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RESEARCH PAPER

Fusion of Behaviorism and CLT to Chisel Effective Speaking in Autistic Children

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PAPER INFO	ABSTRACT
	The sole objective of this peculiar research paper is to insinuate a way to improve the speaking capabilities of the Autistic children. Autism targets the speaking competency of the children and is marked with anxiety and repetitive behavior. This work is prolific for the teachers of Autistics, as it incorporates Behavioral operant and reinforcement with CLT techniques to chisel speaking skills in effective manner. Autism has been associated with Verbal Behavior by Skinner and reinforcement has been used before to initiate speaking in Autistic children. Hereby, this research is fusing Behaviorism with CLT technique to devise ways of improving the speaking competence of Autistics. The research is quantitative and questionnaires are used as the major tool of data collection to increase the authenticity of research. The results of this particular research further support the hypothesis of the researcher that integration of these two approaches significantly change the speaking habits of the Autistic children. This work is significant as it not only provides the ways to reduce anxiety and speaking inactivity of Autistic children, but it also paves way for them to be more socially interactive.

Introduction

This study is all about developing speaking habits of the Autistic children through communicative behaviors. Communication is a two-way process which involves interaction. Therefore, Communicative Language Teaching initiates the social interaction of the Autistic children to breech the speaking barriers. It is noticed that Autistic children express themselves through repetitive behaviors and behaviorism is all about habit formation It is a way of teaching which can induce language skills through positive reinforcement and imitation. Researcher has tied the communicative habits like role play, singing poems and communication gap activities, along with the verbal operants like Mand and Tact, to the repetitive habits of Autistic children in order to make communication an inevitable part of their personality. This has added fuel to their speaking capabilities.

Deficit in social skills is one of the major tools to diagnose "Autism Spectrum Disorder" (ASD) which can be diagnosed by the scarcity of social-emotional response. (DSM-5 Diagnostic Criteria, 2014). Such lacking makes it more difficult for the child on the spectrum to initiate, construct and stabilize social relationships. An observatory analysis done on the children with the various spectrum of Autism shows that with the growing age they get socially isolated but they yearn greater intimacy and longing to be socially accepted.

They want to be the productive part of the society (Müller, Schuler, & Yates, 2008, & Jacoby et al., 2019).

Speech inefficiency is serious in Autistic children, especially in Pakistan, where rarely there is any awareness about Autism. Autism can be seen evidently in the child of age 2 to 3. Till the child grows to the age of five, nobody notices child's social inactivity. It is then too late to work on the child, as Neuro-linguists say, the most of the parts of brain are developed fully till the age of five. This research has investigated the new ways of improving the Speaking Skills of Autistic children with the fusion of communicative language teaching and behaviorism.

The developmental delays in the speaking skills of the children suffering from Autism can be addressed by identifying them in the earlier stage. The biggest problem in Pakistan for the parents is to admit that their child has Autism due to the fear of society. There is very small number of institutions in Pakistan where such problems are addressed with the stereotypical speech therapies in the child. They don't understand the notion that Autism is 70 to 80 percent about the repetitive behaviors in the Autistic children. They just try to cure the child through speech therapies, neglecting the behavior issues. This is where researcher tries to link the communicative language teaching and behaviorism to breech the behavioral codes of the Autistic children.

Lack of communicative competence can also be regarded as the factor that plays a huge role in bringing about all the consequences that are faced by individuals affected by ASD; difficulty in initiating and maintaining conversations, having pertinent eye contact, and engaging in repetitive behaviors. These behaviors were often seen like a disinterest in socializing or establishing normal social relationships on the part of the affected individuals, because ASD was not recognized as a disorder in the DSM (Diagnostic and Statistical Manual of Mental Disorders) until 1987 (Jacoby et al., 2019). ASD had very sudden and rapid increases in rates until many people had complete or well-informed ideas about the disorder and how it affected the people that lived with it (Jacoby et al., 2019).

Literature Review

"Autism Spectrum Disorder" is an umbrella term for the various spectrums of Autism. It is marked by social phobias, repetitive behaviors, least or mild eye contact and influences verbal to nonverbal communication. Autism is a serious kind of speech disorder that is on the rise. A child with autism, although seems to be normal in many cases, experiences actual speaking deficiency. The situation of autistic children varies from severe to mild disorder. Two children having same spectrum of Autism can still have difference in the behaviors and intensity of interaction in certain situations.

Autism can be defined as, "A developmental disability that significantly affects verbal and nonverbal communication and social interaction. It is generally evident before age 3 and adversely affects a child's educational performance". (Ohio Center for Autism and Low Incidence [OCALI], 2007). Other features associated with Autism are; repetition of the child's conduct, failure to cope up with the changes of the daily routine and sensitivity to noise and motor responses.

Studies show that ASD undoubtedly strikes individuals in many different ways, but above all it affects the communicative competence of autistic individuals and leads them to a severe difficulty in communicating both verbally and non-verbally (DSM-5 Diagnostic Criteria, 2014).

The lack of communicative competence often varies among autistic individuals depending on the severity of their disorder. Individuals less severely affected by autism may

display only minor delays in acquisition and usage of the language and have relatively less challenges with social interactions. However, most commonly, communication abilities of individuals with ASD are often described as atypical and they have difficulty in making normal conversations. This also leads them to process and respond to information in unusual ways having sensory issues, in some cases, aggressive and/or self-injurious behavior may also be present (Reffert, 2008). Communicative disabilities in the children with autism begin with the delays in the acquisition of language that first results in inadequate linguistic knowledge and then in the almost complete or partial absence of functional communication. Having insufficient linguistic knowledge, autistic individuals face further impairments in the use of that knowledge in conversation or other social contexts (Flusberg, 2000).

Autism Spectrum Disorder and consequences associated to it include another most observable aspect generally termed as Restricted and Repetitive Behaviors (RRB) (Rodgers et al., 2012). The term "repetitive behavior" is generally used to refer to the broad and often diverse variety of behaviors typical to the autistic individuals characterized by repetition, rigidity, invariance, and inappropriateness. RRB are sustainably manifested throughout the life of autistics with inconsistent quality, quantity, and type. They may not be present in the same individual in the same manner consistently, but can vary on the basis of variety in motor, sensorial, vocal, and intellective components (Grossi et al., 2021). These patterns of repetitive behaviors result in the stereotyped movements, repetitive use of objects, repetitive activities or ritualism, rigid routines, repetitive use of language, and resistance to change or modify, on the part of the individuals affected by ASD (Rodgers et al., 2012 & Grossi et al., 2021).

Although autistic individuals, their parents and carers face numerous challenges because of repetitive behaviors, reaffirming the importance of this aspect of study. However, social and communication deficits that constitute the other major domains of ASD were covered more than repetitive behaviours until very recently. (Rodgers et al., 2012).

Behaviorists view learning as constructing an intended behavior or response in targeted individuals with the help of external or environmental factors, or as a change that happens in the amount and frequency of the behavior. The conditioning is also described as a factor which has a positive effect on the frequency of the behavior, and through which appropriately conditioned responses are produced or learned, and at the same time, inappropriate or undesired responses or behaviors are eliminated (Abedi et al., 2019).

Skinner (1957) states, "What happens when a man speaks or responds to speech is clearly a question about human behavior" (p. 5). The basic principles that underly the rudiments of the VB approach include reinforcement, extinction, stimulus and control that are sufficient enough to account for language development (Salvitti, 2008). It is believed that language, like all other learned behaviors, is observable, and thus can be assessed and accordingly conditioned to minimize, in the children with ASD, the characteristic problems particularly the lack of appropriate linguistic or communicative competence. In other words, behaviorists view learning as a change in the amount, intensity, and frequency of the targeted behavior, or the formation of desired behavior or response with the help of external environmental factors. Thus, conditioning can be described as a factor which has a positive effect on the frequency of the behavior, and through which conditioned responses are learned by the subjects (Salvitti, 2008).

The CLT was originally initiated as a result of linguists' dissatisfaction to the existing traditional methods of teaching language such as GTM, ALM, and SLT, that used to put a great emphasis on prescriptive grammar and the possession of the formal linguistic knowledge. It questioned the centrality of formal grammatical knowledge in language teaching by arguing that the pertinent linguistic ability, to truly teach a language to a learner, involved much

more than grammatical competence and, consequently, introduced the conception of 'communicative competence' as the primary goal of language teaching (Richards, 2006). It marked a shift from conventional methods of language teaching to the CLT, when linguists started considering language beyond its former identification as mere interlocking sets of grammatical, lexical, and phonological rules, and emphasizing the role of language as a tool of expressing meaning (Nunan,1991). The concept of communicative competence as the primary outcome to be accomplished, is common in both the contexts i.e., the context in which the maximum possible decrease, in the lack of communicative competence of children affected by ASD, is intended, as well as the context involving the teaching of language to normal learners.

Hypothesis

The researcher assumes that blending Communicative Language Teaching and Behaviorism is an effective way to enhance the speaking capabilities of the Autistic children.

Material and Methods

A population is the entire group of the people or the participants about whom the conclusions are drawn in the research. Here the population of research was the total number of students from the selected institutions, from which the chunks of sample were collected. Autistic institutions of Lahore which constitute population are:

- Global School of Autism Lahore

- Lahore Autism Center

A sample is always less than population as it is strenuous to conduct research on a large number of people. Random sample from 80 Autistic children was collected by the researcher. Autism shows variations with the spectrum from mild to severe, but the samples were based on the random spectrums of the Autistic children. The number of Autistic children is too low, who are studying in the Autistic institutions, so they are not sorted in different spectrums even in the institutions.

The researcher had used questionnaires and classroom observations for data collection in this particular research. The researcher had visited the above mentioned language institutions of Lahore where there is brilliant educational atmosphere for the Autistic Children.

Questionnaires are simplest yet effective way of collecting information from the population of a research. The questionnaires here were designed for the teachers only as the problems and issues of the Autistic children can be told by their teachers. The teachers know about every single child of the institution. In this way it became easier to observe the children suffering from Autism Spectrum Disorder to draw samples from the population.

These questionnaires were filled by the special teachers appointed for Autism Spectrum Disorder. As there is a shortage of such schools in Pakistan, therefore, the researcher has managed to gather data from only 20 teachers. The teachers answered the questions relating child's behavior, his speaking capabilities, his speaking competence and about the change they noticed in Autistic child after the six weeks of the application of the researcher's techniques.

There are different kinds of questions in a questionnaire; it has close-ended questions that belong to Nominal scale. The questionnaire used for this particular research, is a combination of different types of questions but the majority of questions are dichotomous.

The researcher went herself to the Autistic schools in order to experience the teachers' handling of the students. The researchers observed their different methods of teaching and their impact on children's attitude in the class and their speaking capabilities. The teachers and Autistic children were also conscious about being observed so, the data collection through this tool gave a general idea about the behavior of the Autistic children, their repetitive behaviors and their ways of communication. They were conscious in the beginning but later were spontaneous.

Results and Discussions

Total 20 questionnaires were responded by the teachers. Results here manifest the teachers' overall judgement regarding the researcher's objectives. The overall opinion of the teachers is shown in the form of table below in percentage.

Q1 to Q15	Yes	No
Does the child able to name the objects (mand) by looking at them?	80%	20%
Do you think that "Positive reinforcement" (rewarding) works well on speaking capabilities of Autistic children?	100%	0%
Do you think that "Negative reinforcement" (punishment) works well on speaking capabilities on Autistic children?	55%	45%
Do you think that "role plays" makes speaking more effective in Autistic children?	100%	0%
Do you think that Autistic children speak more while playing with puzzles?	60%	40%
Does the "Communication gap activity" lure child to speak more?	90%	10%
Does the playful interaction help the child to communicate more?	85%	15%
Does the child speak more by the imitation of peers?	90%	10%
Does the behavior issue become a hurdle in effective speaking of the child?	100%	0%
Do you think that peer interaction breaks the communication barrier in Autistic children?	95%	5%
Do you think that "role play" can be made part of Autistic children's behavior to speak more in similar situations?	95%	5%
Do you think that CTL techniques like "role play", puzzle solving and communication gap activities add to the speaking skills of Autistic children?	100%	0%
Do you think that "Behaviorism" in the form of Positive reinforcement works well on the speaking skills of the Autistic children?	95%	5%
Do you think that more interaction with Autistic children reduces anxiety and helps them more than usual?	100%	0%
Do you think fusing "Behaviorism and "CLT" techniques lure the Autistic children to speak effectively?	95%	5%

There were **15** questions in the questionnaire, all the questions were **close ended** with answers **Yes** and **No.** The scale is **Dichotomous scale** as answers were labelled yes or no.

The analysis showed that majority of the teachers were of the view that adding CLT and Behavioristic tools, Autistics were more responsive in speaking. They took interest in communication gap activities, puzzle solving and role plays.

Moreover, it reduced their anxiety and broke the communication barrier in an effective manner. Behavioral operants and reinforcement also played a positive part in motivating and boosting the confidence of the Autistic children.

The number of Autistic children in the Autistic centers is not like the number of students in the other institutions due to lack of awareness. The researcher has managed to collect the observations herself, as Autistic children are not able to answer the questions in the observation sheet. 80 children were kept under observation for 6 weeks.

In the first 2 weeks, researcher has only monitored the children without applying the CLT and Behavioristic tools. From the 3rd week researcher has started applying her objective tools in the classroom. Four weeks after the application of the researcher's tools, there was a marked difference in the speaking ability of the Autistic children. They were more inclined towards speaking as compared to their previous condition. The analysis of the teacher's questionnaire is also an evidence of the success of research objectives of the researcher.

Conclusion

Current research has focused on the evaluation of implementing a widely used type of communicative approaches that has a behavioral orientation integrated with a rather distinct method, called Communicative Language Teaching (CLT), used to foster the communicative competence in order to improve the speaking skills of Autistic children. The researcher has successfully proven that merging CLT techniques with Behavioral approaches like VB and ABA has impact on the speaking efficiency of the Autistic children.

The results of the questionnaires show that majority of the teachers were certain that incorporating Behavioral approach with CLT techniques made the Autistic children more communicatively efficient. This integration proved that speaking habits and communication skills can be developed using positive reinforcement. There was a visible boost in the speaking proficiency of the children from the 4th week of application of the researcher's tools like that of positive reinforcement, puzzle solving, role play and communication gap activities. It can be further confirmed from the previous studies that CLT is effective for improving speaking skills of Autistic children. When the settings are purposefully created to initiate group role-plays, the individuals with ASD are provided with rich language learning opportunities, and language may rather effectively be taught to Autistic children by not only making them practice a particular skill or strategy themselves but also observe other participants practicing the same skill (Barry et al., 2003; Lopata et al., 2007).

The results of classroom observation of the researcher were not different from the teachers' assertions. Researcher has noticed a marked change in the speaking interest and competency of the Autistic children before and after the application of the research tools. Teachers' interviews about the enhanced speaking competency also indicated the positivity of the research tools. They were of the view that they have never applied reinforcement together with role plays and communication gap activities. Which indicates success of the researcher in manifesting and applying the research tools. Researcher further matched her results with the previous findings of Skinner who already considers language learning as the acquired behavior. Skinner (1957) considers language to be a learned or acquired behavior like any other of this kind and notes that humans acquire their communicative ability much in the same way they learn any of the nonverbal behaviors such as reaching, grasping, crawling, etc. Skinner coined the term "verbal behavior" for his functional analysis of language, after he had felt the inappropriateness of the term "speech" and "language" as the

former was too limiting in its sense and the latter was diametrically too general (Sundberg & Michael, 2001). By using this term, he broadly means all forms of communication such as sign language, icon exchange, written language, gestures, or any other form that communicative articulations and responses might take (Sundberg & Michael, 2001).

The researcher has been successful in proving her research objective that positive reinforcement lifted the social barriers and anxiety issues of the Autistic children and they became more interactive communicatively with their peers. Another conclusion was that Autistic children showed repetitive behavior and when researcher's tools were used in this regard, by repetition of the role play and communication gap activities, children adopted these activities as the part of their own behavior. In doing so they made themselves vulnerable to the speaking and communicative activities which helped researcher to manifest her all research objectives.

It is evident from the results that behavioral approaches such as VB (Verbal Behavior) and ABA (Applied Behavior Analysis) offer a lot of effective strategies and techniques, most notably the use of verbal operant and reinforcement, to address the concerned issues to the maximum possible degree. In addition to this, the use of reinforcement alone as well as integrated with some other approach of CLT can give the desired results. And the role of teachers in this regard have also been analyzed and proven fairly effective, in the light of the proven results.

The gains achieved in the communicative competence of the Autistic children by incorporating Communicative Language Teaching (CLT) are also evident. As a link in the same chain, it is attempted to seek evidence in support of the potential efficacy of several communicative activities such as role-plays, puzzle-solving, information-gap activities, and singing poems in improving the degree of communicative competence in Autistic children since these activities are largely found effective in the speaking contexts.

This research is an excellent venture to fill the gap of corporative working of Behaviorism and CLT. As it has been found out that there is almost complete absence of literature and research regarding the integration of Behavioral approaches with the CLT, in improving the communicative competence, particularly speaking, in the Autistic children. This research will definitely forge a milestone for the future researches in the field of Applied linguistics.

The fact that Autism Spectrum Disorder (ASD) is the fastest growing speaking disability, poses a dire need to evaluate the efficacy of already existing and used treatment approaches as well as find new directions that will potentially lead to the establishment of certain new approaches that can be employed to address the typical Autistic issues more appropriately and effectively. This research will further open new dimensions to treat the speaking disability of the children suffering from ASD (Autism Spectrum Disorder). It also suggests another speaking oriented method for Autistic children that is Audio-Lingual method, which is based on Skinner's Behavioral psychology.

Morrier et al., (2010) report that 85% of the in-service teachers even in USA are not provided with any teacher's training for Autistic children by their colleges and universities in their preservice training programs and this percentage is far greater in the developing countries. Keeping this stance in consideration, it is also recommended that teacher's training is also an important phenomenon which should be supported on the official level to provide better teaching facilities to Autistic children.

Recommendations

Although, the findings of this research suggest the effectiveness of these interventions to a fair degree, yet there is always a need of some more effective speaking methods considering the changing trends in the nature and severity of Autistic disorders. Furthermore, the application of this research is limited to Autistic children, so it is recommended to apply on the children with other speaking impairment and even children without any language impairment.

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