

Effect of Adapted Story on Developing Listening, Speaking, Reading and Writing (LSRW) Skills for Preschool Children with Hearing Impairments

SUBRAMANYA K. R.* AND ALOK KUMAR UPADHYAY**

Abstract

Background: Nursery Story and rhymes enhance phonological sensitivity which in turn enhances communication skills and linguistic development. Objective: To identify the effectiveness of adapted story for developing Learning, Speaking, Reading and Writing (LSRW) skills for children with hearing impairments. Sample: Children with hearing impairments at the age of 3 to 4 years availing training at AIISH, Mysuru. Design: One group pre-test post-test experimental design was employed to examine the effect of adapted story on developing LSRW skills at an early age. Results and Discussion: From the observation of the pre-test and post-test result, the result shows that the adapted story is more effective. It implies that adapted story can help develop LSRW skills at an early age through different activities for children with special needs. Conclusion: It can be said that story will be more effective for developing listening, speaking, pre-reading and pre-writing skills with necessary support and facilities.

Keywords: Adapted story, listening, speaking, reading, writing, hearing impairment

**Doctoral Research Scholar, Department of Special Education, All India Institute of Speech and Hearing, Mysuru 570 006*

***Associate Professor in Disability Studies, Discipline–Child Development, School of Continuing Education, Indira Gandhi National Open University, New Delhi*

INTRODUCTION

Communication is a process of exchanging, expressing or conveying information or ideas through writing, speaking and gesturing. A good communicator will have good proficiency in all these skills. There are four fundamental skills to develop communication which includes Listening and Reading (receptive skills); Speaking and Writing (expressive skills). Typically developing children can achieve receptive and expressive skills through various activities, such as drawing, watching television, peer group conversations, play, bedtime stories, meal times and nursery rhymes.

Story reading and rhymes are a wonderful way to teach children intonation, rhythm singing, identification of characters, sequencing stories, etc. Story and rhymes improves language and oral skills, and helps children to acquire early literacy skills like repetition, listening for syllables and words.

When children hear nursery rhymes, they hear the sounds of that language (vowels and consonants). They learn how to utilise or apply these sounds together to make words. Pitch, volume, and voice inflection, along with the rhythm of language, can also be practised in teaching-learning process. Nursery rhymes are short and easy to repeat, making them easy to learn.

Stories and rhymes follow a pattern with a beginning, middle and end, which helps children learn sequentially, memorise the content and recall it later. This teaches children to understand that stories happen in sequence, helping them learn and follow those stories.

Nursery stories and rhymes enhance phonological sensitivity which in turn enhances communication skills. The strong connection between children and stories or rhymes is helpful for their linguistic development. Stories and rhymes can help enhance skills that are underdeveloped in children with hearing impairments.

Stories and rhymes through the play-way method make learning enjoyable and interesting for children.

REVIEW OF LITERATURE

Ginger Mullen (2017), carried out a study on 'More Than Words: Using Nursery Rhymes and Songs to Support the Domains of Child Development' in the stories and rhymes play a role in the development of language and support children's emotional growth. A rhyme selected for classroom teaching can be incorporated in different teaching models, fostering empathy and promoting positive learning among children. Specific rhymes were also equipping certain labels for their beliefs according to the children's age and level of comprehension.

Wright and Whitney, (2014) conducted a study on 'Bridging

Music and the Early Childhood Curriculum in Listening and Spoken Language Programmes for Children who are Deaf or Hard of Hearing'. Typically developing children have immediate access to acoustic signals and can establish the neurological and auditory foundations for verbal communication. However, children with hearing loss may have difficulty in accessing sounds due to late identification and intervention. Stories and music help develop language and recitation skills, and children can also acquire a wide range of vocabulary. The rhythmic nature of music and lyrics provides an effective means of learning words and sentences together, making it easier to store the information in memory for a longer time. This helps children remember and apply the learnt vocabulary when retelling or depicting the story. For children with hearing loss, storytelling should be more adaptive; combining music with the use of visual props in the classroom will be more effective and help children to acquire the words and sentences in the story. The study reported that music and rhymes can be used as a means of teaching and enhancing a child's expression, and they also help in the development of language.

Sonia Q. et al. (2013) conducted research on 'How Do I Write...? Scaffolding Preschoolers' Early Writing Skills'. They emphasised that drawing and scribbling constitute foundational pre-writing skills that

should be developed prior to writing the words. Children usually do not yet realise that writing is related to words. Similarly, when listening to a storybook being read audibly, children do not realise that each text carries its own meaning, and the words used in the story come from the text (Justice, Pullen, and Pence, 2008). Firstly, language development starts with providing alphabet knowledge and phonological awareness skills, and then it moves on to the development of words, phrases and sentences. These phonological awareness skills tend to extend to larger units of verbal language, such as rhyme and written language.

Bredenkamp and Copple (1997) conducted a study on 'Developmentally appropriate practices in reading and writing'. The study defines that reading and writing practices are ways of teaching that consider what is generally known, ongoing assessments of each child's progress in reading and writing, and social and cultural context. To utilise these developmentally appropriate ways, teachers must understand both the stages of reading and writing development, and the impact of children's individual and cultural variations.

NEP 2020 has stated that by 2026–2027, every child should achieve the desired learning competencies in foundational literacy and numeracy (reading, writing and numeracy) by the end of Grade III and not later than Grade V.

Provision will be made age-appropriate for and adequately graded supplemental learning resources, peer support, mentor help and guidance will be given to the Grade IV and Grade V students who have not yet mastered the fundamental skills.

NEED FOR THE STUDY

In the early years, that is between 3–6 years of age, teachers of children with hearing impairments need to make use of every opportunity to enhance vocabulary development. One of the approaches to develop vocabulary is through listening to stories and rhymes (Feitelson et al., 1989).

Children with hearing impairments have difficulty in comprehension and expression. These communications are divided into two major skills, such as passive skills and active skills. Passive skills include listening and reading, where children are not required to produce language but receive and understand it. Active skills includes speaking and writing, where children are required to produce or express language.

Stories and rhymes help children achieve communication skills, social skills, moral values, musical skills, academic skills, imagination skills, visualisation skills, cognitive skills, etc. Typically developing children learn stories and rhymes, and acquire these skills through various aspects, such as bedtime stories, television, computers, and cartoons. However, for children with hearing

impairments, achieving these skills can be difficult.

It is found that stories and rhymes should be age-appropriate and language-appropriate. The stories and rhymes are adapted to teach children with hearing impairments, and teacher-made assessment is done. It is questionable how far the stories and rhymes are effective to develop LSRW skills, that are communication skills, among children with hearing impairments. From the above review, it becomes evident that adapted stories and rhymes develop listening, speaking, pre-reading and pre-writing skills, especially for children with hearing impairments. However, if the child is provided with adequate early intervention, the implication of adapted stories and rhymes is effective. The LSRW skills vary for each child and cannot be satisfied through stories alone. The study was taken up with the purpose of identifying the effect of adapted stories in developing LSRW skills in children with hearing impairments. The adapted stories are helpful in the following areas for teachers as well as children—

- The teacher can identify in which skill the children will be able to develop further with the adapted story.
- It enhances self-learning among children, as the content and activities are adapted according to their level.

- The teacher can make the class interesting and can identify the area where the children are facing any difficulty in learning.

A standardised adaptation tool will help in bridging the gap. Thus, in view of the above benefits, a need was felt to undertake the study. In the Indian context, classrooms are often monotonous, and adaptation doesn't take place properly. Adapting stories in this way can serve as an effective material for children with hearing impairments.

OBJECTIVES

The aim of the study is to identify the effectiveness of adapted story for developing LSRW skills in children with hearing impairments. This could be realised through the following objectives:

- to identify the effect of adapted story in developing listening skill.
- to identify the effect of adapted story in developing speaking skill.
- to identify the effect of adapted story in developing reading skill.
- to identify the effect of adapted story in developing writing skill.
- to develop an adapted story.
- to develop a test material to identify the impact of adapted story in developing LSRW skills.

METHOD

This study employed a quantitative method using a one group pre-test and post-test experimental design

to examine the effect of adapted stories on the development of LSRW skills at an early age. The methods of procedure and analysis used are described here.

PARTICIPANTS

The total number of participants in the study was six, and they were selected randomly.

INCLUSION CRITERIA

The inclusion criteria for the study are given below:

- Children with hearing impairments with 60 dB and above.
- Age ranges from 3 to 4 years.
- The receptive and expressive age were 2 to 2 years 6 months in speech and language.
- At the pre-reading level, the children were able to identify pictures and sight-read words. At the pre-writing level, they were able to hold crayons and scribble without restriction.
- Children should use their personal hearing aids (excluding cochlear implants).
- Children who are availing educational intervention at the All India Institute of Speech and Hearing, Mysuru.

DEVELOPMENT OF TEST MATERIAL

The pre-test and post-test material for the study were developed based on the adapted story. The developed test

material was then given for validation to 5 experts in the fields of special education, speech and audiology. Each activity in the test material was assigned 5 marks for each skill

from the LSRW skills, resulting in 25 marks for each skill and a total of 100 marks. The test material contains different activities, which are given in Table 1.

Table 1: Details of activities

S. No.	Skill	Activity 1 (5 × 1 = 5)	Activity 2 (5 × 1 = 5)	Activity 3 (5 × 1 = 5)	Activity 4 (5 × 1 = 5)	Activity 5 (5 × 1 = 5)
1.	Listening Skill	Picture (Listen to the word and give the picture)	Word (Listen to the word and give the word card)	Sound-action (Listen to the sound and make the action)	Syllable (Listen to the sound and give the syllable)	Sound-picture (Listen to the sound and give the picture)
2.	Speaking Skill	Picture (See the picture and name it)	Sound-word (Identify the sound and name it)	Questions (Answer the questions)	Action-word (See the action and name it)	Storytelling (See the picture card and express it)
3.	Pre-reading Skill	Syllable (See the syllable and read it)	Word (See the word and read it)	Picture-word (See the picture and read the word)	Word-picture (Read the word and identify the picture)	Sentence syllable (Read the syllables and join them to form a word)
4.	Pre-writing Skill	Colour (Fill the colour)	Copy (Copy the word)	Trace (Trace the word)	Dot joining (Join the dot and make the word)	See the picture and write the word

DEVELOPMENT OF TOOL (ADAPTED STORY)

A story called 'Thirsty Crow' was selected and adapted. The area of adaptation in the story were

simplification of language, converted sentence into phrase level, added relevant pictures for each phrase, added relevant activities like colouring, matching, etc. (Refer

Table 1). The adapted story focuses on the development of the following parameters in each skill. The details of parameters considered for developing skills in this study were given below.

Table 2: Adapted content for LSRW activities

Skills	Adaptation of Activities
Listening	Discrimination and identification of sounds and words.
Speaking	Expression of sounds and words fluently, and correct pronunciation were involved.
Pre-reading	Phonemic awareness, reading comprehension of pictures and words.
Pre-writing	Fine motor development, eye-hand coordination and visual perception of the pictures and words.

The keywords and action verbs were highlighted to develop language. The adapted story with activities enhances the LSRW skills. The adapted story and activities were given for validation to different experts, such as two Audiologists, two speech therapists, and three special educators. The suggestions given by validators were taken up and changes were made accordingly.

DATA COLLECTION AND ANALYSIS

The data collection was done in the preschool, Department of Special Education at All India Institute

of Speech and Hearing, Mysuru. Pre-test activities were given to children on LSRW skills, followed by one week intervention using the adapted story in the classroom. Later, post-test activities were conducted. The scores of the pre-test and post-test were compared and statistically analysed to find the effectiveness of the adapted story. Comparative quantitative measures were used to analyse the results.

RESULTS AND DISCUSSIONS

The study was taken up with the purpose of identifying the effectiveness of adapted story in developing listening, speaking, pre-reading and pre-writing skills among children with hearing impairments.

Results With Respect to the Listening Skill for the Adapted Story

Figure 1 shows that the pre-test result of the listening skill was comparatively less than the post-test result. In the pre-test, each child's, score was different due to the severity of hearing loss and unfamiliarity with particular sounds or words in the story. The children have scored 3 marks or less than 3 in each activity. An intervention was done to cover all the limited areas of each child. In post-test, the score of each child has significantly increased, i.e., more than 3 in all the activities but the C5N, still have scored very less, i.e., 1 mark or less in all activities, even after the intervention, as the child did not benefit from the hearing

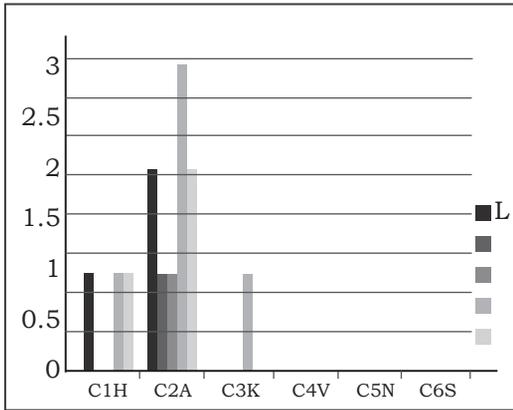


Fig. 1: Listening Skill Pre-test Score and Post-test Results

aid and relied on lip reading instead of listening. It was also observed that students were able to distinguish between the sounds of crow, water and stone, and correctly identify them.

Results With Respect to Speaking Skill for the Adapted Story

Figure 2 shows that pre-test result of the speaking skill was comparatively less than the post-test result. In the pre-test result, each child’s score was different due to their severity of hearing loss and unfamiliarity with

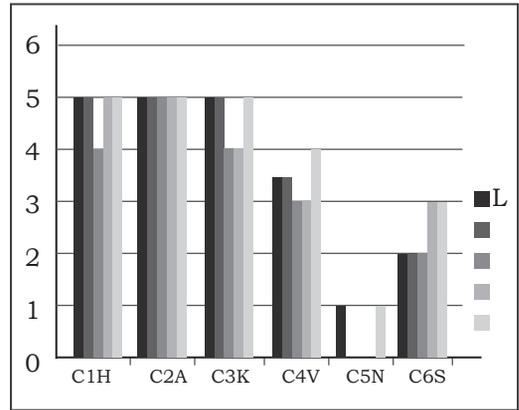


Fig. 2: Speaking Skill Pre-test Score and Post-test Results

the particular sounds or words in the story. The children have scored 3 marks or less than 3 in each activity. An intervention was done to cover all the limited areas of children. In the post-test, the scores of children increased significantly, i.e., more than 3 in all activities. Children C5N and C6S still scored less but their performance was comparatively better than listening, as they were able to lip read and repeat the sounds. The children may be able to express the words, such as crow, stone, water,

i.e., two to three letter alphabets fluently with correct pronunciation but the children faced difficulty in expressing the word ‘thirsty’.

Results With Respect to Reading Skill for the Adapted Story

Figure 3 shows that pre-test result of the reading skill was comparatively less than the post-test result. In the pre-test results, each child’s score was different due to their severity of hearing loss, unfamiliarity with particular sounds or words in the story. The children scored 3 marks or less than 3 in each activity. An intervention was done to cover all the limited areas of each child. In post-test, the score of each child has increased significantly, i.e., more than 3 marks in all activities. The child C6S scored less but performed comparatively better than listening and speaking as the child could sight-read and identify words and pictures. Overall, the children were able to identify the sounds and words

given in the story. They were also able to relate the meanings of the words.

Results With Respect to Writing Skill for the Adapted Story

The children have good exposure in writing skill even before the intervention. Figure 4 shows that the pre-test result of the writing skill was comparatively less but not much less than the post-test result. In the pre-test, each child’s score was different due to their severity of hearing loss unfamiliarity with particular sounds or words in the story. The children have scored 2 marks or more than 2 in each activity. An intervention was done to cover all the limited areas of each child. In the post-test, the score of each child increased significantly, nearly 5 marks in all the activities. However, in one activity, where children had to write the picture name without any clues, the child C6S scored comparatively better than in listening,

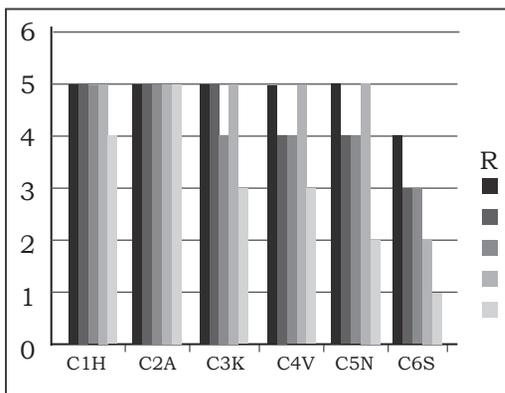
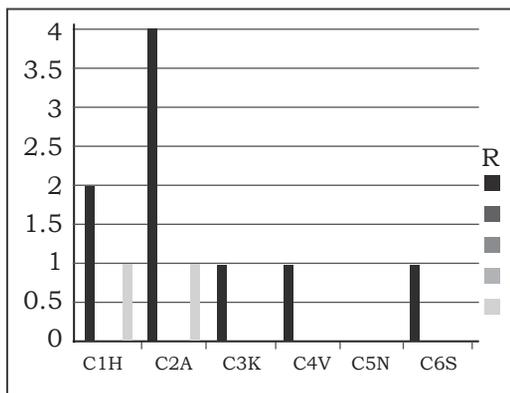


Fig.3: Pre-reading Skill, Pre-test Score and Post-test Results

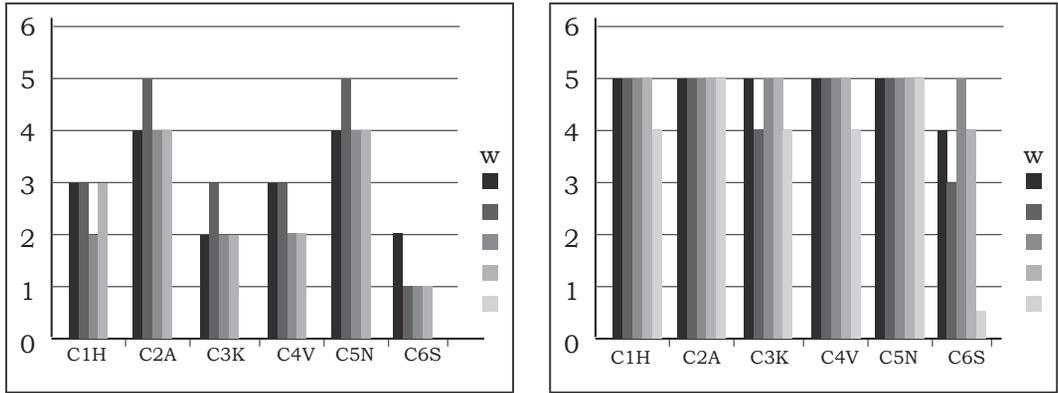


Fig. 4: Pre-Writing Skill Pre-test Scores and Post-test Results

speaking and reading as the child has good eye-hand coordination and interest in writing. The children were able to hold and colour the pictures, and complete the matching activity appropriately.

DISCUSSION

From the overall observation, the children performed well in writing and reading, where there was less reliance on verbal instruction and expression. Both in pre-test and post-test, the results were different significantly. The present study has its own implications, showing that adapted story is helpful in developing listening, speaking, pre-reading and pre-writing skills at an early age through different activities and teaching aids. The adapted story will be helpful in early childhood education, especially for children with hearing impairments. The story can be even more simplified to support

children with other communication disorders.

CONCLUSION

To conclude, it can be said that the story is effective in developing listening, speaking, pre-reading and pre-writing skills, all of which are important for communication in children. From this study, it is identified that the adapted story is helpful for young children with hearing impairments in developing specific skills, such as discrimination and identification of sounds and words in listening, fluent expression with proper pronunciation in speaking, adequate phonemic awareness and reading comprehension in pre-reading, fine motor development and eye-hand coordination in pre-writing skills at an early age. Necessary facilities, appropriate teaching aids and teachers’ creativity are required to develop a good

module for the adapted story. The special educators and parents play an important role in adapting the content which helps in developing language in children with hearing impairments.

REFERENCES

- ABILASHA, R. 2018. Short Stories as a Genre of Literature to Teach Speaking Skills. *International Journal on Studies in English Language and Literature (IJSELL)*. 6(1). pp. 25–27.
- DESJARDIN, J.L., S.E.AMBROSE AND L.S. EISENBERG. 2009. Literacy Skills in Children with Cochlear Implants: The Importance of Early Oral Language and Joint Storybook Reading. *Journal of Deaf Studies and Deaf Education*. 14(1). pp. 22–43.
- ELLEY, W.B. 1989. Vocabulary Acquisition from Listening to Stories. *Reading Research Quarterly*. 24. pp. 174–187.
- FEITELSON, D., B. KITA AND Z. GOLDSTEIN. 1986. Effects of Listening to Series Stories on First Graders' Comprehension and Use of Language. *Research in the Teaching of English*. 20. pp. 339–356.
- ISEBELL, R., J. SOBOL, L. LINDAUER AND A. LOWRANCE. 2004. The Effects of Storytelling and Story Reading on the Oral Language Complexity and Story Comprehension of Young Children. *Early Childhood Education Journal*. 32(3).
- JALONGO, M. 2008. *Learning to Listen, Listening to Learn: Building Essential Skills in Young Children*. National Association for the Education of Young Children. Washington, D.C.
- MEGAN GILLIVER, LINDA CUPPLES, TERESA Y.C. CHING, GREG LEIGH AND MIRIAM GUNNOURIE. 2016. Developing Sound Skills for Reading: Teaching Phonological Awareness to Preschoolers with Hearing Loss. *The Journal of Deaf Studies and Deaf Education*. 21. pp. 268–279.
- MOTTLEY, R. AND R. TELFER. 1997. Storytelling to Promote Emergent Literacy: Prospective Teachers' Storytelling Experiences and Expectations. In *Promises, Progress and Possibilities, Perspectives of Literacy Education*. American Reading Forum.
- NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT. 2000. Report of the National Reading Panel: Teaching Children to Read: An Evidence-based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction: Reports of the Subgroups. Department of Health and Human Services, NIH Pub. No. 00–4754. Washington, D.C. U.S.
- SONIA Q., CABELL, LAURA S., TORTORELLI AND HOPE K. GERDE. 2013. How Do I Write...? Scaffolding Preschoolers' Early Writing Skills. *The Reading Teacher*. 66(8). pp. 650–659. Wiley on Behalf of the International Literacy Association.