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## Research Article

# EFFECTS OF COMMUNICATION DISORDERS ON ACADEMIC PERFORMANCE OF LEARNERS IN MAINSTREAM PRIMARY SCHOOLS IN KERICHO COUNTY, KENYA

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### ABSTRACT

The purpose of this study was to determine intervention strategies used by teachers to support learners with communication disorders in mainstream primary schools in Kericho County, Kenya. The study was guided by the developmental psychology theory that aided in understanding of communication disorders among children. Stratified and lottery technique of random sampling was used to select a sample of participating schools and respondents. Data for the study was gathered using two instruments which included: face to face interviews with class teachers and questionnaires for teachers and pupils in mainstream primary schools in Kericho County. The respondents comprised of class 3 pupils since it was randomly selected from the other 8 classes in the school. The independent variables were the communication disorders and performance was a dependent variable. The sampling design which was used included stratified sampling and simple random sampling. A descriptive survey design was adopted in this study where 384 pupils' questionnaires and 48 teachers' and head teachers' questionnaires were formulated to tap the respective CD effects on performance of the learners from the sampled public mainstream primary schools. The data collection procedures adopted for this study involved appropriate appointments with the respondents where the researcher made familiarization visits with sampled schools to hold discussions with heads of the respective schools to make necessary arrangements for the actual data collection. Data analysis was done with help of SPSS programme and findings were presented using frequency tables and graphs. Content analysis used in processing of qualitative data from the open ended questions. In addition, a multivariate regression model applied to determine the relative importance of each of the variables with respect to academic performance of learners with communication disorders. The study found out that teachers use different strategies to support pupils' learning. There was no one strategy that worked for all learners with CD however; strategies that succeeded for many pupils had several characteristics in common. There were few differences between the general learners and CD learners in the use of these strategies, although pupils with CD were more likely to receive additional support. The findings are useful to the Special Need Education and its various organs in formulating appropriate mechanisms that will ensure that performance of CD learners is significantly improved for assurance of quality to students, parents, teachers and other stakeholders. The ministry needs to review policies which guide students' assessment to enhance good performance, through intensified in-service training of teachers.

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## INTRODUCTION

This study tracks some of the broad International and national perspectives on communication disorders and its effects on academic performance of learners in mainstream primary schools. Mainstreaming can be seen as a logical extension of integration. One notable international policy is the Salamanca Statement on inclusive education (1994) which encourages all governments to give priority to policy, legal and budgetary provision to improve their education system to take into account the wide diversity of learners' unique characteristics, interests, abilities and learning needs.

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The international union started to develop official documents about human rights for education in the middle of 20th century. This move was later followed up with the action plan of education for all children. Inclusive education became the core issue in the process of provision of education for children with SNE. The right to education for every child is stated in the Universal Declaration of Human Rights (UN, 1948). The World Declaration on Education for All claims as well that all children, youth and adults should be provided with basic education. These steps should be taken within the education system to ensure equal access to education for every person with SNE (UN, 1990). Mainstreaming is underlined as the process of addressing the variety of needs to all children (UNESCO, 2005).

This approach indicates how to transform the education systems and settings in order to respond to the diversity of learners. It involves modification in the environment, especially in content, approaches, structure and strategies during provision of education. It is evident that teaching is one of the strongest determinants of learner achievements. Teachers are one of the key players in education settings. They have the biggest task of providing high quality education to the diverse needs of learners in the classrooms (UNESCO, 2005).

Kenyan education system has been offering support to only four categories of learners with disability, that is, those with hearing impairment, visual impairment, physical disability and mental retardation, leaving out other groups like gifted and talented and communication disorders (MOEST 2003; Republic of Kenya, 2005). Thus, it is the researcher's view that with the implementation of the Free Primary Education programme, most public primary school classes are overcrowded to the extent that children may not be getting individualized attention. Consequently, it is children with communication disorders who are affected most, as they may not get individualized attention thus exposing them to the risk of dropping out of school early. Also lifespan prevalence data may be valuable in understanding the natural history, course, and prognosis of communication disorders but no study has been done to establish their availability in Kericho county mainstream primary schools. Toppelberg and Shapiro (2000), in their 10 year review of empirical studies of language disorders, found undiagnosed language disorders in community and psychiatric settings to be common. They also found that the identification of language disorders was helpful in preventing compounded long term behaviour problems in children. This current study will attempt to establish the impact of communication disorders on academic performance of learners in mainstream primary schools in Kericho County, Kenya.

This has serious implications on access, equity and quality in the provision of education and training to children with special needs. This situation cannot easily be reversed because of challenges of the Disability Act (2003), whose provision is skewed towards four traditional areas such as lack of reliable data on incidences and prevalence of CD in schools (Republic of Kenya, 2005).

In Kenya, people with disabilities make up 10% of the total population, approximately 3.5 million people (World Health Organization, 2006). Disabled persons, especially children, face a lot of problems as a result of their special needs. In Kenya, education has traditionally been organized on a two tier basis: the first is the regular school system and the second is the special school for children with disabilities such as deafness, blindness and mental retardation. This organization ignores communication disorders children as they have continued being put together with normal children in mainstream classes. A gap that the current study intended to fill was to determine intervention strategies used by teachers to support learners with communication disorders in mainstream primary schools in Kericho County, Kenya. Nonetheless, the situation on the ground was worse because an assessment which was done in Kericho educational, assessment and resource centre in the years between 2007 and 2014 as shown in Figure 1.1 below clearly indicates that children with CD have the highest frequency and this bears grave consequences especially to the county.

The objective of the study was to determine intervention strategies used by teachers to support learners with communication disorders in mainstream primary schools in Kericho County, Kenya. An understanding of the nature of learning problems among primary school pupils with

**Table 1. Number of SNE Children Assessed between the Years 2007-2014**

Categories of Difficulties/ Year	KEY												TOTAL	GRAND TOTAL
	M.R- Mentally Retarded		H.I- Hearing Impairment			C.P- Cerebral Palsy			EPH- Epilepsy					
	V.I- Visual Impairment		P.H- Physically Handicapped			L.D- Learning Difficulties			C.D- Communication Difficulties					
	M/HC- Multiply Handicapped													
YEAR	SEX	M.R	V.I	H.I	P.H	C.P	L.D	EPH	EBD	C.D	M/HC	Others		
2007	Boys	12	20	12	8	5	2	2	1	22	0	0	84	
	Girls	11	21	5	3	3	0	2	1	23	0	0	69	
2008	Boys	9	8	2	8	2	2	0	0	21	0	0	42	
	Girls	12	5	9	6	1	3	0	0	20	0	0	46	
2009	Boys	9	12	10	02	7	6	0	1	23	0	0	60	
	Girls	9	18	08	04	7	0	0	0	19	0	0	55	
2010	Boys	12	06	13	07	02	03	01	00	23	00	00	57	
	Girls	12	07	08	12	06	00	00	00	22	00	0	57	
2011	Boys	17	4	10	5	0	3	0	01	26	5	0	61	
	Girls	13	8	18	11	2	2	0	02	25	1	0	72	
2012	Boys	27	7	6	6	4	3	1	0	20	7	0	71	
	Girls	17	0	6	4	3	2	0	0	22	6	0	50	
2013	Boys	18	6	9	6	0	2	0	10	19	02	04	66	
	Girls	11	1	5	4	4	2	0	00	18	01	04	40	
2014	Boys	10	08	05	06	03	01	00	00	27	00	00	40	
	Girls	06	02	01	05	00	00	00	00	26	00	00	20	

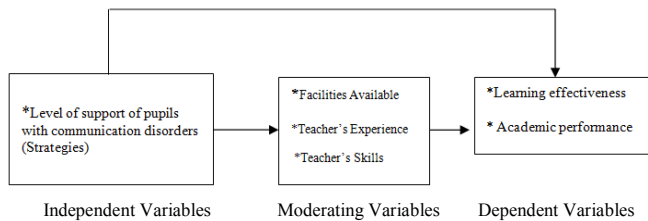
Source: Kericho Educational Assessment and Resource Centre

## Statement of the Problem

Though the Kenya government has made effort to expand and improve the education of children with special needs as stipulated in the Children's Act (2001) and the such as Hearing Impairment, Visual Impairment, Mental Handicap and Physical 2 handicap, leaving out other categories of disability such as communication disorders (CD).

communication disorders would be helpful in developing pre-referral interventions, making appropriate referrals as well as identifying effective accommodations and intervention strategies. The variables that guided the study are as shown in the Conceptual Framework below.

## Conceptual Framework of the Study



**Fig. 1. Conceptualization of effect of communication disorders on academic performance of learners of mainstream primary schools in Kericho County**

The study conceptualizes that level of support of pupils with CD with respect to their academic performance. Though not every pupil who has CD has academic problems, but a thorough examination can determine the presence of CD (Lyon, 1999). Children with disabilities are hidden from the rest of the society (Abosi, 2003).

### Level of support of pupils with Communication Disorders

All children have language learning needs and these should be supported and developed in school settings. However, there are certain factors which impact on the language levels of children when they enter formal schooling and these in turn impact on services and models of service delivery. It has been argued that both the number of children identified with CD and the association between social disadvantage and poor language skills (Vasileya *et al.*, 2008) have increased the demand on services. Hence this called for a re-examination of the ways in which children with CD are supported across health and education services (Lindsay, *et al.*, 2010). Only when children have been provided with appropriate language learning environments to develop their language and communication skills at school and at home, can financial and professional resources could be allocated in cost effective and efficient ways. Children can learn using a variety of sources like books, computers, pictures, cards and people such as teachers, peers and parents. To be able to meet individual needs of pupils in class, the teacher should know which way works best for each child by ensuring flexibility and child's choice in order to match the materials according to their diverse needs (Isaacs, 2012). It is difficult to teach in a classroom without using relevant materials to the lesson or topic. The resources should be up to date to enhance sensory curriculum and easy to be manipulated by all children in the classroom. Resources ranging from time, space, human and material may be considered in the classroom (Isaacs, 2012). There are human resources which without their back-up, the sensory curriculum may not be realized. Children with severe special needs may need intensive human support whose effective use should be deemed indispensable.

The following are some of the human resources and how they can be utilized: Head-teacher – as heads of the school, they should help teachers in planning the materials, observe them as they teach in class hence will appreciate the need for teaching materials in classrooms. Family- when the parents are involved effectively in the learning process of their children, they feel valued and want to do more for the child at home. This helps in the curriculum development and also enhances good cooperation between school and home.

Teachers should therefore organize reading workshops to facilitate to the parents how they can help the child to read at home using relevant materials. This provides one-to-one attention which promotes a healthy parent-child relationship (Isaacs, 2012). Volunteers- these are people who freely offer their support to the pupils inside and outside the classroom. They should be given special part in the delivery of sensory curriculum but with 22 close monitoring. They may have no expertise in planning the materials but can offer their services to individual pupils in class (Strickland *et al.*, 2002). Teacher assist/support staff- they always assist subject/class teachers to give a one-to-one support to pupils with difficulties in a particular subject. Their services are always of great help.

Peers- when teachers give complex or unusual topics in class this may be a good opportunity for collaboration among pupils. For some pupils, peer tutoring motivates them to read and write since they are guided by their age mates or play mates whom they are free with. Teachers should encourage peer tutoring to enhance learning in the classroom (Isaacs, 2012). Apart from the above, there are also material resources that teachers can use to support communication in class. Teachers of communication skills usually make successful materials that match the learner's level of understanding and his/her difficulty. If it is good enough then it should motivate the pupil to practice communication, so this should be considered when choosing materials for the topic (Strickland *et al.*, 2002). As mentioned earlier, the use of computer technology as a teaching material helps pupils in communication and they enjoy working with it because it gives them immediate feedback. It also maintains their interest in the activity. Other resources also motivate reading and should not only be books or printed text (Strickland *et al.*, 2002).

Teachers are needed to provide support in the classroom related to what an individual is doing with the speech-language pathologist (Hammer, 2009). Collaboration between the speech-language pathologist, classroom teacher, and family is needed in order to develop and support meaningful and effective interventions. A child with communication disorders needs continuity throughout the avenues of his daily interactions with others in order to make use of the strategies and techniques he learns in therapy; if he never uses them in authentic situations, then the purpose of therapy is defeated. Teachers need to model strategies to enhance communication of pupils with CD. The teachers also need to guide practice with a gradual release of responsibility so that learners eventually make the strategies their own. However, there is also evidence to suggest that if we delay intervention until nine years of age, approximately 75 percent of the children continue to have difficulties learning to communicate throughout high school (Shoho, Katims, and Wilks, 1997). Successful intervention requires that teachers understand the communication processes and instruction, think diagnostically, and use this information on an ongoing basis to inform instruction. Struggling communicators need multi-level, flexible, small-group instruction balanced with whole-class instruction in which the teacher models and explicitly teaches communication strategies. One-size instruction does not fit all children. Writing is the most complex form of language development. It requires at standard three teachers start generating thoughts and ideas, and converting them into written words that can be formulated into coherent sentences

that include: spelling, punctuation, and capitalization. The sentences must be interrelated and connected in order to convey meaning.

**Research Methodology**

A descriptive research design was adopted in this study. A descriptive research design is considered to be the most appropriate approach for this study because it describes existing situation, of prevalence of children with communication disorders (Price, 2000). A descriptive research design not only concerns itself with the current status of things but also focuses on a group of subjects, as the present study focused on a group of about 2500 primary school pupils in Kericho County was evaluated in view of communication disorders. This study was carried out in Kericho County, one of the 47 Counties of Kenya. It is bordered by Kisumu County on the west, Nyamira County on the south-west, and Bomet County to the south-east, Nakuru County to the east, Baringo County to the north and Uasin Gishu County to the north-west. Kericho County was selected out of 47 counties of Kenya because it is thought to have the highest number of learners with communication disorders. The researcher observed this upward trend when working with educational assessment and Resource centre in the year 2005-2010.

A sample is a set of individuals selected from the target population. The degree of representativeness of a sample refers to how closely the sample mirrors the population (Gravetta and Forzano, 2006). Kerlinger (1973) indicates that sample size, 10% of the target population is large enough so long as it allows for reliable data analysis and by cross tabulation provides desired level of accuracy in estimates of large population and allow for testing for significance of differences between estimates; in other words, the sample size depends on what one wants to know, the purpose of the study, what is at stake, what will be useful, what will have credibility and what can be done with available time and resource.

Fisher *et al* recommended that if there is no estimate available of the proportion in the target population assumed to have the characteristic of interest, 50% should be used. Therefore taking the proportion of a target population with certain characteristics as 0.5 and the z – statistic as 1.96 with desired accuracy at the 0.05 level, then the sample size is

$$n = \frac{(1.96)^2 (0.50) (0.50)}{(0.05)^2} = 384$$

The study involved 48 class teachers and 48 head teachers of the sampled schools and 384 pupils with CD from the selected schools. These pupils were drawn from those already ranked by the teacher as poor performers based on their class work and who are perceived to have a high risk of failing in school.

The researcher used questionnaires and interview guides. The researcher administered questionnaires personally.

**Data Analysis**

The quantitative data collected was analyzed using descriptive statistics such as frequencies, percentages, mean and standard deviation. The descriptive statistical tools helped in describing the data and determining the respondents’ degree of agreement with the various statements under each variable. Data analysis was done with the help of the SPSS programme. Content analysis was used in processing of qualitative data from the open ended questions and results presented in prose form. A multivariate regression model was applied to determine the relative importance of each of the variable with respect to academic performance of learners with communication disorders. Inferential statistics such as non-parametric test which included analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. The aim of regression analysis is to estimate the effect of a given independent variable on variation in the dependent variable.

**Table 2. Demography of Participants**

Sub-county	Kipkelion				Kipkelion		Total
Gender	Ainamoi	Belgut	Sigowet	Bureti	East	West	
Male	32	32	32	32	32	32	192
Female	32	32	32	32	32	32	192
Total	64	64	64	64	64	64	384

Source: Author

The formula which was used to determine the sample size in this study is shown below, as discussed by Kothari (2009).

$$n = Z^2pq/d^2$$

Where

n - the desired sample size (if population is greater than 10,000)

z - the standard normal deviate at the required confidence level

p - the proportion in the target population estimated to have characteristics being measured.

q= 1-p

d -the level of statistical significance set.

Since the sample size is larger than 10,000 (N>10,000) in this study, the value of sets are 1.96 at 95% confidence intervals.

Multivariate regression analysis controls all the other independent variables in the model and gives the effect one variable of CD on pupils’ academic performance. Multiple linear calculate how much the dependent variable (performance) changes when other variables (independent) change.

**RESULTS**

**Demographic Characteristics**

The demographic characteristics of the respondents were analyzed based on the questionnaire sets. The academic qualification for the teachers was left open but for the ease of analysis, only the certified levels were considered.

**Table 3. Demographic Characteristics of the Respondents****(a) Level of Education**

	FREQUENCY	(%)
Diploma in Education	3	6.3
B. Ed	35	72.9
M. Ed	10	20.8

Source: Author

Most of the teachers had Bachelor of education qualifications as indicated by 72.9% while 20.8% had masters in special need education and only 6.3% had diploma qualification. This indicated that teachers are qualified to teach in mainstream schools because they are equipped with skills and the necessary techniques to deal with individual differentiation.

**To determine interventions strategies used by teachers to support CD learners**

This study focused on intervention strategies used by teachers to support CD learners in mainstream public primary schools. The following are the study results:

**Table 4. Intervention Strategies used by Teachers****(a) Head Teachers**

STRATEGIES	FREQUENCY (%)				
	SD	D	N	A	SA
Guidelines	0.0 (0)	0.0 (0)	0.0 (0)	13 (27.1)	35 (72.9)
Promote Development	0.0 (0)	0.0 (0)	0.0 (0)	13 (27.1)	35 (72.9)
Use subsidize	0.0 (0)	0.0 (0)	13 (27.1)	14 (29.2)	21 (43.8)
Facilitate Access	0.0 (0)	0.0 (0)	0.0 (0)	27 (56.3)	21 (43.8)
All HT learn Techniques	0.0 (0)	0.0 (0)	13 (27.1)	10 (20.8)	25 (52.1)
TTI and ICT	0.0 (0)	0.0 (0)	0.0 (0)	38 (79.2)	10 (20.8)
Techniques and Technology	0.0 (0)	0.0 (0)	0.0 (0)	48 (100)	0.0 (0)
Sensitize	0.0 (0)	0.0 (0)	0.0 (0)	38 (79.2)	10 (20.8)
Share Desk	13(27.1)	0.0 (0)	0.0 (0)	11 (22.9)	24 (50.0)
Same Table	0.0 (0)	11 (22.9)	0.0 (0)	37 (77.1)	0.0 (0)
Play Together	0.0 (0)	0.0 (0)	0.0 (0)	48 (100)	0.0 (0)
Participate in Groups	0.0 (0)	0.0 (0)	0.0 (0)	48 (100)	0.0 (0)
Equal Treatment	0.0 (0)	0.0 (0)	0.0 (0)	35 (72.9)	13 (27.1)

Source: Author

**(b) Teachers**

STRATEGIES	FREQUENCY (%)				
	SD	D	N	A	SA
Guidelines	0.0 (0)	0.0 (0)	0.0 (0)	3 (6.0)	45 (94.0)
Promote and Develop sign lang.	0.0 (0)	0.0 (0)	0.0 (0)	30 (63.0)	18 (37.0)
Use subsidize	0.0 (0)	0.0 (0)	5 (11.0)	29 (60.0)	14 (29.0)
Facilitate Access to public com.	0.0 (0)	0.0 (0)	5.0 (10.0)	37 (77.0)	6 (13.0)
All teachers learn Techniques	0.0 (0)	0.0 (0)	0.0 (0)	23 (48.0)	25 (52.0)
TTI and ICT	0.0 (0)	0.0 (0)	0.0 (0)	30 (63.0)	18 (37.0)
Techniques and Technology	0.0 (0)	0.0 (0)	0.0 (0)	18 (37.0)	30.0 (63.0)
Sensitize entire communities	0.0 (0)	0.0 (0)	0.0 (0)	25 (52.0)	23 (48.0)
Share Desk in classroom	0.0 (0)	0.0 (0)	0.0 (0)	27 (56.0)	21 (44.0)
Sit for same exams	0.0 (0)	0.0 (0)	3.0 (6.3)	23 (48.0)	22 (46.0)
Play Together	0.0 (0)	0.0 (0)	0.0 (0)	8 (17.0)	40.0 (83.0)
Participate in group discussions	0.0 (0)	0.0 (0)	0.0 (0)	40 (83.0)	8.0 (17)
Sensitize Communication	0.0 (0)	0.0 (0)	7.0 (15.0)	32 (67.0)	9 (19.0)
Equal Treatment	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	48 (27.1)

Source: Author

When head teachers were asked on the intervention strategies they used to support CD learner all reported that the government should provide guidelines and wanted the use of speech kits to be promoted while enhancing availability of information in the modes of communication in educational and

other institutions. The strategies were also supported by all the class teachers. All the head and class teachers except 27.1% and 10% of them respectively required the government to subsidize the cost of availing information to person with CD. On the strategies to promote positive attitude towards CD learners, only 27.1% and 22.95% of the head teachers disagreed respectively that CD learner should share desks and use same table when eating their meals as all teachers agreed. All head and class teachers agreed that CD learners should play together participate in group discussion and be given equal treatment. Sharing notes or ideas in study groups or discussions is often considered more effective than simply studying or learning individually. In the reviewed literature, it was noted that communicating information in order to learn requires the use of appropriate social-communication skills to express one's ideas and absorb those of others (Greenwood *et al.*, 2002). Children with communication disorders and weak social communication skills are again at a disadvantage to benefit from sharing and communicating educational information. Not only are group situations difficult, but children with communication disorders facing difficulties with academic success due to their interpretations of their own abilities.

Students with social-communication impairments are likely to have low self-concepts and less motivation to achieve because of past failure (Windsor, 1995). Teachers' awareness of differentiation needs and their responses to the differentiation questions in terms of principles and practices of teaching were observed during the study.

## Summary, Conclusion and Recommendation

As it was noted by most head teachers, learners with CD needs have a right to attend mainstream education inclusive policies that generates a change in practice in terms of budgetary allocation, staff training and better assessment and placement of children with disabilities is unavoidable. As social creatures, human beings want and need to share experiences and intimacy with other people through communication. CD may impact on language form (phonology, morphology, and syntax), language content (semantics), or language functioning (pragmatics) which in the long run greatly affects the learner's general performance. Individuals with CD do not acquire the abilities necessary to be socially successful or to make friends with general education pupils and they will make fun of them as the results were statistically significant but the significance levels were on the margin 0.014 and 0.019 respectively. Effective teaching and communication requires both appropriate monitoring of pupil's progress and good classroom organisation in order to maximize communication development. However, organisation and monitoring needs to be complemented by fine tuning teachers' oral communication and in interactions with pupils, for instance activities to scaffold communication development need to be provided in a regular and deliberate manner. These experiences should include advanced communication learning interactions that have been shown to develop oral communication, including grammatical skills, vocabulary and narrative. All these techniques constitute high-quality verbal input by teachers who are specialist or have done courses on SNE to fully understand, appreciate and develop quality use of these communication learning interaction techniques.

Naturalistic approaches commonly include the following characteristics: providing distributed learning opportunities rather than massed blocks of trials, following the child's focus of attention or interest, using antecedent and consequent stimuli naturally associated with a particular communication response. Naturalistic interventions use specific techniques that create opportunities for the child to use targeted language structures. This approach utilizes aspects of adult-child interaction that promote language acquisition. Deciding which techniques to use for an individual child requires the professional to draw upon knowledge about normal language acquisition and to be cognizant of the needs of the particular child. A critical aspect of naturalistic interventions is the professional's ability to read, interpret, and respond appropriately to the child's cues. Naturalistic and enhanced or modified milieu methods (also called incidental teaching) involve the professional arranging materials in the environment in a way designed to elicit targeted responses from the child.

Learners whose communication disorder is only one part of a more general developmental disorder may require multiple services to address multiple needs. Since the communication disorder is only one aspect of the overall needs of the learner, there are additional intervention considerations for those learners who have a language delay but no other apparent developmental problems. Often, similar communication intervention strategies are effective for learners with communication disorders regardless of whether these learners are affected only in the communication domain or in other developmental domains as well. In fact, many of the treatment efficacy studies that were evaluated included subjects whose

communication disorders were embedded in more general developmental disabilities. Some studies comparing specific treatment approaches found an association between the learner's pre-treatment developmental level and the intervention method. Such an association indicates that the most effective intervention method differs according to the learner's pre-treatment developmental level. Some learners may require augmentative communication, especially when speech is not an effective mode of communication for the learner. In some learners, the need for augmentative communication may be transitional or temporary. Augmentative communication involves using various methods and/or equipment to assist in the learner's communication. An augmentative communication system may be a composite of communication components, which may include communication strategies, manual signs, and communication devices, such as a manual communication board, computer, or dedicated electronic device.

This study points out the strategies used by teachers to support learners with CD in order to improve on the academic performance. No one strategy works for all learners with communication difficulties. However, strategies that succeed for many pupils have several characteristics in common. Typically they involve more instructional time for pupil, but extra time is not enough. Successful strategies generally occur on a daily basis and may occur in focused, short blocks of time, or in longer blocks, with appropriate accommodations in classroom instruction. It is important for teachers to realize that, with effective instruction, all pupils can learn to communicate. It is the school's responsibility to provide for each pupil the appropriate level of support to reach his or her potential in communication. There must be clear continuity between regular classroom instruction and any method and strategy provided by support the school and teachers. These strategies will not differ in kind from effective regular classroom instruction, but will differ in frequency, intensity, and focus. Even with effective classroom instruction, some pupils will need additional supports or techniques. However, teachers should consider supplemental techniques only when effective and adapted instruction has failed to resolve a pupil's CD. An effective technique requires that teachers recognize as early as possible those pupils who are experiencing CDs, tailor instruction to address their needs, and provide for supplementary instruction when necessary. If adequate screening and assessment procedures are in place, early intervention may begin even before formal instruction in communication.

Intervention strategies that are begun when pupils are still in lower classes have a much better chance of success than interventions begun later in upper classes. In this way, CDs can be tackled before they become entrenched and before repeated failures affect pupil's motivation and compound their CDs. By lower classes, all schools should have in place for pupils a process that allows for the timely implementation of instruction following continuous assessment. Once a teacher recognizes that a pupil is experiencing CD, the teacher and the pupil must have access to diagnostic assessment services, specialized interventions, and appropriate instruction. The intensity or duration of the strategy should be based on comprehensive assessment. There should be seamless continuity between general classroom instruction and strategies, and a high degree of cooperation among qualified staff who are serving the same

children. The staff should spend the vast majority of their time planning for and delivering instruction directly to pupil.

## Recommendations

This study recommended that;

- Naturalistic interventions may be more useful than directive interventions in increasing spontaneous language and generalization to non-treatment settings.
- Intervention methods progress from a more directive towards a more naturalistic focus. This progression is important as some functional aspects of language (such as social context and conversational turn-taking) cannot be established through directive intervention and need to be learned using more naturalistic approaches.

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