## A Comparative Study of Teachers' Pedagogical Competencies in Supporting Children with Learning Difficulties in Primary Schools in Ghana and Brunei Darussalam

## Okechukwu Abosi, Ph.D University of Botswana

## Abdul Razak Kuyini Alhassan, Ph.D. Disability Studies & Consultancy Services, Tamale Ghana

#### Abstract

Teachers' pedagogical competencies level is increasingly affecting the implementation of inclusive education policy in many countries. The aimed at comparing primary school teachers' competence levels in supporting children with learning difficulties in Brunei Darussalam and Ghana. Descriptive survey design was used and 188 primary school teachers from Brunei Darussalam and Ghana participated in the study. Results showed that teachers from Brunei Darussalam and Ghana had limited to moderate competencies in supporting children with learning difficulties in the general education classroom. In addition, the results showed that there was no significant difference between the competence level of teachers in Brunei Darussalam and Ghana. It is recommended both countries must work towards improving their teachers' competencies in curriculum adaptation, instructional strategies, identification and assessment of children disabilities and their skills in collaboration.

# A Comparative Study of Teachers' Pedagogical Competencies in Supporting Children with Learning Difficulties in Primary Schools in Ghana and Brunei Darussalam

Brunei Darussalam and Ghana are both signatories to many international declarations and convention including the Declaration of Rights of Disabled Persons, 1975; the Convention on the children' Rights to equal education, 1989, UNESCO's World Conference of Education for All, at Jomtien, Thailand in 1990; and the Salamanca Statement and Framework for Action on Special Needs Education in 1994 (Norulfazidah, 2011; Koay et al., 2006; Kuyini & Mangope, 2011; UNESCO, 1994; Kuyini, 2013). These declarations, especially the Salamanca statement and Framework urged all governments to adopt, as a matter of law or guiding principles, the principles of inclusive education. Moreover, Brunei Darussalam and Ghana have made some strides in providing for the needs of children with disabilities in their schools. In the case of Brunei Darussalam, the Government of Brunei Darussalam (GoBD), through its Ministry of Education (MoE), adopted principle and philosophy of inclusive education to be practised in Brunei Darussalam. This gave birth to the principle of inclusive education in Brunei Darussalam. Since then, Inclusive education has become part and parcel of Brunei Darussalam education system (Koay, Lim, Sim and Elkins, 2006; Norulfazidah, 2011). In line with the principle of inclusive education, Brunei Darussalam's special education policy guidelines state: "All pupils are able to learn given an appropriate learning environment. Appropriate learning environments can be created within the inclusive school. The inclusive school is one that

provides appropriate instruction for all pupils based on their level." (Special Education Unit [SEU], 1997, p.2). Thus, the principle of inclusive education does not discriminate no matter a pupils' background and condition. It attempts to meet the needs of all learners at all levels (Special Education Unit [SEU], 1997, p.2). Therefore, the aim of Brunei Darussalam' inclusive education policy is to ensure that the needs of all children in Public and Private Schools are met holistically. This noble aim led to the establishment of Special Education Unit (SEU) within the MoE and subsequent development of the National Strategic Education Plan (NSEP) for 2007-2011(MoE, 2008).

The development of the National Strategic Education Plan (NSEP) for 2007-2011 stimulated the implementation of Brunei Darussalam's inclusive education systems. The NSEP 2007-2011 specifically directed that Brunei Darussalam's education system must include children with and without disabilities must be in the general school system. This was to ensure that the National Education System (NES) for the 21<sup>st</sup> Century or Sistem Pendidikan Negara Abad Ke (SPN 21) was implemented. The SPN 21<sup>st</sup> Century education strategy, which fine-tunes the national education system, was aimed at ensuring visibility and promising future for all students in Brunei Darussalam. The SPN 21<sup>st</sup> Century education strategy has the following objectives:

- a) To invest into early childhood education.
- b) To adapt the international best practices in teaching and learning.
- c) To produce experts, professionals and technicians required in the commerce and industries through secondary, tertiary and vocational education.
- d) To strengthen the capacity of teachers, students and educational administrators in the area of Info-communication technology (ICT) and integration of ICT in the school curriculum.
- e) To design and develop programs capable of promoting life-long learning and wide access to higher education, and
- f) Promotion of research, development and innovation in the government-funded institutions, and through private and international partnership (MoE, 2008).

The above policy objectives are consistent with the principle and philosophy of inclusive education rooted in 1994 Salamanca statement and frame work for action on special needs education (UNESCO, 1994). Furthermore, MoE (2008) clearly indicates that the SPN 21st framework was aimed at achieving quality education through the provision of unprejudiced, appropriate and differentiated program of study for all children in both public and primary schools. In other words, the SPN 21st century framework was aimed at ensuring that the contemporary education system in Brunei Darussalam fitted well into the needs of every individual child, rather than students struggling to fit themselves into the education system (MoE, 2008). As such, the SPN 21st Century curriculum was to provide quality and holistic education to every student in the Public and Private Schools. The curriculum ensured that individual student's needs were catered for in their local schools. This was made possible because the SPN 21st framework created room for teachers to give their utmost support for the fast learners and students needing assistance and guidance to progress in their studies. Similarly, the SPNS 21st also created opportunities for all children with similar age peers from the same locality to learn together in the same school.

The current inclusive education provision in schools of Brunei Darussalam focuses on the following categories of learners:

- a) Students with learning difficulties. They are those who are on remedial education plan. This category of learners include children who start school at a very late (previously not in school) and require some special support to follow the regular curriculum.
- b) Students who are regarded as high support /dependency needs. Such students are on Individualized Educational Programme (IEP). They may children who have intellectual, sensory, physical, emotional and behavioral problems or challenges and require significant adaptation in their studies
- c) Physical disability including neurological impairment
- d) Multi-disabilities students are students who are severely disabled as a result of two or more non-associated/associated major disabling condition such visually impaired-mentally retarded (SEU, 1997; MoE, 2008; Norulfazidah, 2011).

While the inclusive education system in Brunei Darussalam is not that different from that of Ghana, researchers claimed that Ghana's inclusive education system is not a new phenomenon in Ghana's education system. For instance, Gadagbui (2008) argued that the policy of inclusive education is not a new development in Ghana education system. Its starting point in the Ghana education systems dates to the 1951's Accelerated Development Plan (ADP). According to Gadagbui (2008), the ADP made basic primary education accessible and universal to all Ghanaian children independent of their abilities or disabilities (Education ACT, 2008). From then on, various Education Acts and Legal Frameworks were put in place to take care of the educational needs of Ghanaian children. Those Acts and frameworks include: the 1961 Education Act; the 1992 Constitution of Ghana; the FCUBE Policy; the Ghana Government's Education Strategic Plan (ESP) 2003-2015; the National Disability Policy of 2000; the Special Educational Needs Policy Framework of 2005; Persons with Disability Act (715) of 2006; and the Education Act, 2008 (778) (Education Act, 2008; Anthony, 2009; Agbenyega, & Deku, 2011; Casely-Hayford, et al., 2011). All these Acts and frameworks reiterate the need for the Ghanaian child, especially those with disabilities and from disadvantaged backgrounds, to have equal educational rights and opportunities (access and quality educational provisions) without discrimination in any form.

The above Acts, policies, frameworks and strategic plans share common commitments, goals and aspirations for persons with disabilities and those from disadvantaged backgrounds. They reinvigorate the call for effective implementation of inclusive education policy in the general education classroom in Ghana. The Acts, policies and frameworks state among others things that: basic education is a right, free, compulsory and must be available to all. Second, it calls all schools in Ghana be inclusive for all children, especially those with 'non-severe' disabilities, street children, the girl-child and those from disadvantaged backgrounds by the year 2015. The inclusive education should be implemented in all districts. Third, it reiterated the call for specific rights to persons with disabilities in respect to education, transportation, community acceptance, housing and employment. Fourth, they also provide protection for persons with disabilities (PwD) from discrimination and abusive treatment. Finally, the framework sought to address the challenges of marginalization, segregation and inequality created for students with disabilities in

the Ghanaian education system (Education Act, 2008; Anthony, 2009; Casely-Hayford, et al., 2011; Kuyini & Abosi, 2014).

The actual implementation of the provision in the 1992 constitution started in 1996 by the introduction of the Free Compulsory Universal Basic Education (FCUBE) programme. The aim of the programme was to improve on the quality of teaching and learning, improving management efficiency and increasing access and participation through increased community ownership of basic education for all children including those with disabilities (GES, 2004; Casely-Hayford, et al., 2011). Also, the initiative sought to reduce school failure, repetitions, school dropout, and to limit inequality in education access among girls and disadvantaged children (ibid). This initiative resulted into an increased access to basic education for many children who were previously excluded in the Ghanaian school system (Gadagbui, 2008).

Recently, the government of Ghana introduced Capitation Grant in 2004 and the Ghana School Feeding Programme (GSFP) in 2005. The overall aims of these programmes were to improve inclusive education for all children to meet the requirement of the constitution and the obligations of the international community on the right to education (Casely-Hayford, et al., 2011). In spite of these policy provisions, Kuyini (2010) and Abosi (2007) argued that governments in Africa continue to pay lip service to the needs of persons with disabilities and the promulgation of policy lagged unacceptably far behind implementation. This policy provides free school feeding for children who are at risk of dropping out of school and those vulnerable in the deprived communities. This policy initiative was also meant to strengthen the existing FCUBE policy of attracting and retaining children in school (MOE, 2005). The most recent government's initiatives toward inclusion includes the provision of free exercise books, school uniforms for children from disadvantaged communities, and elimination of schools under trees (Kuyini, & Abosi, 2011; Casely-Hayford, et al., 2011). The question is that how long these of free will school feeding programmes, uniforms, sandals and provision of learning materials last.

#### Theoretical framework

This article is an attempt to argue that a teacher who has pedagogical competence to teach children with LD is the one who has competence in his or her subject matter and possesses pedagogical knowledge and reasoning skills required to be an effective inclusive teacher. Such a teacher must be effective in meeting the diverse needs and background of all children in the inclusive classroom. Lieberman and Mace (2010) and Dyson (2010) observed that teachers with adequate pedagogical and content competence are teachers, who effectively engage children in the learning processes that meet the diverse challenging behaviors of children in the inclusive classrooms. Therefore, for regular teachers to be able to meet the needs of children with learning difficulties in regular classrooms in Brunei Darussalam and Ghana, we argue that they require what Shulman (1987) referred to as richly developed "pedagogical content knowledge" (PCK) (p.8). In this context, PCK is the most crucial competence inclusive classroom teachers need in their practice in order to provide instruction that meets the diverse learning needs and backgrounds found in our contemporary classroom environment.

Our preposition therefore is that before teachers are able to include children with LD effectively in the inclusive classroom, they need to have competencies in: instructional strategies, behavior management, curricula adaptation, assessment, collaboration, adaptive instruction, assistive

technology, advocacy skills, policies and right-based knowledge in education. That is, they should possess what Shulman (1987) described as broad knowledge on the principles and strategies of classroom management, organizational skills, instruction presentation that "…appear to transcend subject matter" (p.8).

Based on Shulman (1987) theory of pedagogical content knowledge, the schema below shows the pedagogical competencies the regular teacher should master in order to meet the needs of children with learning difficulties in regular classrooms.

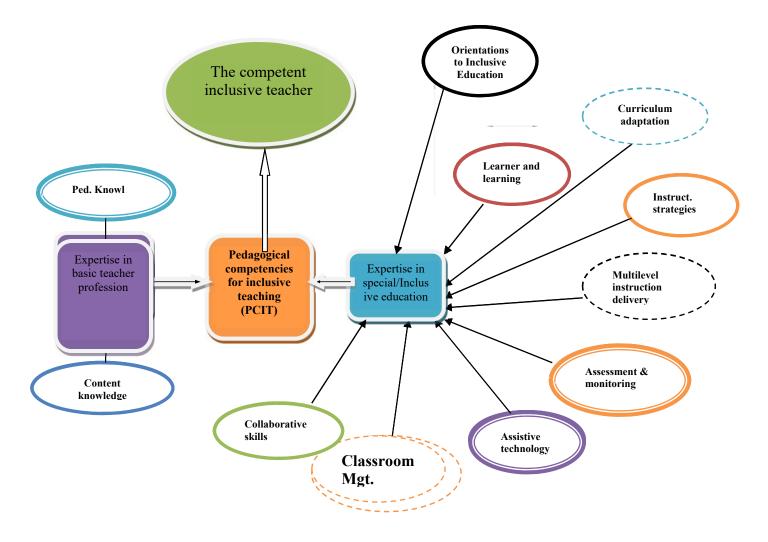


Figure 1: Teachers' pedagogical competence for inclusive teaching

The above theoretical model (Shulman, 1987) shows the relationship between two domains of knowledge: expertise from the basic education programme for regular teachers and that of special/inclusive education programmes for special educators. At the heart of the model, there is a general idea of amalgamating the knowledge domains of professionally trained regular teachers and the expertise of special/inclusive educators. Between these two domains, there is a combined specialty of 'the competent inclusive teachers'. In view of the expertise of regular teachers, it is assumed that they are already well versed in content and some pedagogical knowledge. What is lacking in their training is the special educational knowledge of curriculum adaptation, adaptive instruction, instructional strategies, class management, assessment, collaboration and assistive technology. Based on this framework, we argue that inclusive classroom teachers will develop pedagogical competencies required to meet the needs of children with LD in the schools.

## **Objectives**

Several studies such as Abdul Aziz etel (1996); Koy etel (2006); Norulfazidah, (2011); Kuyini, (2013) Kuyini & Abosi, 2014; Agbenyega, & Deku, 2011; Casely-Hayford, etal 2011; Kuyini, & Desai, 2008; Gadabgui, 2008, have been conducted on the implementation of inclusive education policy in both Brunei Darussalam and Ghana. However, there is virtually no research comparing teachers' pedagogical competencies in teaching children with LD in the inclusive schools in Brunei Darussalam and Ghana. This study, therefore, aims at filling this research gap. The study in this regard aimed at comparing the pedagogical competence level of primary school teachers in Brunei Darussalam and Ghana. The study has the following specific objectives:

- a) To examine the competencies level of teachers in Brunei Darussalam and that of those in Ghana.
- b) To assess if there is statistical difference between the competence level of teachers in Brunei Darussalam and that of teachers in Ghana.

### Methodology

Descriptive survey design was used in the study. This approach was required in order to reach out to many participants in the Brunei Darussalam and Ghana to provide a basis for determining and making decision regarding Brunei Darussalam and Ghanaian teachers' competencies in supporting children with LD in schools in those countries. As a result, descriptive research design strategies were carefully applied in the study.

#### Data sources

The data were collected from 188 primary school teachers in a cross-sectional survey in the Brunei Maura District and the Tamale Metropolis, Ghana (n=94 for Brunei Darussalam and n=94 for Ghana). A total sample size of 188 respondents is considered appropriate for estimation purposes (Cooper & Schindler, 2002; Acton etel, 2002; Hyndman & Kostenko, 2007). The sampling process was organized in two stages for each of the countries. In the first stage, schools in each of the countries were identified. Then, the teachers were selected using simple random selection technique in the second stage. Cooper and Schindler, (2002) contend that random sampling technique used in this manner is appropriate and considered good for exploratory studies of this kind.

#### **Instruments**

Survey questionnaires were used to gather data for the analysis. The questionnaire instrument has three segments: demographic information, aimed to gather data on teachers' background variables (e.g. age, gender and class size). Section two of the questionnaire which has a self-developed Teachers' Competence Scale for the inclusion of children with LD (TC Scale), is made up of 17 items, describing effective inclusionary behaviours of teachers in the regular classroom. It embodied a collection of teaching practices and behaviours carefully identified in the inclusive education literature. Current thinking suggests that those teaching practices/behaviours produce better inclusion of pupils with diverse learning needs in the regular classroom (Kuyini & Desai, 2008; Kuyini & Abosi, 2014). The competence scale for the inclusion of children with LD contains self-assessment items, measured on 4-point Likert-type statements. The TC Scale aims at measuring teachers' competence in the inclusion of children

with LD in the inclusive schools. The TC Scale was developed and worded in the following fashion:

Using a scale of 1-4, please indicate your level agreement and disagreement to the following statements:

- a) Adapting curricula materials for pupils with LD: 1, 2, 3, 4.
- b) Modifying learning content for pupils with LD: 1, 2, 3, 4.
- c) Providing relevant examples during lessons for children with LD: 1, 2, 3, 4.
- d) Using peer-tutoring techniques in the regular classroom: 1, 2, 3, 4.

The TC Scale was interpreted as: "1" representing "No competence", "2" representing "Limited competence", "3" representing "Moderate competence" and "4" representing "Adequate competence". The data gathered from this section offered answers to research question one and was analysed using descriptive statistic.

### Reliability and validity

The TC Scale had 52 items. Since we developed the scale and did not adapt it, we assessed the scale's reliability and validity. In the first instance, we conducted a pilot study involving 30 regular primary school teachers in both countries (n=60) to see whether the research instrument was reliable and feasible to obtain the relevant data required for the study. Prior to the reliability test and factor analyses, a group of experts in special/inclusive education field which included one university lecture, two teacher educators and three regular teachers carefully scrutinized and assessed the instrument for its relevance, content, cultural, face and construct validity. Based on the experts' feedbacks and recommendations, some of the items were removed while others items were included. In the end, the 52 items were reduced to 38 items. In addition, when the reliability test was performed, the items were reduced further to 14 items. The reduction in the number of items showed a very good sign of data reduction and consistency.

Also, the result of the reliability assessment of the TC Scale yielded Cronbach's alpha coefficient of 0.89, indicating that the instrument was very good. Also we examined the commonality commonalities among the items by applying factor analytic approach by applying principal component factor analysis approach with Varimax Kaiser Normalization. The result of the factor analysis showed factors (items) ranged from 1 to 5 for Brunei Darussalam and 1 to 6 for Ghana with coefficient of 0.54 to 0.76 and 0.65 to 0.89 respectively. Most of the items scored above 0.60, suggesting that the research instrument was good and reliable.

#### **Data collection process**

We began the data collection process by seeking permission from the relevant school authorities through the University of Brunei Darussalam and Ghana education service, Tamale. The permission to conduct research was granted by the department of schools, Ministry of Education, Brunei Darussalam on 8<sup>th</sup> September, 2011. In Ghana, the permission was granted y the regional director of education on 25<sup>th</sup> April 2012. Thereafter, permission was again sought from heads of the selected schools. In the end, primary school teachers from more than 30 schools in both countries opted to participate in the study. In addition, quite teachers taking various professional development programs at the University of Brunei Darussalam also took part in the study.

Data were gathered using quantitative data collection procedures and techniques. We distributed more than 200 survey questionnaires to teachers in the selected schools in both countries. In return, we received only 97 questionnaires from Brunei Darussalam and 102 from Ghana. Overall, we rejected 12 questionnaires due to missing information, inconsistency inconsistencies, errors and nonresponse cases. In all, 94 teachers responded all questions in the survey questionnaires.

## **Data analysis**

We used SPSS version 17.0 for data processing and editing, and analyzed the data using Descriptive Statistic.

#### Results

### Teacher pedagogical competency in Brunei Darussalam and Ghana

In Table 1, we provide a summary statistics of each of the inclusive teaching practices under consideration. The result, which is based on the competence composite score with "1" representing No competence, "2" representing Limited competency, "3" representing Moderate competency and "4" representing Adequate competency, indicates that the pedagogical competence of the sampled teachers in Brunei is between 1.71 and 2.61. This implies that the level of teachers' pedagogical competence in supporting children with LD in schools, in this regard, is limited since majority of the means scores are within "2". The composite mean scores of the sampled teachers in Brunei Darussalam is 35.12. Therefore, to achieve the second objective, the result of the descriptive statistic presented in Table 2 shows that a mean composite score of 35.66. This means that the sampled teachers' mean composite score is between 1.71 and 2.61, suggesting that the entire 94 teachers who participated in the study had limited to moderate pedagogical competency in teaching pupils with LD in inclusive settings.

Interestingly, participants recorded high means score in item 16 (Assessing learning needs of pupils with LD) and lowest means score in item 5(Using effective classroom practices) with means scores of 2.61(SD=.64) and 1.71(SD=.90) respectively. The result of the study also revealed that the following items: Creating learning-environment to cater for low and high achievers (M=2.29, SD=1.00); Using scaffolding as a teaching technique (M=2.23; SD=.90); Using mixed-ability groupings during lessons(M=2.20, SD=.82); Using assessment techniques to evaluate performance of pupils (M=2.19, SD=.78); Keeping/maintaining progress records of pupils with LD(M=2.17, SD=.96); Using multi-level teaching as a teaching strategy (M=2.16, SD=.81); Pacing lesson for pupils with LD in the regular classroom (M=2.15, SD=.87); Using IEP to support pupils with LD (M=2.11, SD=.86); Using explicit instruction as a teaching technique (M=2.09,SD=.85); Using cooperative teaching strategy (M=2.05, SD=.97); Providing one-on-one assistance during lessons (M=2.04, SD=.88) and Providing relevant examples during lessons (M=2.00, SD=.86); Adapting curricular curriculum (M=1.96,SD=.97. The lowest means score included: Using different behavior management strategies during lessons (M=1.94, SD=.89); Using peer-tutoring techniques in the regular classroom (M=1.76, SD=.99).

Table 1
Teachers' competence inclusive teaching practices (TC Scale) in Brunei

	N	Mean	Std.
			Deviation
1. Adapting curricular curriculum	94	1.96	.97
2. Pacing lesson for pupils with LD in the regular classroom	94	2.15	.87
3. Providing relevant examples during lessons	94	2.00	.86
4.Using IEP to support pupils with LD	94	2.11	.86
5.Using effective classroom practices	94	1.71	.90
6.Creating learning-environment to cater for low and high achievers	94	2.29	1.00
7. Using different behavior management strategies during lessons	94	1.94	.89
8. Using peer-tutoring techniques in the regular classroom	94	1.76	.99
9. Providing one-on-one assistance during lessons	94	2.04	.88
10.Using mixed-ability groupings during lessons	94	2.20	.82
11.Using cooperative teaching strategy	94	2.05	.97
12.Using scaffolding as a teaching technique	94	2.23	.88
13.Using explicit instruction as a teaching technique	94	2.09	.85
14.Using multi-level teaching as a teaching strategy	94	2.16	.81
15.Using assessment techniques to evaluate performance of pupils	94	2.19	.78
16. Assessing learning needs of pupils with LD	94	2.61	.64
17.Keeping/maintaining progress records of pupils with LD	94	2.17	.96
Valid N (listwise)	94		

Survey Data (2016).

On the other hand in Table 2, the composite scores of teachers' pedagogical competence in including children with LD in the inclusive school in Ghana is 35.78. This implies that averagely, the competence level of the sampled teachers in Ghana is 2. Alternatively, their competence level is between 1.73 and 2.41, implying limited competence. The highest mean scores (M=2.41, SD=.89) is item 7(Using different behavior management strategies during lessons), whereas the lowest (M=1.73, SD=.83). Also, the result shows that majority of the items that fall within the adaptive teaching skills have lowest means scores. For instance item 3(Providing relevant examples during lessons); 13(Using explicit instruction as a teaching technique); 12(Using scaffolding as a teaching technique); 14(Using multi-level teaching as a teaching strategy) with corresponding mean scores of 1.73(SD=.83), 1.88(SD=.97) and 2.01(SD=.82) respectively. The highest mean score (M=2.34, SD=.86) among the items relating to assessment is item 17 (Keeping/maintaining progress records of pupils with LD). The rest of the assessment are items 15(Using assessment techniques to evaluate performance of pupils) and 16(Assessing learning needs of pupils with LD) with means scores of 2.04(SD=.62) and 2.19(SD=.76) in that order. Among the items that have high mean scores apart from item 6 include item 9(Providing one-on-one assistance during lessons); 7(Using different behavior management strategies during lessons); 8(Using peer-tutoring techniques in the regular classroom) and 2 (Pacing lesson for pupils with LD in the regular classroom) with relatively high mean score of 2.31(SD=.61), 2.24(SD=.86), 2.23(SD=.88) and 2.20(SD=.87) correspondingly.

Table 2
Teachers' competence inclusive teaching practices (TC Scale) in Ghana

	N	Mean	Std.
			Deviation
1. Adapting curricular curriculum	94	2.11	.94
2. Pacing lesson for pupils with LD in the regular classroom	94	2.20	.87
3. Providing relevant examples during lessons	94	1.73	.83
4.Using IEP to support pupils with LD	94	1.89	.84
5. Using effective classroom practices	94	2.18	.94
6.Creating good learning-environment to cater for low and high achievers	94	2.41	.83
7. Using different behavior management strategies during lessons	94	2.24	.86
8. Using peer-tutoring techniques in the regular classroom	94	2.23	.88
9. Providing one-on-one assistance during lessons	94	2.31	.61
10.Using mixed-ability groupings during lessons	94	2.09	.73
11.Using cooperative teaching strategy	94	2.04	.83
12. Using scaffolding as a teaching technique	94	1.93	.95
13. Using explicit instruction as a teaching technique	94	1.88	.97
14. Using multi-level teaching as a teaching strategy	94	2.01	.82
15.Using assessment techniques to evaluate performance of pupils	94	2.04	.62
16.Assessing learning needs of pupils with LD	94	2.19	.76
17.Keeping/maintaining progress records of pupils with LD	94	2.34	.86
Valid N (listwise)	94		

Survey Data (2016).

#### Discussion

The comparative study of teachers' competence in the inclusion of children with LD in Brunei Darussalam and Ghana disclosed interesting finding. Both countries are signatories to the 1994 Salamanca Declaration (UNESCO, 1994). In terms of composite mean scores of teachers' competence levels, teachers in Ghana scored 35.78 while that of teachers in Brunei Darussalam was 35.66. This suggests that the mean scores of the sampled teachers of Ghana have higher means scores than teachers from Brunei Darussalam. However, when t-test was performed to find out whether or not the differences in means scores were significant. The result showed that there were no significant differences between the pedagogical competence of teachers in Ghana and that of those in Brunei Darrussalam.

In addition, comparing the mean scores of the two data sets on item 5(Using effective classroom practices), the means scores (2.00, SD=.86) of teachers in Brunei Darussalam is higher than that of Ghana by 0.27, implying that teachers in Brunei Darussalam are more likely to provide relevant examples to support children with LD during teaching than their counterparts in Ghana. Similarly, the result showed that teachers in Brunei Darussalam have higher means scores in item 1(M=1.94, SD=.97), 2(M=2.15, SD=.87), 6(M=2.29, SD=1.00), 7(M=1.94, SD=.88), 8(M=1.76, SD=.99), 9(M=2.04, SD=.88), 17(M=2.17, SD=.96) than the teachers in Ghana. While teachers in Ghana demonstrate higher competence in: 10(M=2.09, SD=.73),11(M=2.04)

,SD=.83), 12(M=1.93,SD=.95),13(M=1.88 ,SD=.97),14(M=2.01 ,SD=.82),15(M=2.04 ,SD=.62),16(M=2.19 ,SD=.76) than the teachers in Brunei Darussalam.

In spite of the differences in the mean scores of the teachers in the two countries, the general pedagogical competence level of the teachers is not encouraging. Out of the 17 items, the sampled teachers in Brunei Darussalam had moderate competence (M=2.61, SD=.64) in only one item 16(Assessing learning needs of pupils with LD). In the case of teachers in Ghana, none of their mean scores were up to 3(moderate competence). Also, our theoretical model (Figure 1) proposes that teachers must possess competence in all the 17 items in Table 1 and 2 in order to have adequate or become an effective inclusive teacher. In line with this thinking, Shulman (1987) contended that before teachers are able to meet the needs of children with LD in the inclusive classrooms, they require what he referred to as richly developed "pedagogical content knowledge" (p.8). The content knowledge of teachers in any subjects taught at the primary schools is imperative in the inclusion of children with LD. All teachers in primary schools in both must have full comprehension of all subjects they teach. Without this, it would be difficult to support children who have LD in primary schools. In addition to the content knowledge, primary school teachers must have knowledge of special/inclusive education discussed earlier in Figure 1 if they are to succeed in supporting children with LDs in primary schools in Ghana and Brunei Darussalam. The key knowledge domains in special/inclusive education teachers in both countries must have including orientation to special educational issues, knowledge of learners (those with and without disabilities. In the case of those with disabilities, teachers must have full comprehension of the different types of disabilities and ways of supporting them in regular classroom settings); instructional strategies for children with disabilities and all other strategies discussed in Figure 1.

In addition, the study has also found that teachers from Brunei Darussalam and Ghana have low means scores in the following items 10: M=2.20(SD=.82) and M=2.09(SD=.73) respectively. It is expected that before teachers can deliver effective and meaningful instruction, they must first demonstrate pedagogical competence in the comprehension of the lesson, if possible, in many different ways. That is, what is to be taught must be adapted and tailored to meet a range of ability levels of the pupils in the classroom. At the same time, they should possess competence that can encourage and support pupils' learning and progress without ability-grouping or segregation (Peterson, 2005, Shulman, 1987). After all, instruction is defined as "... management, presentation, interactions, group work, disciplines, humor, questioning and other aspects of active teaching, discovery or inquiry instruction, and the observable forms of classroom teaching" (Shulman, 1987, p.15).

Teachers' pedagogical competence in multi-level instruction is therefore crucial in the inclusion of children with learning difficulties in regular classrooms. Teachers with pedagogical competence engage learners actively in and in meaningful and practical learning activities while maintaining learning at the levels of pupils' ability. In doing this, they use pedagogy that involves much scaffolding and adaptations as required (Peterson, 2005). Additionally, she argues that learning in a regular classroom cannot be effectively done when school subscribes to monolithic or "one size fits all" instructional recipe in the regular classroom. It is argued in Figure 1 that teachers who are competent in inclusive teaching must have repertoire of, not only in instructional strategies, but also skills in multilevel instructional delivery and classroom

management. These skills are imperative in meeting the needs of all learners in the regular classroom. In addition to these skills, teachers are also required to have knowledge of basic assistive technologies and collaborative skills. In Figure 1, we argued that without knowledge of assistive technology and collaboration teachers are likely not to succeed in supporting children with LD in the regular classroom. Teachers need to collaborate with parents of children with LD to ensure that whatever is taught in school is also practiced at home. In that way, there would consistency and continuity of learning in both school and at home. This becomes easier when both parents and teachers have some knowledge of basic assistive technology (Figure 1.).

#### Conclusion

This article sought to investigate the pedagogical competence level of teachers in supporting children with LD in the general education classroom Brunei Darussalam and Ghana. The second objective was to find out if there was any significant difference between the competence level of teachers in Brunei Darussalam and that of teachers in Ghana. The result of the study showed that teachers in both countries had limited to moderate pedagogical competency in supporting children with LD in schools. In terms of the composite means scores, teachers from Ghana had higher means scores than their counterparts from Brunei Darussalam. However, upon performance of t-test, the result showed that there was no significant difference between the competency level of teachers in Brunei Darussalam and that of those in Ghana. Nonetheless, there were some differences in the means scores of teachers from both countries. For example, The means scores of some individual items such as item 5(Using effective classroom practices), the means scores (2.00, SD=.86) of teachers in Brunei Darussalam is higher than that of Ghana by 0.27, implying that teachers in Brunei Darussalam are more likely to provide relevant examples to support children with LD during teaching than their counterparts in Ghana.

It is clear from the above discussion that teachers from both countries showed limited to moderate competencies in supporting children with LD in the general education classroom. It is recommended that teachers in both Brunei Darussalam and Ghana must be provided with intensive training in inclusive/special education training. Specifically, they should be given more orientation on special education and disabilities. This will help reduce some negative attitude and perception teachers might have towards teaching children with disabilities in the general education classroom. Moreover, intensive training is also required in specific instructional strategies such as direct teaching and multilevel instruction. Most teachers found it difficult to teacher children with LD in the general education classroom because they lack these specific skills in teaching those with LD in the same classroom with children without disabilities.

## References

Abdul Aziz bin Begawan, Yang Berhormat Pehin Udana Khatib Dato Seri Paduka Haji Awing Umar, Pehin Kaya Laila Wijaya Dato Seri Setia Awing. (1996). Opening Address. In *Conference Proceedings of the First National Conference on Special Education* (pp. 1–5). Bandar Seri Begawan: Special Education Unit.

Abosi, C., O. (2007). Educating children with learning disabilities in Africa. *Learning Disability Research & Practice*, 22(3), 167-172.

- Miller, R., Acton, C., Fullerton, D., & Maltby, J. (2009). SPSS for social scientists (2<sup>nd</sup> ed.). USA: Palgrave Macmillan.
  - Agbenyega, J. & Deku, P. (2011). Building New Identities in Teacher Preparation for Inclusive Education in Ghana. *Current Issues in Education*, 14(1). *Retrieved from* <a href="http://cie.asu.edw/">http://cie.asu.edw/</a>.
- Anthony, J., H. (2009). Access to education for students with autism in Ghana: implications for EFA. Background paper prepared for the Education for All Global Monitoring Report 2010. Reaching the marginalized. 2010/ED/EFA/MRT/PI/10.
- Bartolome, L. I. (1994). Beyond the methods fetish: Toward a humanizing pedagogy. *Harvard Educational Review*, 54(2), 173–194.
- Casely-Hayford, L., Quansah, Patience Tetteh, P., Adams, R. & Adams, I. (2011). *Inclusive Education in Ghana: a look at policy, and practice in Northern Ghana*. For the Voluntary Service Organisation (VSO, Ghana): Associates for Change.
- Cooper, D. R. & Schindler, P. S. (2003). *Business research methods* (8<sup>th</sup> edition), New York: McGrav-Hill Higher Education.
- Cronbach, L. J. (1975). Beyond the two disciplines of scientific psychology. *American Psychologist*, 30 (4), 116-127.
- Dyson, M. (2010). What might a person-centred model of teacher education look like in the 21<sup>st</sup> century? The transformism model of teacher education: *Journal of Transformative Education*, 8 (1), 3-21. doi:10.1177/1541344611406949.
- Gadagbui, G. Y. (2008, November). *Inclusive Education in Ghana: Practices, challenges and the future implications for all stakeholders Faculty of Educational Studies University of Education, Winneba.* UNESCO 48<sup>th</sup> International conference. Inclusive education: the way of the future. Geneva, Switzerland.
- Ghana Education Service [GES]. (2004). The development of education, national report of Ghana: the basic education division. Government Publications.
- Government of Ghana. (2006). Persons With Disability Act, 2006Act 715. www.gapagh.org /GHANA%20DISABILITY%20ACT.pdf
- Koay, T., L., Lim, L., Sim, W. K. & Elkins, J. (2006). Learning assistance and regular teachers' perceptions of inclusive education in Brunei Darussalam. International Journal Of Special Education, 21(1), 131-142.
- Kuyini, A. A. R. (2013). Teachers' pedagogical competencies in including children with learning difficulties in Primary Schools in Ghana. Unpublished PhD thesis: University of Brunei Darussalam.
- Kuyini, A. B., & Desai, I. (2008). Providing instruction to students with special needs in inclusive classrooms in Ghana: Issues and challenges. *International Journal of Whole Schooling*, 4(1), 22-39.
- Kuyini, A. A. B., & Mangope, B. (2011). Student teachers' attitudes and concerns about inclusive education in Ghana and Botswana. International journal of whole schooling, 7(1), 1-18.
- Kuyini, A. A. R., & Abosi, O. (2011). The 2nd Generation Street Children (SGSC) in Accra: Developing teaching strategies to enhance positive learning outcomes in schools. *World Journal of Education*, *1*(2), 161-171.
- Lieberman, A. & Mace, D. P. (2010). Making practice public: teacher learning in the 21st Century: *Journal of teacher education*, 61(1-2), 77-88. doi: 10.1177/0022487109347319.

- Ministry of Education. (2008). Special Education Unit. Retrieved May 4, 2011 from <a href="http://web-vidoo.moe.edubn/web/moe/seu">http://web-vidoo.moe.edubn/web/moe/seu</a>.
- Ministry of Education. (2009). National report on the provision of quality inclusive primary and secondary education for children with special needs and special educational needs(Disabilities). Jakarta: UNESCO International bearu of education. Retrieved August 17,2011 from <a href="www.ibe.unesco.org/fileadmin/user\_upload\_education/Report/jakarta\_09/brunei inclusion\_09.pdf">www.ibe.unesco.org/fileadmin/user\_upload\_education/Report/jakarta\_09/brunei inclusion\_09.pdf</a>
- Norulfazidah, H.B. (2011). Including Special Needs Students in Regular Classroom: Relief Teachers' Perspectives. Brunei Darussalam: Sultan Hassanal Bolkial Institute of Education, University of Brunei Darussalam.
- Peters, S., J. (2004, November). *Inclusive education: An EFA strategy for all children*. World Bank. Retrieved from www.worldbank.org.
- Peterson, M. (2005). Authentic, multi-level learning: *creating high levels of learning for all students together. International journal of whole schooling.* Retrieved from http://www.wholeschooling.net/WS/WSPrncples/WS%207%20Multilevel.html.
- Shulman, L. S. (1987). Knowledge and teaching: foundations of the new reform. Harvard educational review, 57(1), 1-21.
- Special education Unit (SEU). (1997). Special education policy guidelines. Bandar Seri Begawan: Ministry of Education.
- UNESCO. (1994). Salamanca statement and framework for action on special needs education adopted by the world conference on special needs education: access and quality. UNESCO, Ed-94/WS/18.

#### About the Authors

**Okechukwu Abosi** was a professor of special education at University of Brunei but currently teaching at the University of Botswana.

**Abdul-Razak Kuyini Alhassan** holds a Ph.D. in special education and he is currently Head of community services CEVSGHANA. Also, he is a Part-Time Lecturer at the University for Development Studies, Tamale, Ghana.