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# Teacher Characteristics in Supporting Deafblind Learners: A Case of Kabarnet School for Deafblind Children, Baringo County, Kenya

## Costa Jepkoech Charles

Lecturer, Nazarene University: email: Costajep@ymail.com;cell 254 721949603, P.O Box 273-30100 Eldoret

# ABSTRACT

Supporting students with special needs has been a source of concern for most stakeholders including the government because the expectations of the program exceed actual outcomes. The purpose of the paper was to investigate teacher characteristics in supporting deafblind learners. The study adopted a descriptive survey research design. The study was conducted in Kabarnet School for deafblind learners. The study targeted one (1) head teacher and 39 teachers in school. Thus the study adopted a census technique. The researcher used questionnaires as data collection instruments for the different respondents in the school. Data was coded and analyzed using descriptive and inferential statistics. Pearson correlation was used to test the relationship between the variables. Frequency tables, percentages, and charts were used to present the data. The study findings indicated that teachers' training (r=0.753), and teachers' experiences (r=0.555) were positively and significantly related to the level of support provided to deafblind learners. However, the findings indicated that teachers were not well trained and experienced in supporting deafblind learners. Since there were some gaps on teacher support for deafblind learners, this study recommended the need for the stakeholders to enhance training as well as capacity building so that the teachers are well informed on the needs of the Multi-Sensory Impaired (MSI) learners.

Keywords: Teacher Training, Teacher Experience, Teacher Support, Deafblind Learners

## 1.1 Introduction

In children, the combination of visual and hearing impairments causes such severe and specific educational needs, especially, but not solely, in the areas of communication and language, that they cannot appropriately be educated in special education programs solely for children with hearing impairments or solely for those with visual impairments. Because of the dual concurrent disabilities, children who are deafblind need supplementary assistance to address their educational needs (Akhil, 2000). Institutions worldwide have various ways of supporting their deafblind learners although the ways vary from one institution to another depending on the actual functions of each institution. This is done in a bid to improve the educational goals and behavior of learners (Knoors & Vervloed, 2003).

Teacher characteristics have emerged as the most important phenomenon in institutions in harnessing the energies of all deafblind learners to determine their strength and maximize both group and individual performance. Teacher characteristics are also believed to be important in any given domain because a person's characteristics and beliefs can affect behavior and outcomes (Ashton and Webb, 2006). According to Riggio and McLetchie (2008), students who are deafblind require services that are delivered by a team of skilled professionals and paraprofessionals who can create appropriate communication and learning opportunities and provide the learner with access to the regular education curriculum and to learning in natural environments. Because of the impact of deafblindness on learners' ability to access and connect with people and the environment, most students who are deafblind require one-on-one support to facilitate equal access to the same learning as their sighted-hearing peers (Alsop, 2002). Each deafblind person will have very different needs, which will be dependent upon the amount of residual vision and hearing the deafblind person has, any additional difficulties there may be, how the senses are integrated, and the previous experience and stimulation the deafblind person has received. However, the developmental route taken by each person is generally the same. The diversity of the impairment is so great that there is no common baseline from which to begin in the education of a deafblind child.

The Kenyan Constitution (2010) states that children with disabilities (this includes deafblind) have a right to benefit from a full and decent life in conditions that ensure dignity, enhance self-reliance, and facilitate active participation in society (GoK, 2010). According to Oriedo (2003), Kenya's policy on special education particularly that of deafblind promises to: Provide skills and attitudes with the goal of rehabilitation; provide adequate teachers who are skilled in theory and in the practice of teaching learners with special needs; increase the inclusion of exceptional children in regular schools and community-based programs; increase parental

participation; and identify gifted and talented children early and provide them with special programs that will increase the development of their special gifts and talents. Supporting students with special needs has been a source of concern for most stakeholders including the government, as expectations of the program exceed actual outcomes (Riggio and McLetchie, 2008). More specifically the deafblind children have been expected to at least be able to perform basic duties and be able to relate with the community to some extent after attending a special children's institution. Without exception, the challenges deafblind children face in engaging in interactions and communication and, eventually, in developing language, are formidable. Nevertheless, deafblind children differ widely in their limitations and possibilities, as do their parents or professional teachers in their opportunities to provide such children with a rich learning environment. Thus, it is vitally important to plan educational intervention with deafblind children very carefully. Currently, however, the success cases in institutions of deafblind learners are far below the expectations of the stakeholders including the community who expect the children with special needs attending these institutions to become more independent in the society due to the resources available for training including the teachers. Moreover, very few studies have been conducted in Kenya to evaluate the quality of a teacher in a deafblind classroom. Therefore, this paper sought to investigate how teacher characteristics in supporting the deafblind classroom.

# Literature Review Theoretical Framework

Vygotsky developed concepts of cognitive learning zones. The Zone of Actual Development (ZAD) occurs when students can complete tasks on their own. There is nothing new for the students to learn. In this zone, the students are independent. The Zone of Proximal Development (ZPD) requires adults or peers to provide assistance to students, who cannot complete the assigned task without help. Vygotsky's theory promotes the belief, "What is learned must be taught" (Wilhelm, 2001, p. 8). Teachers should be explaining, modeling, and using guided practice in the classroom. By modeling what they want their students to do, students will be better able to work through their assigned tasks. Vygotsky's model of teaching and learning has significantly influenced "early-literacy" programs, such as Reading Recovery and Guided Reading. Yet, this theory is in contradiction to what is happening in many schools today. Too many schools have teacher-centered classrooms. The teacher information centered model is learning centered on the information possessed by the teacher, which flows one way, from teacher to student (Wilhelm, 2001,). To counter this prevalent view, Vygotsky maintains meaningful and productive collaborative activities that need to be engaged in by both students and teachers. Learning can occur through play, formal instruction, or work between a learner and a more experienced learner.

Teachers must actively assist and promote the growth of their students, so the students can develop the skills they need to fully participate in our society. In today's classrooms, teachers need to design lessons that empower students to "make meaning through mindful manipulation of input" (Fogarty, 1999, p. 78). Thus, administrators need to provide teachers with the effective professional development and supplies they need to be effective. Incorporating Vygotsky's theory into the classroom for deafblind students can positively impact students' achievement. When our students have the cognitive foundation to learn how to learn, they can discover what else is out there in our world (Garner, 2008).

## **Teacher Training and the Support of Deafblind Learners**

Adaptations for individuals who are deafblind are different from those used for people who are only deaf (Correa-Torres, 2008). Thus, teacher of deafblind learners needs to have special skills. Riggio (2009) notes that teachers of deafblind learners must be knowledgeable about deafblindness, must solicit guidance from a deafblind specialist, and must treat communication with the student who is deafblind learners are competent to run their own lives and that helping them without understanding their needs is just more oppression. According to Riggio and McLetchie (2008) every educational team should include a professional with specialized knowledge and skills in deafblindness to provide direct services, support, and training to families, education professionals, therapists, paraprofessionals, and other team members.

McLetchie (2008) further argues that learners who are deafblind often have a broad and complex constellation of needs and may challenge the skills and resources of the normal school system. Meeting their needs requires creative planning and personnel training to provide the student with an appropriate education. According to DB-LINK (2004) specialists trained in deafblindness need to have a unique combination of skills, knowledge, and experiences that address the combined impact that vision and hearing loss has on all areas of human

development. Alsop (2002) defines the role of the teachers of deafblind learners as to facilitate access to environmental information usually gained through vision and hearing, but which is unavailable or incomplete to the individual who is deafblind and to facilitate the development and/or use of receptive and expressive communication skills by the individual who is deafblind. Interveners must have training and specialized skills specific to deafblind may communicate to indicate improvement in communication development, skills, and interaction (Vaughn, 2006). Such communication can be through body language like change in respiration or body tone, facial expressions, laughing and crying, intentional use of signals with natural gestures, object communication used receptively and expressively to represent people, emotions, activities, places, events and things; picture communication systems (McLetchie & MacFarland, 2005).

Teachers who have little or no professional development in teaching students with special needs have significantly less positive attitudes towards them than those with extensive professional development (Avramidis & Kalyva, 2007). They also do not believe they are adequately prepared to instruct students with disabilities (DeSimone & Parmar, 2006b). Teachers with high self-efficacies are more likely to meet the needs of their students. Therefore, a teacher with a low teaching efficacy is not likely to have teaching behaviors that positively impact students (Bogler & Somech, 2004). According to Bandy and Boyer, (1994), teachers reported a high percentage of children with special needs in their classrooms who had a wide range of disabilities. They revealed a grave concern pertaining to the lack of support services available to the students and themselves, and disclosed a perceived inability to provide optimal educational programs to children with special needs because of inadequate teacher preparation and lack of adequate resources.

Research indicates that general education teachers take few courses on teaching students with special needs (Maccini & Gagnon, 2006). Some teachers take a single course on special education in college, but the vast majority of these courses do not provide instructional strategies. These courses typically focus on the legal responsibilities of teachers with students who have IEPs and the legal rights of such students (DeSimone & Parmar, 2006b). Professional development workshops positively impact teachers' perceived ability to teach students with LD (DeSimone & Parmar, 2006b). However, these workshops are offered and taken infrequently. After examining results from 228 teachers surveyed across the country, DeSimone and Parmar (2006b) found that teachers had taken less than three workshops on working with students who have LD. Of the workshops that teachers did participate in, the majority of these were seen as unfruitful because they did not focus on instructional strategies that could be used in teaching their students. Miller et al. (2000) found that workshops that focus on specific strategies for teaching students with LD significantly increased general educators' perceptions of their ability to teach students with LD.

The literature reviewed so far suggests that general educators want to learn more effective strategies for teaching students with LD as they did not study this in their college coursework (DeSimone & Parmar, 2006b; Maccini & Gagnon, 2006); yet, they are not offered professional development opportunities in this area (DeSimone & Parmar, 2006b). Further, the lack of in-depth in-service training limits the effectiveness of teaching strategies discussed in such professional development (Cook & Schirmer, 2003). As the number of students with learning disabilities (LD) in schools increases, there is need to find out if there is progress in teachers' preparedness to teach them. The current study sought to answer this question: In what way does the amount of training and experience relate to the support provided to deafblind learners?

H<sub>o1</sub>: There is no significant relationship between teacher training and level of support offered to deafblind learners

## Teacher Experience and the Support of Deafblind Learners

More often, educators have not had any previous experience with deafblindness. With guidance from a deafblind specialist, a quality educational program can be developed. While teachers of students with visual impairments and teachers of the deaf, can each provide a valuable input, together they do not equal a deafblind specialist. Each team supporting a student with deafblindness requires a specialist with skills based on a high level of experience. This person helps team members acquire the knowledge and skills needed to identify and develop the student's abilities (Riggio, and McLetchie, 2008). The importance of experienced teachers in schools has been highlighted by many researchers (Akinleye, 2001, Ogundare 2001 and Commeyras, 2003). Researchers have also given different opinions about teaching experience and learners' learning outcomes in schools (Ijaiya, 2000 & Akomolafe, 2001). Their arguments are centred on the fact that experience improves teaching skills

while pupils learn better at the hands of teachers who have taught them continuously over a period of years (Ijaiya, 2000).

In agreement, Smith (2010) argues that employing educators with previous teaching experience is beneficial to the learners' because they have skills in classroom management and guidance, increased credibility, provision of career opportunities for school teachers, and increased understanding of problems that are unique to schools (Smith, 2001). Experienced teachers identify the establishment of classroom management as one of the major goals that needs to be accomplished first. Experienced teachers differ from novice teachers in important ways. They are likely to need professional development that affirms the knowledge, experience, and intuitive judgment they have cultivated during their careers. At the same time, teaching experience does not necessarily result in expertise (Tsui, 2005). Some experienced teachers are not as receptive to professional development as are new teachers, even though they might benefit from opportunities to reflect on and enhance their knowledge and refresh their enthusiasm for teaching (Tsui, 2003). In addition, experienced teachers might change classroom routines or engage in action research (Chisman & Crandall, 2007). For deafblind teachers to deal with individual behavior and effectively communicate with deafblind learners they need to be well experienced.

High percentages of uncertified educators staffing special education programs enter teaching each year (Billingsley, Fall, and Williams 2006). Evidence suggests that these uncertified teachers are less likely to stay in their positions (Miller, Brownell, and Smith 1999) and attrition rates among beginning teachers with minimal preparation are twice as high compared to those with more extensive preparation (Boe, Cook, and Sunderland 2006). Teachers have to be capable of attuning their own needs and expectations to specific context factors and demands of the school. It is important that they 'fit' into the school system. The teacher's qualities that allow for the development of authentic human relationships with his students and his capacity to create a democratic and agreeable classroom are important attributes for effective teaching (Muijs & Reynolds, 2005). Entwistle (1987) affirms that there are emotional and moral, as well as cognitive sources of satisfaction in schooling. So the affective domain is an important factor in successful interactions between teachers and students.

 $H_{o3}$ : There is no significant relationship between teacher experience and level of support offered to deafblind learners

## METHODOLOGY

The research adopted a descriptive survey design. The study was conducted at Kabarnet School for deafblind learners. Kabarnet School for deafblind learners is located in Baringo County; 2km before Kabarnet town off Eldoret-Kabarnet road. The area was also selected because it was going to give a wide and varied view of the problem under study. The study targeted 40 teachers for the deafblind learners within Kabarnet School for deafblind learners. In particular, it targeted one (1) head teacher and 39 other teachers The researcher adopted census technique for the 40 respondents. The researcher used questionnaires for teachers and head teacher as data collection instruments in the study. The questionnaire contained the Likert scale (5 =Strongly Agree, 4 = Agree, 3 = Neutral, 2=Disagree and 1 = Strongly Disagree) to collect data regarding the objectives of the study. In the analysis of data SA and A were collapsed together to become GA, while SD and D become GD. The researcher also used the test re-test method to determine the reliability.

## Data Processing and Analysis

Data collected was analyzed by use of a computer program, the Statistical Package for Social Science (SPSS). The data was organized, presented, analyzed and interpreted using descriptive and inferential statistics. Frequencies tables, percentages, and charts were used to present the data. Another method that was used was cross tabulation process, an essential technique in tabulating frequencies and occurrences of some variables. The inferential statistics, the Pearson correlation was used to test the relationship between independent variables (teacher experience, personality and training) and support given to deafblind learners. Data was analyzed at the 0.05 level of significance testing.

#### Results

# **Demographic characteristics**

In this paper 56.5 percent (22) of the teachers were male while 43.5 percent (18) were female. Also in the study is that 52.5 percent (21) of the teachers were in the 41 - 50 years age bracket while 40 percent (16) were in the 31-40 age brackets. Only 7.5 percent (3) of the teachers were above 50 years. Regarding the highest level of education, majority of the teachers, 70 percent (28) had a Bachelor's degree while 30 percent (12) had diplomas.

Concerning working experience of the teachers, majority of the teachers had worked with deafblind children for a period of 5-10 years, 27.5 percent (11). Also, 25 percent (10) of the teachers had an experience of 1-5 years which was also the case with 15-20 years who had 25 percent (10) experience of teaching deafblind learners.

#### **Teacher Training**

To give a summary of the competence of the teachers, the study analyzed the measure of competence level of the teachers. The results regarding this were summarized and presented in Table 1 Where generally agreed (GA) is the additional scores of strongly agreed (SA) and Agreed (A), while generally disagreed (GD) is the total sum score of strongly disagreed (SD) and disagreed (D).

#### **Table 1 Teacher Training**

		GA	Ν	GD
Am specifically trained on how to teach deafblind learners depending on differing etiologies, varying ages	Frequency	35	0	5
of onset of	Percent	92	0	8
Am trained on dealing with depression associate with	Frequency	23	0	17
progressive vision loss and loneliness	Percent	57.5	0	42.5
An adequate trained on how to use touch to accommodate for lack of distortion of vision and auditory information	Frequency	33	0	7
e.g. u	Percent	82.5	0	17.5
I have skills on use of naturally occurring events for the	Frequency	30	1	9
learner to use and practice communication skills	Percent	75	2.5	22.5
I have received training on how to use and adapt appropriate devices and appliances (e.g. strobe alarms,	Frequency	23	1	16
vibrating alert	Percent	57.5	2.5	40
I have been trained on visual, auditory and tactile				
characteristics of materials needed by learners who are	Frequency	32	0	8
deafblind	Percent	80	0	20
Am well trained on teaching how learners move together	Frequency	34	0	6
(co-actively) with the learner in daily routines	Percent	85	0	15
Am trained on use of touch to make the learner aware of his/her body and another's throughout functional and play	Frequency	35	0	5
activity	Percent	87.5	0	12.5

From Table 1 majority of the teachers, 92 percent (35), agreed that they were specifically trained to teach deafblind learners depending on differing etiologies, varying ages of onset of deafblindness, varying degrees of vision and hearing losses. 57.5 percent (23), were trained on dealing with depression associated with progressive vision loss and loneliness. However, 42.5percent (17) of the teachers disagreed on the same.

More findings indicated that 82.5 percent, (33) teachers had been adequately trained on how to use touch to accommodate for lack of or distortion of visual and auditory information ( use touch to substitute for mutual eye gaze). 65 percent (26), had skills on the use of naturally occurring events for the learner to use and practice communication skills. 42.5percent (17), had received training on how to use and adapt appropriate devices and appliances ( strobe alarms, vibrating alert systems for smoke, doorbells, voice). 57.5percent (23), had been trained on visual, auditory and tactile characteristics of materials needed by learners who were deafblind. 80 percent (32) were well trained on teaching how learners moved together (co-actively) in daily routines to establish body awareness and awareness of another person ( walking together, dressing, eating, exercising). Lastly, 35 percent (87.5) had been trained on the use of touch to make the learner aware of his/her body and another's throughout functional and play activities ( clapping games, letting the learner touch his/her arm and another's before putting a shirt on).

## **Teachers' experiences**

While it has been shown that in most cases the educators have not had any previous experience with deafblindness, there are many aspects of deafblindness education that the teachers may not be not be conversant with. The study thus sought to determine the teachers' experiences with deafblindness education. The results regarding this were summarized and presented in Table 2.

#### **Table 2 Teachers' Experiences**

		GA	Ν	GD
I have adequate experience in teaching learners how to choose colour, texture and patterns that enhances or detract from social interactions, (e.g. avoid busy patters, use of color that a learner may prefer to	Frequency	31	0	9
motivate attention	Percent	80	0	20
I am experienced in teaching learners how to interpret information	Frequency	33	0	7
about other interactions and events taking place around him/her	Percent	84	0	16
I am experienced in teaching significant peers and adults to communicate effectively with the learner who is deafblind through modeling and use of specific modes of communication such as tactile	Frequency	27	1	12
cues	Percent	66.5	2.5	31
I have enough experience to teach deafblind in turn talking e.g. taking	Frequency	34	0	6
turns playing with toys, cutting vegetables, playing games conversing	Percent	85	0	15
I have enough experience in teaching learners to understand and express abstract concepts, e.g. calendar system to learn about time, objects or	Frequency	26	1	13
pictures that represent feelings	Percent	67.5	2.5	30
I am experienced in teaching about animal through experiences with	Frequency	28	1	11
real animals, shopping and preparing food	Percent	72.5	2.5	25
Am adequately experienced in handling deafblind learners during	Frequency	34	0	6
excursion to ensure their security	Percent	87.5	0	12.5

From the study findings, majority of the teachers 80 percent (31), agreed that they had adequate experience in teaching learners how to choose colour, texture and patterns that enhance or detract from social interactions, ( avoid busy patterns, use of color that a learner may prefer to motivate attention. 84 percent (33), were experienced in teaching learners how to interpret information about other interactions and events taking place around them. 66.5 percent (27) were experienced in teaching significant peers and adults to communicate effectively with the learner who was deafblind through modeling and use of specific modes of communication such as tactile cues. 85 percent (34), had enough experience to teach deafblind in turn talking such as taking turns playing with toys, cutting vegetables, playing games conversing. 67.5 percent (26), had enough experience in teaching learners to understand and express abstract concepts such as calendar system to learn about time, objects or pictures that represent feelings. 72.5 percent (28) were experienced in teaching about animals through experiences with real animals, shopping and preparing food. 87.5 percent (34) were adequately experienced in handling deafblind learners during excursion to ensure their security.

#### **Teacher Support**

Educating learners who were deafblind comes with a unique set of challenges and joys. To this end, teacher support is essential to ensure that the goals of teaching the Multi-Sensory Impaired learners, in this case, deafblind, are achieved. The study thus sought to determine the level of teacher support for learners who are deafblind. The results were summarized and presented in Table 3.

#### Table 3 Teachers' Support

		GA	N	GD
	Frequency	27	2	11
The learner is able to make choice of texture and patterns	Percent	70	5	25
The learners is able to identify who is talking, who has	Frequency	31	0	9
entered or left the room	Percent	80	0	20
	<b>F</b>	21	0	0
The learner can use touch to substitute for mutual eye gaze	Frequency Percent	31 80	0 0	9 20
gaze	rereent	00	0	20
The learner uses specific modes of communication such	Frequency	36	1	3
as tactile cues, objects or sign language	Percent	92.5	2.5	5
When a learner rejects an activity, this prompts me to shift	Frequency	35	0	5
to a more motivating activity and the light gazing stops	Percent	90	0	10
Learners are able to use objects, calendars, diaries,	Frequency	28 72 5	1	11
experience books, signs and speech in conversations	Percent	72.5	2.5	25
Learners can label objects, places, people and events with	Frequency	13	5	22
print or Braille	Percent	37.5	12.5	50
1				
The learners are able to utilize pictures or gestures to	Frequency	26	2	12
symbolize happiness, loneliness, fear, dream, clouds and				
stars	Percent	65	5	30
Learners can feel the vibrations of the speaker's lips, face,	Frequency	28	2	10
throat to understand speech	Percent	72.5	5	22.5
Learners can use alphabet systems, both tactually and	Frequency	20	3	17
visually, e.g. finger spelling, print or palm, alphabet block		50.5	75	40
letters, Braille on palm.	Percent	52.5	7.5	40

From the study findings, 70 percent (27) teachers agreed that the learner was able to make a choice of texture and patterns. 80 percent (31) agreed that the learners were able to identify who was talking, who had entered or left the room. 80 percent (31) teachers agreed that the learner could use touch to substitute for mutual eye gaze. 92.5 percent (36) teachers agreed that the learner used specific modes of communication such as tactile cues, objects or sign language. 90 percent (35) teachers agreed that, when a learner rejects an activity, it prompts the teacher to shift to a more motivating activity and the light gazing stops. 72.5 percent (28) teachers agreed that learners were able to use objects, calendars, diaries, experience books, signs and speech in conversations.

37.5 percent (13) teachers agreed that the learners were able to utilize pictures or gestures to symbolize happiness, loneliness, fear, dream, clouds and stars. 65 percent (26) teachers said that learners could feel the vibrations of the speaker's lips, face, throat to understand speech. 72.5 percent (28) teachers agreed that learners could use alphabet systems, both tactually and visually, such as finger spelling, print or palm, alphabet block letters, Braille. However, 52.5 percent (7.5) of the teachers were undecided that learners can label objects, places, people and events with print or Braille.

In summary, the study established the teacher characteristics that determine teacher support for deafblind learners. The characteristics were: teachers' competence, teachers' personality, teachers' experiences as well as teachers' support. With regard to teacher competence, the grand mean was 3.024 (SD= 0.49101, skewness = 0.791). For teachers' personality, the mean was 4.585 (SD = 0.49591, skewness = 2.353). For teachers' experiences, the mean was 3.6429 (SD = 0.57889, skewness = 0.669) and for teacher support, the mean was 2.2183 (SD = 0.52488, skewness = 1.086).

## **Correlation Analysis**

Correlation analysis aids in the determination of the existing relationships among the study variables. In this case, the existing relationship between the independent factors: Teacher characteristics; and the dependent factor: Teacher support was established. The correlation did not imply a causal-effect relationship. The results were summarized and presented in Table 5.

## **Table 5 Correlation Analysis**

		Teachers' support	Teachers' competence	Teachers' experiences
Teachers' Training	Pearson Correlation Sig. (2-tailed)	1		
	N	40		
Teachers'	Pearson Correlation	0.312*	1	
competency	Sig. (2-tailed)	0.000		
	Ν	40	40	
Teachers'	Pearson Correlation	0.555*	.502*	1
experiences	Sig. (2-tailed)	0.000	0.001	
	N	40	40	40

\* Correlation is significant at the 0.05 level (2-tailed).

From the study findings in Table 5, the correlation between teachers' competence and teacher support was 0.312 and was significant with a p-value of 0.000 (at  $\alpha = 0.05$ ). This implies that 31.2 percent of the teacher support was accounted for by teachers' competence. Teachers' personality and teacher support had correlation of 0.753 which was significant at  $\alpha = 0.05$  with a p-value of 0.000 i.e. 75.3 percent of teacher support was accounted for by teachers' personality. This represented the largest correlation. Also, teachers' experiences accounted for 55.5 percent of teacher support with correlation of 0.555 which was significant at  $\alpha = 0.05$ .

#### Discussion

Although from the above findings, it was evident that the teachers were competent, the level of competence was not adequate for a significant number of the teachers. This indicates a gap or need area in order to enhance the competence of the teachers. From these findings, it is worthy to note that the needs of learners who are deafblind are different from those who are only blind or only deaf. Thus, basing on the gap identified, teachers of deafblind learners need to have special skills. This affirms the observation by Riggio (2009) who noted that a teacher of deafblind learners must be knowledgeable about deafblindness, must solicit guidance from a deafblind specialist, and must treat communication with the student who is deafblind as a primary need. A teacher who has this set of abilities is competent enough to work with deafblind learners.

The study finding conforms to previous research, for instance, Teachers must be able to assess, interpret, and respond to the pre-symbolic forms a learner who is deafblind may communicate to increase their communication development, skills, and interaction (Vaughn, 2006).

As this study used a categorical variable to describe the amount of professional development the teachers had received, the results cannot discern a specific threshold for the amount of professional development needed to increase teachers' perceived ability to adapt instruction. While any amount of professional development seems to increase teachers' perceived ability to adapt instruction, larger amounts ( 8 or more hours) more than doubles the effect. In other words, a 1-hour session every year may not be very effective. Although the study did not focus on teacher training in regard to inclusion, the findings provided information on the types of professional development that effectively changed teachers' instructional practices. Additionally, the findings from the current study suggest that such training should be offered and provided often. The findings also revealed that teachers were compassionate towards deafblind learners (97.5 percent) and that they had sense of personal responsibility in deafblind learning and their behavior (90 percent). Study findings further indicated that teachers were flexible in order to address learners needs as they occur (92.5percent ) and they were determined in supporting deafblind learners in their learning process (95percent).

From the study findings teachers have adequate experience in teaching learners how to choose colour, texture and patterns that enhances or detract from social interactions, (avoid busy patters, use of color that a learner may prefer to motivate attention (80percent). Also, teachers are experienced in teaching learners how to interpret information about other interactions and events taking place around him/her. They are also experienced in teaching significant peers and adults to communicate effectively with the learner who is deafblind through modeling and use of specific modes of communication such as tactile cues (66.5percent). The findings provided

enough evidence that teachers have experience to teach deafblind learners in turn talking, taking turns playing with toys, cutting vegetables, playing games conversing (85percent). Also teachers have experience in teaching learners to understand and express abstract concepts, calendar system to learn about time, objects or pictures that represent feelings (67.5percent). In addition, the study findings indicated that teachers are experienced in teaching about animals through experiences with real animals, shopping and preparing food (72.5percent) and were also experienced in working with deafblind learners. This might be attributed much to the number of years as well as the age of the teachers in working with the deafblind learners. Although majority of the teachers had previous experience teachers in schools has been highlighted by many researchers and this is because, as highlighted by Smith (2010), employing educators with previous teaching experience is beneficial to the learners because they have skills in classroom management and guidance, increased credibility, provision of career opportunities for school teachers, and increased understanding of problems that are unique to schools.

Regarding the support provided to learners, the study findings indicated that learners are able to make choice of texture and patterns (70 percent) and able to identify who is talking, who has entered or left the room (80percent). Also, the learners can use touch to substitute for mutual eye gaze and uses specific modes of communication such as tactile cues, objects or sign language. From the findings it was reported that learners are able to use objects, calendars, diaries, experience books, signs and speech in conversations (72.5 percent) and to utilize pictures or gestures to symbolize happiness, loneliness, fear, dream, clouds and stars (65 percent). Learners can feel the vibrations of the speaker's lips, face, and throat to understand speech and use alphabet systems, both tactually and visually, finger spelling, print or palm, alphabet block letters or Braille. However, learners were not able to label objects, places, people and events with print or Braille (37.5percent). bFrom the findings, it was evident that with teacher support, the deafblind learners were able to achieve more. Thus, the teachers must be able to assess, interpret, and respond to the pre-symbolic forms a learner who is deafblind may communicate in order to increase their communication development, skills, and interaction (Vaughn, 2006).

#### **Conclusions and Recommendations**

From the study findings, the correlation between teachers' competence had positive effects on teachers' support. Based on the study findings, a small number of teachers were not well trained to support deafblind learners particularly on dealing with depression associated with progressive vision loss and loneliness and on how to use and adapt appropriate devices and appliances (strobe alarms, vibrating alert). In addition to this was deficiency of training on use of naturally occurring events for the learner to use and practice communication skills. Teachers' personality had positive relationships with teachers' support; that is teacher support was accounted for by teachers' personality. Also, there was evidence that teachers' experience was positively related to teachers' support.

From the study findings, the following recommendations apply to teacher support for deafblind learners. Since majority of the teachers were in the 41 to 50 year age category, there is need to encourage college students to take up careers in special needs education so as to cultivate their interest. Since there were some gaps within teacher support for deafblind learners, there is need for the stakeholders to enhance training as well as capacity building so that the teachers are well informed on the needs of the Multi-Sensory Impaired (MSI) learners. The curriculum should also be enhanced to meet the growing needs of the MSI learners for example the curriculum should be easy to adapt.

The implications from the review of literature and the results of this study cannot be understated. Teachers have not been effectively prepared to teach students with disabilities (DeSimone & Parmar, 2006b; Maccini & Gagnon, 2006). They need more training on specific teaching strategies (Pindiprolu et al., 2007). However, DeSimone and Parmar (2006b) and Maccini and Gagnon (2006) suggest this training is rarely done. From the discussions advanced in this thesis, there are several objectives worth pursuing: One is to identify inclusion-based teaching strategies that general educators can apply to their specific content areas. Another is to find the best ways to teach these strategies to teachers so that they can properly implement them. The current study found that teachers who had more professional development in adapting instruction for deafblind students felt more skillful in adapting instruction. Therefore, the findings of this study suggest that one major objective should be to provide extended professional development on adapting instruction for students with IEPs. However, further research is necessary to know how much professional development is enough.

This study focused on the deafblind (MSI) learners. Since the MSI education needs vary towards the growing need for more demand of marginalized people in the job market, there is need for more studies to be carried out on this.

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