



## ASSESSMENT OF STRATEGIES TEACHERS USE TO ENHANCE SOCIAL INTERACTION SKILLS OF AUTISTIC PUPILS IN SPECIAL SCHOOLS FOR THE INTELLECTUALLY DISABLED

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### **Abstract:**

The study assessed strategies teachers used to enhance social interaction skills of autistic pupils in some selected special schools for the intellectually disabled in the Northern part of Ghana. Descriptive research design was adopted and a total sample of 50 respondents were involved. Purposive sampling technique was used to select the schools and the respondents for the study. Questionnaire was the main instrument used for data collection. Data was analysed using tables, frequencies and percentages. The findings showed that the teachers used modeling, physical prompts, visual cues, reinforcement, social stories, direct instruction skills and social skills training in groups and peer support as strategies to enhance social interaction skills of autistic pupils in the school. The strategies used by the teachers were also proven to be effective in enhancing social interaction skills of autistic pupils in the school. It was established that even though some support services were available to help enhance the social interaction skills of the autistic pupils, professionals like occupational therapists, physical therapists and the multi-disciplinary team were absent in the three special schools selected for the study. It was recommended that the requisite support services should be provided in the selected special schools which have autistic pupils in order to help enhance the social interaction skills. In addition, periodic workshops, symposia as well as refresher courses should be

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organized for special teachers and their aides to update their knowledge and skills in the strategies used to enhance social interaction skills of these pupils with autism.

**Keywords:** social interaction skills, autism, intellectually disabled, special schools

## 1. Introduction

There is the notion that pupils with disabilities are badly treated. These negative attitudes to persons with disabilities stemmed largely from beliefs and cultural prejudices of traditional societies that considered disabled individuals as not worthy of living (Avoke, 2005). Avoke (2005) contended that, many African societies see and treat such individuals with a lot of contempt and were maltreated and in isolated cases killed outright. Again, Gadagbui (2013) stated that, the Dagombas in the Northern Region of Ghana believed that when a child is born with disabilities it could mean that the parents of that disabled child might have committed a sin and therefore, that child is “seen off in the forest”. Furthermore, GUBA Foundation (2014) reported that, attitude to autism in Ghana remained an obstacle against empowering communities. Stigmatisation is such a problem that some parents would rather prefer to hide these special children than have them live freely within their community (GUBA Foundation, 2014).

Yekple (2008) posited that, children born with any form of disability were abandoned because people had little evidence to understand and value the potentialities of these individuals. This suggested that, a child with any form of disability needed to be understood critically in terms of his or her potentials and the need for special treatment in terms of curriculum needs that must address the differential needs to make these children develop optimally and be able to contribute to society’s development. According to Ocloo (2003) in Ghana, the education of persons with disabilities was generally started by the missionaries and the first schools for the disabled were also established through the benevolence of the missionaries. Avoke (2004) posited that, the education of persons with mental retardation for instance, was started in 1968. Before that time, children with mental retardation were kept in the Accra Psychiatric Hospital. Society of Friends of the Mentally Handicapped, a Non-Governmental Organization (NGO), took the initiative to move these children from the mental Hospital to Accra Community Centre, to provide these children with day care training (Avoke, 2004). Interestingly, the education of pupils with autism also started along the same line through benevolent individuals (GUBA Foundation, 2014).

In Ghana, pupils with autism are educated in special schools for individuals with intellectual disabilities, there are many strategies and special programmes used by special teachers to enhance social interaction skills of pupils with autism and at the same time develop their communication skills, and cognitive development. However, autistic pupils in Ghana and in the Northern Regions in particular are still among the vulnerable group of special needs pupils compared to other group of children with disabilities (GUBA Foundation, 2014). In view of these challenges facing autistic pupils and their

families, it was therefore very necessary to assess the strategies special teachers used to enhance social interaction skills of autistic pupils in the Northern part of Ghana so that these pupils would relatively participate in the mainstream of society by interacting with their peers in the school and community. According to Plumet and Tardif (2005), autistic people have a wide range of intellectual abilities ranging from mental efficiency to superior intelligence. These authors further argued that, sometimes people with autism show talent in a specific area of interest and that, approximately one in ten Autistic individuals have a specific skill set which they excel in far beyond the average population (Plumet and Tardif, 2005).

Our observations and interactions with some teachers in one of the targeted schools revealed that, the conditions of pupils with autism seemed not to be improving, these pupils had difficulty interacting with their peers in the classroom and benefiting from the teaching and learning process. The researchers observed that the autistic pupils had limited number of friends and also isolated themselves from their peers in the classrooms and did not take part in any play activities in the classroom and even outside the classroom. They sat alone and played with inanimate objects, avoided eye to eye contact with peers. Gadagbui (2013) stated that, these deficits affected the pupils' learning and hence their performance. This led to some parents threatening to withdraw their wards from the schools with the claim that they do not see any improvement in their pupils. The researchers then questioned what strategies the special education teachers used to help the social interaction skills of autistic pupils in special schools for the intellectually disabled in the Northern Region.

## **1.2 Purpose of the Study**

This study assessed the strategies teachers used to enhance the social interaction skills of autistic pupils in some selected special schools for the intellectually disabled in the Northern part of Ghana.

## **1.3 Objective of the Study**

The objectives of this study were to:

- 1) find out the strategies used by special education teachers to enhance social interactions skills of autistic pupils in some selected Special Schools for children with Intellectual Disabilities in the Northern Regions of Ghana.
- 2) find out how effective the strategies teachers use to enhance social interactions skills of autistic pupils were.
- 3) examine the support services available to enhance the social interaction skills of pupils with autism.

## **1.4 Research Questions**

The following research questions framed the study:

- 1) What strategies do special education teachers use to enhance social interaction skills of autistic pupils in the classroom?

- 2) How effective are the strategies special teachers use to enhance social interaction skills of pupils with autism in the classroom?
- 3) What support services are available to enhance social interaction skills of pupils with autism in the classroom?

### **1.5 Significance of the Study**

The findings of the study will create awareness among professionals involved in the teaching of pupils with autism about the strategies teachers used to enhance the social interaction skills of autistic pupils and how the teachers facilitate the social interaction skills of pupils with autism. The findings will further create awareness on the effectiveness of the strategies teachers use to enhance the social interaction skills of autistic pupils, the interventional measures used to enhance social interaction skills and the support services available to help pupils with autism to improve upon their social interaction skills. The study will contribute significantly to existing knowledge and generate further understanding that will be useful for researchers who may wish to conduct a study in this field.

### **2.1 Methodology**

#### **2.2 Research Design**

The study adopted the descriptive survey design. Orodho, (2012) indicated that, descriptive survey design describes the current state of affairs of the variables under consideration. This design was considered appropriate because, whenever a research question puts so much emphasis on “what”, and “how”, descriptive survey design is best to use (Cooper and Schindler 2014). The study was therefore, concerned with assessing what strategies teachers used to enhance social interaction skills of autistic pupils in some selected Special Schools for children with disabilities in the Northern Regions.

#### **2.3 Populations**

Spinelli (2012) stated that population is the collection of elements or objects that possess the information sought by the researchers and about which inferences are drawn. In this case, the researchers targeted all hundred and sixty five (165) special education teachers from all the special schools in the Northern part of the country for the study.

#### **2.4 Sample Size**

The researchers sampled fifty (50) teachers representing 30% of the special educators for the study. This was in line with the suggestion of Asamoah-Gyimah and Duodo (2005) that for quantitative studies, a sample size of 10% to 30% of the population size is sufficient for generalisation purpose. They comprised thirty-three (33) female and seventeen (17) male teachers who taught autistic pupils. The females were more than the males because they formed the majority of the special education.

## **2.5 Sampling Techniques**

Purposive sampling technique was used to select three Special Schools and the teachers for the study. Cohen, Manion and Morrison (2007) asserted that, purposive sampling enables researchers to handpick the cases to be included in the sample on the basis of their judgment and typicality. In this case, the researchers purposively handpicked the schools because they were the only special schools for pupils with autism in the Northern part of Ghana. The teachers were also purposively selected because they taught the pupils with autism in the selected schools for the study.

## **2.6 Data Collection Instruments**

The respondents were to indicate what strategies they use to enhance social interaction skills of autistic pupils, how effective the strategies were and the support services available in their schools to facilitate social interaction skills of autistic pupils. The respondents were to rate their responses based on the extent to which they agree or disagree to the statement raised in the questionnaire. A total of twenty-seven (27) items were constructed to elicit responses from the respondents. The items were put into two sections. Section 'A' addressed the background characteristics of the respondents with five (5) items, while section 'B' comprised twenty-two (22) closed-ended questions. Likert-type items on enhancing social interaction skills of autistic pupils by a five-point response scale from (1) "strongly disagree" to (5) "strongly agree" was used to operationally define the degree of approval or disapproval.

## **2.7 Data Collection Method**

The researchers contacted the teachers through the head teachers of the schools after presenting to them (head teachers of the three schools) an introductory letter. The researchers explained the purpose of the study and assured the participants of the necessary confidentiality on the information to be gathered. The researchers delivered the questionnaire personally to the teachers at their various schools. The data was collected over a period of two weeks. All the teachers sampled in the three schools answered the questionnaires making a 100 percent response rate. Prior to the administration of the questionnaires, they were piloted on a similar group of special education teachers in order to uncover any potential problems associated with them. As a result, the Cronbach's  $\alpha$  reliability coefficient was found to be 0.82 which was within the acceptable values for reliability estimates. Moreover, the content validity of the questionnaires was verified by experts in the field. Descriptive statistics such as frequencies, percentages, means and standard deviations were used to analyze the data collected to answer the research questions.

## **3. Results and Discussion**

### **3.1 Research Question One: What Strategies do Special Teachers use to enhance Social Interaction Skills of Autistic Pupils in the Classroom?**

Table 1 shows the teachers' response to the questions asked on the strategies the teachers' use to enhance social interaction skills of autistic pupils in their school.

**Table 1:** Teacher's Response on Strategies  
 use to enhance Social Interaction Skills of Autistic Pupils

Statement	Agree	%	Neutral	%	Disagree	%	Total
1. I use modeling to facilitate social interactions of pupils with autism	49	98	1	2	0	0	100
2. I use visual cues to enhance social interaction skills of pupils with autism	46	92	4	8	0	0	100
3. I use physical prompts to enhance social interaction skills of pupils with autism	47	94	3	6	0	0	100
4. I employ direct instruction skills to help facilitate social interaction skills of autistic pupils	40	80	10	20	0	0	100
5. I employ social skill training in groups to provide autistic pupils opportunities to interact with peers	44	88	6	12	0	0	100
6. I do use social stories to help describe appropriate social cues and pupils responses in specific situation	46	92	4	8	0	0	100
7. I employ peer support strategy to assist pupils with autism develop social skills	46	92	4	8	0	0	100
8. I structure integrated play groups to provide opportunities for pupils with autism to interact with peers	45	90	5	10	0	0	100

**Source:** Field survey, November, 2016.

Table 1 highlighted the responses of 50 respondents sampled for the study. The study found that a high percentage 98% of the respondents agreed to the statement that "I use modeling to facilitate social interactions of pupils with autism in the classroom" 2% remained neutral and no respondent disagreed. The high percentage recorded implies that, generally, majority of the teachers use modeling as a strategy to enhance social interaction skills of autistic pupils. The views of the teachers corroborated the statement by Janzen (2003) who asserted that it will be necessary to facilitate the skills needed for social and communicative play by providing structured play opportunities that incorporate the student's interest. The author further added that, modeling, physical prompts, visual cues, and reinforcement can be used to facilitate attention, imitation, communication, and interaction.

Again, 92% of the respondents agreed to the statement "I use visual cues to enhance social interaction skills of pupils with autism" 8% representing 4 respondents remained neutral and no respondent disagreed. The high percentage recorded from the teachers' response therefore showed that a greater number of them used visual cues to enhance social interaction skills of autistic pupils in the school. The third statement "I use physical prompts to enhance social interaction skills of pupils with autism" also attracted the following responses as shown in the table; 94% of the respondent agreed to the

statement, 6% remained neutral and no one disagreed to the statement. The high percentage score also affirms that the teachers used physical prompts as a strategy to enhance social interaction skills of autistic pupils in their schools as indicated in their response to the statement.

Furthermore, the study recorded a high percent agreements with the statement “I employ direct instruction skills to help facilitate social interaction skills of autistic pupils” 80% of the respondents agreed to the statement, 20% remained neutral and no respondent disagreed. From the responses of the teachers to the statement, it was clear that majority of the teachers employ direct instruction skills as a strategy to help enhance social interaction skills of pupils with autism in the school. Yekple (2008) posited that some pupils can only learn social skills through direct instruction. This kind of skills involves a direct and systematic way of teaching a social skill or behaviour and can involve a curriculum that is used to teach various skills (Yekple, 2008). Furthermore, Lewis and Doorlag (2003) stated that, key features of the direct skill instruction are: modeling, coaching, role-play and other strategies such as performance feedback and reinforcement.

With regard to the statement “I employ social skills training in groups to provide autistic pupils opportunities to interact with peers”. The following responses were received; 88% agreed to the statement, 12% representing 6 respondents remained neutral to the statement and no respondent disagreed. The high percentage record of the responses clearly showed that the teachers employed social skills training in groups to provide autistic pupils opportunities to interact with peers in the school as a way of enhancing social interaction skills of autistic pupils. The response of the teachers is in line with the assertion of Wolfberg and Schuler (2009) that, structured play groups provide opportunities for pupils with autism to interact with peers, and can create a neutral environment for incidental teaching of social skills. They posited that play groups provide natural situation in which pupils with autism used language to express wants, practice being near other pupil, and imitate social interactions between typical peers. Older pupils with autism may benefit from systematic social skills instruction within a small-group structured format (Wolfberg and Schuler, 2009). Interestingly, this goes with the theory of Vygotsky (1978) that if a child does something without help that means the function of that activity is matured. The zone of proximal development is determined through problems that children cannot solve independently (Vygotsky, 1978). So, if the autistic pupil is put in a group and yet does not initiate interaction or imitate peers in the group then, the level of zone of proximal development is not reached because the pupil cannot independently interact with peers.

The statement, “I do use social stories to help describe appropriate social cues and pupils’ responses in specific situation” recorded the following responses: 92% agreed, 8% were neutral and no respondent showed disagreement. From the responses, it was again clear that majority of the teachers strongly agreed they used social stories to help describe appropriate social cues and pupils’ response to specific situation.

Last but not the least, 92% of the respondents agreed to the statement “I employ peer support strategy to assist pupils with autism develop social skills”. 8% remained neutral and no respondent disagreed. It was clear from the teachers’ responses that, they used social stories as a strategy to enhance social skills of autistic pupils in the school. The response of the teachers corroborated Pierce and Schreibman (1995) suggestion that, peers can assist pupils with autism in developing social skills. Peers are taught how to initiate and encourage social interaction with their peers with autism in the natural settings. Peers are taught how to use specific prompts to initiate and maintain interaction with a class mate with autism (Pierce and Schreibman, 1995). Again, the Scio-cultural learning theory which employed Vygotsky’s zone of proximal development concept discussed two levels of development which were the actual developmental level and the development which was reached with assistance of more capable people in this regards, (the special teacher and peers). The distance between these levels is what is called zone of proximal development (Vygotsky, 1978). Central to this theory is that, interaction should be with others more experienced (teachers or social competent peers).

Finally, 90% of the respondents agreed with the statement “I structure integrated play in groups to provide opportunities for pupils with autism to interact with peers”. 10% representing 5 teachers were neutral and no respondent disagreed. The high percentage scored clearly justified that, the teachers employed structured integrated play in groups as a strategy to help enhance social interaction skills of autistic pupils in the school. According to Wolfberg and Schuler (2009), structured integrated play groups can provide opportunities for pupils with autism to interact with peers and can create a natural environment for incidental teaching of social skills. The author added that, play groups provides natural situations in which pupils with autism use language to express wants, practice being near other pupils, and initiate social interactions between typical peers.

### 3.2 Research Question Two: How Effective are the Strategies Special Teachers use to enhance Social Interaction Skills of pupils with Autism in the Classroom?

Table 2 shows the teachers’ response to the questions asked on the effectiveness of the strategies the teachers’ used to enhance social interaction skills of autistic pupils in their schools.

**Table 2:** Effectiveness of the Strategies  
 used to enhance Social Interaction Skills of Autistic Pupils

Statements	Agree	%	Neutral	%	Disagree	%	Total
9. Peer support strategy has helped the autistic pupils to learn the desire behaviour from peer	46	92	4	8	0	0	100
10. The social cues I used have brought about increased social interactions, which have also enhanced cooperative learning among the pupils with autism and non -autistic peers.	47	94	3	6	0	0	100



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11. I have seen that the autistic pupils whose social interactions skills has improved have also promoted their social communication skills	48	96	2	4	0	0	100
12. Occupational therapists are available to help enhance social interaction skills of autistic pupils in the school	0	0	0	0	50	100	100
13. I have realized that the physical prompts have helped the autistic pupils to build effective listening and communication skills	50	100	0	0	0	0	100
14. The use of sports, exercise, and physical activities has afforded the opportunities for pupils with autism to interact and develop friendships	49	98	1	2	0	0	100
15. The use of Picture Exchange Communication System has positively increased autistic pupils' communication skills and social skills	49	98	1	2	0	0	100

**Source:** Field survey, November, 2016.

From Table 2, it was clear that, majority of the teachers strongly agreed to the statement that the strategies used to enhanced social interaction skills of autistic pupils in the school were effective. 92% of them agreed to the statement “Peer support strategy has helped the autistic pupils to learn the desire behaviour from peer”. 8% remained neutral and 0% showed no disagreement. The high percentage recorded indicated that, generally the peer support strategy was very effective in enhancing social interaction skills of autistic pupils in the school. The views of the teachers on the effectiveness of this strategy corroborated the findings of Odom, Brown, Frey, Karasu, Smith-Canter, and Strain (2011) that social interactions promote social communication skills that pupils need to possess as adults. Pupils with special needs (autistic pupils) can offer educational knowledge to their peers, if the pupils learn that they can teach others and learn from others, and they feel a sense of belonging, pride, and responsibility. Harding further argued that, when pupils work together, those with special needs (autism) could be paired with pupils who are socially competent from time to time.

MacCuspie (1992) also indicated that in order to give pupils opportunities to develop their social competence, it involves more than simply creating the opportunity for pupils to interact with others; they need to engage in social interactions that maximizes social development. It is important that adults' view of good interaction is not based on a lack of physical or verbal abuse, but rather on the presence of positive social interactions (MacCuspie, 1992). Rogers, (2006) reported that pupils with special needs engage in more cooperative play with typically developing peers than with those without special needs Contrary to this view is the fact that pupils with autism have deficit in theory of mind. According to Gevers, Clifford, Mager, and Boer (2006), autistic pupils

have deficit in theory of mind. This refers to the capacity to recognize one's own and others' mental states in order to make sense of behaviours.

Again, the statement "the social cues I used have brought about increased social interactions which has also enhanced cooperative learning among the pupils with autism and non-autistic peers" attracted a high percentage of 94% agreement; whilst 6% of the respondents were neutral and 0% of the respondents showed no disagreement. The high percentage response to the statement suggested that, the social cues the teachers employed were effective in enhancing social interaction skills of autistic pupils and this also enhanced cooperative learning among the pupils with autism. Wehman (2007) asserted that, social training packages have proven effective in teaching a variety of social skills including greeting others, sharing toys and engaging in co-operative play such as modeling, role play, feedback, rehearsal, social reinforcement and generalization training.

Furthermore, on the statement "I have seen that the autistic pupils whose social interactions skills have improved, have also promoted their social communication skills". The following were the responses recorded: 96% of the respondents agreed to the statement; 4% remained neutral and 0% disagreed. From the responses of the teachers, it was indicated that autistic pupils whose social interaction skills improved also had their social communication skills improved.

The statement "I have realised that the physical prompts have helped the autistic pupils to build effective listening and communication skills" received 100%. The high percent response of the teachers concluded that, the use of physical prompts is an effective strategy that has helped to enhance social interaction skills of autistic pupils in the school. From the teachers' response to the statement collaborates Plumet and Tardif (2005) who argued that, physical prompts have helped built effective listening and communication skills of pupils with special needs (Plumet and Tardif, 2005). Last but not least, 98% of the respondents agreed to the statement "the use of sports, exercise, and physical activities have afforded the opportunities for pupils with autism to interact and develop friendships". 2% remained neutral to the statement and 0% indicated no disagreement at all. From the teachers' response, it was clear that, the use of sports, exercise, and physical activities are effective strategies that helped to enhance social interaction skills of autistic pupils in the school. This was proven by the high percent record of the teachers' response. Smith (2006) contended that, sport, exercise, and physical activity settings may afford opportunities for pupils with and without autism to interact and develop friendships. Rubin (2005) posited that, friendship formation and maintenance is a crucial experience in pupils' lives from age three through adolescence. Finally, 98% of the respondents agreed to the statement "the use of Picture Exchange Communication System has positively increased autistic pupils' communication skills and social skills". 2% were neutral and 0% showed no disagreement. The high percent record indicated that generally, the teachers' use of Picture Exchange Communication System is an effective strategy that has positively increased autistic pupils' communication and social skills. Research examining the Picture Exchange

Communication System has indicated positive increases in communication skills (Bondy & Frost, 1994).

### 3.3 Research Question Three: What Support Services are available to enhance Social Interaction Skills of Pupils with Autism in the Classroom?

Table 3 shows the teachers' response to the questions asked on the support services available to help enhance social interaction skills of autistic pupils in their school

**Table 3:** Support Services available to enhance Social Interaction Skills of Pupils with Autism in the Classroom

Statement	Agree	%	Neutral	%	Disagree	%	Total
15. Developing an Individual Education Plan (IEP) for a pupil with autism is done by a team of professionals including parents, special educators, school nurse, etc.	50	100	0	0	0	0	100
16. There are support services like Speech-Language therapist in the school to help in speech problems of autistic pupils.	2	4	0	0	48	96	100
17. Occupational therapist is a professional who is trained to help people manage their daily activities.	50	100	0	0	0	0	100
18. Occupational therapists are available to help enhance social interaction skills of autistic pupils in the school	0	0	0	0	50	100	100
19. There are special education teachers who work with pupils with autism in the school	50	100	0	0	0	0	100
20. The multi-disciplinary team are always available to assess the autistic pupils	1	2	1	2	48	96	100
21. Physical therapists are needed to help the autistic pupils who have problems with movement	48	96	2	4	0	0	100
22. There are Physical therapists in the school who focus on problems with movement that cause real life limitations of the autistic pupils	0	0	0	0	50	100	100

**Source:** Field survey, November, 2016.

As shown in the Table 3, the teachers' response to the statement asked was as follows; 100% of the respondents agreed to the statement that "developing an Individualised Education Plan (IEP) for a pupil with autism is done by a team of professionals including parents, special educators, school nurse, etc". It is therefore, important to note that, the high percentage of the response of the teachers' indicated that, all the teachers sampled for the study clearly understood that developing an IEP for a pupil with autism involves a team of professionals. The view of the teachers is in line with Hardman (2004) who contended that, in developing an IEP, the team members have specific roles and responsibilities which included gathering and sharing information, determining what is

known about the student and what needs to be known, identifying priority learning needs, and developing and implementing programming for the student (Hardman, 2004). Again, the response of the teachers on the statement “there are support services like Speech and Language therapist in the school to help in speech problems of autistic pupils” interestingly received the following response: 96% of the respondents disagreed with the statement while 0% remained neutral to the statement. However, 4% representing 2 teachers agreed with the statement. From the response of the teachers, I strongly believe that support services such as Speech and Language therapist are barely available in the special schools sampled for the study to help in speech problems of autistic children. Gadagbui (2013) posited that Speech and Language therapy is designed to coordinate the mechanics of speech with the meaning and social use of language. Such a program begins with an individual evaluation by a speech-language pathologist to assess an individual’s verbal aptitudes and challenges. The speech language pathologist can provide therapy one-on-one, in a small group or in a classroom setting (GUBA Foundation, 2014).

The statement “Occupational therapist is a professional who is trained to help people manage their daily activities” received a high percentage response of 100%. From the data, it was very clear that the teachers sampled for the study from the three selected special schools for the intellectually disabled in the Northern Region are knowledgeable of the work of an Occupational therapist. According to Gadagbui (2013), Occupational therapist is a professional who is trained to help people manage their daily activities. Gadagbui added that Occupational therapy (OT) addresses a combination of cognitive, physical and motor skills. The goals of Occupational therapists include helping a child or adult gain age-appropriate independence and participate more fully in life. For a person with autism, occupational therapy often focuses on skills for appropriate play or leisure skills, learning and self-care skills (GUBA Foundation, 2014). Smith (2006) observed that, occupational therapists train children with disabilities especially the autistic individuals to use the small muscles to make precise skilled movement as well as co-ordinate both small and large muscles in the performance of daily living activities.

Furthermore, the teachers’ response to the statement “Occupational therapists are available to help enhance social interaction skills of autistic pupils in the school” received the following response: 100% of the respondents disagreed with the statement. One can confidently conclude that Occupational therapists were not available in the three special schools sampled for the study as this was confirmed from the 100 percent response of the teachers involved in the study. The absence of these support services is in line with Lord and Schopler (1994) when they argued that, the services of Occupational therapists can vary according to a child’s needs. However, these professionals mentioned were barely absent especially when it came to preparing IEPs for the autistic pupils (Lord and Schopler, 1994). The statement “there are special education teachers who work with pupils with special needs (autism) in the school” received the following response from the teachers: 100% of them agreed to the statement. 0% of the respondents were neutral to the statement and the same 0% indicated no disagreement to the statement. The 100

percent agreement responses by the respondents clearly indicated that the special teachers sampled for the study in the selected special schools were knowledgeable of their duties as special educators.

Again, from the Table 3, 96% of the teachers disagreed with the statement “the multi-disciplinary teams are always available to assess the autistic pupils in the school”. 2% of the response representing 1 teacher was neutral to the statement. Interestingly, the same 2% representing only 1 teacher also agreed to the statement. From the response of the teachers, I can conclude that, the multi-disciplinary teams were barely unavailable in the special schools selected for the study; especial when it comes to planning an IEP for the autistic pupil. According to Mcloughlin and Lewis cited in Yekple (2008) the input of parents in the pupil’s IEP is very crucial as their concern is sought in determination of the programme appropriate for the child. The Multi-Disciplinary Team is made up of related services professionals including the psychologist, speech and language pathologist, physical therapist, occupational therapist, and a medical practitioner. Other members of the multidisciplinary team should include a special teacher, the parents of the individual autistic child, a nutritionist and the district-level special education representative (Heward, 2009).

Moreover, the statement “Physical therapists are needed to help the autistic pupils who have problems with movement in the school” received the following response: 96% of the respondents agreed with the statement while 0% of the respondents were neutral to the statement. The same 0% also showed no disagreement to the statement. It is very clear from the teachers’ response that they are well aware and knowledgeable of the important role a Physical therapist plays in training autistic pupils who have problems with movement. Physical therapy (PT) focused on problems with movement that cause real-life limitations (GUBA Foundation, 2014). Furthermore, physical therapy is needed to improve poor muscle tone, balance and coordination (GUBA Foundation, 2014).

Finally, 100% of the respondents disagreed with the statement that “There are Physical therapists in the school who focused on problems with movement that cause real life limitations of the autistic pupils”. It can therefore be concluded that the services of the physical therapist are not available in the special schools sampled for the study in the Northern Region of Ghana. The unavailability of these personnel is in line with Hess, Morrier, Heflin and Ivey (2008) who contended that, the services of physical therapist who provide services to special needs children are often absent in developing countries.

#### **4. Conclusions**

The findings made from the study suggested several conclusions. First, it was clear that the teachers involved in the study adopted the following strategies: modeling, physical prompts, direct instructions, social skills training groups, social stories, and peer support. Again, the responses revealed that the strategies adopted by the teachers were very effective in enhancing social skills of pupils with autism. The teachers confirmed that they have seen tremendous improvement in the autistic pupils when they employed the

strategies mentioned. Lastly, it was established that even though some support services were available to help enhance the social interaction skills of the autistic pupils, professionals like occupational therapists, physical therapists and the multi-disciplinary team were absent in the three special schools selected for the study.

#### **4.1 Recommendations**

Based on the findings of the study, it was recommended that; the requisite support services such as occupational therapists, speech and language therapists, physical therapists among others should be provided in the selected special schools with autistic pupils in order to help enhance the social interaction skills. In addition, periodic workshops, symposia as well as refresher courses should be organised for special teachers and their aides to update their knowledge and skills in the strategies used in enhancing the social skills of autistic pupils.

#### **Conflicts of Interest Statement**

Each author certifies that this original document has no commercial associations that might pose a conflict of interest in connection with the submitted article.

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