Developing Students' Beginning Reading Textbooks With Inductive Model in Madrasah Ibtidaiyah

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Abstract: This Research and Development (R&D) aims to design reading textbooks which includes 1) produce a practical beginning reading textbook with an inductive model that is easy-to-use and improves their reading skills pleasurably, 2) to develop a beginning reading textbook with an inductive model that is easy-to-use and to improve their reading skills pleasurably and 3) to determine effectiveness, validity, and practicality of the inductive model beginning reading textbook. MI NWDI 5 Pancor Rakam, Lombok Timur, was selected for study intention. The ADDIE model development comprises five phases: analysis, design, development, implementation, and evaluation along with interviews, observations, questionnaires for material experts, questionnaires for linguists, questionnaires for media/design experts, teacher response questionnaires, and test-sheet-form as data collection. Trials in terms of product are carried out with limited-size trials and large-size trials. Results show that a practical beginning reading textbook with an easy-to-use inductive model that improves their reading skills pleasurably. In addition, the material, language, and media/design were highly feasible for use in feasibility tests and teacher response assessments. Furthermore, such measures were concluded to be effective in use.

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Introduction

Reading is one of the four language skills that students must have. According to Tarigan (2015: 1), the four skills are listening, speaking, reading and writing. By mastering basic reading skills, students can master the knowledge they acquire and share it with others (Muammar, 2020). Reading is also a unique skill essential to human life. Reading can be said to be special because reading requires a process that is to see writing by recognizing letters, syllables, sentences, and paragraphs. Reading makes the other three language skills more accessible for students to master (Susini, 2020). These language skills are continuous. Still, with students learning reading skills it can change their world, especially in the knowledge in school.

Reading is the key to acquiring knowledge and as a means to open windows to the world. Meanwhile, the development of science and technology also demands the creation of a
society that likes to read. People who want to read will gain new knowledge and insights that will increase their intelligence to answer future life challenges.

Thus, reading is indispensable for anyone who wants to improve. For this reason, early reading learning at the Madrasah Ibtidaiyah (MI) level has an important role. Beginning reading is a stage of the reading learning process for MI students in lower grades. Students learn to acquire the ability to master reading techniques and capture the content of the reading well; then, students can tell it to others. Therefore, reading textbooks for beginners are in need. If the child at an early school age cannot immediately read, the student, when he moves up to the next level, will experience many difficulties. To master reading comprehension skills, students must first be able to master beginning reading (Sabrina et. al, 2016). Based on initial observations and interviews with first-grade teachers conducted by researchers at MI NWDI 5 Pancor on August 27 and September 30, 2022, several problems were found, including:

First, there are still many students who cannot read. Of the 27 students, 11 could not read. The students are: Danis Arsalan Maulana, Ghaisan Altamis Asri, Muhammad Sahmi Al Fatih, Muhammad Zainul Wathoni, Nur Rahmadani, Nur Adila Nisa, Wazila Kalila, Putri Hazrani, Anindita Rahmadani, Shofa Marwa and Sopiatunnaja. Nia Ramadani did not know the letters; her hands were still shaking even to write. The student in question is suspected of having symptoms of dyslexia. Dyslexia is a disorder in the learning process characterized by difficulty reading, writing, and spelling. The eleven students were then tested and told to read a simple reading text. From the reading results of the eleven students, it was identified the location of students' difficulties in reading, including 1) Unable to read sentences, 2) Using their index fingers when reading in books, 3) Difficult to pronounce consonants, 4) Voice intonation is not precise, 5) Letters are often confused such as (b) read (d), (p) read (b), (ng) read (ny) and vice versa.

Second, when teaching and learning activities take place, students tend to be silent and record what has been assigned by the teacher without knowing and understanding what they are recording. As a result, students' activeness, participation, and even interest in reading are low.

Third, teachers do not have textbooks as handbooks, so in learning to read, students are written on the board and then introduced letters one by one, and sometimes teachers also use picture cards to teach the alphabet.

Fourth, learning outcomes that have not met the Minimum Completeness Criteria (KKM) are mainly seen from daily test scores, especially in thematic subjects Indonesian involving reading activities. This will undoubtedly be an obstacle in the academic field and the increase in students in the next class because children must be fluent in reading and writing to enter the upper-grade level. If children experience reading and writing problems, this will cause difficulty in understanding learning, especially if doing assignments and exams; it takes time to spell combining letters.

Fifth, the low interest of students in reading causes limitations in students' abilities in terms of knowledge. Sixth, students cannot distinguish letters in learning beginning reading skills, so it is challenging to connect word for word.

The above facts show that there are still many problems in beginning reading learning in low grades, especially those related to the absence of appropriate teaching materials. For
this reason, teaching materials are needed in the form of engaging, structured textbooks that are easy to apply and follow students' development.

Based on the abovementioned problems, researchers are interested in researching the "development of reading textbooks for the beginning of the inductive model of Madrasah Ibtidaiyah students."

**Research Method**

The objectives to be achieved in this study are 1) produce a practical beginning reading textbook with an inductive model that is easy-to-use and improves their reading skills pleasurably, 2) to develop a beginning reading textbook with an inductive model that is easy-to-use and to improve their reading skills pleasurably and 3) to determine effectiveness, validity, and practicality of the inductive model beginning reading textbook. The research was conducted at MI NWDI 5 Pancor, Rakam, Lombok Timur. The place where this research will be carried out is MI NWDI 5 Pancor. Meanwhile, this research is planned from March to June 2023.

The research employs Research and Development (R&D). According to Sukmadinata (Sutarti & Irawan, 2017), Research and Development (R&D) is a research to create or complement prior products. In line with this, Sugiyono stated that the Research and Development method aims to test, make, design, and research a product scientifically (Sugiyono, 2022). Sujadi (Sutarti & Irawan, 2017) stated Research and Development is a way to account for products that have been made or developed. Based on the definition above, it can be concluded that research and development is a way to produce, perfect, design, and test a product. Operationally, the procedure follows a specific model. Using a research and development model provides an opportunity to evaluate and revise continuously under the courses passed so that the resulting product is valid and reliable.

The instruments used to obtain data in research are interviews, observations, questionnaires, and test results in pretest and posttest. The data analysis technique in this study used data analysis with questionnaires regarding the responses of expert validators related to the development of reading textbooks for the beginning of the inductive model of Madrasah Ibtidaiyah students. Data was obtained from material experts, design/media experts and linguists, and teacher responses.

**Result and Discussion**

**Product Development with ADDIE Model**

The research was carried out based on a development procedure that adapted the ADDIE model. The stages that have been carried out include (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. The following is an explanation of the five stages:

1. Analysis
   a. Competency analysis/learning outcomes

   Competency analysis/learning outcomes are the first to be performed in developing the ADDIE model. In this case, learning outcomes are analyzed at the beginning of the reading lesson; namely, students can read words they recognize daily fluently.

   b. Learner analysis
Analysis of student character is needed for planning and developing textbooks, which include students' interests, attitudes, learning motivation, learning styles, and thinking abilities so that it is known what the condition of students is. This activity was carried out through class I (one) teacher interviews and observations. In teacher interviews, results were obtained in receiving lessons; sometimes, students get bored quickly, have difficulty concentrating, and are noisy in the classroom. Even though it is undeniable that there are students who have more abilities and some are mediocre, this happens because of the internal factors of the students concerned. Still, external factors can affect students' condition, for example, the methods and learning media carried out by the teacher, including accuracy in choosing the materials/textbooks used.

c. Analysis of teaching materials

Teaching materials that have been used need to be analyzed and developed based on the characteristics and needs of students. From the analysis results, grade 1 (one) MI NWDI 5 Pancor teachers only use teaching materials like picture cards containing letters and numbers accompanied by pictures. When recognizing letters, teachers sometimes write them on the board and then introduce them to students while students are asked to pronounce them individually.

Based on interviews and observations, textbooks are needed by teachers and students to accelerate the achievement of early reading learning. Of course, textbooks that suit the needs and characteristics of grade 1 students of MI NWDI 5 Pancor.

d. Formulate goals

Textbooks are developed to solve problems in the field and meet learning needs. The purpose of developing this inductive model initial reading textbook is to make students who cannot read so that there is development and students who are less enthusiastic become more enthusiastic about learning to read and are not quickly bored because of the design, content of the material, and the appearance of textbooks that are varied and fun for children.

2. Design

The next step that is carried out after the needs analysis is to do a design or design to develop the product. Several processes, namely carry out product design or design:

Data Collection

Data collection is carried out after analyzing learning outcomes and teaching materials used. Data collection in the form of inductive model initial reading learning materials.

Creating a Plan

At this stage, after data collection, what is done is to make a design related to the material to be presented in the textbook. In developing a design into a textbook in initial reading learning, several components must be included to be neatly arranged, systematic, and achieve learning objectives.

3. Development

The next stage in the ADDIE development model is design development and validation by experts of the product development of textbook reading the beginning of the inductive model.

The components of this beginning reading textbook consist of cover pages, introductions/teaching sessions, table of contents, recognizing upper and lower case letters,
recognizing vowels, recognizing consonants, reading syllables, reading nasal double letters, reading diphthongs, reading simple sentences, reading short stories, covers and back covers.

4. Implementation

Implementation is the stage carried out after developing a textbook. Textbooks developed and approved by expert validators can be used according to the developer's goals. Implementation is the stage where the textbooks that have been developed can be used in the initial reading learning process in grade 1 (one) MI NWDI 5 Pancor. In other words, field trials were carried out. In addition to field trials, teachers' responses to textbooks also need to be known.

5. Evaluation

At the evaluation stage, the activities carried out are to provide an assessment of learning outcomes during the trial period using textbooks in class and to determine the achievement of development goals, namely improving learning outcomes. A posttest is then compared with the results obtained before using textbooks, namely a pretest. The pretest is carried out with learning activities using old teaching materials. The posttest is carried out with learning activities using developed textbooks. Pretest and Posttest results are student score data from solving pretest and posttest questions in initial reading learning. The results of the pretest and posttest here are intended to show the level of effectiveness of textbooks developed in this pretest, and posttest score is higher than the Pretest score. The textbook developed in this study can be said to be effective.

Details of Textbook Development Product

1. Front cover

The front cover page contains the product's title, an alphabetical cover image resembling a particular animal, the developer's identity, and the University's logo.

2. Introduction/teaching session

The introduction expresses the developer's gratitude for the presentation of the beginning reading textbook and the purpose of preparing this product. The teaching session explained to the users of this textbook the stages of using the textbook in class, starting from reading prayers, providing motivation, flashbacks, materials, enrichment, evaluation, rewards, and closing.

3. Table of contents

The table of contents is the third section of this inductive model, beginning reading textbook. The table of contents contains an overview of the list that is the contents of this textbook, starting from the introduction, recognizing upper and lower case letters, recognizing vowels, recognizing consonants, reading syllables, reading nasal double letters, reading diphthongs, reading long sentences, reading short stories and closing.

Recognize upper and lower case letters

The fourth section contains upper and lower case recognition pages. Upper and lower case letters are made colourful with the intention that students are interested in learning to read and make students not get bored quickly.

4. Recognize vowels

The fifth part of the development of the beginning reading textbook of this inductive model is to recognize vowels, namely A, I, U, E, and O. Vowel recognition is critical because every sentence read will usually be dominated by vowels. Vowels are like they will become
vowels (lines) in every discourse/word read; that's why recognition and mastery of vowels is a significant part of being taught to students in the context of early reading learning. The developer's design on this page is combined with example sentences that start with vowels accompanied by colourful pictures and writing so that students are interested in using this textbook. The existence of images also aims to make students remember vowel shapes faster.

5. Recognizing consonants.

The sixth part of the textbook of the beginning reading of the inductive model after recognizing vowels is recognizing consonants. Consonants are letters that are other than vowels. In terms of design, this section is not much different from the material recognizing vowels.

6. Reading syllables

After knowing and memorizing the forms of vowels and consonants, the seventh part of this textbook invites students to be able to read syllables, which are a combination of consonants and vowels, starting from ba bi bu be bo, ca ci cu ce co, da di du de do to za zi zu ze zo. It is intended to train children to pronounce chunks of syllables before they later read the complete word. The design of this material remains colourful, with words equipped with pictures to make it easier for students to remember.

7. Reading double letters sounds nasal.

The eighth part of this textbook is reading double letters sounding nasal. This letter is often found in some discourses or sentences. The double letters sound nasal among others: ang ing ung eng ong, nga ngi ngu nge ngo and nya nyi nyu nye nyio. In this section, the letters are made colourful; there are example sentences and also equipped with pictures.

8. Reading diphthongs

The ninth section in this beginning reading textbook is reading diphthongs. The diphthongs consist of ai, au, ei, and oi. Just like the basic concept of this product, it is equipped with example sentences and images.

9. Read long sentences

Students are expected to know letters, reading syllables, words, and others, and then the following material is to read long sentences. The sentences chosen are those close to children's daily lives, namely about animals and plants, accompanied by colourful writing and pictures designed as attractive to children.

10. Reading short stories

The eleventh part is reading short stories. This material is the last because students are expected to be able to read correctly the entire message of a discourse packaged in the form of a short story. The short story's theme concerns the rabbit's happiness because it is good at reading. The developer chose rabbits because children generally like this one animal because it is cute. Graphic design is made as attractive as possible with colourful writing.

11. Conclusion

This section contains the developer's expectations from creating an inductive model beginning reading textbook product.

12. Back cover

The last part of this component of the reading textbook is the back cover. The back cover contains a modified alphabet with various animal designs and pretty striking images of birds. It aims to attract the attention of students. In addition, the developer includes a message
that reads, "Children are the golden generation of this nation. Teaching them to read means we have started a glorious civilization."

**Revised development product analysis**

The development of the beginning reading textbook with the inductive model is based on the problems that occur in MI NWDI 5 Pancor in low grades, namely that many students still cannot read and teachers do not have textbooks as learning materials for reading in class.

This textbook is developed through a validation process by three experts: material/content experts, design/media experts, and linguists. This validation is carried out to assess the product design that has been developed. After the textbook is validated, quantitative data analysis is carried out, namely questionnaire suspension, and qualitative, namely expert comments and suggestions. The questionnaire results from the three experts showed very valid criteria for material and design experts and proper measures for linguists. But before the textbook was declared valid, expert validators had made several revisions.

This inductive model of beginning reading textbook development product has advantages and disadvantages. The benefits of this textbook include: 1) the inductive model of beginning reading textbook product is easy for students to use, 2) the inductive model of beginning reading textbook product can attract students' learning interest and drive students to convenient reading, 3) This inductive model of beginning reading textbook product can help speed up children's reading. Meanwhile, the shortcomings of this textbook are 1) Some of the pictures in the textbooks are unknown and exist in the neighborhood around the student's residence, 2) This inductive model initial reading textbook product has not been digitized, so its users are still limited, 3) Printing this textbook is quite expensive because there are pictures on each page, and the contents are full colour.

**Expert Validation Analysis**

The validation results of expert validators have been converted on a percentage scale based on the level of validity and deepening to revise the developed textbooks with the following classes of achievement:

1. **Content/Material Expert Test**
   
   The presentation of data from material expert validation on the inductive model of beginning reading textbook.
   
   a. Suitability of the material with the applicable curriculum, Feasible (F)
   b. Appropriateness of content to learning objectives, Highly Feasible (HF)
   c. The content of the material is short, clear, and concise, Highly Feasible (HF)
   d. Suitability of the material to the reading Inductive model, Highly Feasible (HF)
   e. Recognize and read upper and lower case letters, Highly Feasible (HF)
   f. Recognize and read vowels, Highly Feasible (HF)
   g. Recognize and read consonants, Highly Feasible (HF)
   h. Recognize and read diphthongs, Highly Feasible (HF)
   i. Recognize and read nasal sounds, Highly Feasible (HF)
   j. Recognize and read syllables, Highly Feasible (HF)
   k. Recognize and read double consonants, Highly Feasible (HF)
   l. Recognize and read simple sentences, Highly Feasible (HF)
   m. Get to know and read the short story, Highly Feasible (HF)
   n. Ease of students in understanding teaching material, Highly Feasible (HF)
Clarity of material content, Highly Feasible (HF)

The content of the material is under the development of learners, Highly Feasible (HF)

From the questionnaire filled out by the material expert, Dr. Baiq Rismarini Nursaly, M.Hum., it can be calculated that the percentage of the validity rate of the textbook is 99%. Based on the data above, a score of assessment results by material experts was obtained, which was 79 or a percentage of 99% for the very feasible category and 5% for the decent category, with an average score of 4.9 or 99%. From the results of material expert validation, it can be concluded that in the material content contained in the product of textbook development, the beginning of the inductive model is very feasible and valid for use with a little revision.

2. Design/Media Expert Test

The presentation of data from design/media expert validation on the inductive model beginning reading textbook based on Table 4.3 is as follows:

- Completeness of textbook elements, Highly Feasible (HF)
- The title corresponds to the content, Highly Feasible (HF)
- Graphic design of interesting teaching materials, Feasible (F)
- Layout fit (text, images), Feasible (F)
- Attractive font layout and colors, Highly Feasible (HF)
- Size conformity with material content, Highly Feasible (HF)
- Font selection, Feasible (F)
- Ease to read writing, Highly Feasible (HF)
- Engaging illustrations for learners, Highly Feasible (HF)
- Neatness of spacing between spaces, Feasible (F)

From the questionnaire of responses filled out by design/media experts, namely Dr. Muhammad Ali, M.Si., it can be calculated that the percentage of textbook validity rate is 92%. Based on the data above, the assessment results by design/media experts scored 46, with a very decent category and an average score of 4.6 or 92%. From the results of the validation of design/media experts, it can be concluded that in the design/media aspect of the textbook product, the beginning of the inductive model reading is very feasible and valid for use in learning.

3. Linguist Test

The presentation of the data from the validation of linguists on the inductive model beginning reading textbook based on Table 4.5 is as follows:

- Clarity of writing in textbooks, Highly Feasible (HF)
- Sentence structure accuracy, Highly Feasible (HF)
- The letters used draw, Feasible (F)
- Accuracy of spelling and punctuation, Feasible (F)
- Spelling following standard grammar rules and PUEBI, Feasible (F)
- The language used is simple and easy to understand, Highly Feasible (HF)
- Accuracy in spelling, Feasible (F)
- Grammatical accuracy, Feasible (F)

From the questionnaire filled out by a linguist, Dr Padlurrahman, M.Pd., a score of 15 or 38% was obtained in the very decent category and a score of 20 or 50% for the decent category with an average score of 4.4 or 88%. Based on the score obtained by the results of
linguist validation, it can be concluded that the aspect of language used in the initial reading textbook is feasible and valid for use.

4. Teacher Response Test

The teacher's response test is intended to test the practicality of textbooks. In testing the product's suitability, teachers are given questionnaires to provide responses or responses after testing. The questionnaire has a score range of 1 to 5 with criteria: 5 (Highly Practical), 4 (Practical), 3 (Fairly Practical), 2 (Poor) and 1 (Worst). The data obtained from the results of the questionnaire of teacher responses to the use of initial reading textbooks in the learning process based on Table 4.7 are as follows:

1. This textbook is following the learning objectives Highly Practical (HP)
2. The material in this textbook is under the ability of Highly Practical (HP) students
3. This textbook can be carried everywhere, Highly Practical (HP)
4. This textbook can be used without specific skills (P)
5. The material in this textbook is easy for students to understand, Highly Practical (HP)
6. This textbook makes it easier for students to understand beginning reading material Highly Practical (HP)
7. This textbook applies the aim that students are interested in reading and active in the learning process, Highly Practical (HP)
8. This textbook makes students not get bored quickly learning to read Highly Practical (HP)
9. This textbook is proven to accelerate children's ability to read Highly Practical (HP)

Based on the results of the practicality test, 89% of data were obtained for Highly Practical criteria and 9% for applicable categories, with an average score of 5 or 98%. Based on the results of the practicality test, it can be concluded that the product of beginning reading textbooks is feasible and practical for use in learning in lower grades.

Textbook Development Product Revision

1. Revisions from Material Experts

The revision of the development of the inductive model beginning reading textbook based on criticism and advice from material experts is as follows:

a. The order of the material is not appropriate, and the correct order should be vowels, consonants, diphthongs, nasal sounds, syllables, simple sentences, and short stories.

b. Add "Know and Read" to each page/material.

c. Recognize upper and lower case letters on the page to make them more straightforward.

d. On the vowel recognition page, the image should be enlarged so that there is no need for the vowel to be written many times; it would be better if each letter were given two or more examples: for example, A: Intellect, alarm, alphabet, number, etc., as well as i: advertising, science, slices, etc.

e. On pages that contain syllables, just each picture with one syllable; for example, Bola with Bo, don't write "be," bi, bu, ba anymore.

2. Revision from Design/Media Expert

There is no revision from design/media experts on the development of textbooks beginning reading with the inductive model so that it can be directly tested.

3. Revisions from Linguists
The revision of the development of the inductive model of beginning reading textbook based on criticism and suggestions from linguists is as follows: 1) Inconsistent use of uppercase and lowercase letters, 2) Double-check the use of uppercase and lowercase letters to conform to the standard rules of Indonesian.

**Textbook Effectiveness Analysis**

The product's effectiveness was measured through a pretest-posttest test of the same 11 students. Treatment using the inductive model beginning reading textbook was given after undergoing the pretest. Pretest is carried out with learning activities using old teaching materials. Pretest and posttest are carried out with learning activities using developed textbooks.

Pretest and Posttest results are student score data from solving the pretest and posttest. The pretest and posttest results are intended to show the level of effectiveness of textbooks developed in this pretest, and if the posttest score is higher than the pretest score, then the textbook developed in this study can be said to be effective.

Here is a graph of the pretest and posttest.

**Chart 1: Pretest-posttest**

Based on the diagram above, the average pretest score data is 26.45 and posttest 45.64, which means an increase and a coefficient of 0.7 is obtained. The interpretation of the gain value is in the "high" classification. With these results, the inductive model of beginning reading textbook products can improve student learning outcomes and is considered adequate for use as teaching material in schools.
Conclusion

Based on the development process and the results of the assessment of the beginning reading textbook product of the inductive model, it can be concluded that:

The results of developing the beginning reading textbook with the inductive model are included in the feasible category and have been validly used as teaching materials in the learning process. The results of feasibility and validity were obtained from the assessment of the expert team, which amounted to 99% by material experts in the Highly Feasible category, 88% by linguists in the feasible category, and 92% by media/design experts with the Highly Feasible category. Based on the assessment results by the expert team, it can be concluded that the textbooks developed have met the eligibility criteria and can be used as teaching materials in classroom learning activities.

The results of developing the beginning reading textbook with the inductive model have a Highly Practical value for teaching material in reading learning. This practicality value was obtained from the teacher's response test after using the textbook and received a score of 98% with a Highly Practical category to be used as teaching material in class.

The inductive model of the beginning reading textbook developed is declared effective in reading learning in schools, especially for low-grade students. In the effectiveness test, it was found that the average score of students in the pretest and posttest exams was found to increase from 26.45 to 45.64. For calculating the gain score, a coefficient number of 0.7 is obtained with a classification of "high." This means that the product of the inductive model of beginning reading textbook is declared "effective" for its use.

References


