

# Development of Whole Language-Bases Instructional Models to Improve Commencement Literacy Skills

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**Abstract:** This study aims to develop a whole language-based commencement literacy instructional model. In this study, the children's initial literacy assessment tools and instruments were directed to evaluate students' commencement literacy skills before participating in a whole language-based learning program. In connection with this study, because the sampled children are kindergarten children, the assessment is not done in tests but in the form of non-tests such as children's work, performance portfolios, and observations or observations. The achievement of learning objectives should be seen in the child's final result (learning outcome), and how the child's process during the learning process should also be considered. This study's instrument was developed based on a grid compiled based on the theory of early writing of children aged 5-6 years and based on analysis of needs in the field. The study results that the whole language model is effective for improving the ability to read writing early.

**Keywords:** Instructional models, Whole language, Read-write, Early childhood

## 1. Introduction

Dietary habits are the food choices preferred by persons in their daily life. A healthy dietary habit helps an The ability to read and write is the starting gate for children to master their field of study. Therefore, children need to have the ability to read and write beginning in the right way. The results of the 2016 Progress in International Reading Literacy Study (PIRLS) survey showed that Indonesian students were judged to be able to read only without linking and creating their reading results. The IEA study results indicate that junior high school students' reading skills are at the lowest level. The mean reading test scores were 75.5 (Hong Kong), 74.0 (Singapore), 65.1 (Thailand), 52.6 (Philippines), and 51.7 (Indonesia). Internationally, Indonesian students' reading motivation is also below 301, as the lowest average score for student reading motivation in 40 countries.

This is a note for educators and parents to find ways so that children can read and have an interest in reading. Therefore, it is necessary to stimulate reading and writing at the beginning of the right. With this, it is hoped that children can read and also have a high interest in reading because inaccurate stimulation is one of the obstacles for children to gain early reading and writing skills. Research conducted in 2013 in the DKI Jakarta area, 88% of children aged 6-7 years can recognize letters, but 58% still have difficulty reading sentences fluently. (Tjoe, 2013) From the results of the study, it can be seen that there is a lack of stimulation of appropriate early reading and writing learning when the child is in Kindergarten B.

From the findings of the study of Indonesian students' reading literacy skills in the international world, there are two critical problems related to reading. The two issues are low reading, literacy and low reading motivation. To overcome soft literacy skills, in this case, literacy, relevant studies are needed. From Snow, Burns, and Griffin's research in Dodge and Colker, Heroman, they identify things that become concepts that can make children competent and have the confidence to become readers and writers. (Dodge et al., 2002). Based on this research, there are seven literacy components for children aged 3-5 years, namely: increased vocabulary and language, phonological awareness, knowledge of print, writing, and words. -Words (letters and words), understanding (comprehension), knowing books and writing (understanding books and other texts), literacy as a fun activity (literacy as a source of enjoyment).

Sul Indah Pratiwi et al. That through the whole language approach can improve the ability of beginning reading in group A child at TK Siwi Peni XI Surakarta. (Pratiwi, 2014). In learning to read, children should be actively involved in activities by providing the broadest possible opportunity to ask various questions and need engaging media so that children have the motivation to learn to read. Also, in learning to read and write initially, it is necessary to support an environment that is child-centred and focuses on the meaning. As noted, Watson "agrees that kids are put at the heart of the curriculum: "their interests, their lives, their culture, and literature, including all varieties of the genre, have the potential to be critical "(Gilles, 2006). This shows that children are placed at the core of the curriculum: "their interests, life, culture, and literature, including all genres that give children the potential to be critical." So that in learning to start reading and writing with this whole language approach, teachers and children are central to developing language teaching itself.

Implementing language teaching using the whole language does increase the workload of teachers. The teacher has to design learning materials and activities. Still, when the teacher knows the children are showing an interest in learning and can have fun learning and improve their writing, reading, and speaking skills, it is worthwhile even if they must work harder. It can be seen that learning the whole language is fun for children, even though the teacher's efforts are more significant. Teachers' perspectives on teaching literacy tend to be interactive approaches using a mixture of methods and techniques from the whole language approach and traditional skills-based approaches (Huang, 2014).

This study aims to develop a whole language-based learning model to improve early reading and writing skills in early childhood. Based on previous studies' mapping, this research's novelty is developing a model related to whole language-based initial literacy to improve early literacy. The research question is how to create an entire language-based learning model to improve early literacy in children aged 5-6 years? Is the whole language-based learning model effective for enhancing early literacy? Teachers often find it difficult to stimulate the literacy of children at an early age/kindergarten. Given that learning in Kindergarten must pay attention to the characteristics of child development and the principles of fun learning. It is not easy for teachers to balance the demands and regulations of learning earlier to find inappropriate teaching literacy skills.

## 2. Literature Reviews

The development of learning models generally uses a systems approach. The learning system components form a learning cycle, including analyzing needs/problems, designing, developing, implementing, and evaluating. Based on the ten steps in creating a learning model according to Dick, Carey, and Carey, showing a schematic of model design activities, it is clear that model development is a development research cycle that departs from the theory, problems, and needs of students and learning then moves to practical learning implementation activities in the field. A design-evaluation-design revision/literacy cycle will produce an effective, efficient, attractive model and improve students' learning process and learning achievement. Based on the model development study, the model developed is not new but adapts a model based on the model's concept being developed. The learning model produced is a Whole Language-based pre-reading learning model following the development model's steps by Dick and Carey. This model was chosen because it is tailored to the learning needs of the research objectives.

Based on observations where the reading and writing learning process is only memorizing and drilling in nature. Children feel bored; there is less variety of media or teaching materials used in learning, teachers still dominate in education. After conducting a literature study on the concept of developing a learning model, the synthesis of the model arrived at the result where the Dick and Carey model was created because it has advantages, namely by using a systematic design. Class-based learning designs are used because it presents learning in the form of a sequence, such as exercises at each learning stage equipped with teaching materials. In this case, early childhood emphasizes the aspects of development which are learning outcomes. The whole language-based whole language learning model was chosen,

They were learning as a long-term change in mental associations due to experience (Ormrod, 2008). This definition is divided into three parts; first, learning is a long-term change. Second, learning involves mental representations or associations that storing knowledge and skills. Third, education is a change that results from experience. Marso stated that learning is a deliberate, purposeful, and controlled effort so that other people learn or changes occur that are relatively permanent in others. (Miarso, 2004). Furthermore, according to Gagne, Briggs, and Wager in Rusmono, learning is a series of activities designed to allow the learning process to occur in learners. (Rusmono, 2012).

Meanwhile, Winkel said that learning is a process as it takes place in the classroom. The learning process is a central component. The term "learning process" can be interpreted both broadly and narrowly. In a broad sense, the learning process is a psychic/mental activity that takes place in active interaction with the environment, which results in changes in knowledge, understanding, skills, and attitudes; these changes are relatively constant and lasting. In a narrow sense, the learning process shows a particular form or type of learning. Every learning has its characteristics (Winkel, 2009). Learning is essentially a process of interaction between students and the environment so that behaviour changes for the better (Baharudin, 2009). Learning occurs because of the interaction between students and learning resources to produce experiences for these students. The knowledge gained from learning will change a person's behaviour due to the teaching and learning process.

The overall ability is equipped with two factors: the intellectual and physical ability factors (Robbins & Judge A., 2017). The skills shown in these two factors describe a person's condition. With this material and intellectual appearance, later, someone will be said to have the ability or not have the power in anything.

According to Gagne, the ability to perform a particular task under predetermined conditions (IGAK, 2007). Meanwhile, according to Semiawan, knowledge is the power to act due to nature and training (Semiawan, 1990).

Based on some of the opinions above, it can be concluded that what is meant by ability is the capacity that a person has, namely students, to carry out the assigned task. This ability is obtained through training that is in line with the nature or potential of the students. Learning to read in Kindergarten is learning to read at the beginning. In this connection, Morrow said that reading should be taught during the early school years (Morrow, 1993a). However, some children have learned to read earlier, and some are just learning to read at the age of seven or eight. Meanwhile, according to Heilman, learning to read is a long-term building process. This principle rests on two premises. First, every aspect of an instructional program is related to producing an efficient reader. The second premise is that children's initial attitudes toward reading are essential from an educational perspective. This can affect students' reading habits for life.

Children's interest in picture storybooks marks the development of early reading in early childhood. This interest begins with reading the pictures contained in the storybook. When the teacher reads a storybook, the child's attention will usually be focused on the story being told, and when finished, the child will try to tell the story as if he or she can read. Children will make up the reading with the picture or object in question; for example, when the child opens the storybook, the child will read the picture and tell in their language, or when they see the writing or label on the door, window, and all classroom equipment, the child only read objects without recognizing the writing or the arrangement of written letters. As time goes by with this habituation, the child will realize the letter-by-letter connection of the writing and understand the meaning behind the letters' arrangement. This is in line with Bowman's opinion in Seefeldt and Wasik; children learn to recognize letters and words until they finally become aware of the relationship between the sound of letters and words. (Seefeldt & Wasik, 2008a). This statement means that children will have sensitivity to the writing and reading around them to recognize letters and words because of the high intensity of reading and writing materials. The longer they will understand the relationships between letters that make sound and have and meaning.

Support in the form of a conducive environment is needed to develop children's early reading skills. Children can explore their reading ability with the backing in supporting facilities such as reading materials and learning media. The provision of these facilities can allow children to be familiar and familiar with letters, words, and sentences by the context of everyday events in their lives. The experience that children get in learning will significantly influence children's development to be better, as expressed by Power and Hubbard that with the vast reading opportunities for children, children can predict, choose, strengthen and find their knowledge of words and sentences so that children become sensitive to writing (Power & Hubbard, 1991). This experience will reinforce the understanding of words and sentences, which also affects reading their beginnings.

Meanwhile, according to Akhadiah, reading at the initial level is called beginning reading; beginning reading includes reading syllables, reading words, reading simple sentences with proper pronunciation and intonation, and understanding the reading material's contents. (Akhadiah, nd). Heilman said several learning principles to read deserve the teacher's attention: 1) reading is a language process. Children are taught to understand the relationship between reading and language, 2) during the reading period, students must discuss something on their minds. Raines and Canady; a task is not just interpreting word for word. Still, more than that, a job is a process of constructing the meaning obtained from reading to be connected with the reader's previous experience. (Raines & Canady, 1990).

Based on the theoretical analysis that has been stated above, the ability to read at the beginning is the ability of Kindergarten children group B in reading that is directed, structured and meaningful, starting from recognizing words that represent images, syllables to recognizing visual forms of letters and symbols—a symbol of the sound of the language. In writing skills, children need guidance in understanding and mastering how to transfer thoughts into writing. Children's writing process should focus not only on improving children's writing but also on arranging letters into words and arranging words into sentences. According to Jackman, the paper should introduce and reinforce something authentic and meaningful to children (Jackman, 2012). That way, the child can repeatedly accustom himself to repeating his writing experience, and the child will develop his ability to make a variety of scribbles or writing.

The child's ability to write early or early writing is marked by the child's interest in writing activities such as scribbling and drawing. The scribbles that the child makes are initially irregular in shape, but gradually the scribbles will have a specific meaning, as Seefeldt and Wasik stated that children aged 3-5 years typically begin to communicate with the image and then would "read" what the image is going to say. As children become more aware of printed letters, "picture writing" is followed by scribbling, zigzags, or circles along with the page. Children seem to think they are writing something that can be read in the same way as adults reporting (Seefeldt & Wasik, 2008b).

Jalongo quoted Levin and Bus as saying that pre-schoolers tend to rely on pictures or drawing-like devices if they cannot communicate by writing. They also recognize pictures as pictures before they admit writing is writing, which shows that drawing is a form of central communication from children (Jalongo, 2007). Paper also has a vital role in addition to other language skills. Children need a report for their role in future social life. Children's desire and motivation to write can be grown by providing opportunities for children to draw and scribble. The child's first form of writing is in the form of pictures and scribbles. Through the process of practising these drawings and scribbles will lead to various forms of letters.

Furthermore, according to Clay in Beaty, children create their knowledge about writing; they will extract specific information from the paper around them (Beaty, 2010). So children will try to express themselves, feelings, and experiences in their writing. Writing activities like this will happen over and over again in the same form. Thus the ability to write at Kindergarten (TK) is called preliminary writing ability. The definition of inadequate writing skills is the child's process from starting to make scribbles, as well as in producing scribbled writing or in the form of line patterns, circles, dots, and their combinations, followed by the use of simple letters, words, or sentences in various written media.

The initial reading and writing activity cannot be separated and is a series that are interrelated. Preliminary reading and writing activities that are carried out in a balanced manner will positively impact the ideas and ideas that children have in writing, such as letters, poetry, picture stories, and others. So that children are not only good at saying something but also good at writing something down. This opinion is in line with Morrow, who stated that reading and writing are closely related; that is, it is produced by the same experiential process, namely using verbal symbols. (Morrow, 1993b). Children who learn to read as well as learn to write. Likewise, when the child recognizes the letters in a sentence, they try to imitate the letters through writing. Early reading and writing skills in children are inseparable; when children show writing activities, it is hoped that reading activities will increase. As Eliason and Jenkins quoted, "a good reader will be a good writer too" (Susanto, 2011a). The two abilities, namely reading and writing beginnings, support each other to improve each other.

Hohmann also gave a view on reading and writing that need to be done simultaneously. Roskos et al. Said that "young children need paper help them learn about reading they need reading to need to help them learn about writing; and they need oral language to help them learn about both" (Susanto, 2011b). Children need writing to help them learn to read, they need reading to help them learn to write, and they need oral communication to help them learn to read and write. Children need reading material as a source of information to help children learn to read and elaborate on various word series to enrich their vocabulary. Children need ideas and ideas from numerous writings to help children learn to produce writing. Because children can't become writers or like writing activities if children do not want to read or see minimal reading material, children will enjoy writing activities if they are familiar with various reading materials to enrich their ideas and ideas.

A child needs early literacy skills to solve everyday problems, meet someone's needs, learn new information, and for fun or as a hobby in writing. Brewer's opinion states that literacy means the ability to read and write well enough, solve one's problems, meet one's needs, learn new information, and enjoy good in the written word. (Brewer, 2007). The whole language approach is a whole language approach. This approach is used with the aim that children can be immersed in the integration of learning given by the teacher. Activities that are rich in reading and writing will continue to be carried out at any time. This will get used for these activities so that children will automatically master these activities without drilling, which will hurt children, namely boredom.

The whole language is learning that immerses children and teachers in classroom conditions and activities filled with language, both orally and in writing. There is a combination of literacy learning and spoken language with the language classroom environment setting in the entire language class. Learning literacy with the whole language approach will make it easier for teachers to create classroom conditions in a meaningful atmosphere and involve the entire child in fun reading and writing activities. Conditioning fun situations in early childhood learning are critical so that children do not feel forced to learn. In line with the above opinion, according to Huang in the journal *European Journal of Language Studies*, the Whole Language is a philosophy that combines theory and practice closely and is also a system that integrates learning and teaching and respects teachers and students. It emphasizes the application of education listening, speaking, reading, writing, and integrating the entire program in real situations with literary content and real-life materials. (L. Chen et al., 2016). If the initial reading and writing learning is packaged with something contextual, the child will feel meaningful in education by their daily learning experience.

Language learning, in this case, preliminary reading and writing, from an early age, children are accustomed to understanding what the reading content is through various contextual and meaningful situations. So that children are not only able to read and write, but also understand the reading. With contextual and meaningful learning, it is hoped that children's positive mental development will emerge and create responsibility for the

child. Meanwhile, Debra Goodman, one of the supporting figures for Whole Language, suggests that whole language is a theoretical framework that underlies how teachers carry out learning in the classroom. (Ag et al., 2018). The entire language lies in what the teacher practices in the school. What is practised is contextual with the child's daily life, and children naturally take part in the activities carried out and become the centre of their learning. According to Edelsky, Alltwerger, and Flores in Aisyah, the whole language approach's essence is that reading and writing are learned through actual reading and writing activities, not through reading and writing exercises. (Aisyah, 2003).

The whole language approach invites children to do fun beginning reading and writing activities by including them in actual daily activities so that children can interpret words and sentences without realizing that they are being learned. This approach was chosen so that the child did not feel overwhelmed with learning to read and write introductions. It is different from drilling or training, resulting in children feeling bored and overpowered quickly because it is not meant for them. This whole language approach that focuses on language aspects can also support activities outside of mathematics, music, science, and many other activities. Learning with the entire language approach can integrate with additional learning that develops all curriculum aspects to develop their language skills. An approach that integrates with many parts of the curriculum will make it easier for teachers to continue to explore children's language skills. Thus, learning to read and write beginners, based on the whole language is the teacher's approach to facilitating the process of learning to read and write naturally by creating a fun and meaningful atmosphere by developing all of the children's language potential, namely listening, speaking, reading and writing in every aspect of integrated learning.

### 3. Methods

The research was conducted at Asy-Syifa Islamic Kindergarten, located on Galen Marunda Pulo, Marunda Village, Cilincing District, North Jakarta. The number of respondents 30 people used to test the effectiveness of the learning model. The learning model before the effectiveness test was validated by a team of experts consisting of material experts, other villages, and media for the feasibility of the product being developed. The sampling technique was purposive sampling because only group B students with an age range of 5-6 years were involved in the study.

The data analysis technique used quantitative and qualitative methods. Qualitative data analysis is presented in narrative form and tabular form. Then the data were analyzed by simple descriptive and qualitative data analysis by Mills and Huberman model. Quantitative data analysis was performed using t-test statistical testing to determine the effectiveness of the learning model. The point of the whole language-based pre-literacy learning model is based on achieving a predetermined goal, namely to improve the early literacy skills of group B children in Kindergarten. This is in line with Yaumi's opinion, which states that learning effectiveness conforms between the results obtained and the desired goals (Yaumi, 2013). The plan to be achieved in the learning model is an increase in early reading and writing skills for group B children in Kindergarten.

### 4. Results and Finding

This study resulted in a pre-literacy learning model that was innovative and effective in improving literacy skills and increasing early childhood creativity. The results obtained from the needs analysis activity through conversing, question and answer, and observation with children aged 5-6 stated that children could not read and write, shown in the observation activities. In several books demonstrated to children, around 58.43% of children could not read and write well.

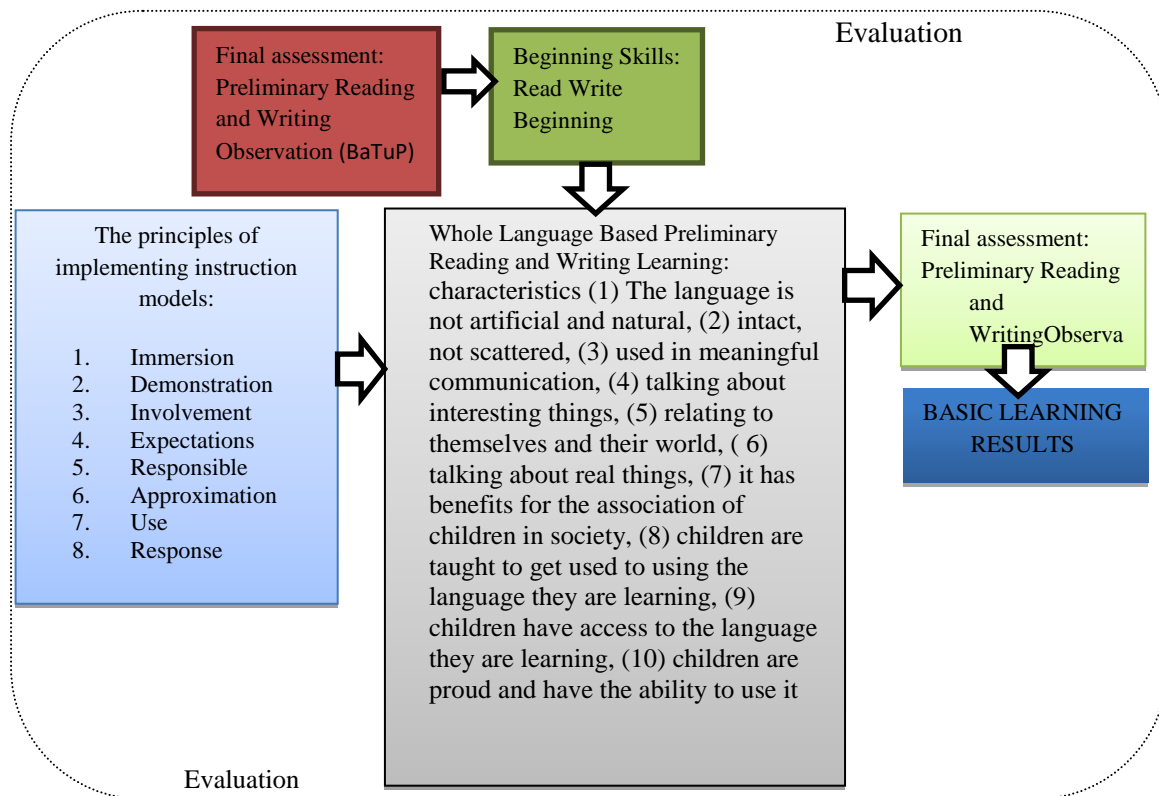
The results of observations related to learning about reading and writing in children have also not been carried out correctly. It is hoped that with the starting reading and writing learning based on the whole language, the children will be able to read and write meaningfully, which later the children will do homework and writing a fun part of their life. What often happens in the field is that children are treated to monotonous learning during the initial reading and writing learning process. The teacher does not package the initial reading and writing learning with attractive packaging. Therefore, kindergarten teachers need to learn a whole language-based pre-literacy learning model to increase fun beginning reading and writing skills.

This preliminary literacy assessment carried out includes the first three aspects showing and using receptive language in various media; the indicators are; (1) Listening to the story being read, (2) mentioning the characters in the story, (3) mentioning the characters in the story, (4) showing the names of favourite characters in the story through word cards, (5) mentioning words from various labels that are around according to the picture, (6) Grouping object labels starting with the same letter, (7) Arranging letters from the labels that are around them,

(8) Listing each letter on the label, (9) Reading picture word cards, (10) Reading word cards without pictures, (11) Matching pictures according to the writing, (12) Reading a short word, (13) Reading two simple words, (14) Reading a straightforward sentence.

The second aspect is showing and using productive language. The indicators are: (1) Cutting and pasting labels, (2) Arranging and pasting labels, (3) Drawing and labelling, (4) Writing your name, (5) Writing the names of close friends, (6) Writing labels, according to the picture, (7) Writing by completing the missing letters, (8) Writing by completing the missing words, (9) Writing one word, (10) Writing two words, (11) Writing simple sentences. The third aspect shows various works in communicating both receptively and productively through multiple media, and the indicators are: (1) making a tree of friendship, (2) making a greeting card for my best friend's birthday, (3) making a friendship frame.

During the preliminary research, field observations showed that some aspects of early reading and writing in children were still not developed optimally. Based on the problems found at the needs analysis stage, it is necessary to design and develop a learning model to overcome this problem. They were learning to read and write beginnings based on the whole language to improve the quality of achieving the completed goals, both in the process and results. The learning model in this initial draft one, before being tested, will be validated by a team of experts to produce a draft model 2 then. Chart conceptual instruction model as shown in Figure 1.



**Figure 1.** Conceptual Instructional Model Development

The module's initial draft form to improve early literacy in early childhood consists of a conceptual model design. This design is obtained by examining the theoretical principles needed to develop learning models to improve children's early reading and writing skills, gather information to achieve research objectives, and determine target objects. The initial draft was made before validating with a team of experts. After the results of the needs analysis are obtained, the planning stages of the development of the learning model in the initial draft are carried out starting from the preparation of material on initial reading and writing skills from various sources that determine the initial literacy skills for children aged 5-6 years.

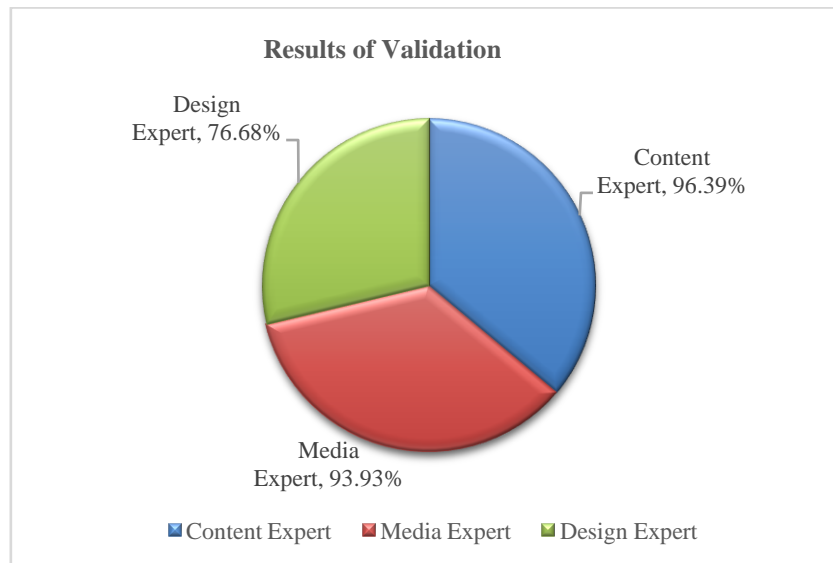
The module is arranged in the following stages: 1) Creating a competency map, compiled based on the needs found in the field regarding Whole Language-Based Preliminary Reading and Writing Learning. The initial draft's competency map consists of three subjects: receptive language, productive language, and good

communication. 2) Developing specific learning objectives according to the expected competency map. 3) Creating a Storyboard is a sketch of images arranged sequentially according to specific learning objectives, with storyboard material that can be conveyed quickly. 4) Making pictures for Beginner Reading and Writing Learning Based on the Whole Language in early childhood. Making this image follows the sketch that has been made in the storyboard. The image is made as attractive as possible with bright colours. Creating images is made with photos and unique applications for creating images or using image hyperlinks. 5) Develop modules. The images that have been made are arranged and combined with original images to add a lively impression to the module. Images are arranged by the specific learning objectives that have been made. The results of the preparation of the module are ready for use and are printed as books. The module display can be seen in Figure 2.



Figure 2. Module Development Results as Draft-1

After the learning model has been developed, the next step is to evaluate the product development to revise the product being developed, namely the module. There are also stages in the evaluation, namely validated by a team of material experts, learning design, and learning media. The results of the expert team's proof are called the results of the product's feasibility developed as draft2, and the results of field tests with potential users are called the effectiveness of the product being developed is called the final product. The expert team's validation carried out by material experts, learning design experts, and instructional media experts on developing products can be seen in Figure 3.



**Figure 3.** Results of Expert Team

Based on the questionnaire data analysis results, the three experts' assessment of the feasibility of the developmental learning module products shows that the learning product is feasible to be used as a component of the whole language learning model to improve early literacy in children aged 5-6 years. However, there are some suggestions from the three experts to make revisions so that learning products can be developed even better. The results of the validation of the three experts are referred to as drafts. The results of the final product development are the revised results of the field test activities. Previously, a field test was carried out on draft2; after being adjusted development, the revision would develop the final product. Based on input and suggestions from previous trials, then field trials were carried out. Field trials aim to see the effectiveness of the learning model in achieving predetermined learning objectives. Also, it is to obtain information about learning components, material components, and display components.

Field trials were carried out with 30 students, which were adjusted to the number of students in Kindergarten B *Asy-Syfa*, North Jakarta. Students are given modules and given interventions with learning for 14 meetings. This is done because it is to identify deficiencies or weaknesses in the module, be it material, instructional objectives, and the expected results from the learning model. *The whole language to improve pre-literacy*. The primary aim of developing a learning model for complete languages *ge to improve pre-literacy*, early childhood ages 5-6 years. Implementation of field trials before the intervention, a pre-test was carried out to see students' initial understanding of initial literacy skills. At the end of the learning process, a post-test is given to measure initial literacy skills.

Based on the pre-test results that students have not been able to use receptive language, 54%, 36.4% are capable with assistance, 6.9% are capable. Only 2.6% are competent, meaning that over 50% of students cannot read and write before the intervention. A learning model is needed to be able to improve beginner literacy skills. Students could not use productive language by 40.9%, meaning that 12 of the 30 students have not developed, 11 students of 36.96% are capable with assistance, 12.7% are capable, and 9% are competent, meaning that a learning model is needed to improve literacy—the start. Students can communicate well 3.33%, 25.56% able to communicate well, and 71.1% not communicating well, so a learning model is needed to improve early reading and writing skills. In conclusion, a learning model is required to enhance pre-literacy early childhood 5-6 years for the pre-test results. The pre-test results can be illustrated with a diagram such as a Figure 4.



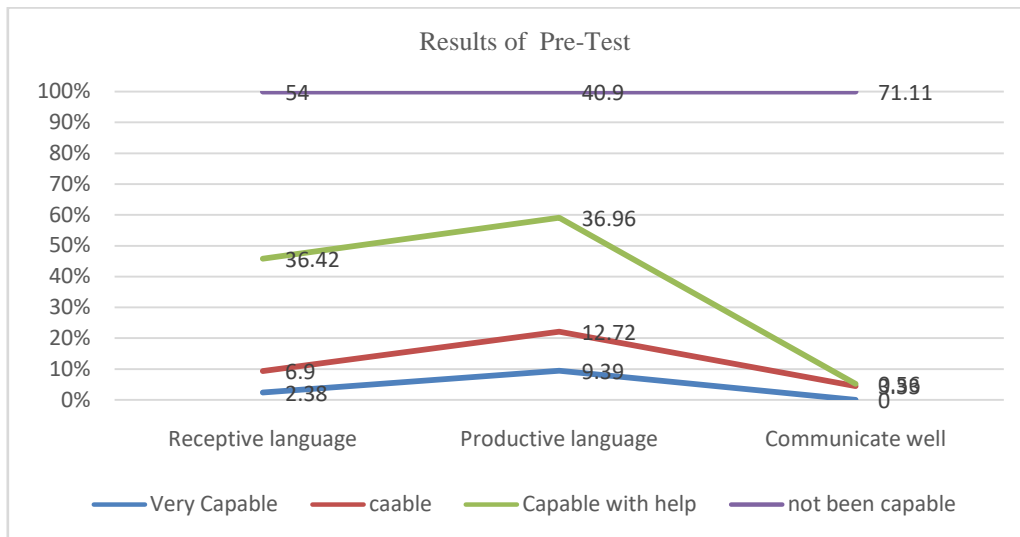


Figure 4. Field Test Pre-Test Results

After intervention for 14 meetings at the end of the meeting, a final test was carried out to determine the developed learning model's effectiveness. Based on the post-test results that the students were very capable of using receptive language by 51.90%, were able to use receptive language by 42.38%, and 5.72% were able with assistance, meaning that almost all students developed very well after the intervention, the learning model very effective for enhancing initial literacy skills. Students can use productive language by 59.90%, meaning that 18 students out of 30 students develop exceptionally well, 11 students at 38.18% are capable, and 2.12% can with the help, meaning that the learning model is effective to improve initial literacy skills.

Based on the data from the analysis of large group trials that the learning model *whole language* to improve the literacy of whole language beginners adequate to improve pre-literacy, children aged 5-6 years so that the products developed can be implemented for the learning process at *Asy-Syifa* Kindergarten School, North Jakarta. The results of the post-test field test can be illustrated with a diagram such as Figure 5.

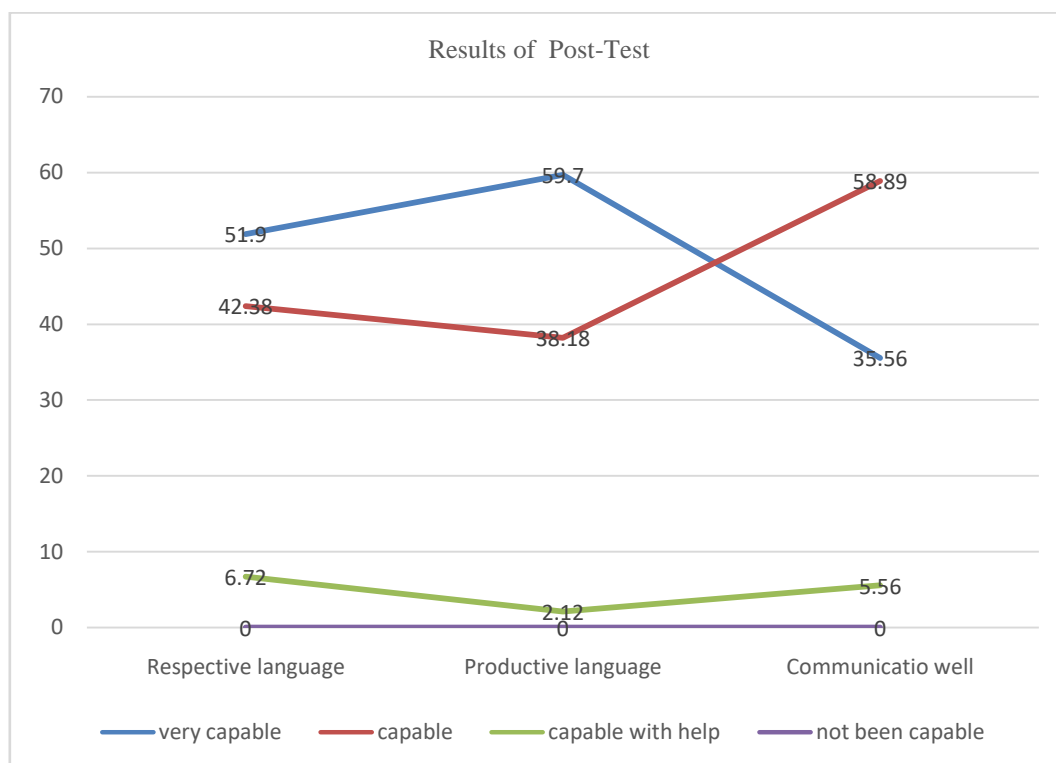


Figure 5. Post-test Field Results

Comparing the average value of the results of the initial and final test results of this field trial can be seen in the following table 1.

**Table 1.** Results of Pre and Post Test Field Trials

		Mean	N	Std. Deviation	Std. Mean Error
Pair 1	Pre-test	47.00	30	17,724	3,236
	Post-test	97.77	30	13.307	2,430

Based on table 1 above, the T Paired test with SPSS was carried out with the T-repaired test results; before the T-test was carried out, the normality test was carried out first to see the data distribution. There are also normality test results that can be seen in table 2.

**Table 2.** Normality Test Results

One-Sample Kolmogorov-Smirnov Test			
		Pre-test	Post-test
N		30	30
Normal Parameters,	Mean	47.00	97.77
	Std. Deviation	17,724	13.307
Most Extreme Differences	Absolute	.180	.221
	Positive	.180	.145
	Negative	-.155	-.221
Statistical Test		.180	.221
Sig. (2-tailed)		.014c	.001c

Based on the results of the normality test in Table 2, the Sig value is obtained.  $0.014 > 0.05$ , it can be concluded that the data is normally distributed, so it can be continued with the Paired T-test, even if the T Paired test results can be seen in Table 3.

**Table 3.** Paired T-Test Results

Pre-Test and Post-Test	
Mean	-50,767
Std. deviation	30,812
Df	29
Sig. (2-Tailed)	0.000

Based on table 4.19 above, it is obtained by looking at the signature value. (2-tailed): P-value, probability value of Paired T-test: Result = 0.000. This means that there is a difference between before and after treatment. Because the p-value  $< 0.05$  (with a confidence level of 95%). The mean value of -50.767 is negative, meaning that there is a tendency to increase in post-test scores after treatment is carried out. The average increase is 50,767; it can be concluded that instruction models the whole language to improve pre-literacy. Learning model whole language effectively to improve pre-literacy, early childhood 5-6 years. The pre-test and post-test results in the field trial show an increase in the post-test results, so it can be concluded that the learning model can improve student learning outcomes.

Based on a needs analysis based on supporting theories and paying attention to the methodology's aspects, the learning model's whole language improves pre-literacy development. This opinion is supported by previous researchers, namely Orey et al. (2013) state that media makes learning effective and learning progressive (Orey et al., 2013). According to research, Lewis-Pierre and Aziza (2017) state that learning media facilitates learning as a suitable learning material and an interactive learning resource (Pierra & Aziza, 2017). According to Mayer (2018), teachers aim to achieve learning goals by facilitating students' learning (Fiorella & Mayer, 2018). In this learning, it is further explained that it includes: teachers, methods, strategies, educational games, books, research projects, and technology. The learning process attempts to make students learn so that a situation is an event of learning, which attempts to change students' behaviour. (Göksu et al., 2017). Behavioural changes can occur because of the interaction between students and their environment.

Furthermore, Gagne (2005) explains that behaviour changes depend on two (2) factors, namely: internal factors and external factors. (Gagne et al., 2005). Meanwhile, Vogel-Walcutt (2013) states that learning is an effort to provide stimulus, guidance, direction, and encouragement to students so that the learning process occurs. (Vogel-Walcutt et al., 2013). Furthermore, Tang et al. (2019) stated that "Learning is the process by

which behaviour (in the broader sense) is or changed through practice or training," (learning is the process of changing behaviour (in a broad sense) caused or changed through practice or practice(Tang et al., 2019). Learning is a series of mental and physical activities to obtain a change in behaviour due to individual experiences interacting with their environment, including cognitive, affective, and psychomotor(Stacey et al., 2008). Learning plays a vital role in learning because, in education, there are learning events and teaching events. Education is a psychophysical activity that is caused by teaching activities.Joyce, Weil, and Calhoun revealed that an instructional model is a description of the learning environment, including our behaviour as educators when the model is used. The model has many uses starting from lesson planning, curriculum, designing teaching materials, including developing multimedia programs for learning(Joyce et al., 2009). Dubovi's research results, suggesting Instructional Theory argues that a well-designed learning process activates learners, internal cognitive structures and enhances successful learning equality. The learning pathway can be operationalized in various forms, which results in a qualitatively different learning approach (Dubovi, 2018).

Sangsawang, the results of his research suggest, Even though learning media are widely used at the educational level, it must be known that education requires an academic and practical approach. (Sangsawang, 2015). Therefore, each system requires a different instructional design framework, instructional design for educational media, which this paper discusses in behavioural learning, creative thinking, learning, and organizational learning, with a psychological theory framework as a guide for creating and developing a questionnaire to submit to education expert (Dubovi, 2018). Aini's research results reveal that knowing these children's characteristics is an essential requirement for teachers in creating effective teaching. Effective instruction is "an instruction that enables students to acquire defined skills, knowledge, and attitudes." In this regard, it is argued that such instruction should be built "based on topics and contexts relevant to young learners. "Apart from that, student experiences must also be considered in choosing teaching methods, media and assessments, conduct effective teaching (Aini, 2013).The learning development model is a representation of the views of how people learn. Models help conceptualizes terms of existing reality. A model also represents more complex forms, processes, and physical functions of phenomena and ideas. Models help reduce complexity to real situations with generic steps applied to various circumstances (KLG and RM Branch, 2002). In this context, the model serves as a reference, guide, or guideline that can guide lecturers in designing a learning system to obtain an effective and measurable learning system design.

Gogineni, Aranda, and Garavaglia, the results of their research suggest that instructional design is a deliberate process that facilitates the careful construction of knowledge, skills, and attitudes. There are different types of instructional design models for different types of learning outcomes. Developing and designing learning devices is an activity that aims to make learning plans through a particular model. Developing learning devices cannot be separated from the design process and the learning design model(Gogineni et al., 2018). Triyono, the results of his research, said that the development of learning designs by education in general practice leads to learning while learning to use the learning design theory used in public schools. (Triyono, 2014). This approach is based on the latest information, namely observations and interviews with experts in education, vocational and learning media, industry experts in expertise, and manufacturing and services.

Models help conceptualizes representations of existing reality. A model can also represent more complex forms, processes, and physical functions of phenomena and ideas. Models help reduce complexity to real situations with generic steps that can be applied to various circumstances. In the above context, the model serves as a reference, guide, or guide that can be used to guide teachers in designing a learning system so that, in the end, an effective and measurable learning system design is obtained. Branch and Dousay argued models help us conceptualize representations of reality. Models are simple representations of the forms, processes, and functions of physical phenomena or more complex ideas. The requirements models simplify reality because they are often too difficult to describe and because many complexities are unique to a particular situation. Thus, models usually attempt to identify what is generic and applies across multiple contexts (Dousay, 2015). The learning model is a set of integrated strategy components, such as ideas about specific techniques in sequencing learning materials, examples and summaries, using criteria and non-examples, applying practices or exercises, and using different learning strategies to motivate students. In other words, that the model is a set of general steps that provide guidelines for designing a lesson.

Based on the results of the initial and final tests in the field trials showed an increase in the results of the final examinations, so it can be concluded that learning with a learning model can improve to improve pre-literacy and the effectiveness of learning models in improving children aged 5-6 years. This result is supported by the opinion of Nie (2017), which states that the media is effective in increasing the use of study time, especially short breaks during the workday, new strategies in reading subject matter, and low cost. (Nie et al., 2017). Researchers Sousa and Rocha (2019) also supported this research who state that digital learning can be a driver for skills development(Cress et al., 2018; Sousa & Rocha, 2019). Also supported by researchers Hawlitschek and

Joeckel (2017), digital media can motivate students to improve their skills, performance, and performance satisfaction.(Jarudin et al., 2020; Sartika, 2017). Students increasingly need to learn content and perspectives not provided as part of the curriculum; students need to build additional support for learning through digital media(Ludvigsen et al., 2018). Digital media learners who successfully deal with distraction in the form of socio-cognitive conflict resolution and productive friction are indispensable for learning and knowledge construction(Bock et al., 2018; Holtz et al., 2018).Students' previous learning experiences and how they contribute to their responses to e-learning experiences(Erdem et al., 2013; Li, 2017). Objects using text, images, audio, and video elements make the story more engaging(Prasetya & Hirashima, 2018), and effective learning (Jarudin et al., 2018) can increase student interest, achievement, and confidence in education (Z. Chen & Liu, 2019; Liu et al., 2018; Suwiwa et al., 2014)

## 5.Conclusion

The research and development of a whole language learning model to improve early childhood literacy has implications for using this product. Learning product development is a complete language-learning model to improve early childhood reading and writing skills to facilitate TK-B student participants' learning process. This product can help teachers and students, especially TK-B, as a learning resource. With the existence of the whole language learning model to improve early reading and writing skills in early childhood, it is hoped to meet students' learning needs.

To support using the whole language learning model to improve early childhood reading and writing skills, teachers need to disseminate it to students because this learning model is easy to operate or use. The whole language learning model's product to improve early childhood reading and writing skills is developed as a learning resource and a medium to support the learning process.This learning model is not the only source of learning or learning media. Therefore, it is recommended for users to look for other learning resources to increase their creativity. This model's limitations need intervention in the learning process, so it is necessary to develop interactive digital media to stimulate students to learn independently.

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