RESEARCH
www.commprac.com
ISSN 1462 2815

DEVELOPMENT OF A RECEPTIVE AND EXPRESSIVE LANGUAGE HANDBOOK FOR HARD-OF-HEARING DISABILITIES IN TKLB-B

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DOI: 10.5281/zenodo.14738593

Abstract

In kindergarten, one crucial area of development that requires emphasis is language development. This aspect holds immense significance for children as it enables them to articulate their thoughts, express desires, convey feelings, provide information, and communicate opinions and ideas, both verbally and non-verbally. However, not all children navigate language development tasks seamlessly in their early years, particularly those with hearing disabilities who attend kindergarten. Consequently, various obstacles may arise. In light of these challenges, it is essential for teachers to be equipped with appropriate guidance to effectively teach language skills to deaf children with disabilities, encompassing both receptive (listening) and expressive (speaking) aspects. This research endeavor aims to address these needs by producing a comprehensive handbook. The primary objective of this research is to create receptive (listening) and expressive (speaking) language handbooks tailored for individuals with hard-of-hearing deaf disabilities in TKLB-B. Employing Thiagarajan's 4-D development model, this study adopts a developmental research approach, with modifications made specifically to the development stage. The study involved one material expert, one design expert, and one expert practitioner as subjects. Data collection techniques included validation questionnaires administered to material experts, media experts, and expert practitioners. Quantitative data analysis was conducted based on assessments provided by expert validators to determine the feasibility of the handbook, focusing on the scores obtained from the expert validation instruments. The expert validation test results indicate a percentage score of 86% (considered very good) from material experts, 87.5% (also very good) from design experts, and 76% (deemed good) from expert practitioners. These results affirm the suitability of the receptive (listening) and expressive (speaking) language handbooks for hard-of-hearing deaf disabilities in TKLB-B, highlighting their efficacy for teachers facilitating language learning among kindergarten children with hearing impairments.

Keywords: Language Development, Listening, Speaking, Deaf Disability, Hard of Hearing.

INTRODUCTION

Children with special needs are widely recognized as a group facing complex challenges originating from societal factors. Consequently, they require significant attention and collective responsibility from society. Among this group are children with specific needs such as those attending special kindergartens tailored for those with hearing disabilities, commonly referred to as hard of hearing individuals.

According to Donald F. Moores (Somad, 1996), a person classified as hard of hearing experiences a loss of hearing ranging from 35 dB to 69 dB ISO, resulting in difficulties in understanding spoken language without assistance or with the use of hearing aids. This observation aligns with the findings of (Tomblin et al., 2014), who demonstrated that early and consistent use of hearing aids correlates with improved language outcomes in children. Essentially, the use of hearing aids enables individuals with hearing impairments to perceive speech to a significant extent, as many retain residual hearing that can be enhanced with such devices.

Kindergarten represents a crucial stage in early childhood education, typically catering to children aged 4 to 6 years, with an emphasis on those aged 5 and 6 years (Permendikbud, 2014). Within this framework, TKLB-B stands as a specialized unit offering educational programs tailored specifically for children aged 4 to 6 years, prioritizing those aged 5 and 6 years, who are enrolled in special kindergartens.

While learning in mainstream kindergarten settings often revolves around play-based activities, the approach differs for children with hearing disabilities. Their educational focus centers on language components such as listening, speaking, reading, and writing. Language development in deaf children mirrors that of their hearing peers, rooted in interactions with caregivers or educators. Teachers play a crucial role in shaping the linguistic environment in classrooms, utilizing questioning techniques to stimulate critical thinking and language use (Otto, 2015). By encouraging children to articulate their experiences through various means of communication, such as spoken language, written expression, and artistic endeavors, educators facilitate cognitive and linguistic development.

Through these interactive experiences, children with hearing impairments learn to associate their experiences with language symbols, often conveyed through visual representations of articulatory movements forming words, shared between child and caregiver or teacher.

Frein's findings (Kirk et al., 2015) indicate that 54% of deaf individuals encounter language-related difficulties, suggesting limitations within the communication and language systems of those with hearing disabilities. Language serves as a vital medium for expressing thoughts, identifying emotions, resolving personal issues, and exploring the world around us. It is widely regarded as the primary tool for acquiring knowledge and skills within society (Clarke & Stewart, 1986). Consequently, proficiency in listening, speaking, reading, and writing is paramount.

Deaf children, due to their inability to hear language, face challenges in language acquisition without specialized education or training. Consequently, their language development lags behind that of their hearing peers, as highlighted by (Uden, 1977) regarding the limited impact of deafness on overall language acquisition.

Their difficulty in perceiving language sounds impedes vocabulary acquisition, resulting in slower language and speech development compared to typically developing children. Nonetheless, individuals with hearing disabilities possess the capacity to learn languages, including listening and speaking, as noted by (Pollack, 1981), who suggest that language education is most effective when initiated at the age of three.

In accordance with Permendikbud Number 146 of 2014 outlining the 2013 curriculum for early childhood education, language development is one of six key areas of child development. Language development efforts aim to enhance children's ability to communicate effectively. Consequently, difficulties in language may also impede listening and speaking skills. Mastery of these skills requires consistent practice to ensure comprehensive information reception.

Listening entails attentively comprehending oral symbols to grasp information, understand content or messages, and interpret communication conveyed through speech or spoken language (Tarigan, 2008). Speaking involves articulating sounds or words to express thoughts, ideas, and feelings. Individuals with hearing impairments

often face challenges in speech due to inadequate breath control, impacting language formation. Effective sound production necessitates coordinated breathing, vocal cord vibration, and resonance within the speaker's cavity (Fellendorf, 1973).

Observations conducted at TKLB-B Karya Mulia Surabaya in February 2017 revealed that deaf children enrolled in TKLB-B often encounter language difficulties, particularly in listening and speaking. Challenges arise during listening activities, with children struggling to comprehend oral instructions from teachers. These difficulties may stem from educators' limited knowledge and difficulties in teaching children with hearing disabilities, exacerbating language development challenges, including receptive (listening) and expressive (speaking) skills.

In response to these challenges, researchers aim to develop receptive (listening) and expressive (speaking) language handbooks tailored for individuals with hearing disabilities in TKLB-B. This initiative aims to assist teachers in delivering instructional material and facilitate understanding among individuals with hearing impairments.

METHODS

This research constitutes a developmental study employing the Research and Development (R&D) approach, which aims to generate specific products. In the creation of receptive (listening) and expressive (speaking) language handbooks for individuals with hearing disabilities in TKLB-B, researchers utilized the (Thiagarajan, 1974) development model, known as the 4-D model, consisting of define, design, develop, and disseminate stages. However, the dissemination stage was omitted due to time and cost constraints.

The research proceeded through the following stages:

Phase I, the definition stage, involved conducting observations and interviews with group B teachers in the research-conducted school.

Phase II, the design stage, focused on creating handbooks that were easily understandable for teachers and aligned with student characteristics.

Phase III, the development stage, saw the submission of handbooks to material expert validators, design experts, and practitioner experts for validation.

The study enlisted one material expert from UNESA, one design expert from UNESA, and one expert practitioner from group B TKLB-B Karya Mulia Surabaya. The developmental process of receptive (listening) and expressive (speaking) language handbooks for individuals with hearing disabilities in TKLB-B is outlined as follows:

Define Stage

This stage aimed to establish and define teaching requirements, involving five main steps: initial and final analysis, student analysis, material analysis, task analysis, and formulation of learning objectives.

1) Initial and final analysis:

Observations were conducted to identify fundamental problems encountered by teachers in teaching receptive (listening) and expressive (speaking) language development.

2) Student analysis:

Information regarding student characteristics and academic abilities, ranging from medium to high levels, was gathered from class teachers.

3) Material analysis:

This step involved identifying, selecting, and organizing relevant teaching materials systematically to suit the needs of students with hearing disabilities in TKLB-B.

4) Task analysis:

Task analysis, as per Thiagarajan et al. (1974), aimed to identify primary skills for study and ascertain any additional skills required. This process ensured a comprehensive review of teaching materials, including task assignment during learning.

5) Formulation of learning objectives:

Based on identified indicators of student achievement, learning objectives were formulated in accordance with basic competencies adapted from the 2013 curriculum (Standard Level of Child Development Achievement) STPPA in the domain of language development, specifically focusing on listening and speaking about various types of fruit.

Planning Stage (Design)

The design stage aims to create receptive (listening) and expressive (speaking) language handbooks for individuals with hard-of-hearing disabilities in TKLB-B. The outcomes of this stage are referred to as "draft I." The results encompass:

a) Selection of Teaching Materials to be Developed

In compiling the teacher's handbook, efforts were made to ensure it is engaging to motivate teachers in teaching language to children. Various sources were consulted, including the 2013 early childhood education Curriculum, guidelines for teaching speech to deaf children, Speech and The Hearing-Impaired Child: Theory and Practices, Effectively Educating Students with Hearing Impairments, Educating the Deaf: Psychology, Practices, And Principles, Acoupedics: An Approach to Early Management. Early Management of Hearing Loss, Speech Therapy Guidelines, Development of a Scaffolding Model in Writing Learning with a Process Approach for Deaf Children, Speech Development, Sound and Rhythm Perception Development, Orthopedagogics of Deaf Children, Education of Deaf Children (Orthodidactic Approach).

b) Media and Format Selection

This stage involved designing content formats and selecting implementation strategies and learning resources aligned with the principles of the direct teaching model. Visual media, such as pictures or photos, were chosen to aid children's understanding.

The format selection adhered to criteria outlined by (Kurniasih & Sani, 2014), ensuring relevance to objectives, attractiveness, appropriate illustrations, and user-friendly language.

c) Initial Design

During this stage, the initial product (prototype) was developed. The focus was on aligning handbooks with the curriculum's content framework and the results of material analysis conducted earlier. In the context of handbook development, this stage is filled with activities to prepare the conceptual framework of the model and handbook. The design stage in this study was carried out to make handbooks in accordance with the content framework of the results of the defining stage that had been carried out previously.

Development Stage (Develop)

The development stage aims to produce a final draft of receptive (listening) and expressive (speaking) language handbooks suitable for individuals with hearing disabilities in TKLB-B. After validation by material, design, and practitioner experts, draft I is revised based on their input. If deemed valid, draft I is refined into draft II, ready for use by teachers.

The development flow is depicted in Figure 1 below.

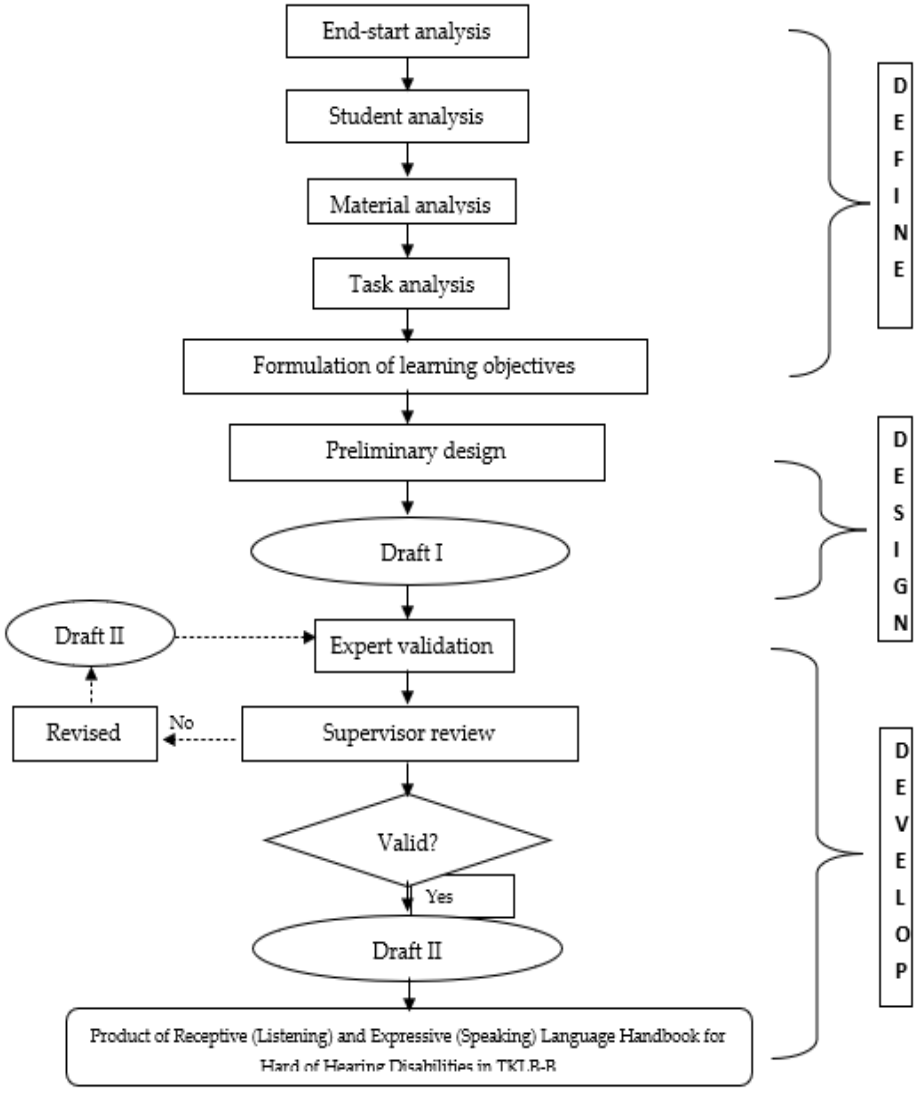
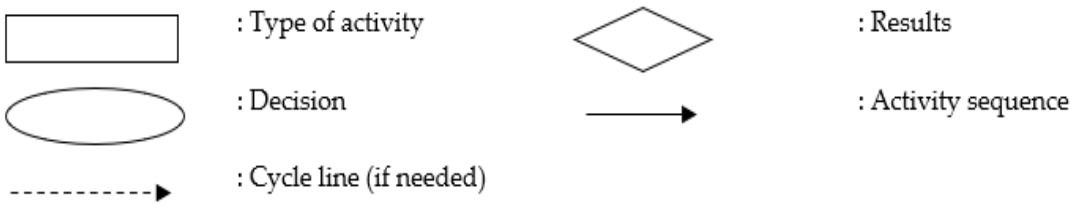


Figure 1: Development Flow of a Modified 4-D Model Adapted from Thiagarajan

Description:



Data collection techniques involved validation sheets administered to material experts, media experts, and practitioners. The validation sheet is used to assess the feasibility of the guide component. The validation sheet referred to in this study is a questionnaire sheet for the validation of material experts, design experts, and expert practitioners. The validation questionnaire sheet was given to experts to obtain data on the feasibility of language handbooks: receptive (listening) and expressive (speaking) for deaf people with hard of hearing disabilities in TKLB-B and responses to product design.

To determine several categories of the feasibility of this handbook, in the validation questionnaire, a Likert scale measurement scale is used. The data obtained from the Likert scale measurement results is in the form of numbers. The number is then interpreted in a quantitative sense (Sugiyono, 2018). Quantitative data that has been obtained from Likert scale measurements is converted based on the predetermined score weights, namely 1 (very bad), 2 (not good), 3 (quite good), 4 (good), and 5 (very good). The obtained quantitative data were then analyzed using descriptive statistics.

Table 1: Likert Scale in the Validation Questionnaire

Number	Category	Score
1.	Very Good	5
2.	Good	4
3.	Quite Good	3
4.	Bad	2
5.	Very Bad	1

Material, design, and practitioner experts evaluated the handbook, providing checkmarks (√) in the column provided, then writing revision items, suggestions, or input in the suggestion section. Expert validators were also asked to give a check mark (√) in the column provided on the feasibility indicator with the categories: not yet feasible to use, feasible to use with many revisions, feasible to use with little revision, and feasible to use without revision.

The scores obtained from the questionnaire were then analyzed quantitatively and converted to determine the percentage of feasibility. quantitative data analysis obtained from the results of expert validation assessments that have been filled in by expert validators to find out that this handbook is feasible to use by looking at the results of the analysis of expert validation instrument scores. The percentage of feasibility is determined by the formula according to (Arikunto, 2022) as follows:

Eligibility score %= (The sum of all scores obtained)/ (sum of total scores) x100%

Once the calculation results were obtained, they were categorized according to predefined criteria in Table 2.

Table 2: Percentage of Feasibility

Percentage	Criteria
81% - 100%	Very feasible
61% - 80%	Feasible
41% - 60%	Decent enough
21% - 40%	Less Feasible
0% - 20 %	Not Feasible

RESULT & DISCUSSION

The study results address two specific issues formulated during the research: (1) the creation of receptive (listening) and expressive (speaking) language handbook products for hard of hearing disabilities in TKLB-B, and (2) the feasibility of these handbooks. Therefore, the researcher will present the findings accordingly.

1. Product of Receptive (Listening) and Expressive (Speaking) Language Handbook for Hard of Hearing Disabilities in TKLB-B

a. Physical Aspects

The physical attributes of the handbook can be evaluated in terms of the book cover and content:

1) Book Cover

a) Title: Receptive and Expressive Language Handbook for Hard-of-Hearing Disabilities in TKLB-B

b) Paper Type: Glory paper

c) Paper Color: Combination of green, yellow, and white

d) Font Type: Adobe Gothic Standard B and Calibri

e) Paper Size: 19 x 25 cm

Figure 2: Front Cover

Figure 3: Back Cover

2) Book Content

a) Type of paper used: laminated art paper

b) Paper color: a combination of green, yellow, and white

c) Type of font: Calibri

d) Font (size): Adjusted to the needs

e) Paper size: 19 x 25 cm

2. Feasibility of Receptive (Listening) and Expressive (Speaking) Language Handbooks for Hard-of-Hearing Disabilities in TKLB-B

Following validation by all handbook validators, revisions were made to the receptive (listening) and expressive (speaking) language handbooks based on criticism, input, and suggestions from validators.

a. Material Expert Validation Results

The material expert validation results of the draft I receptive language handbook (listening) and expressive language handbook (speaking) are presented in the following table:

Table 3: Material Expert Validation Results

Number	Aspects Assessed	Score	Description
1.	Appropriateness of handbook title criteria	4	Good
2.	Suitability to the needs in the field of language development: listening and speaking	5	Very good
3.	Suitability to the needs of handbooks in the field of language development: listening and speaking	5	Very good
4.	The suitability of the material substance	4	Good
5.	Suitability to the handbook criteria in the field of language development: listening and speaking	4	Good
6.	Benefits of knowledge and insight	4	Good
7.	Readability of handbook text in the field of language development: listening and speaking	5	Very good
8.	Clarity of information	4	Good
9.	Appropriateness of the language context	4	Good
10.	Effective and efficient use	4	Good
Total Score		43 : 50 x 100	
Average score		**86% (Very decent)**	

Upon completion of the questionnaire by the material expert, data analysis was conducted. The feasibility results were interpreted using a list of percentages. The material expert validation obtained a score of 43: 50 x 100 = 86%, indicating the handbook's high feasibility in terms of material.

Table 4: Percentage of Feasibility

Percentage	Criteria
81% - 100%	Very feasible
61% - 80%	Feasible
41% - 60%	Decent enough
21% - 40%	Less Feasible
0% - 20 %	Not Feasible

b. Design Expert Validation Results

The design expert validation results of the draft I receptive language handbook (listening) and expressive language handbook (speaking) are presented in the following table:

Table 5: Design Expert Validation Results

Number	Aspects Assessed	Score	Description
1	Accuracy of the paper size used	4	Good
2	The font and size of the handbook for Language Development: Listening and Speaking	4	Good
3	The accuracy of the arrangement (projection) of the working drawings of the handbook for Language Development: Listening and Speaking	4	Good
4	Appropriateness of illustrations, handbook for Language Development: Listening and Speaking	5	Very good
5	Conformity with the work plan for the appearance of the handbook for the Field of Language Development: Listening and Speaking	4	Good
6	Use of fonts in the handbook.	5	Very good
7	Layout	4	Good
8	Use of color on the cover and contents	5	Very good
Total Score		35: 40 x 100	
Average score		**87,5% (Very decent)**	

After the questionnaire was completed by the design expert, data analysis was performed. The design expert validation obtained a score of 35: 40 x 100 = 87.5%, indicating the handbook's high feasibility in terms of design.

c. Validation by Practitioners (Teachers)

The practitioner expert validation results of the draft I receptive language handbook (listening) and expressive language handbook (speaking) are presented in the following table:

Table 6: Practitioners (Teachers) Validation Results

Number	Assessed aspects	Score
		Teacher
1.	Easy to understand (sentence, content, steps)	4
2.	Easy to implement	4
3.	Interesting arrangement	4
4.	Instructions for use are easy to implement.	4
5.	Learning becomes fun.	4
6.	The images used are interesting.	4
7.	The material is clear.	4
8.	Using thehandbook is easy.	4
9.	The arrangement of images is easy to implement.	3
10.	The color composition and font used.	3
	Total score	38:10 x 100
	Score	3,8
	Average score	**76% (Decent)**

Following completion of the questionnaire by expert practitioners, data analysis was conducted. The practitioner expert validation obtained a score of 38: 50 x 100 = 76%, indicating the guidebook's feasibility in terms of material.

CONCLUSION

Based on the research findings on the development of receptive (listening) and expressive (speaking) language guidebooks for individuals with hard-of-hearing disabilities in TKLB-B, the feasibility of the guidebooks was assessed through validation tests conducted by material experts, design experts, and expert practitioners.

The results for both receptive language guidebooks (listening) and expressive language guidebooks (speaking) for individuals with hard-of-hearing disabilities in TKLB-B obtained a score of 86% (considered very feasible) from material experts, 87.5% (also very feasible) from design experts, and 76% (deemed feasible) from expert practitioners.

Therefore, it can be concluded that the results of the receptive (listening) and expressive (speaking) language guidebooks for individuals with hard-of-hearing disabilities in TKLB-B are highly significant, indicating that the guidebooks can be utilized in a very feasible and effective manner.

The authors extend their deepest gratitude to all those who contributed to this research, whether through financial support, permits, consultancy, or assistance in data collection:

1) Prof. Dr. Nursalim, M.Si., Dean of the Faculty of Education, S3 Inclusive Education, UNESA.
2) Prof. Dr. Siti Masitoh, M.P.D., Head of Department of S3 Inclusive Education, UNESA.
3) Prof. Dr. Pamuji, M.Kes., Head of Department of S1 Special Education, UNESA.
4) Prof. Dr. Budiyanto, M.P.D., Member of the Board of Examiners of the Master of Special Education, UNESA.
5) Prof. Drs. I Ketut Budayasa, Ph.D., Member of the Board of Examiners of the Master of Special Education, UNESA.
6) Dr. Yuliati, M.P.D., First Supervisor of the author.
7) The late Prof. Dr. Hj Sri Joeda Andajani, M.Kes., Second Supervisor of the author.
8) Prof. Dr. Mustaji, M.Pd., Design Validator.
9) Dr. Endang Purbaningrum, M.Kes., Material Validator.
10) All lecturers of the UNESA Postgraduate Special Education Master Program.
11) The principal and teachers of TKLB-B Karya Mulia Surabaya for their permission and cooperation during the research, and as practitioner validators.
12) The principal, teachers, and deaf students of SLB B-C Dharma Wanita Lebo Sidoarjo for permitting the use of pictures for research purposes.
13) The author's family: Drs. Harsoyo (father), Dr. Endang Pudjiastuti Sartinah, M.Pd (mother), and Ardhiansyah Farid Heruanto Putro, A.Md (brother), for their unwavering support, motivation, and prayers.
14) The author's classmates from the Postgraduate Special Education Study Program, Class of 2015.

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