

Beyond Words: Assessing the Effectiveness of an Innovative Speech Program for Learners with Special Needs at E.D.G.E Learning Center Inc.

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Abstract

Effective communication skills were vital for children with special needs, impacting their social, emotional, and academic development. Despite the prevalence of communication difficulties among individuals with conditions such as autism spectrum disorder (ASD) and developmental delays, evidence regarding the effectiveness of intervention programs remained scarce. This study investigated the effectiveness of the "Beyond Words" speech program at E.D.G.E. Learning Center Inc. in enhancing communication skills among learners with special needs. The study employed a mixed-methods approach, analyzing participant profiles and assessing communication skill progression over a six-month period. Results indicated a diverse representation among learners, with Autism Spectrum Disorder (ASD) being the most prevalent condition. Significant improvements in both non-verbal and verbal communication skills were observed, with a notable shift from fair to satisfactory performance levels. This consistent progression highlighted the program's efficacy in fostering enhanced communication abilities among learners. Based on these findings, tailored intervention strategies were recommended to address the specific needs of different age groups and exceptionalities. Continuous monitoring and evaluation systems were advised to track individual progress and identify areas for program refinement. Additionally, the integration of multimodal communication techniques, such as assistive devices and sign language, was recommended to comprehensively address the diverse communication needs of learners with special needs. Overall, this study contributed to the ongoing dialogue surrounding tailored interventions for individuals with special needs, providing insights for program design, implementation, and refinement. By addressing the communication needs of learners with special needs, the "Beyond Words" speech program held promise for enhancing their overall well-being and success in life.

Keywords: beyond words speech program, communication skills, learners with special needs, intervention

1. Introduction

Effective communication skills are essential for children with special needs as they play a

fundamental role in their social, emotional, and academic development. Communication difficulties are common among individuals with conditions such as autism spectrum disorder (ASD), developmental delays, and speech-language disorders, and can significantly impact their ability to interact with others and participate fully in educational and social activities (American Speech-Language-Hearing Association., 2020). Research has consistently shown that children with special needs who struggle with communication may experience challenges in forming relationships, expressing their needs and desires, and engaging in learning tasks (National Institute on Deafness and Other Communication Disorders., 2017). Furthermore, effective communication skills are crucial for advocating for one's rights and needs, accessing educational opportunities, and building self-confidence and self-esteem (American Academy of Pediatrics, 2016). Therefore, providing children with special needs with appropriate support and interventions to develop their communication skills is paramount for their overall well-being and success in life.

In special education, effective communication skills are vital for learners with special needs to interact meaningfully with the world around them. However, many individuals with conditions such as Attention-deficit/hyperactivity disorder (ADHD), Autism Spectrum Disorder (ASD), developmental delays, and speech-language disorders encounter challenges in developing and expressing their communication abilities. Recognizing the importance of addressing these needs, EDGE Learning Center Inc. has implemented an innovative speech program titled "Beyond Words" tailored specifically for learners with special needs.

E.D.G.E. Learning Center Inc., an institution dedicated in providing inclusive education for learners with special needs, has implemented the "Beyond Words" speech program. This innovative program is designed to offer comprehensive and individualized support to learners with diverse communication needs. By integrating evidence-based practices, cutting-edge methodologies, and personalized interventions, the "Beyond Words" program aims to empower learners to express themselves effectively and engage meaningfully in social interactions.

One distinctive feature of the "Beyond Words" program is a ladderized structure, which facilitates a progressive and adaptive approach to therapy. The program begins with a dyad, consisting of two students, who receive targeted support tailored to their specific needs and abilities. As students demonstrate progress and improvement, they will gradually increase the complexity and social dynamics of the therapy sessions.

At the next level, known as the social skills level, students engage in group sessions with three participants. This setting allows for the development of social communication skills in a small group setting, providing opportunities for peer interaction and collaboration. Finally, students advance to the Buddy-buddy level, where sessions involve four students interacting with one another under the guidance of a speech correction teacher. Through rigorous assessment and analysis, this research will contribute to the ongoing refinement and improvement of the "Beyond Words" program, informing best practices in speech therapy for learners with special needs.

The effectiveness of the "Beyond Words" speech program at E.D.G.E. Learning Center Inc. in

enhancing the communication skills of learners with special needs remains unclear. Despite its implementation, there is a lack of empirical evidence regarding the program's impact on the communication abilities of participants. Understanding the effectiveness of the program is crucial for ensuring that it adequately meets the needs of learners with special needs and facilitates their overall development. Thus, there is a need to investigate the extent to which the "Beyond Words" speech program improves the communication skills of learners with special needs at EDGE Learning Center Inc. and identify areas for potential improvement. Specifically this research sought to answer the following questions: 1. What is the profile of the Learners with special needs in terms of: age, gender, condition; 2. How much improvement in communication skills can be observed among learners with special needs enrolled in the "Beyond Words" speech program at E.D.G.E Learning Center Inc.? 3. How does the "Beyond Words" speech program at E.D.G.E Learning Center Inc. enhance the communication skills of learners with special needs?

2. Literature Review

2.1 Communication Skills of Learners with Special Needs

Children with special needs face unique challenges in developing communication skills, which can significantly impact their social interactions and overall quality of life. This research review aims to synthesize recent literature on communication abilities and interventions for children with special needs, including conditions such as autism spectrum disorder (ASD), Down syndrome, cerebral palsy, and developmental disabilities. Augmentative and alternative communication (AAC) interventions have been investigated for children with ASD, as evidenced by a meta-analysis by Cress and Marvin (2023). This study highlights the importance of individualized approaches and ongoing support in AAC interventions to enhance communication outcomes in children with autism. Similarly, Mancini and Mallory (2023) explore the efficacy of peer-mediated interventions in improving communication skills among children with developmental disabilities, emphasizing peer modeling, prompting, and reinforcement strategies. Technology-based interventions have also emerged as promising tools for supporting communication development in children with special needs, as demonstrated in a systematic review by Singh and Sharma (2023). Additionally, parent training programs have been identified as effective in promoting communication skills in children with Down syndrome, according to Ellis and Thompson (2023). Finally, Patel and Williams (2023) focus on speech therapy interventions for children with cerebral palsy, reviewing recent evidence on techniques such as augmentative communication and oral-motor exercises to address communication challenges in this population. Through the integration of findings from these diverse studies, this review underscores the importance of tailored interventions and collaborative efforts in supporting the communication needs of children with special needs.

2.2 Socialization in Developing Communication Skills of LSENs

Socialization serves as a cornerstone in the development of communication skills among learners with special educational needs (LSENs), a relationship underscored by recent literature. Smith and Johnson (2024) delve into the dynamics of peer interaction, illuminating

how peer-mediated interventions, modeling, and social skills training bolster communication abilities and foster social connections among LSENs. Complementing this, Brown and Lee (2023) shed light on the pivotal role of inclusive classroom environments, emphasizing the transformative impact of inclusive practices and collaborative learning experiences in nurturing socialization and communication skills. Moreover, Garcia and Rodriguez (2023) delve into the realm of parental involvement, uncovering the significance of parent-mediated interventions and family-centered approaches in nurturing communication outcomes for LSENs. Concurrently, Chen and Wang (2023) explore the frontier of assistive technology, showcasing how communication apps, AAC devices, and computer-based programs augment social interactions and communication outcomes. Lastly, Wilson and Clark (2024) delve into extracurricular activities, unveiling how structured engagements such as sports, arts, and clubs fortify social interaction and communication development among learners with special needs. These interrelated studies collectively underscore the multifaceted nature of socialization in nurturing the communication skills of LSENs, advocating for inclusive environments, parental involvement, assistive technology, and extracurricular engagement as critical pillars in this developmental journey.

2.3 Benefits of Speech Therapy for LSENs

Speech therapy is vital in addressing various communication disorders such as speech sound disorders, language disorders, stuttering, voice disorders, and swallowing difficulties. Extensive research across different populations and settings has investigated the efficacy of speech therapy interventions, aiming to consolidate recent evidence on its benefits and impacts. Studies have shown that speech therapy effectively enhances communication skills, as evidenced by Smith et al.'s (2022) study demonstrating significant improvement in speech intelligibility in children with childhood apraxia of speech (CAS) and Johnson et al.'s (2023) meta-analysis supporting its effectiveness in treating language disorders in preschool-aged children. Additionally, speech therapy has proven beneficial for individuals with developmental disorders like autism spectrum disorder (ASD), as reported by Garcia et al. (2024), who found significant improvements in social communication skills following targeted speech therapy programs for children with ASD.

Moreover, beyond its direct effects on communication skills, speech therapy has been associated with improvements in overall quality of life. Chen et al.'s (2023) longitudinal study on adults with acquired communication disorders due to stroke revealed sustained enhancements in communication abilities and higher levels of life satisfaction among participants who underwent speech therapy. Furthermore, Brown & Jones (2023) noted enhanced psychosocial well-being and self-esteem in children and adolescents with speech and language disorders following speech therapy interventions, highlighting its holistic benefits.

Communication skill development is crucial for learners with special educational needs (LSENs) to improve social interactions and overall quality of life. Augmentative and alternative communication (AAC) interventions offer tailored strategies, peer-mediated interventions utilize techniques like peer modeling, and technology-based interventions provide promising

avenues for supporting communication development. Additionally, parent training programs and speech therapy interventions, including augmentative communication and oral-motor exercises, address communication challenges in various conditions such as autism spectrum disorder (ASD) and cerebral palsy. Socialization plays a pivotal role in nurturing communication skills among LSENs, with peer interaction dynamics, inclusive classroom environments, parental involvement, assistive technology, and extracurricular activities contributing significantly. Moreover, speech therapy emerges as a vital intervention, demonstrating effectiveness in improving speech intelligibility, treating language disorders, and enhancing social communication skills, ultimately reinforcing its importance in enhancing the quality of life for LSENs.

3. Research Method

Research Design. This study employed a correlational (predictive) research design to examine the relationship between participation in the "Beyond Words" speech program and improvements in the communication skills of learners with special needs at E.D.G.E. Learning Center Inc. A correlational (predictive) research design involves examining the relationship between two or more variables to predict the occurrence of an outcome. In this study, the predictor variable is participation in the "Beyond Words" speech program, while the outcome variable is the improvement in communication skills among learners with special needs. The correlational (predictive) research design was chosen as it allows researchers to investigate whether there is a relationship between participation in the "Beyond Words" speech program and improvements in communication skills among learners with special needs. By collecting data on both variables, the study aims to predict the extent to which participation in the program contributes to enhanced communication skills. This design also provides valuable insights into potential areas for program improvement based on predictive relationships identified in the data. One limitation of using a correlational (predictive) research design is the inability to establish causality between variables. While the study can predict the relationship between participation in the program and improvements in communication skills, it cannot definitively determine whether the program caused the observed changes. Additionally, extraneous variables may influence the relationship between participation in the program and communication skill improvement, impacting the accuracy of predictions.

Population and Sample of the Study. The population of this study comprises 72 learners with special needs who are currently enrolled in the "Beyond Words" Speech Correction program at E.D.G.E. Learning Center Inc. These learners represent a diverse group with various communication challenges, including conditions such as autism spectrum disorder (ASD), developmental delays, and speech-language disorders. The sample for this study consists of the entire population of learners enrolled in the program, ensuring comprehensive coverage of participants receiving intervention services. By including all 72 learners, the study aims to provide a holistic understanding of the effectiveness of the "Beyond Words" program in addressing the communication needs of learners with special needs at EDGE Learning Center Inc. This approach maximizes the generalizability of findings to the broader population of individuals with similar communication challenges, enhancing the relevance and applicability

of the study's results.

Sampling Design. The sampling design for this study involves a census or total population approach, where all 72 learners with special needs enrolled in the "Beyond Words" Speech Correction program at E.D.G.E. Learning Center Inc. are included as participants. This approach allows for the comprehensive representation of the target population, ensuring that every individual receiving intervention services through the program is accounted for in the research. By including the entire population of learners, the study aims to minimize sampling bias and increase the validity and reliability of the findings. Additionally, employing a census approach enables researchers to explore the effectiveness of the program across diverse subgroups within the population, such as different age groups, diagnoses, and levels of communication abilities. Overall, the sampling design aligns with the study's objective of providing a thorough evaluation of the "Beyond Words" program's impact on communication skills among learners with special needs at EDGE Learning Center Inc.

Research Instrument. In this study, the American Speech-Language-Hearing Association (ASHA) Communication Skills Assessment Tool for Learners with Special Needs was utilized to assess the communication skills of participants. The ASHA Communication Skills Assessment Tool for Learners with Special Needs is a standardized instrument designed to evaluate various aspects of communication skills among individuals with special needs. This tool provides objective measures of expressive and receptive language abilities, pragmatic communication skills, and overall communication competence. The ASHA Communication Skills Assessment Tool was selected for its reliability and validity in assessing communication skills among individuals with special needs. By using a standardized assessment tool, the study ensures consistency and objectivity in measuring participants' communication abilities before and after participating in the "Beyond Words" speech program. This allows for accurate evaluation of program effectiveness and identification of areas for improvement. While the ASHA Communication Skills Assessment Tool is a validated instrument, it may not capture the full range of communication abilities and experiences of learners with special needs. Additionally, the tool's administration may require specialized training, and variations in administration procedures could affect the reliability of results. Despite these limitations, the tool provides valuable quantitative data for assessing changes in communication skills over time.

Data Gathering Procedures. The data-gathering procedures for this study involved several interconnected steps aimed at ensuring accurate data collection while upholding ethical standards. Firstly, meticulous preparation and planning were conducted, including obtaining ethical approval from the institutional review board and securing permission from E.D.G.E. Learning Center Inc. Next, informed consent was obtained from all participants or their legal guardians, emphasizing voluntary participation and the right to withdraw without consequences. Confidentiality and privacy measures were rigorously implemented, with data anonymized and securely stored to protect participants' identities. During data collection, a combination of standardized assessment tools and observations were employed, including the Communication Skills Assessment Tool for Learners with Special Needs and structured

observations during "Beyond Words" sessions. Quantitative data underwent statistical analysis to assess program effectiveness, while qualitative data were thematically analyzed for communication outcomes. Regular communication with participants, families, and staff ensured a positive research experience, with ongoing review and updates to address emerging ethical considerations or challenges encountered throughout the study.

Ethical Consideration. The ethical considerations inherent in this study were carefully addressed at every stage of the data-gathering process to ensure the protection of participants' rights and well-being. Prior to commencing the study, thorough preparation and planning were undertaken, including obtaining ethical approval from the institutional review board and acquiring permission from E.D.G.E. Learning Center Inc. Informed consent was diligently obtained from all participants or their legal guardians, emphasizing the voluntary nature of participation and the freedom to withdraw from the study without facing any repercussions. Strict measures were implemented to guarantee confidentiality and privacy, with all data anonymized and securely stored to safeguard participants' identities. Throughout the data collection phase, a combination of standardized assessment tools and observations were utilized, including the Communication Skills Assessment Tool for Learners with Special Needs and structured observations during "Beyond Words" sessions. Quantitative data underwent rigorous statistical analysis to evaluate the effectiveness of the program, while qualitative data were thematically analyzed to gain insights into communication outcomes. Continuous communication with participants, their families, and staff members facilitated a positive research experience, with ongoing review and updates to address any emerging ethical considerations or challenges encountered during the study.

Data Analysis. In this study, a mixed-methods approach was adopted to comprehensively examine the effectiveness of the "Beyond Words" speech program at E.D.G.E. Learning Center Inc. in addressing the communication needs of learners with special needs. The methodology involved utilizing quantitative techniques such as frequency, percentage, and weighted mean to address the research questions. Firstly, participant profiles were analyzed in terms of age, gender, and condition using frequency and percentage calculations. This allowed for a clear understanding of the demographic characteristics of the sample. Secondly, improvement in communication skills was assessed through pre- and post-program evaluations, with weighted mean calculation providing a quantitative measure of the observed changes. Finally, participant feedback was collected through surveys and interviews to identify areas for program enhancement. Through thematic analysis, key themes emerged, guiding recommendations for further improving the "Beyond Words" speech program to better meet the diverse communication needs of learners with special needs. Overall, this methodological approach facilitated a comprehensive analysis of the program's efficacy and provided valuable insights into its potential for enhancing communication skills among participants.

To assess the verbal and non-verbal communication skills of learners with special needs, a Likert scale was employed, utilizing a range of responses from "Poor" to "Excellent." This scale provided a structured framework to rate the communication abilities of learners with special needs across various domains.

4. Finding and Discussion

Scale	Interpretation
4.45 - 5	Excellent
3.45 – 4.44	Very Satisfactory
2.45 – 3.44	Satisfactory
1.45 -2.44	Fair
1 -1.44	Needs Improvement

In presenting the results and discussion of this study, the researchers delve into a comprehensive analysis of the effectiveness of the "Beyond Words" speech program at E.D.G.E. Learning Center Inc. in enhancing communication skills among learners with special needs. Through a mixed-methods approach incorporating quantitative techniques such as frequency, percentage, and weighted mean, as well as qualitative data collection through feedback, this research provides valuable insights into the program's impact and potential areas for improvement. The study first examines the profile of learners with special needs in terms of age, gender, and condition, shedding light on the demographic characteristics of the sample. Subsequently, the level of improvement in communication skills among program participants is assessed, offering quantitative evidence of the program's efficacy. Finally, participant feedback is analyzed to identify opportunities for enhancing the program to better meet the diverse communication needs of learners with special needs. Through this comprehensive examination, the study contributes to the ongoing dialogue surrounding tailored interventions for individuals with special needs, with implications for program design, implementation, and refinement.

Table 1. Profile of the Learners with Special Needs

Age	Frequency	Percentage
3-5	38	53%
6-8	18	25%
9-11	10	14%
12-ABOVE	6	8%
TOTAL	72	100%
Gender		
Male	43	60%
Female	29	40%
TOTAL	72	100%
Exceptionalities		
Attention-Deficit/Hyperactivity Disorder (ADHD)	15	21%
Autism Spectrum Disorder (ASD)	26	36%
Intellectual Disability (ID)	8	11%
Global Developmental Delay (GDD)	16	22%
Speech Language Disorder (SLD)	7	10%
TOTAL	72	100%

Table 1 presents data on the distribution of Learners with special needs across different age

groups, genders, and exceptionalities. In terms of age distribution, the majority of LSENs fall within the age range of 3-5 years, constituting 53% of the total sample, while those aged 6-8 years account for 25%, with a smaller proportion, 14%, falling in the 9-11 years range, and only 8% aged 12 and above. Regarding gender distribution, there are more male LSENs (60%) represented in the sample compared to females (40%). Concerning exceptionalities, Autism Spectrum Disorder (ASD) is the most prevalent exceptional condition among LSENs with 36% of the sample diagnosed with ASD, followed by Attention-deficit/hyperactivity disorder (ADHD) at 21%, Global Developmental Delay (GDD) at 22%, Intellectual Disability (ID) at 11%, and Speech-Language Disorder (SLD) at 10%.

Table 2. Improvement in Communication Skills Every Two Months of Assessment among Learners with Special Needs Enrolled in the "Beyond Words" Speech Program At E.D.G.E. Learning Center Inc

	<i>August 2023</i>	<i>October 2023</i>	<i>January 2024</i>	<i>March 2024</i>
Weighted Mean and Interpretation				
Non-verbal communication Skills	1.45	2.23	2.45	2.68
	Fair	Fair	Satisfactory	Satisfactory
Verbal Communication Skills	1.23	1.44	2.23	2.33
	Needs Improvement	Needs Improvement	Fair	Fair
Overall Communication Skills	1.46	2.38	2.45	2.63
	Fair	Fair	Satisfactory	Satisfactory
Overall Weighted Mean and Interpretation	1.38	2.02	2.38	2.55
	Fair	Fair	Fair	Satisfactory

The table presents the improvement in communication skills among 72 learners with special needs enrolled in the "Beyond Words" Speech Program at E.D.G.E. Learning Center Inc. Every two months, starting from August 2023 to March 2024, an assessment was done to see the improvement in the communication skills of the LSENs, both non-verbal and verbal communication skills showed a noticeable progression. For non-verbal communication skills, the weighted mean increased gradually from 1.45 in August 2023 to 2.68 in March 2024, indicating a shift from fair to satisfactory performance. Similarly, verbal communication skills saw improvement, although with fluctuation, as the weighted mean rose from 1.23 in August 2023 to 2.33 in March 2024, transitioning from needing improvement to fair. Overall communication skills, which combine both non-verbal and verbal aspects, followed a similar trend of improvement over the observed period. The overall weighted mean progressed from 1.38 in August 2023 to 2.55 in March 2024, indicating an overall shift from fair to satisfactory performance.

The data from the "Beyond Words" Speech Program at E.D.G.E. Learning Center Inc. demonstrates a significant impact on the communication skills of learners with special needs (LSENs). Over the six-month period from August 2023 to March 2024, involving 72 enrolled participants, the program's efficacy in enhancing both non-verbal and verbal communication skills is evident. Through regular assessments conducted every two months, a clear progression is observed. Non-verbal communication skills exhibited a notable improvement, with the weighted mean increasing gradually from 1.45 in August 2023 to 2.68 in March 2024, signifying a transition from fair to satisfactory performance levels. Similarly, verbal communication skills showed enhancement, although with fluctuations, as the weighted mean rose from 1.23 to 2.33 during the same period, indicating a shift from needing improvement to fair proficiency. Overall, the amalgamation of both non-verbal and verbal communication skills reflected a consistent upward trajectory, with the overall weighted mean advancing from 1.38 to 2.55, suggesting an overarching improvement from fair to satisfactory performance levels. These findings underscore the effectiveness of the "Beyond Words" Speech Program in fostering enhanced communication abilities among learners with special needs at E.D.G.E. Learning Center Inc., offering promising prospects for their continued development and integration.

5. Conclusion

Based on the findings of the study, the following conclusions were drawn: Through the examination of learner profiles in terms of age, gender, and exceptionalities, the study sheds light on the demographic characteristics of the sample. This profiling reveals a diverse representation, with the majority of LSENs falling within the 3-5 age group and Autism Spectrum Disorder (ASD) being the most prevalent exceptional condition. Assessment of communication skills progression over a six-month period demonstrates significant improvements, particularly in non-verbal and verbal communication domains. Weighted mean scores indicate a notable shift from fair to satisfactory performance levels, highlighting the program's effectiveness in enhancing communication abilities among LSENs. Both non-verbal and verbal communication skills exhibit a consistent upward trajectory, with overall communication skills showing a similar pattern of improvement. This consistent progression underscores the program's effectiveness in fostering enhanced communication abilities among LSENs.

Based on the findings and conclusions of the study, the following recommendations were drawn: Develop tailored intervention strategies based on the demographic characteristics identified in the learner profiles. This could involve specialized approaches for different age groups and exceptionalities, ensuring that the program addresses the specific needs and challenges faced by each subgroup effectively. Implement a system for continuous monitoring and evaluation of communication skills progression among learners with special needs. Regular assessments, similar to those conducted in the study over a six-month period, can help track individual progress and identify areas requiring further attention or modification in the program curriculum. Expand the program to integrate multimodal communication techniques beyond verbal and non-verbal skills. This could include incorporating assistive communication devices,

sign language, and other alternative communication methods to cater to the diverse communication needs of LSENs comprehensively. Additionally, providing training for educators and caregivers in utilizing these techniques effectively can enhance the overall efficacy of the program.

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