high value placed on mental wellness. Determining the current mental state of students both with and without FASD is considered paramount to helping them succeed academically, so that students feel stabilized and education can take place. That said, the high rate of pragmatic supports (i.e., bus tickets) illustrates that basic needs such as transportation may be equally important to address.

Relative to the Comparison group, youth with FASD were more likely to be *referred* for counseling (particularly for addictions and substance abuse) and less likely to be referred for bus tickets. Youth in the FASD group *accessed* more school counsel

ling (especially related to substance abuse) than the Comparison group. Finally, youth with FASD accessed fewer bus tickets, and less financial support than youth without FASD, possibly reflecting supports already provided by other programming based on their FASD diagnoses. It is possible that as needs increase, so too do the possibilities for community partnerships that increase the feasibility of meeting these needs so that one program or organization is not over-burdened.

In general, differences between recommended and accessed services may also be explained by changes in students' presenting behavior as they become more comfortable at school and build closer relationships with staff. BSEC staff typically make recommendations erring on more concern, and it may become clear over time that a student does not need as intensive of support as initially expected. However, the opposite may also be true, with students who appear stable at intake requiring additional support with time. Either scenario highlights the flexible and adaptable approach that may be important when working with YHR without or without FASD.

Service Access and Related Factors

There were no group differences in school attendance, which speaks to the potential of engaging YHR through specialized services such as those offered at BSEC. Furthermore, in both groups, those with greater attendance used more services. This finding appears to underscore the importance of promoting school attendance in YHR, which may provide them with opportunities to benefit from school resources. The incentives offered at BSEC for attendance may also play a role in increasing student's use of services. Alternatively, it may be that students are more highly

motivated to attend school when they experience a greater need for support. In either case, the association between attendance and service access illustrates that the school setting is an important potential avenue for service delivery for YHR. Interestingly, within the FASD group only, higher rates of service access were associated with higher rates of mental health co-morbidities. This finding is especially notable given previous literature in the general population, suggesting that youth who experience greater levels of risk perceive services to be less helpful and appropriate (Li, Liebenberg, & Ungar, 2015). For youth with FASD specifically, it is possible that even those with complex presentations may be responsive to seeking and receiving supports when these opportunities are presented.

Limitations and Future Research

One of the limitations inherent in all program-specific research is that the results are not always generalizable to other settings, thus further research with other programs is important. The relatively small sample size of this study further limits its generalizability. Additional research focused on how BSEC services may be implemented in other school or community settings would serve to translate these findings more widely. Another important area for future research relates to the effectiveness of BSEC services as an influence on student outcomes. A longitudinal examination of life experiences among BSEC graduates would provide important information about whether or how outcomes may be related to services they received through the program.

Conclusion

Overall, the results of this study highlight meaningful differences between the life experiences and school-based service access of YHR with and without FASD. YHR with FASD experience more instability and complexity in their presentation and a differing pattern of service referral and access than those without FASD. These results highlight the importance of ongoing identification of FASD, particularly among those youth who experience high risk lives, as early diagnosis has been shown to facilitate advocacy and protect against adverse outcomes (Streissguth, et al., 2004). Services that may be especially relevant for YHR with FASD include ongoing support of complex mental health and addictions issues, assistance navigating the legal system, and stabilization of living environment, extending across the life span. In the FASD group, we presume that most of the differences observed in this study are due to the effects of PAE on the individual's brain, but we must also take into consideration the interaction of these individual factors with the contextual factors of their environment. The additional adversities known to face individuals with FASD may also contribute to the observed group differences, making it complex and challenging to separate the two levels of influence.

The services and programs offered by BSEC are one example of how the school setting may be used to help address students' complex needs, support psychological well-being, and create an environment conducive to learning. BSEC's holistic approach, based on the immediate and comprehensive identification of the unique needs of each student, coupled with ongoing assessment of student functioning, flexible course planning, and robust wraparound services, may be a promising model for supporting YHR both with and without FASD. This approach enables the school to connect youth with services that may not be offered in the standard curriculum, but may nonetheless be foundational for success. Give the lack of FASD-specific interventions for adolescents in general, and those with high-risk

lives in particular, BSEC seems to be filling an important service gap through comprehensive on-site service delivery.

Finally, the results of this study highlight the resiliency of YHR both with and without FASD. The finding that there were no significant differences in attendance for YHR with or without FASD is noteworthy because youth with FASD were often without a home but still coming to school. Furthermore, the majority of YHR with FASD were also accessing services, and the greater their attendance, the more they accessed these services. It appears that YHR with FASD were connecting with various services that they might not otherwise have had access to in the community, which may have the potential to help stabilize these youth and support them in their pursuit of high school education. In spite of the ongoing turbulence and difficulty experienced in many of their lives, it is remarkable that they continue to strive for success.

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Psycho-educational Approaches for Pre-service Teachers Regarding Emotional and Behavioral Disorders and the Relationship-driven Classroom

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Abstract
Relationship building is an area of special education teacher preparation in emotional and behavioral disorders (EBD) that has been overlooked in the recent past, but it has rich potential for improving the classroom environment, student learning, and behavior. The psycho-educational model, with its focus on relationships, was quite prominent in teacher education in the mid-1970s, but now plays a secondary role. Psycho-educators believe that for positive behavior change to take place the teacher must first develop a caring and trusting relationship with the child. A wide range of scholars has concluded that caring relationships in effect are the intervention for children with EBD. In the current theoretical article, we (a) describe the need for psycho-educational approaches within teacher education, (b) outline an undergraduate course introducing EBD to pre-service teachers, and (c) summarize results from multiple studies focused on the undergraduate EBD course and its relationship-based curriculum.

Introduction

The psycho-educational model is rooted in the expertise and successful experiences of youth care work pioneers Fritz Redl and David Wineman (1957), and

William Morse (1985). Their hallmark action research with children experiencing emotional and behavioral disorders(EBD) showed that lasting behavior change is facilitated by high-quality relationships (Beker, 2009). Initiating and sustaining a relationship with the child is seen as the only context in which other interventions can succeed; relationship is primary in the psycho-educational orientation. Nicholas Long (2015), co-author of seven editions of *Conflict in the Classroom* with Morse, echoes that *"all significant student learning evolves from and revolves around meaningful teacher-student relationships"* (p. 12).

Psycho-educational practice is pragmatic. It draws from a variety of educational and treatment frameworks in order to make available the greatest resources to serve children. It is neither exclusively behavioral, cognitive, nor affective in its focus (Brendtro & Ness, 1983). Psycho-educators believe that for positive behavior change to take place, the teacher must first develop a caring and trusting relationship with the child (Fecser, 2015). The teacher's style is warm and friendly, while keeping his/her boundaries as a functional adult clear. By focusing on the relationship, the teacher is better able to access the internal not observable world of the child – her feelings, thoughts, perceptions of reality, and outlooks on life. Getting to know the child allows the teacher to choose which methods and techniques are best suited for working with that individual child. Ground rules are set and clearly communicated, and limits are placed on the child's behavior. When the child displays unacceptable behavior, teaching appropriate behavior is the first line of intervention. Under the psycho-educational model, the use of punishment is viewed as ineffective. The teacher shows positive regard for the child's ability to change for the better, actively teaching that everyone can change. *"Behavioral change comes not only from the manipulation of environmental variables. . . but from the development of a better understanding of oneself and others (the 'psycho' part), and the practice of new ways of reacting (the 'education' part)"* (McIntyre, 2011). The child is taught new ways of feeling and thinking, and the tools of self-management (i.e., monitoring and reinforcing one's own behavior).

The Importance of Teacher-Student Relationships

When surveyed about what makes a teacher good at behavior management, students from around the United States all agreed that teachers' efforts to establish relationships with them that were characterized by care and respect were crucial (Cothran, Kulinna, & Garrahy, 2003). Students with EBD are not often listened to in schools and they have become accustomed to feelings of isolation by both their peers and their teachers (Baker, 2005; Cefai & Cooper, 2010; Cooper, 2006). One study in Australia found that secondary students with EBD expressed a desire for more affective relationships with their teachers, ones characterized by patience and understanding (Capern & Hamond, 2014). The students wanted their teachers to connect with them on an emotional level and they wanted to know more about who their teachers were as people.

Students with EBD were more interested in these emotional connections than were their peers who had been identified as gifted and talented (these students wanted more academic support). Another study with students with high-incidence disabilities, including EBD, reported that students who were dissatisfied with their relationships with teachers experienced higher rates of externalizing behaviors and anxiety (Murray & Greenberg, 2006). Decker, Dona, and Christenson (2007) examined relationship quality from both the teacher and student perspective and found that as quality improved, so too did students' social and behavioral outcomes,

as well as their engagement. Relationships matter not only for children's emotional well-being, but also for their academic aptitude (Hamre & Pianta, 2001). In a meta-analysis of over 800 studies, 229 of which included a focus on teacher-student relationships, Hattie (2009) found that relationship quality positively predicted (ES = 0.72) academic achievement, ranking 11 out of 138 predictors.

Special Educator Preparation
Relationship building is an area of special education teacher preparation that has been often overlooked in the recent past but one with rich potential for improving the classroom environment, student learning, and behavior (Powell & Kuzuma-Powell, 2013). The psycho-educational model, with its focus on relationships, was quite prominent in teacher education for children with EBD in the mid-1970s, but now plays a secondary role (Long, 2015). Since the 1980s, teacher education in EBD has been heavily influenced by principles of applied behavioral analysis (ABA), with attention to environmental antecedents that shape children's behavior (Alberto & Troutman, 2013; Kauffman & Landrum, 2012). As a result, generations of teachers have entered the field equipped with effective strategies to support the needs of students with EBD across a variety of academic, behavioral, emotional, and social domains. However, outcomes for these students are still relatively negative. As more research is conducted on students with EBD through an ecological lens, it may be time to revisit the psycho-educational model and its use in teacher education. It could be that these principles can work in combination with those of ABA to promote optimal outcomes for students with EBD. Researchers have suggested that strong relationships between teachers and their students with EBD provide the foundation that allows positive behavior support programs to be successful (Mihalas, Morse, Allsop, & Alvarwz-McHatton, 2009). Students with EBD have themselves acknowledged that having a meaningful relationship with their teacher is critical to their success in school (Sellman, 2009).

Purpose
The psycho-educational model and the behavioral model are not mutually exclusive; rather, principles of both can be used to improve outcomes for students with EBD. The purpose of this paper is to present and examine a psycho-educational approach used in the preparation of teachers of children with EBD. Over the past 25 years, all three authors have used this approach in teacher education programs for pre-service special education teacher candidates and found it to be very effective in preparing students for the realities of working with students exhibiting EBD. In the sections that follow, we (a) describe the need for psycho-educational approaches within teacher education, (b) outline an undergraduate course introducing EBD, and (c) summarize results from multiple studies focused on the undergraduate EBD course and its relationship-based curriculum.

Psycho-educational Teacher Education
Research from developmental psychology has shown that from an early age, human beings seek out stories in an attempt to make sense of their world (Barnes & Bloom, 2014). Bruner (2002) has argued that people are hardwired to respond to stories. His research indicated that human beings (a) are innately motivated by stories and pay attention to material presented in story form, (b) create stories to understand the world around them, (c) understand new material more easily when it is presented in story form, (d) have greater retention of information that has been presented in

story form, and (e) identify characters in stories as symbolic models for their own future behavior. Members in the teacher education community have promoted narrative curricula as a lens for examining the relational dimensions of teaching children with EBD (Danforth & Smith, 2005; Long, Fecser, Morse, Newman, & Long, 2014; Saltzman, 2006). Teacher narratives can reveal the nurturing dimension of teaching and serve as springboards for ethical actions. These stories represent a view from the front lines of the reality of working with students with EBD and can be a powerful tool in preparing pre-service teachers for the job ahead. For example, a commonly used text for teaching about EBD has been *Characteristics of Emotional and Behavioral Disorders of Children and Youth*, which is now in its 10th edition (Kauffman & Landrum, 2012a). A companion text with the book focuses on case studies and stories of students with EBD and is designed to lead readers into rich discussions of actual issues from the classroom (Kauffman & Landrum, 2012b). Although all three authors of this paper have used these texts in their own teaching, we have also used non-fiction novels written by a special education teacher as the texts in an undergraduate introductory course on EBD in an attempt to present effective psycho-educational practice.

Stories from the Front Lines of EBD
Torey Hayden, a former teacher of children with EBD, has authored eight nonfiction books, which offer readers a richly detailed and realistically reported look at the day-to-day problems, successes, and struggles of teaching and counseling children with EBD. *One Child* (1980), Hayden's first book, details the story of six-year-old Sheila, who finds herself in Torey's self-contained classroom after being accused of critically burning a neighborhood toddler. Sheila comes to Torey in January as she awaits placement in a psychiatric hospital. Over the course of the next five months, Torey and Sheila form a relationship that changes both of their lives. Hayden's other books include *Somebody Else's Kids* (1982), *Murphy's Boy* (1983), *Just Another Kid* (1986), *Ghost Girl* (1992), *The Tiger's Child* (1995), which focuses on Sheila as a teenager, Hayden's stories of classroom life place emphasis on the relationships between the teacher and students with EBD and stress the interpersonal dynamics and emotional connections involved in working with troubled children. Her stories speak to the power of relationship skills and they emphasize the relationship interface between a teacher and her students. Hayden was keenly aware that her method of educating children with EBD stood in opposition to more traditional teaching methods.
"The courses, the professionals, all preached against getting involved. Well, I could not do that, I could not teach effectively without getting involved, and in my heart, because I did belong to the love-and-lost school, when the end came I could leave. It always hurt, and the more I loved a child, the more it hurt. But when the time came that we had to part or I had to honestly give up on the child because I could do no more, I could go. I could do it because I took with me, every time, the priceless memories of what we had, believing that there is no more one can give another than good memories" (Hayden, 1980, p. 204).

The importance of relationships became apparent to Hayden when she was 18 while volunteering in a preschool program with disadvantaged children (Hayden, 2002). She had been given the task of working with Mary, a four-year-old, who, day after day, spent the whole time hiding beneath a piano. Hayden's charge was to develop a relationship with the child and get her to come out. She began her relationship with Mary by lying under the piano with her and talking with her even though she never talked back and reading to her when she ran out of words. It was a

long slow process over many months, but eventually Hayden did form a relationship with Mary and get her to come out and speak again. The connection between a more positive interaction and the long hours Hayden spent apparently doing nothing more than talking and reading to Mary was not lost. The outcome spoke of the significance of human interaction, how much it matters to us that someone is willing to spend focused time with us, and that our problems tend to improve simply by being with people who respond with unconditional support in a time of need.

To offer a child patience and understanding, teachers need to be able to regulate their own emotions. It would be easy for someone dealing with a child like Mary to experience frustration, impatience, and possibly even anger. Emotion regulation is important because it is associated with greater classroom management efficacy and it can protect teachers from feelings of burnout (Sutton & Wheatley, 2003; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010).

Introduction to EBD for Undergraduates

Psycho-educational Strategies for Learners with Special Needs has been used as an introductory course on the topic of EBD for pre-service special education teachers at the authors' home institution for nearly 25 years. Table 1 contains a list of the 15 course objectives.

Table 1. Course Objectives for Psycho-educational Strategies for Learners with Special Needs

Objectives
1. Describe Torey Hayden's relationship-driven classroom practice and how it differs from the three most common approaches to behavioral problems: the behavioral, market, and medical models;
2. Describe how relationships are a process not a goal;
3. Describe how process orientation – the ability to focus and work in the present – is at the core of a relationship-driven model of treatment and management of EBD;
4. Describe the social skills needed to create strong and healthy bonds necessary for using relationships as a medium of behavioral change;
5. Describe the philosophical principles which underpin and inform all actions taken in a relationship-driven classroom;
6. Describe laying the ground rules for a relationship-driven classroom;
7. Describe how to respond when misbehavior occurs in a relationship-driven classroom;
8. Describe how in a relationship-driven classroom, consequences are not the only appropriate responses to discipline and control;
9. Describe how to build opportunities for joy and enthusiasm, expression of feelings, stress reduction and relaxation skills, and communication into a structured routine;
10. Describe the importance of actively teaching relationship skills to children with EBD;
11. Describe the importance of teacher-student relationships and teachers acting as functional adults while showing their warm and friendly side;
12. Describe how the teaching of social skills that children need to make and keep friends and be a valued member of the group are built directly into the curriculum;
13. Describe five strategies to strengthen the classroom group: concrete identification, deemphasizing comparisons, group responsibility, group problem-solving, and group celebrations;
14. Discuss the implications of a paradigm shift for teaching children with EBD, away from control models toward a relationship-driven orientation;
15. Develop an ethic of helping and caring in working with children with EBD.

Multiple combinations of Torey Hayden's books have been used as the primary source for class lectures and discussions. Teacher-student encounters in the books served as springboards for inquiry and self-examination and critique of theory

and practice in the psycho-education of students with EBD. Literature circles, a student-centered learning strategy that involves collaborative interactions around a text and promotes higher order thinking (Daniels, 1994), were used as a way of structuring class discussion. Students picked from predetermined roles, including Passage Master (i.e., identify passages for discussion), Discussion Director (i.e., develop questions to facilitate group discussion) Illustrator (i.e., draw a picture related to or to represent the reading), and Connector (i.e., make connections from the text to the world outside of the story).

Assignments included response papers on each of the Hayden texts. Students responded to questions such as: (a) Describe Torey's classroom arrangement and daily routine in *Beautiful Child*. Given the unruliness and frequent fistfights between her students from day one, why does Torey wait 12 weeks before instituting the traffic light system? How does Torey build in opportunities for expression of feelings? Opportunities for stress reduction and relaxation? Opportunities for joy and enthusiasm? Opportunities for her students to communicate with her? Why does Torey ease up on the traffic light system as the school year draws to an end? (b) In *One Child,* Torey was gone from class to attend an out-of-state conference for two days, and Sheila, who had been doing well, reacted with rage, destroyed the classroom, and the substitute ended her days in tears. When Torey returned and discovered the damage Sheila had done, she became angry and felt betrayed by Sheila. Torey denied her the privilege of going on a field trip. What about Torey's absence was so upsetting to Sheila? Could this meltdown have been prevented? Anticipated? Was Sheila's acting-out a behavioral manifestation of her disability and understandable in the context? Was this an appropriate consequence? How might Torey avoid vindictive consequences in the future? (c) In *Somebody Else's Kids* Torey discloses:

'I felt sometimes as if my soul had been frozen somewhere in middle childhood, that the   rest of me had grown, but that part of me which was I, myself, had never reached   adulthood. I worked so well with children, not because I had any special gifts, but simply because I was one of them; my only advantage being experience in life. Their thoughts   were no mystery to me nor mine to them ' (Hayden, 1982, p. 137).

Can you remember your own childhood, how you yourself felt at any given age? Can you remember back to the inaccuracies you had as a child, the misperceptions you had as a child, the hopes you had as a child? How might this help you in responding to the children you will be working with?

The Relationship-Driven Classroom: Interpersonal Relationships as a Medium for Change

Marlowe and Hayden (2013) have distilled from Hayden's stories an approach to educating children with EBD, which could be termed *the relationship-driven classroom.* The emphasis in the classroom is not on obedience, but on appropriate social interaction that then generates desirable behavior. Classroom structure is in part defined by the relationship between teacher and child. *"It usually takes about eight weeks for relationships between the teacher and child and the relationships between the students to begin to gel"* (Marlowe & Hayden, 2013, p. 1). The individual relationships between the teacher and the child, the relationships between the children, and the group or unit relationship are the three most important components of the model. What sets the relationship-driven methodology apart from other methodologies is its active use of interpersonal relationships as a medium for

change. In the subsection that follows, we present an adapted version of the seven philosophical principles (Marlowe & Hayden, 2013, Chapters 2-3) that underpin relationships as a means of change that are highlighted to pre-service teachers using course texts to demonstrate the psycho-educational model.

Relationships are a Process

People seem to emphasize one of two approaches, whether it is working with children with EBD or whether it is towards their life in general – *goal orientation* and *process orientation*. Most of us are, by necessity, a combination of both goal and process orientation. Goal-orientation is when your focus – that which motivates you to do something – is on the outcome. Often a teacher works with a troubled child because they have expectations of making him better by helping him achieve long-term academic and behavioral goals. Their focus is on the outcomes of these activities and achieving them possibly gives them their *"reward."* However, the risk of being too focused on the future is overlooking the present.

In process orientation, your focus – that which motivates you to do something – is on the act of doing it (i.e., the process itself). You do what you do with an emphasis on the process of doing it. You work with the troubled child because you enjoy the act of being with the child. Your focus is on the process, and the act of doing it is where you get your *"reward."* It is intrinsic in the actual activity. Process-oriented people are present oriented because the reward is in what they are doing right now. The risk of being overly focused in the present is to lose sight of long-term goals or objectives.

It is important to differentiate between process and goal orientation because relationships are, by their very nature, process oriented. Relationships are continuously formed and maintained upon moment-to-moment interactions. They are ongoing and now. The relationship-driven classroom model is present oriented because relationships exist in the present. Thus, in order to use relationships as a way of changing behavior, one must be oriented to *"right-here-and-now"* as opposed to looking exclusively at the past or the future. The teacher is working within the environment, consciously assessing and modifying what is happening *"right now"* using relationship skills, intuition, emotion regulation, and the social milieu. For example, pre-service teachers who read Hayden novels would learn she is a process-oriented person more than a goal-oriented person. Hayden worked with children with EBD because she thoroughly enjoyed the process itself. She loved being in the "right-here-and-now" with the children. She did not have any set expectations from her interactions with children, therefore avoiding feelings of disappointment and burnout. If success happened for her children, she was happy for her children's sake, but her fulfillment and enjoyment and, of course, self-regulating all of her pain and agony, were in the ongoing process of what she was doing. It was the process itself, or successful interactions, that delivered the pay-off for Hayden, rather than the ultimate goal of what she was doing.

In Hayden's experience (Hayden, 2001), it was goal-oriented people – those whose focus is primarily on the outcome of activities and achieving them that gives them their reward – who burned out. They are doing what they are doing for the outcome, and because children with EBD often show a lack of academic and behavioral improvement, they become discouraged and leave the field. Researchers have found that teachers' personal characteristics, such as the fit between their personality and the demands of the job and the students, contributes to success and longevity in the field of EBD (Prather-Jones, 2011).

There is a Difference between the Person and the Person's Actions

People tend to form relationships with others who they believe accept them just as they are. Thus, a teacher wants to communicate to the child that they are okay with them in their current state. This does not mean accepting everything the child does, but it means making clear that the child himself is acceptable. Understanding the difference between the person and the person's action is another way of saying this.

Making the distinction between the person and their actions helps pre-service teachers understand that it is behaviors – actions of the body and the mind – that need to be changed, if they are troublesome, not the "you" part. None of us can change the "you" part of us. It lasts from birth to death. That is who we are. So, the focus on change is always on what we do or what we think in the relationship-driven classroom.

A second part of this is teaching children that they are not good or bad, but instead, they are neutral. All children are capable of doing good things and bad things, but it is up to them to decide how to act. Children's thoughts and actions are a part of them, and they are the part of them that they can control.

No One Chooses to be Unhappy

We all want to be happy. If someone is behaving in a way, which leaves him or her unhappy, they are not doing it because they want to be unhappy. No child arrives at the schoolhouse door and says. *"Geez, I think I'll be depressed and angry today."* No child says, *"Hey, what a fun place to have a panic attack. I think I will have one in this classroom when Teacher calls on me to read aloud."* No one is choosing to do these things. No one wants to be unhappy. So, if a child continues to do something that repeatedly makes him unhappy, it is because – for whatever reason – that child is simply not able to do differently at that point in time.

If teachers accept the notion that no child chooses to be unhappy, then they must also recognize it is no longer solely the child's responsibility to sort the problem out, but it is the teacher's as well. If a load is too heavy for a child to carry, others standing around pointing fingers at him will never get it shifted. Instead, teachers can help. A teacher can show him how to shift his thinking and behaviours. They can encourage him. They can share the burden and model alternative thoughts and behaviours until he is strong enough.

Misbehaviour is a Teaching Opportunity

If a child knew how to act in a desirable way, they would, because unhappiness is not desirable. However, if the child does not actually know how to behave the way a teacher expects, then the appropriate response from the teacher is to offer instruction and guidance in how to perform the desired behaviour. Many children in programs for EBD have known only maladjusted adults and dysfunctional relationships (Mihalas et al., 2009). They have little experience of adults modelling appropriate behaviour. These students are unlikely to possess the ability to self-correct their own problem behaviours and it is therefore unfair to expect them to without being offered direct instruction in how to do so (Marlowe & Hayden, 2013). In a relationship-driven methodology, the teacher-child relationship is used as an avenue through which to teach and model functional behaviour.

In the class text, pre-service teachers read examples on how Hayden is a functional adult, and learn it is their job to model how a functional adult behaves. Some examples of modelling include behaving consistently and predictably, dealing safely and effectively with feelings, and taking responsibility for one's actions. Other things are taught to the child directly, such as how a functional person expresses emotions appropriately, relates to other people, and handles negative situations.

In the relationship-driven classroom model, the focus is on teaching the child to internally change inappropriate behavior. Throughout the class novels, there are multiple examples of Hayden looking for teachable moments with a discussion of the natural consequences instead of issuing fabricated consequences. Solely imposing external control does not teach new behaviors and it is unrealistic and unfair to expect children to teach alternative behaviors to themselves. Pre-service teachers learn that as soon as the external control is lifted, the known inappropriate behavior often returns (Niemiec & Ryan, 2009).

Everyone Can Change

Everyone, regardless of who they are and what they had done, can change (Marlowe & Hayden, 2013). This belief is *the* foundation upon which the relationship-driven model is built. To state that a child *"is bad through and through and can never change"* is simply an excuse for excluding someone or for not getting involved and avoiding taking any responsibility for the problem yourself. Pre-service teachers learn that part of teaching is attitudinal. We are not looking to blame or excuse current undesired behaviour; we are looking to understand it, so we can possibly change it by ascertaining things to do in the present to change unhappy circumstances. There are many alternatives ranging from teaching, role modelling, medication, therapy, and supervision, to just plain caring. Things are not always going to work out, but just because we did not manage, it does not mean it was not worth the try. And it does not mean someone else will not succeed where we failed.

Personal Change is Very Difficult

True among all people is the notion that changing long-held ways of behaving is quite difficult to accomplish. This is true for everyone and there are many reasons for this. Genetic or cognitive make-up and environmental circumstances play a role, as well as motivation and consequences. As a result, it is normal for the individual who is trying to change to make many approximations before effectively managing the right behaviour. It is also normal to slip up or fail many times before eventually achieving the desired behaviour. Pre-service teachers learn to teach that mistakes and failures are part of the process, not the outcome. Tolerant teachers understand that these struggles do not mean that change is not taking place or that change is impossible. It simply means the child has not gotten there yet.

The World is Complex

People tend to judge themselves and others as good or bad, right or wrong, successes or failures, and they often view choices as always or never; there is no room for approximations (i.e., grey areas). This form of binary thinking is common among people because it helps them feel empowered and in control in an uncertain world. Unfortunately, this compartmentalized way of looking at the world gives people a false picture because almost all behaviours occur on a spectrum and not at the two extremes.

Pre-service teachers learn that black-and-white thinking does not allow teachers to be open to approximation when a child is learning a new behaviour. Binary thinking often results in two outcomes: success or failure. There is no room for compromising. In the relationship-driven classroom any approximation of a student's desired behaviour is noteworthy and it is up to the teacher to recognize and successfully reinforce even the smallest efforts.

Binary thinking also tends to generate rules that have the potential for creating power struggles. If a teacher sets a rule and says, *"Here's the line. I dare you to cross it,"* they are setting up a power struggle immediately. They are challenging the child to disobey. The psycho-educational teacher saves those rules for those occasions when she has no other choice. More expansive rules allow a teacher to be more flexible in her interpretation and that way she can avoid a power struggle. Also, it allows one to accommodate special situations.

In the *One Child* classroom, Hayden (1980) kept her rules open-ended or gray. She basically only had two rules with the first one being "*Do your best.*" Most children do have a sense of when they are putting forth their best effort – and yet it allows both the teacher and the child some leeway in interpreting and applying the rule. For example, if a teacher has a child who comes to school tense and anxious from a horrible night at home, doing his best that day may be different from doing his best another day. So, a teacher can stop at wherever he's at and say, *"You've done your best,"* and be truthful. Open-ended rules allow you to accommodate more easily. The second rule was *"Do not hurt anyone,"* which is more specific for safety reasons but it allows for flexible interpretations in instances of accidental behaviour. So *"it is important when working with a relationship-based methodology that one have a clear understanding that the world is complex, and that it cannot always be reduced to clear-cut, comprehensible certainties…."* (Marlowe & Hayden, 2013, p. 47).

Research on the Relationship-Driven Approach
At the conclusion of the Fall 2016 academic semester, students ($N = 20$) enrolled in the introductory EBD course completed a version of the questionnaire, the Torey Hayden Survey (THS; Marlowe & Disney, 2007). The THS was created to measure the influence of reading, discussing, and writing about Torey Hayden's stories and relationship-driven classroom practice in pre-service teacher education. In addition to a text (Marlowe & Hayden, 2013), the three Hayden books used in this particular semester were *One Child* (1980), *Somebody Else's Kids* (1982), and *Beautiful Child* (2002). The first part of the survey contained 20 Likert-type scale items ($\alpha = .88$) designed to determine Hayden's influence on the development of specific relationship skills. Relationship skills were derived from a text based on Hayden's practice expertise (Marlowe & Hayden, 2013), which describes teacher skills needed to create strong and healthy bonds necessary for using relationships as a medium of behavioral change. Scoring ranged from 1 (totally disagree) to 5 (totally agree). A score of three was a neutral value. Table 2 contains the survey items and descriptive data on student responses. The overall mean score on the 20 items was 4.65, with a range of 4.33 - 4.92. These responses suggested the course made a significant impact on pre-service special education teachers' feelings about how to teach and manage children with EBD.

Table 2. Descriptive Statistics for Student's Responses about Torey Hayden's Influence

"I read Torey Hayden's books in my course, and as a result, I…"		
N = 20	*M*	*SD*
1. understand the importance of modeling appropriate behavior.	4.52	0.65
2. am better able to see things from the perspective of the student.	4.64	0.52
3. know how to listen to students when they talk to me.	4.88	0.39
4. understand the importance of commitment to the student.	4.72	0.66
5. understand how to discipline with fairness, honesty, and compassion.	4.60	0.58
6. understand the importance of spending focused time with the student.	4.75	0.60
7. am better able to feel affection for students.	4.49	0.55
8. understand how to recognize power struggles and disengage from them.	4.35	0.71
9. know how to show my human side to students.	4.89	0.42
10. know how to set realistic expectations for students.	4.52	0.63
11. am able to not prejudge the student.	4.41	0.57
12. am better able to avoid vindictive consequences.	4.88	0.34
13. am better able to build in opportunities for joy and enthusiasm in the class.	4.90	0.35
14. am better able to indulge in laughter and humor with students	4.76	0.51
15. understand how to encourage and teach optimism.	4.63	0.47
16. am more open to approximations when a student is learning a new behavior.	4.28	0.79
17. understand why to avoid sarcasm, ridicule, and embarrassment.	4.92	0.31
18. understand how to articulate worries I perceive the student having.	4.33	0.68
19. am better able to respond positively to students' behaviors.	4.87	0.43
20. understand how to promote a classroom climate where failure is not a major source of humiliation, distress, or punishment	4.62	0.39

Part two of the survey contained the following four open-ended questions, which assessed Hayden's influence on participants' professional attitudes and practices:

1. How strong an influence was Hayden compared to other influences, practices, and texts used to prepare you to teach?
2. Did reading Hayden permanently change your attitudes and beliefs about students with disabilities? Why or why not?
3. How did reading Hayden help you to develop your identity as a teacher?
4. What adjectives do you use to describe the qualities you see in yourself that remind   you of Hayden?

Every student indicated (a) Hayden was a strong influence compared to other learning experiences, (b) reading the books reinforced/improved their attitudes about students with disabilities, and (c) reading about Hayden helped them to form a teacher identity. Table 3 contains a summary of student responses to the first three questions. Phenomenological analysis (Colazzi, 1978) indicated the pre-service teachers recognized themselves in Hayden's character, which led them to feel as if they were the same as Hayden. They reported analyzing their own attitudes and practices against the frameworks of her beliefs and behaviors. Regarding the fourth question, the following five adjectives appeared on at least 75% of student responses: *patient*, *compassionate*, *caring*, *stubborn*, and *determined*.

Table 3. Pre-Service Teachers' Feelings about Reading Torey Hayden's Books.

Open-Ended Question	Sample of Student Responses
1. How strong of an influence was Hayden compared to other influences, practices, and texts used to prepare you to teach?	• *It was the most beneficial text I have read so far because it was looking into real life.* • *She is a very strong influence because she brought out the real side of this job, more than regular textbooks do.* • *She showed the human side of teaching and was so easy to relate to. She opened my eyes to a lot of issues I hadn't thought of before.* • *This is the first time I have read this kind of stuff in a class and it made the idea of teaching kids with EBD very real.* • *I felt as if I was in Torey's class and living the experience with her; it showed me what it really takes to teach these kids.*
2. Did reading Hayden permanently change your attitudes and beliefs about students with disabilities? Why or why not?	• *Absolutely! I learned about regulating behaviors (especially mine) when it comes to working with students with disabilities.* • *Yes. It helped me understand why children with EBD behave certain ways and how things are rarely black and white in the classroom.* • *It made me realize that they are children who are often misunderstood and mistreated by society, that they need love, support, and structure.* • *Yes, in the most positive way because she reminds me how much these students need someone in their corner and that will be me.*
3. How did reading Hayden help you to develop your identity as a teacher?	• *I liked to imagine I was her because although some things I disagreed with, her determination was admirable.* • *These books have helped me because the closest thing I've done to teaching is camp counsel/present to my peers. Reading her experiences has helped me learn how to actually teach these kids.* • *After reading her books, I found an overwhelming sense of compassion and how to express it effectively.* • *I think what I learned most from her was how to be patient and how to promote learning, and motivation for learning.*

These findings reinforce previous short-term studies (Marlowe, Maycock, Palmer, & Morrison, 1997; Marlowe & Maycock, 2000; 2001) examining the influence of Hayden's teacher stories on pre-service teachers' attitudes. These quasi-experimental studies documented that reading, discussing, and writing about Hayden's teacher stories and her relationship-driven classroom practice resulted in positive attitude changes over the course of a 15-week semester. Participants evinced more positive expectations and acceptance toward children with disabilities ($F = 15.83$, $p < 0.01$) (Marlowe & Maycock, 2001), and specifically those with EBD ($F = 9.86$, $p < 0.01$) (Marlowe, Maycock, Palmer, & Morrison, 1997), and decreased punitive attitudes toward classroom behavior management ($t (28) = 4.52$, $p < 0.001$) (Marlowe & Maycock, 2000). Decreased scores in punishment were correlated positively and significantly with the therapeutic impact of reading Hayden as measured by a biblio-therapeutic checklist ($r = 0.58$, $p < 0.001$). Phenomenological analysis of participant journal entries in the three studies using the Colazzi (1978) method revealed the structure of the experience of reading Hayden was one of identification with Hayden's character leading to new ways of feeling (e.g., hope, inspiration) and new ways of thinking (e.g., new understandings, gathering didactic information).

Two studies have reported the long-term influence of reading Hayden's teacher stories in preservice teacher education. Using the THS questionnaire, Marlowe and Disney (2007) conducted a 10-year follow-up survey of special and general education teachers ($N = 132$), and Hoffman et al. (2015) conducted a 20-year follow-up survey of special education teachers ($N = 98$) examining practicing

teachers' perceptions of the long-term influence of having enrolled in the undergraduate course where Hayden's books served as course texts. Although basic questions of the THS surveys were similar, the number, wording, and the order in which questions were presented were slightly different on each administration. Equivalence and stability over time were evaluated by comparing participant responses across the two surveys on paired relationship skill questions using a Pearson product moment correlation. For the nine paired questions, the mean response of participants in the first administration (m = 4.17) and the second administration (m = 4.34) resulted in a Pearson's r of .988. The t-test indicated that this level of correlation was not significantly different, $(t\ (8) = -2.08, p < .0.07)$ (Hoffman et al., 2015).

The response rates for the 10-year and 20-year surveys were 61% and 53% respectively, above the minimum rate of 50% suggested by Dillman, Smyth, & Christian (2009). Participants had means of 4.10 and 8.44 years of teaching experience in the 10-year and 20-year surveys respectively. Levels of agreement for having read the Hayden texts and developing specific relationship skills ranged from 3.98 to 4.67 with a mean of 4.27 for the nine relationship skills in the first administration (Marlowe & Disney, 2007) to 4.07 to 4.54 with a mean of 4.33 for the 25 relationship skills in the second administration (Hoffman et al., 2015).

Regarding Hayden's influence on their current teaching compared to other teacher preparation experiences, 83% (Marlowe & Disney, 2007) and 95% (Hoffman et al., 2015) of the teachers reported Hayden was a very strong influence. Responses were coded strong when participants used the word strong or words or phrases tantamount in meaning: *powerful, wonderful, extremely invaluable*. In addition, 82% (Marlowe & Disney, 2007) and 93% (Hoffman et al., 2015) of the teachers reported Hayden's teacher lore reinforced/improved their attitudes toward children with disabilities, and 95% (Marlowe & Disney, 2007) and 94% (Hoffman et al., 2015) of the teachers indicated that reading Hayden's novels had a positive impact on their own identities as teachers. Hayden was cited as a model for teacher skills needed to build relationships with students including self-awareness, acceptance, affection, flexibility, fairness, commitment, seeing from the other point of view, joy, enthusiasm, trustworthiness, being respectful, and tolerance. *Compassionate*, *caring*, and *patient* were the most oft-cited adjectives in both surveys when current teachers listed qualities they saw in themselves that reminded them of Hayden (Marlowe & Disney, 2007; Hoffman et al., 2015). The same three adjectives were mentioned by a majority of the students from the Fall 2016 semester.

Similar to the findings from the four short-term studies, the structure of the experience of reading Hayden that emerged from a phenomenological analysis of the four open-ended questions in both long-term studies were one of identification with Hayden's character, leading to ways of feeling about teaching and students and ways of knowing about teaching (Marlowe & Disney, 2007; Hoffman et al., 2015). Participants referred to Hayden's character as an ego ideal, reported seeing the world of the classroom through Hayden's character, and reported taking into themselves attributes of Hayden's character. Participants also reported rereading Hayden's stories to renew positive feelings the stories engendered, to gain insight into their own lives as teachers, and to help with difficult teaching situations (Marlowe & Disney, 2007; Hoffman et al., 2015).

Discussion

The field of EBD is at a critical point in its history (Farmer et al., 2016). Recently, there have been system-level changes within schools in an attempt to better meet the needs of students with EBD, including school-wide positive behavior supports, wraparound services, and inter-agency collaboration (Mihalas et al., 2009). Although these initiatives have resulted in positive effects for students, and every indication is that these efforts should continue, there needs to be an equally strong and parallel focus on building relationships at the teacher-student level (Decker et al., 2007; Long et al., 2014; Murray & Greenberg, 2006; Solar, 2011; Van Loan & Marlowe, 2013). *"Teachers who value and develop caring teacher-student relationships provide schools with a solid foundation to build on when implementing more systems-based approaches"* (Mihalas et al., 2009, p. 110).

Although affective goal setting does not often occur in teacher education, developing an ethic of caring may need to take on a larger role in pre-service preparation (Noddings, 2005). Teaching children with EBD involves helping them in many ways. A wide range of scholars has concluded that caring relationships in effect are the intervention for children with EBD (Applestein 2017; Brendtro, Mitchell, & McCall, 2009; Craig, 2008; Danforth & Smith, 2005; Long et al., 2014; Perry & Szalavitz, 2006; Van Loan & Marlowe, 2013). It should come as no surprise that the etiological condition most often mentioned in the histories of problem children is the lack of adequate adult care (Salavitz & Perry, 2010). As Redl (1966) repeatedly stated, discipline with troubled youngsters is an issue of care, rather than control.

The writings of Redl (1966) and his psycho-education colleagues contain many time-tested truths. One of these truths is that children absolutely require love and affection.

The children must get plenty of love and affection whether they deserve it or not; they
must be assured of the basic quota of happy recreational experiences, whether
they seem   to "have it coming" or not. In short, love and affection, as well as the
granting of   gratifying life situations, cannot be made the bargaining tools of
educational or even   therapeutic motivation, but must be kept tax-free as minimum
parts of the youngster's   diet, irrespective of the problems of deservedness (Redl & Wineman, 1957, p. 303).

This passage captures the essence of the psychoeducational orientation and the gold standard against which psycho-educators must measure any intervention (Fecser, 2015). Hayden's stories meet the standard: children who came under her care received an abundance of love and affection regardless of whether they deserved it or not. Affection was not a commodity to be traded in the classroom market for acceptable behavior. Hayden did not break off the relationship when the child did something irksome or alienating; instead, she used the incident to help the child learn to behave more appropriately.

Teacher education programs may need to place more emphasis on future teachers' understanding of the emotional needs of students with EBD in an effort to promote better relationships between these students and their teachers (Mihalas et al., 2009). Hayden's stories demonstrate the power of a caring teacher. The stories provide insight into how teachers would need to think and what kinds of skills they would need to develop in order to form and maintain positive relationships with students with EBD. The stories are encouraging because they demonstrate that a teacher can successfully build relationships with and teach children who are extremely resistant

and difficult. Fundamental skills/beliefs necessary for teachers to accomplish this in the classroom include self-awareness, emotion regulation, objectivity, friendliness, and acceptance that people are all much more alike than different (Marlowe & Hayden, 2013).

There is increased recognition in special education teacher preparation of expert teachers as important partners in the creation of a knowledge base about teaching (Cook, Tankersley, & Harjusola-Webb, 2008; Kauffman & Landrum, 2012b). Hayden's character provides teachers with a much-needed role model. *Compassionate*, *caring*, and *patient* were the most oft-cited adjectives when pre- and in-service teachers listed qualities they saw in themselves that reminded them of Hayden. Pre- and in-service teachers of children with EBD need exemplars, like Hayden, whom they can analyze and discuss. They are in need of stories that ring true and mirror their own experiences.

Conclusion

Many practicing special educators report their pre-service preparation did not match the realities of working with students with EBD (Billingsley, Fall, & Williams, 2006). Teachers in classrooms for children with EBD experience high rates of teacher stress and burnout (Friedman, 2006; Prather-Jones, 2011) and have the highest rate of attrition in the field of special education (Bradley, Henderson, & Monfore, 2004). There is too little in the training of teachers in EBD that promotes relationship building (Long et. al, 2014; Mihalas et al., 2009; Nichols, 2007; Powell & Kusuma-Powell, 2010). Although self-awareness, seeing from the other point-of-view, acceptance, and friendliness are an essential part of everyday life in classrooms, most teacher education programs treat them on the margins of the curriculum. Special education teacher candidates need opportunities to develop the understandings of the academic, social, and emotional skills needed to create strong and healthy bonds with their students. Stories such as Hayden's, which reveal the dilemmas and psycho-educational strategies of a practicing teacher of children with EBD, signpost a viable path toward that needed knowledge

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The Effect of Guidance and Counseling Programs on the Learning Processes of Visually Impaired High School Students

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Abstract

Guidance and counseling programs aim to lead and guide students by assisting them to achieve developmental tasks. This study investigated the role and effect of a guidance and counseling program on the learning processes of visually impaired students in an inclusive educational setting. The study also investigated the implementation of the principles and services of the program for such students. The respondents were visually impaired students and their teachers and counselors. The study was conducted at several senior high schools providing inclusive education in Bandung and the surrounding areas. In line with the characteristics of the investigated challenges, this study used both quantitative and qualitative approaches. The results of this study showed various problems in the learning processes of visually impaired students. To solve these problems, both teachers and counselors

provided guidance and counseling to help students in their learning process. The programs also encouraged students to enter university by helping them develop self-confidence.

Keywords*: guidance and counseling, blind students, inclusive education*

Introduction

Man's desire to improve his knowledge is a need reflecting social development in developed societies, which requires continuous changes, adjustment, and improvement in education. This is also true for the case of Indonesia. Although it is one of the fundamental rights of all men to get sufficient education, in many countries there are 50-60% of children without disabilities; and only 2-3% of children with disabilities attend schools (Johnsen & Skjørten, 2001: 37).

In Indonesia, the official data from *Direktorat PSLB* (the Directorate of Special School Education) in 2007 reported that of all population of children with disabilities (318.600 children), only 24.7% (78.689 children) attend formal education (Direktorat PLSB, 2008). ThisI implies that there are 65.3% of children with disabilities who are excluded, marginalized, and do not receive an acces to their rights of education. This number could be even larger, considering the small prevalence rate used (0.7% of total population) and the low quality of data collection system in the country.

Responding to this situation, on 7 to 10 June 1994, more than 300 participants representing 92 governments and 25 international organizations held a meeting in Salamanca, Spain, to expand the objectives of Education for All (EFA) by considering a shift in fundamental policies necessary for promoting inclusive education approach, so that schools can serve all children, particularly those with special educational needs. The Salamanca Statement, focuses on six points: (1) the rights of all children, particularly those with temporary and/or permanent disabilities, to receive educational adjustment so that they can attend school, (2) the rights of all children to attend inclusive classes at schools in their home environment, (3) the rights of all children to participate in a student-centered learning that meets individual needs, (4) enrichment and benefits for all participating parties will be realized through inclusive education, (5) the rights of all children to participate in meaningful and quality education, and (6) the belief that inclusive education will lead to an inclusive society and to cost-effectiveness.

Concern for the equity and development of quality education through an inclusive education system is expected to accommodate society's educational needs, including for children with permanent disability of visual impairment (blindness). Considering the particular disability of visually-impaired students, empirical data show that inclusive education system existing in Indonesia nowadays is attended by many visually-impaired students.

Historically, inclusive education in Indonesia began as an integrated education for visually-impaired students in 1978. Up to now, there have been a great amount of visually-impaired students who academically succeed in their education at public schools. Conceptually, several arguments can be presented to support the prospect of visually-impaired students to get education in inclusive schools. ***First***, academically, visual impairment (handicap) does not significantly hinder academic accessibility of visually-impaired students to enroll in public schools. Hardman *et al.,*s

without visual-handicap. Any obstacle or difficulty lies in their cognitive function development. **Second,** in terms of social skills, visual impairment has no significant effect towards the social skills of visually-impaired students. To certain extent, they are relatively able to develop their social skills. **Third**, from the viewpoint of mobility, the physical setting of inclusive education provides ample opportunities for visually-impaired students to be mobile along with students without visual disabilities. This will allow for empowerment of basic skills in orientation and mobility.

From the description above, visually-impaired students' participation in inclusive education is an implementation of Education for All (EFA), human right, and Salamanca Statement—as international agreement on the importance of inclusive education for children with special needs, including those with visual disabilities (impairment). Mega (2005: 89) found that the primary factors affecting the success or failure of visually-impaired students' in inclusive education system are non-academic. The factors include the lack of motivation, misperception concerning surrounding environments, self-concept development on visually-impaired students, and lack of skills on the part of visually-impaired students to develop social interaction. In addition, field observation shows that educational intervention in inclusive school fails to accommodate the needs of visually-impaired students due to the lack of comprehension for the disability, including its philosophical, conceptual, and technical aspects.

The phenomenon discussed above clearly indicates a gap between the practice of education in public school and the principles of inclusive education, particularly in the development of guidance and counseling services. Considering this phenomenon, it is important to academically study the importance of guidance and counseling services in the context of visually-impaired students' educational problem in inclusive education setting. Based on this framework, the main research problem in the present study is formulated as: "How is the implementation of guidance and counseling concepts in visually-impaired students' learning at inclusive education institution?"

Literature Review
Inclusive Education as an Education System
Indonesia's National Education Department, through Directorate of Special School Education (under Directorate General of Primary and Secondary Education) develops policies and programs of Special Education which accommodate inclusive education as follow: Inclusive education is an education that involves students with special needs (disabilities) to learn together with their peers in public school, which will lead to them being part of the school society, to create conducive learning atmosphere. Inclusive education needs to be realized in Indonesia, based on the belief that everyone has the same rights and obligations. The implementation of inclusive education concepts is also promoted by the convention that children with special needs have the same rights and dignity to achieve their potentials within society.

UNESCO (2005) defines inclusive education as "...a process intended to respond to students' diversity by increasing their participation and reducing exclusion within and from education". It can be concluded that inclusive education accommodates three important points: (1) responding to students' diversity, (2) improving students' participation, and (3) reducing students' isolation in and from education.

On 7 to 10 June 1994, more than 300 participants representing 92 governments and 25 international organizations held a meeting in Salamanca, Spain, to expand the objectives of Education for All (EFA) by considering a shift in fundamental policies necessary for promoting inclusive education approach, so that schools can serve all children, particularly those with special educational needs.

In the Salamanca Statement, there are six points being focused on: (1) the rights of all children, particularly those with temporary and/or permanent disabilities, to receive educational adjustment so that they can attend school, (2) the rights of all children to attend inclusive classes at schools in their home environment, (3) the rights of all children to participate in a student-centered learning that meets individual needs, (4) enrichment and benefits for all participating parties will be realized through inclusive education, (5) the rights of all children to participate in meaningful and quality education, and (6) the belief that inclusive education will lead to an inclusive society and to cost-effectiveness.

In the final draft of Governmental Decree Bill, Chapter II Article 12 on Integrated and Inclusive Education, it is stated that: (1) integrated and inclusive education aims to provide opportunities for students with disabilities to receive integrated education through regular school system so that their educational needs are met, (2) integrated and inclusive education can be implemented in primary schools, secondary schools, and higher education institutions, (3) the implementation of integrated and inclusive education may involve one or several types of students with disabilities, depending on the capability of the schools, (4) schools that implement integrated and inclusive education must provide special structures and facilities to accommodate the needs of students with disabilities, (5) students enrolling in integrated and inclusive education have a right to receive special evaluation, based on their particular abilities and needs, (6) the government attempts to provide incentives for schools that implement integrated and inclusive education, and (7) the implementation of points (1) through (6) is under the regulation of Education Minister and/or Regional Government.

Pearpoint & Forest in Fern Aefsky (1995: 5), noted that: "some teachers believe that inclusion will eradicate labelling, privileged education, and privileged class; yet it will not abolish the support and services needed by the students in public school." Finding of previous study shows that inclusive education foster the development of all children in various ways (Heston, M., 2004: 2).

Visual Impairment
Visually-impaired individuals are those with a combination of visual acuity of less than 0.3 (60/200) or those with a higher rate of other types of visual impairment, i.e. individuals who are unable or have significant difficulties to read texts or illustration even with the aid of magnifying lenses. The measurement of eyesight acuity is conducted using the international chart of eyesight test (Nakata, 2003).

Characteristics of Children with Visual Impairment
Lowenfeld (School, 1986: 24) states that children with visual impairment "… possess no characteristics specific to themselves as blind persons."

Learning for Students' with Visual Impairment
Stakes (Hornby, 2000: 23) outlines several strategies to be used in teaching students with visual impairment or disability: (1) find out from parents/specialists exactly what the child's difficulties are; (2) encourage the child to use visual aids prescribed, e.g. glasses, magnifiers; (3) seat the child appropriately in the classroom, e.g. in the middle, towards the front; (4) make sure the lighting is suitable; eliminate glare from the desk and whiteboard; (5) use worksheets with correct print size, enlarged if necessary; (6) ensure good contrast on any visual materials used – black and white is best; (7) supplement visual information with verbal explanation; (8) use concrete materials and hands-on experiences wherever possible; (9) allow more time to complete tasks, and provide breaks to combat fatigue; (10) arrange for other children to act as buddies, and use peer tutoring; and (11) do not lower expectations because the students has visual impairment.

Meanwhile, Scholl, G.T. (1986: 461) describes several guidance and counseling competencies that teachers needs to master in working with visually-impaired students. The competencies are: knowledge of the strengths and needs of visually-impaired students during their education, knowledge of available services and supporting personnel for visually-impaired students, knowledge of methods to communicate guidance to supporting personnel, knowledge or professional ethics related to guidance information, knowledge of interview techniques, knowledge of visually-impaired students' needs to develop positive self-concept, knowledge of the role of teachers in guidance and counseling of visually-impaired students, and knowledge of basic techniques of guidance and counseling.

Research Method
The present study employs a mixed-method approach of quantitative and qualitative data analysis. For quantitative data, the analysis technique used is descriptive statistics, in the form of percentage. This is in line with Sugiyono's statement (2003) that "descriptive data analysis technique is performed through descriptive statistics, i.e. statistics measurement to analyze data by describing the collected data as it is, without any purpose of generalizing the findings. Descriptive statistics data analysis techniques include data display in tables, graphs, charts, percentage, frequency, and mean, median, or modus calculation." This approach is the basis for the subsequent in-depth qualitative analysis.

To perform in-depth analysis of quantitative data, the qualitative approach is implemented. As described by Nasution (1982: 5), the core of qualitative study is the observation of individuals in their natural environment, observation of their interaction with environment, and understanding their language and interpretation of their surroundings.

The final result of analysis, combining the quantitative and qualitative analysis, formulates the primary data through questionnaire, interview, and observation. This provides many benefits, particularly in collecting data and information. In this case, the role of researcher is hidden from the subjects of the study, allowing him to obtain information optimally (Nasution, S., 1996: 64).

Findings
The Implementation of Guidance and Counseling Concepts for the Visually Impaired Students
The aspects discovered in the implementation of guidance and counseling concepts to visually-impaired students at inclusive education school consist of eleven principles: confidentiality, volunteerism, openness, activity, independence, contemporary, dynamic, integration, harmony, expertise, and transfer.

The Principle of Confidentiality
In implementing the principle of confidentiality, most teachers (68%) analyze various information concerning students with visual impairment. The purpose of this analysis is so that the teachers, at the very least, know the difficulties and needs of visually-impaired students in the actual learning activities in classroom. The gathered data is then selected, in which the majority of teachers (73%) segregate the confidential information of visually-impaired students. They believe that some information is very personal that other people must not know about. For instance, the information concerning the cause of visual impairment. Teacher needs to be aware of this information since it will affect students' psychological condition in learning. Other people, however, should not be made privy to this information, considering that there is a risk that they will talk about it and negatively affect student's psychological condition.

Many teachers (68%) not only separate but also select confidential information concerning visually-impaired students. Nearly all teacher (96%) keep the confidentiality of such information by not giving it to anyone. For the purpose of providing educational services needed by visually-impaired students, majority of teachers (82%) reveals confidential information concerning visually-impaired students in teacher meetings. Considering the need to provide appropriate education for visually-impaired students and their psychological state, most teachers (73%) pay close attention towards the confidentiality of visually-impaired students' information.

The Principle of Volunteerism
In providing guidance and counseling services, most teachers (82%) base their practices on the principle of student's willingness. Nearly all teachers (96%) do not force students to participate in guidance and counseling activities. However, considering the important role of guidance and counseling to support students' success, for both visually-impaired students and students in general, majority of teachers (73%) get upset if a visually-impaired student is unwilling to participate in guidance and counseling activity. Since teachers (73% of them) implement guidance and counseling based on the principle of student's willingness, most of them (68%) develops visually-impaired students' willingness to get involved in guidance and counseling. Almost all teachers (91%) provide guidance and counseling services not due to pressure from other parties nor because coercion of others (91%). Nearly all teachers (91%) reveal that they organize guidance and counseling services solely to assist visually-impaired students.

The principle of Openness
In delivering lessons in classroom, nearly all teachers (96%) accept visually-impaired students as they are. Teachers believe that visually-impaired students are no different from sighted students in their classroom. Most teachers (77%) also do not turn away

visually-impaired students who are poorly dressed. Instead, they remind the students of the propriety in dressing. Majority of teachers (77%) also do not tell visually-impaired students to go home when they are upset. As teachers, they should be able to separate personal affairs and professional obligation in front of the students.

Nearly all teachers (91%) state that they are ready to provide guidance and counseling services anytime. Most of them (7%) do not feel annoyed should a visually-impaired student wishes to have guidance and counseling. In fact, majority of them (77%) immediately approach visually-impaired student wishing to have guidance and counseling services. Teachers also treat visually-impaired students proportionally. This is evident from the statement of most teachers (86%) that they do not prioritize visually-impaired students more than other students, nor do they prioritize the children of government officials or rich people. They view students not from the latter's socio-economic status, but from the severity and urgency of the problems to be addressed. Majority of teachers (82%) treat visually-impaired students as they are, not because of their visual impairment or out of pity.

The Principle of Activity
In the implementation of guidance and counseling, most teachers (82%) facilitate visually-impaired students to participate actively in guidance and counseling. To encourage student's active participation, most teachers (73%) create a condition which will motivate and attract visually-impaired students to be actively involved in guidance and counseling.

Teachers not only facilitate students to be actively involved in guidance and counseling, but also (73% of them) facilitate visually-impaired students to perform a series of guidance and counseling activities. For this purpose, teachers (68%) create an atmosphere which will encourage visually-impaired students to perform a series of guidance and counseling activities. Majority of teachers (82%) facilitate visually impaired students to create an activity of guidance and counseling. To achieve that, 73% of teachers design the activities to empower visually impaired students.

The Principle of Independence
 Most teachers (77%) facilitate visually-impaired students to enable them doing something without emotional support from others. This is necessary in order to develop creative and independent behaviors in visually-impaired students.   In addition, most teachers (77%) also facilitate visually-impaired students to make decisions.

To enable visually-impaired students to be independent and risk-taking individuals, most teachers (73%) facilitate visually-impaired students to perform various activities that employ the principles of right-vs.-wrong or important-vs.-unimportant. To develop visually-impaired students to be more independent, majority of teachers (82%) facilitate them to be able to develop their own potentials. All of these are because majority of teachers (86%) believe in facilitating and enabling visually-impaired students to help themselves.

The Principle of Contemporary Conditions
Majority of teachers (86%), in providing guidance and counseling services, focus on the present situation of visually-impaired students' life as the subject of their practice.

Concerning the problem they address, 91% teachers focus on present problems of visually-impaired students as the target of guidance and counseling.

However, this does not mean that students' past problems are of no significance. Students' situation in the past is the foundation to analyze their present condition. Most teachers (77%) study the past condition of visually-impaired students in its relation to present life or problems of the students. In anticipating the future, most teachers (77%) consider the future in its relation to the contemporary condition of visually-impaired students.

The Principle of Dynamism
Considering the substance of guidance and counseling services that develops dynamically, most teachers (73%) develop the substance of their services to be better in time. Most teachers (77%) employs a substance of guidance and counseling services based on the contemporary condition, which they develop from the substance they have learned in universities.

Majority of teachers (86%) improves the substance of their services in accordance with the advancement in guidance and counseling discipline. Nearly all teachers (96%) develop the substance of their services based on the current policies of guidance and counseling profession.
Pertaining to guidance and counseling services for visually-impaired students, most teachers (77%) develops the substance of their services in line with students' needs. Majority of teachers (86%) improve the substance of guidance and counseling practice based on the developmental stage of visually-impaired students.

The Principle of Integration
Nearly all teachers (91%) state that the components of guidance and counseling program in their school complement each other. This indicates that the whole program is integrated in synergy to provide the best educational services for students, including those with visual impairment. The components of guidance and counseling program in most of the schools (86%) are one integrated whole.

The integration of educational services at schools is also found to be positive. Nearly all teachers (91%) argue that the components of guidance and counseling program in their school are interrelated with the components of other educational services. Not only they are interrelated and support each other, majority of teachers (86%) state that the components of guidance and counseling program are part of an integrated whole that is educational services.

The Principle of Harmony
Guidance and counseling services in the school work in harmony with other education services (86%). Not only harmonious, guidance and counseling services are also conducted in tandem with other educational services. It is evident from nearly all of teachers' responses (91%).

Most teachers (68%) suggest that guidance and counseling services in their schools are enjoyed by visually-impaired students and other parties. In addition, majority of teachers (73%) state that guidance and counseling services are also enjoyed by other parties in the school. Visually-impaired students, and other parties inside and outside

the school, tend to like the guidance and counseling services because the program is designed to be integrative and harmonious with other educational services.

The Principle of Expertise
Nearly all teachers (91%) suggest that guidance and counseling services in their schools are delivered by competent personnel of guidance and counseling field. Guidance and counseling services are provided by those with minimum education of Bachelor degree in Guidance and Counseling, as stated by most teachers (86%).

Most teachers (86%) state that guidance and counseling services in their schools are delivered by educators with relevant and adequate background. In addition, most teachers (77%) also state that guidance and counseling services in their schools are provided by educational personnel with relevant and adequate educational background.

The Principle of Transfer
Most of the visually-impaired students enrolled in the respondents' schools are not transfer students. Therefore, only a few teachers (14%) state that they handle visually-impaired students transferred from other parties. Nearly all teachers (96%) state that they do not counsel transferred students with visual impairment.

In handling visually-impaired students who need special treatment, the teachers do not perform it by themselves. Teachers refer these students to other more competent parties. As stated by the teachers, in the case where teachers are unable to handle special cases of visually-impaired students, most of them (86%) transfer the students to experts with more relevant skills. For this purpose, nearly all teachers (96%) have recommended a transfer for certain visually-impaired students.

In implementing the concepts of guidance and counseling to visually-impaired students, teachers first analyze various information pertaining to the students. They also separate the confidential from non-confidential information. Teachers always try to suggest that visually-impaired students visit guidance and counseling teacher if the students have anything important to discuss or communicate.

In general, the concepts of guidance and counseling implemented in the learning of visually-impaired students in inclusive school, that directly involves the students, are confidentiality, openness, activity, independence, and integration. Visually-impaired students feel that they are respected and acknowledged by the teachers because they are allowed to be independent in completing tasks. In general, the students also feel safe and comfortable at schools due to the integrated implementation of guidance and counseling.

It is a good collaboration, as well as comprehensive understanding, of teachers if they see how guidance and counseling intervention needs to be performed by experts and how to transfer the case they face in their classroom.

Conclusion
The enrollment of visually-impaired students in the inclusive school is one real example of inclusive education implementation planned by Indonesian government. In learning at inclusive school, visually-impaired students face various problems and

difficulties. In learning and completing their tasks, visually-impaired students often face difficulties to fully understand teachers' explanation; particularly when it involves visual aids. Accessibility of learning facilities and resources is also a problem for visually-impaired students in inclusive school. The skills of self-orientation and mobility are basic skills that visually-impaired individuals must possess. These two skills enable them to interact well with their environment, and to undergo social adjustment at inclusive school.

From teachers' perspective, assessment is the first and foremost activity that needs to be done prior to delivering lessons or learning to visually-impaired students. Based on this assessment, teachers will fully understand the potentials, limitations, and learning needs of visually-impaired student. In some of the guidance and counseling concepts, teachers have implemented the result of such assessment. They believe that information concerning visually-impaired students is important and they are able to select and separate which information is confidential and which can be shared with others. They also accept visually-impaired students as they are; in fact, they even facilitate these students to participate actively in learning. Teachers believe that the involvement of visually-impaired students in various learning activities will develop the students' self-concept and independence. Teachers believe that guidance and counseling services delivered to visually-impaired students are useful input for teachers to handle visually-impaired students in their classrooms. They understand that counseling should be handled by experts, and referral is one of the ways to transfer students that they cannot handle.

The implementation of guidance and counseling concepts in visually-impaired students' learning in inclusive school provide positive contributions for visually-impaired students. The implementation of guidance and counseling principles in learning, students will feel safe, comfortable, motivated, and confident that they are able to perform many activities independently. This will develop a sense of motivation to be independent in shaping a better future for themselves.

Acknowledgment

Ethics
We wish to declare that all the necessary academic procedures have been followed and there is no plagiarism of any kind within this paper.

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Effect of Gender, Degree of Impairment and Type of School on the Mental Health of Visually Impaired Students

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Abstract

The present paper is an outcome of research conducted by authors to examine the effect of gender, degree of impairment and type of school on the mental health of students with visual impairment. The study employed multi-stage random sampling technique to draw a sample of 200 visually impaired students from 52 inclusive and 5 special schools situated in different parts of Haryana State, India. Mental Health Battery for students with visual impairment, consisting of 61 items to assess their mental health status.

Multiple regression and two-way ANOVA was used to analyse the data. The results revealed that three independent variables (gender, degree of impairment and type of school) made a joint contribution of 22.1% to the prediction of mental health of visually impaired students. Significant main effect of degree of visual impairment on mental health was observed whereas no significant main effect for gender was established.

Keywords: *Mental Health, Visually Impaired, Degree of Visual Impairment, Inclusive School, Special School*

Introduction

Visual impairment refers to a decreased ability to see to a degree that causes problems not encountered by usual means, such as glasses (Wikipedia, n. d.). Visual impairment is also known by other terms such as 'vision impairment', 'vision loss', 'sight handicapped' and 'visual disability'. According to Indian Census 2011, visual impairment was at the third position among the eight types of disabilities on which

data was collected. It counts to 18.8 percent of total disabled population in India. Making provision for education to such a large number of visually impaired persons in relevant educational settings seems to be a big challenge for policy makers and educators.

There are 4 levels of visual function, according to the International Classification of Diseases -10 (Update and Revision 2006): normal vision, moderate visual impairment, severe visual impairment, and blindness. In India, the Persons with Disabilities (P.W.D) Act, 1995 categorizes persons with visual impairments into two broad categories namely (i), the blind and, (ii) the low vision. According to P.W.D Act, blindness refers to a condition where a person suffers from any of the conditions, namely (i) total absence of sight, ii) visual acuity not exceeding 6/60 or 20/200 (Snellen) in the better eye with correcting lenses, (iii) limitation of the field of vision subtending an angle of 20 degree or worse. The 'low vision' means a person with impairment of visual functioning even after treatment or standard refractive correction but who uses or is potentially capable of using vision for the planning or execution of a task with appropriate assistive device. In this study, the term 'visually impaired' is used to refer to those students who are categorized as 'the blind' and 'the low vision' by a medical board duly constituted by the Government of Haryana.

In India, there are two ways to educate the children with visual impairment. The first way is the oldest and most comprehensive one i.e. is through special schools and the second way, a new venture, is establishing neighbourhood inclusive schools. In special schools, the campus is so designed that it meets all unique needs of students with visual impairment. The classroom teacher in these schools are trained and qualified to deal with such children. In addition, there are experts to facilitate the training in orientation and mobility, activities of daily living, occupational therapy, career counseling and vocational counseling of such children. The teaching-learning materials, mobility devices and specialized equipments are made available to all the students. Inclusive schooling is comparatively a new phenomenon which emerged as a consequence of ratification of international treaties by Indian Government after its participation in Salamanca Conference in 1994. The inclusive and special schools are running parallel in the educational structure to cater to the needs of visually impaired, which by and large, depends upon their degree of impairment and socio-demographic factors.

Among all categories of the disabled, high incidence of psychiatric disorder were found in visually impaired children (Jan et al., 1977). Punia and Dahiya (2015) asserted that children with disabilities are more likely to show behavioural problems due to their disability and experiential feeling which they receive from others. Ramulu (2010) showed that students with vision handicap had difficulties with their daily normal life such as reading, walking and driving etc. Consequently, mental disorders viz. anger, fear, frustration, depression, anxiety etc. develops in them. These disorders lead to poor mental health. Koenes and Karshmer (2000) compared blind with sighted adolescents and found higher incidence of depression amongst the former. Sharma (1998) found that visually challenged were frustrated when compared with their sighted counterparts. Studies reported that visually impaired experience severe psychological and behavioral problems, specifically during adolescence period. Wong et al. (2009, as cited in Parveen and Khan, 2016) investigated the impact of visual impairment on quality of life in a study of 1249 adolescents aged 11 to 18 years. The study showed that the levels of psychological and school functionality are

significantly low. Jan et al. (1977) reported that 57 percent children with visual impairment had psychiatric disorder. Prasad et al. (1996) defined mental health a state of complete well-being. Mental health as per the definition of World Health Organization (W.H.O) is one of the needed factors for general health. The W.H.O defines health as, "A state of complete physical, mental, and social well-being, not merely the absence of disease". The W.H.O definition of mental health includes emotional well-being and ability to live a full and meaningful life. A person who has no disease is not ill, but he can't be termed as healthy until all the dimensions of his body, including mental dimension, function completely. A mentally healthy person shows a homogenous organization of desirable attitudes, healthy values and righteous self-concept and a scientific perception of the world as a whole (Rani & Singh, 2012). In contrast, a person with poor mental health faces emotional and behavioural problems. According to Smith, Segel and Segel (2011), mentally healthy people can deal difficult situation whereas poor mental health ceases such abilities. Mental health is essential for overall learning as well as for social and emotional development of an individual.

In the recent years, the researchers have shown interest on exploring the influence of different factors on mental health of school students. Research on mental health has demonstrated that mental health affects learning, academic success and social interactions of school students. It has been found that students with good mental health are more successful whereas students with poor mental health often struggle to cope up with the demands of the society. In a longitudinal study, Fleming et al (2005) described that students with strong mental health performed better in academics and achieve higher standardized test scores. Research conducted by Teacher's College at Columbia University (2005) revealed that students, who struggle emotionally and behaviorally, were likely to drop out of school. The studies on mental health of students with disabilities and without disabilities showed that former had poor mental health as compared to their normal counterparts. In an investigation, Read et al. (2001) found that 'depression and lack of self-confidence were common in orthopedically disabled'. The lower level of motivation, poor self-esteem and bad experiences in routine life made disabled to feel inferior to the non-disabled. By and large, the mental health is byproduct of day to day interaction in the society. It has been observed that the interaction of the disabled with non-disabled in social affairs is not healthy. The disabled are still considered and treated as 'aliens'. One of the most common misconceptions about the disability is that it is a curse of God and the disabled has got it because of their *Karma* in past life. Such theories and perceptions adversely affect mental status of the disabled. It lowers down their motivation, aspirations and self-concept (Sharma et al., 2004). Halder and Datta (2012) noted significant differences among sighted and visually impaired adolescents with respect to the overall self-concept including the domains namely physical appearance, popularity, happiness and satisfaction. Vaughn, Elbaum & Boardman (2001) found a relationship between self-concept and physical disability. It was discovered that disability negatively affects the self-concept and poor self-concept leads to poor mental health. It is also observed that the mental health is affected by the poor physique. Varni and James (1996, cited in Halder and Datta, 2012) indicated that physical appearance affects psychological distress. Students with disabilities often experience that their growth and development is slower as compared to the non-disabled child. So, these children with disabilities possess very poor mental health (Sharma et al., 2004). Fisher et al. (1991, cited Parveen & Khan, 2012) stated that in every social situation, the person who is having disabilities, their thoughts and

feelings were found more negative in comparison to normal one. Punia and Berwal (2013) found that mental health of the visually impaired students were having poor mental health.

Studies conducted to find out the relationship between mental health, gender and demographic variables suggests that there is no difference in mental health on the basis of gender and organisation (Rani and Singh, 2012). In contrast, Basu (2008) found gender differences in the status of mental health and male had better mental health than female. Viswanath & Reddy, 2016 conducted a study on mental health status of high school students in relation to their gender, locality and caste revealed that mental health is closely associated with gender, locality and caste. The study revealed that boys possessed better mental health than girls; urban students have better mental health status than the rural students and upper class students have better mental health than backward class students. Mishra and Jha (2015) examined overall as well as interactive effect of gender and residence on the mental health of college students. The findings revealed an overall significant effect of gender and residence on mental health but there was no interactive influence of gender and residence on mental health of college students. Ashish (2016) investigated the influences of gender and residential status as well as the interaction effects of gender and residential status on mental health of aged people staying in old age home and within family set up and found that gender and residential status do not interact to influence mental health.

It is clearly evident from review studies that personal and social factors have effect on mental health. Very few studies were found related with exploring the effect and contribution of gender, degree of impairment and type of school on mental health of visually impaired students. Hence, the present study was aimed at evaluating the contribution and effect of gender, degree of impairment and type of school on mental health of visually impaired.

Objectives

1. To find the interactive effect of gender and degree of visual impairment on mental health of visually impaired students.

2. To ascertain the contribution of gender, degree of visual impairment and type of school on mental health of visually impaired students.

Hypothesis

H_{01} There is no significant interactive effect of gender and degree of visual impairment on mental health of visually impaired students.

H_{02} There is no significant contribution of gender, degree of visual impairment and type of school on mental health of visually impaired students.

Method

Descriptive method was used to collect the data. Gender, degree of impairment and type of school were considered as independent variables while mental health was taken as dependent variable.

Participants

The sample for the study consisted of two hundred students studying in the inclusive and special school settings, from entire state of Haryana, India. Those students who were having multiple disabilities along with visual impairment were not included in the study as this might influence the outcome. The sample was selected by following multi-stage random sampling technique from five special schools and 52

inclusive schools. Multi stage random sampling was employed in order to create a more representative sample of large population of visually impaired students in Haryana state. Further, the unavailability of comprehensive list of all the visually impaired students studying in special and inclusive schools necessitated the use of this sampling technique. The sample comprised the two groups, having 100 students from each inclusive and special school.

Research Instrument

The Mental Health Battery for Visually Impaired (MHB-VI) was used to assess the mental health of the students. This battery consisted of 61 items belonging to six broad dimensions of the mental health. The six sub-dimensions are emotional stability, over-all adjustment, autonomy, security-insecurity, self-concept and emotional intelligence. Standardization of the tool was done by following prescribed procedure. Item analysis was done by using t-value and discrimination index. The reliability of the tool was determined by using Cronbach's alpha and split–half reliability method, the values of which were 0.89 and 0.80 respectively. The values indicated that the battery is reliable and all the test items were measuring mental health. To determine construct validity, the coefficient of correlation between the score of this battery and Mental Health Battery by Arun Kumar Singh and Alpana Sen Gupta was computed and its value came out to be 0.58 which was fairly good. Both positively and negatively skewed items, based on five point Likert scale, were included in this battery.

Research Procedure

Data was collected after seeking permission from the headmaster/principal of the concerned school. Rapport was established with the students by exchanging introduction and students were told about the purpose and objectives of the study in brief. Subjects were also assured that all this information will be kept confidential and will be used for research purpose only. Thereafter, instructions mentioned in the tools were explained to the students verbally. Visually impaired students were comprised of both low vision and blind students. Consequently, the degree of visual impairment varies in both the groups. Looking at the different needs of subjects, the tools were administered in three different ways. For blind students who knew Braille were given Braille sheets of the tools, while those who did not know Braille, every item of the tools was explained and responses were filled by the investigators. However, those low vision students who were able to read and write filled their responses themselves. Data generated from the instrument was analysed using statistical package for social sciences (SPSS).

Results

The effect of two independent variables gender and degree of visual impairment was analysed by applying two way ANOVA. Preliminary analyses were performed to ensure that there was no violation of the assumptions underlying ANOVA. The value of Levene's Test of Equality of Error Variances given in Table 1 came out to be significant, indicating that the variance of dependent variable across the group was not equal. Therefore, a more stringent significance level (i.e. 0.01) for evaluating the results of two way ANOVA was set.

Table 1.Summary of ANOVA to find the Effect of Gender and Degree of Visual Impairment on Mental Health (N=200)

Source of Variance		Sum of Squares	Df	Mean Square	F	Significance Value	Remarks(at 0.01 level)
Gender	A	4722.371	1	4722.371	5.673	0.018	Not Significant
Degree of Visual Impairment	B	11585.11	1	11585.11	13.917	0.000	Significant
Gender*Degree Visual Impairment	A*B	3533.792	1	3533.792	4.245	0.041	Not Significant
Error		163152.35	196	832.430			
Total		9698238.00	200				
Corrected Total		195181.92	199				
Levene's Test of Equality of Error Variances			$df_1 =3$ $df_2=196$		8.524	0.000	Significant

It can be interpreted from the Table 1 that the F-ratio for interactional effect of gender and degree of visual impairment was 4.24, which was not significant at 0.01 level of significance. Hence, the null hypothesis H_{01} stating, "There is no significant interaction effect of gender and degree of visual impairment on mental health of visually impaired students" was retained at 0.01 level of significance. Further, it was observed from the above finding that in case of visually impaired students, the influence of degree of visual impairment on mental health was not dependent on whether they were male or female.
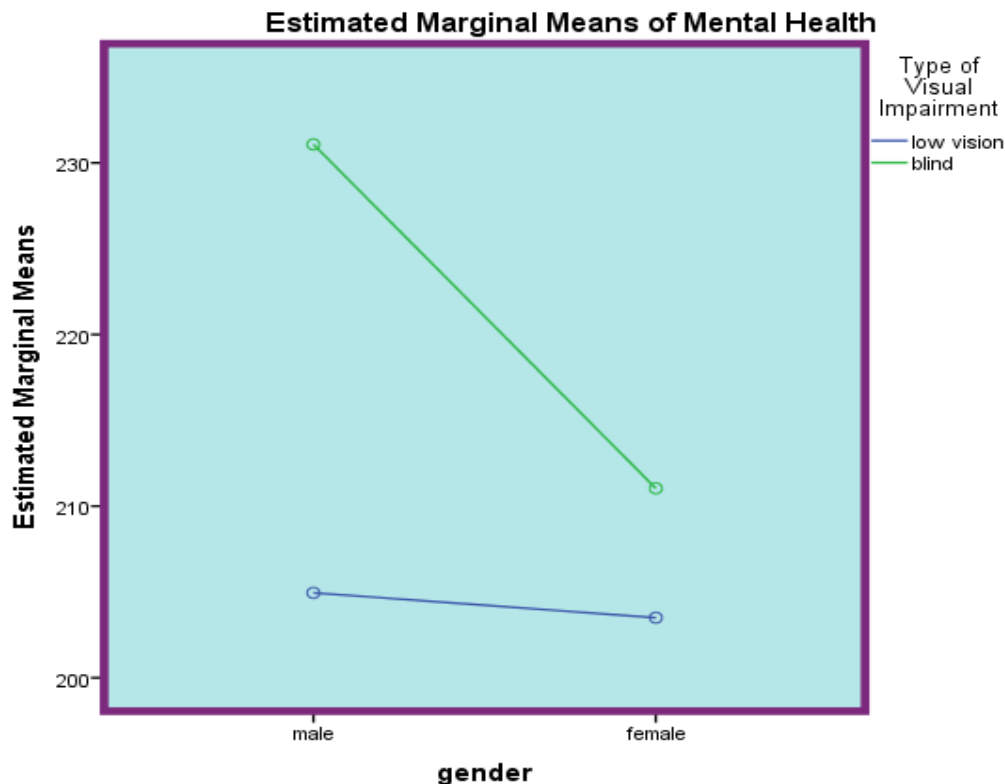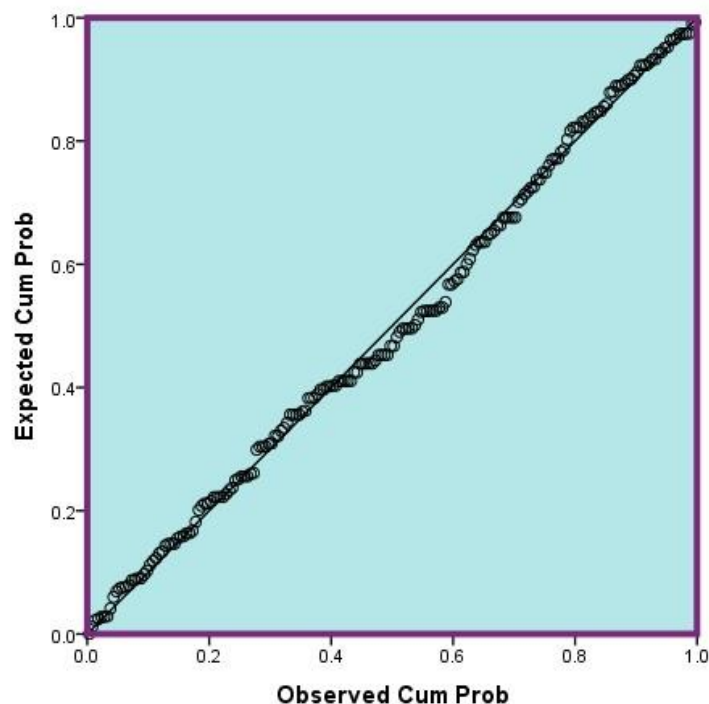
Figure 1: Effect of Gender and Degree of Visual Impairment on Mental Health of Visually Impaired Students

Furthermore, as shown in Fig.1, the lines were not crossing each other and were showing insignificant ordinal interaction, so main effects of the independent variables were also interpreted. It was observed that there was a significant main effect for degree of visual impairment (F_B (1,196) = 13.917; p=.000) whereas no significant main effect for gender (F_A (1,196) = 5.673; p=.018) was established. It can be inferred that the male and the female did not differ in the level of mental health but there was a difference in the scores of mental health, depending upon the degree of visual impairment. Thus, the results showed that degree of visual impairment had significant main effect on the mental health of visually impaired students.

Normal Probability Plot for mental health is shown in Fig. 2 revealed that most of the observed values were lying in a reasonably straight diagonal line from bottom left to top right. In this manner, the assumption of normality was followed. In addition to this, it was discernible from the values of tolerance and variance inflation factor (VIF) given in Table 2 that the assumption of multi-collinearity was not violated. Further, from Table 2, it was evidenced that the value of beta coefficient for type of school i.e special and inclusive schools came out to be 0.462 which was the largest and significant at 0.05 level of significance. Whereas, the values of beta coefficient for gender and the degree of visual impairment were -0.084 and -0.039 respectively and came out to be not significant at 0.05 level of significance. By this way, it can be concluded that the type of school made the strongest unique contribution in prediction of the dependent variable namely mental health.

Normal P-P Plot of Regression Standardized Residual

Figure 2: Normal P-P Plot of Regression Standardized Residual for Mental Health

But the contributions of other two independent variables namely gender and degree of visual impairment were found very weak as well as insignificant. It was evidenced that type of school contributed 7.5 percent (calculated by squaring the value of partial correlation coefficient and multiplying by 100) to the value of R squared. Hence, the null hypothesis H_{02} stating, "There is no significant contribution of gender, type of school and degree of visual impairment on mental health of visually impaired students", was accepted in relation to gender and degree of visual impairment whereas not accepted in regard to type of school at 0.05 level of significance.

Table 2. Summary of Multiple Regression Analysis for Dependent Variable-Mental Health (N=200)

Independent Variables	Dependent Variable : Mental health					
	Tolerance	VIF	Part correlation	Standardized Coefficients Beta	Significance Value	Remarks (at 0.05 level)
Gender	0.855	1.169	-0.078	-0.084	0.219	Not Significant

Degree of Visual Impairment	0.385	2.598	-0.024	-0.039	0.705	Not Significant
Type of School	0.353	2.833	0.274	0.462	0.000	Significant

Regression Model summary given in Table 3 revealed that this model explained 22.1 percent of variance in mental health of visually impaired students, which can be considered as good model in social sciences.

Table 3. Regression Model Summary for Dependent Variable-Mental Health

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.470[a]	.221	0.209	27.849

a. **Predictors: (Constant), Type of School, Gender, Degree of Visual Impairment**

Further, this model was tested for its statistical significance on the basis of ANOVA summary given in Table 4. F-ratio (3,196) for this regression model came out to be 18.52 which was statistically significant at 0.05 level of significance. In this way, the results of regression analysis showed that the type of school emerged as a significant contributor to mental health, but gender and degree of visual impairment did not emerge as significant contributors.

Table 4. ANOVA summary for Dependent Variable-Mental Health

Model	Sum of Squares	Df	Mean Square	F	Significance Value
Regression	43172.807	3	14390.936	18.552	0.000[b]
Residual	152009.113	196	775.557		
Total	195181.920	199			

b. **Predictors: (Constant), Type of School, Gender, Degree of Visual Impairment**

Discussion

The study was aimed to assess whether there was any interactive effect of gender and degree of visual impairment on mental health of visually impaired students and to ascertain the contribution of gender, type of school and degree of visual impairment on mental health of visually impaired students. The findings revealed that gender and the degree of visual impairment had no significant interactional effect on mental health of visually impaired students. However, the degree of visual impairment had significant main effect on the mental health at 0.01 level of significance. This finding was found in consonance with the finding of Alam (2001) who reported significant contribution of hearing status on academic achievement and self-concept of hearing impaired students. In another study on visually impaired students, Rambir (2007) reported that status of vision had significant effect on mental health. In relation to main effect of gender on the mental health, Aghara (1995) reported that sex difference had no significant effect on the mental health of the students. However, the results related with interactional effect of gender and degree of visual impairment on mental health could not be compared due to lack of empirical studies in this area. This suggested that degree of visual impairment produced significant main effect in determining the mental health of the visually impaired students.

Gender and the degree of visual impairment had no significant contribution on mental health of visually impaired students but type of school emerged as a significant contributor to mental health. This regression model explained 22.1 percent of variance in mental health scores of visually impaired, which may be considered as a good model as far as field of social sciences is considered. This finding was in agreement with findings of Manjuvani (1990) and Sharma and Lata (2014) who reported that the school environment contributed to the mental health index. Findings in relation to effect of gender were supported by Aghara (1995) who reported no significant effect of sex difference on the mental health of the students. Considine and Zapla (2002) also reported that the type of school a child attended influenced the educational outcomes.

Conclusion

The finding of the present study demonstrates that the personal and demographic factors of visually impaired students contribute towards their mental health. Consequently, the results highlight the importance of considering degree of impairment and type of school while providing mental health services to visual impaired students. In addition, the current study investigated the interaction effects of gender and degree of impairment which have not been previously examined in great detail. The fact that type of school is the most potent predictor, highlights its strong association with mental health of visually impaired. Although, research on other factors contributing to mental health of visually impaired is needed as theses three variables explains only 22.1 percent of variation in mental health. Further studies on these variables can be conducted for better generalization, as identification and understanding of the factors associated with mental health would facilitate the development of intervention and targeting problems of visually impaired in two separate school settings.

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