



Analysis of the Textbook Coloring Pictures and English Reviewed by Cognitive

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Abstract. Children's reading materials must relate to themselves in terms of interests, needs, language, perspective, and stage of development. The relationship between children and books is directly related to the child's cognitive level. For this reason, it is important to develop children with cognitive aspects in learning activities. One of the cognitive theories that can be used as a measurement in the implementation of learning activities is Piaget's cognitive theory. The purpose of this study is to analyze the book Coloring Pictures and English through cognitive aspects to determine the feasibility of presentation and material based on Piaget's cognitive criteria. The research method used is descriptive research using a qualitative approach. The results showed that the book Coloring Pictures and English could be used but had to make revisions because the book had different eligibility for each cognitive criterion.

Keywords: Book analysis · Textbooks · Cognitive aspect

1 Introduction

The key in advancing children's willingness to learn is the educational process through learning activities. In this regard, one of the most fundamental objectives of children's learning activities is to develop their imagination, and critical thinking in an appropriate way from their developmental stage (Cer, 2016). Children actively interact with their environment by doing these learning activities. Teachers are a very important subject for children's education in carrying out school environment learning activities (Nurani and Utami, 2017). Therefore, teachers must be proficient in accompanying and communicating with children in learning, especially at the stage of early childhood education.

Language allows people to communicate with each other. The use of language in communication with children is very important. Language is a way of communicating; it can be done orally, in writing, or by making signs using a system of symbols. Adults and children alike use language as a means of communication. During the pre-school years, children's language skills begin to grow rapidly. Children's vocabulary is constantly growing, sentences are getting longer, and their grammar is getting better. Children can learn to interact socially with others through language (Ratnasari, 2020). The most child-friendly medium, especially for children, according to Gjatovic (2015), is picture books.

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A book has a very important role for children in the implementation of their learning abilities.

The child's reading material should relate to him in terms of interests, needs, language, point of view, and stage of development. In other words, visual and verbal texts that do not correspond to the child's linguistic, cognitive, personal and affective development and traits, as well as those that do not correspond to the child's interests and needs and that do not reflect his interests and needs, which, in perspective, can prevent the child from connecting with books from an early age. It is very important for books to reflect the child's imagination and the truth of reality by being written according to the child's ability level because books can be involved in children's emotive and cognitive behavior. The relationship between the child and the book is directly related to the cognitive level of the child (Cer, 2016).

It has also become one of the important factors in mental development, including punishment, memory, eliminating problems, idealization, and creativity (Qiftiyah, 2020). Language skills as well as mental and emotional development in children can be heard by cognitive growth. The ability to think also correlates with the attitude and behavior of the child. Therefore, it can be said that cognitive development is the key to non-physical development (Bujuri, 2018). For this reason, it is important to develop children with cognitive aspects in learning activities. One cognitive theory that can be used as a measurement in the implementation of learning activities is Piaget's cognitive theory (2001: 20–21), namely DAP (Developmentally Appropriate Practice), repetition (echolalia), monologue, comments and requests, questions and answers.

At this time, the book becomes a medium of teachers as a facility to carry out learning activities. There are two key factors that play a role in the widespread use of books. First and foremost, creating the material yourself is a very challenging and demanding task for the teacher. During the development of teaching materials, many factors need to be taken into account. The second factor is that teaching takes a lot of time. Thus, it may happen that the teacher simply does not have enough time to create new material. This explains why you need to analyze a book. Due to the need for textbooks that best suit the needs of learners. In addition, through the analysis of books can also find out the shortcomings and advantages of a book used in a school. (Fuyudloturromaniyyah, 2015).

Various studies have been conducted with the development of cognitive theory. Research by Noviasari (2019) conducted an analysis of books in MI and had the result that the books used had discrepancies in the systematics of presentation and completeness of presentation and the books were only able to explain the cognitive abilities of C2 (understanding) and C3 (applying). The next study conducted by Juwantara (2019) which analyzed cognitive theory at the age of 7 to 12 years resulted in the cognitive development of children at the age of 7–12 years was found to be different because of the level of ability between individuals and different age stages.

Based on the explanation, the purpose of this study is to analyze the picture Coloring Book and English through cognitive aspects to determine the feasibility of presentation and material based on cognitive criteria Piaget (2001).

Table 1. Book Media Eligibility Qualification Assessment

Percentage (%)	Eligibility Criteria	Description
86–100	Very worthy	Very good with minor revisions
71–85	Eligible	May be used with partial revisions
56–70	Quite decent	May be used with partial revisions
41–55	less worthy	Cannot be used
25–40	not worth it	Cannot be used

2 Method

The research method used is descriptive research that uses a qualitative approach. According to Sugiyono (2014) descriptive method is a method that can be used in conducting research on the status of a human Group, an object, a state or a system of thought. This method is used because it will explain the analysis of the book Coloring Pictures and English. Data obtained in the form of quantitative and qualitative. Quantitative Data were obtained based on a feasibility analysis based on Akbar (2013) by evaluating the book Coloring pictures and English according to Piaget's cognitive aspects. While the qualitative data obtained based on the results of qualification assessment criteria validity of Akbar (2013).

Data analysis techniques using a survey conducted by researchers in the book Coloring Pictures and English with tables adapted from Slamet (2022) assessed 5 cognitive aspects, namely DAP (Developmentally Appropriate Practice), repetition (echolalia), monologue, comment and request, questions and answers. The results of the book analysis were then validated using the analysis of the average score of Akbar (2013). The calculation formula is used as follows.

$$\% \text{ Validity of product} = \text{Tse} / \text{Tsh} \times 100\%$$

Description:

Tse = Total score.

Tsh = maximum Total score.

The results of the average score are then categorized based on the quality assessment of the feasibility of the book which can be seen in Table 1.

3 Results and Discussion

The results of the research book Coloring Pictures and English are presented in Table 2.

Based on the table can be seen the results of the analysis of 5 categories of cognitive aspects of the book Coloring Pictures and English. In DAP (Developmentally Appropriate Practice), the percentage of 100% eligibility is produced with very decent qualifications, which means that the books analyzed with DAP components are very good which can be seen from each criterion that gets a value of 4. DAP is a cognitive

Table 2. Book Analysis based on Cognitive Aspect

No	Components	Criteria	Score				Eligibility percentage	Eligibility Status
			1	2	3	4		
1.	<i>DAP (Developmentally Appropriate Practice)</i>	Allows children to develop knowledge of vocabulary in written and spoken language				✓	100%	Very worthy
		Motivate children when faced with linguistic problems from simple vocabulary recall exercises to more complex ones				✓		
		Encourage the child to use the language at a satisfactory level that can be seen in the clarity of vocabulary improvement goals				✓		
		Encourage children to enjoy using textbooks (both illustrations and layouts) to increase vocabulary according to their age				✓		
2.	<i>Echolalia/Repetition</i>	The repetition of vocabulary in the exercises in each unit in the textbook in accordance with the theme	✓				25%	Not worth it
		The repetition of the activity model to strengthen vocabulary in each unit in the textbook in accordance with the main theme	✓					
		The integration of repetition activities repeating vocabulary activities in exercises in each unit in the textbook in accordance with the theme studied	✓					
		There is a repetition of almost the same instruction model in the exercises in each unit in the textbook to strengthen the child's vocabulary memory (the command to listen to the teacher's speech and imitate)	✓					

(continued)

Table 2. (continued)

No	Components	Criteria	Score				Eligibility percentage	Eligibility Status
			1	2	3	4		
3.	<i>Monologue</i>	The activity of remembering vocabulary by thickening letters in textbooks				✓	62,5%	Quite decent
		The activity of remembering themed vocabulary by filling in the missing letters/words in a word	✓					
		The existence of activities to remember vocabulary themed by reading in the heart of the words listed in the book				✓		
		The existence of vocabulary recall activity by rewriting vocabulary that has been given previously in accordance with the theme raised	✓					
4.	<i>Comment and request</i>	There is a request to color the picture according to the vocabulary and theme given				✓	75%	Eligible
		The command to thicken the letters and imitate vocabulary in accordance with the theme of each unit				✓		
		There is a request to fill in the missing letters in the given word	✓					
		There is a request to remember themed vocabulary by following the teacher's speech				✓		

(continued)

Table 2. (continued)

No	Components	Criteria	Score				Eligibility percentage	Eligibility Status
			1	2	3	4		
5.	<i>Questions and answer</i>	The existence of questions in the book in accordance with the vocabulary given, which needs to be answered by the child independently	✓				62,5%	Quite decent
		The existence of questions related to the vocabulary that has been given in the book, which needs to be answered by the child in pairs according to the theme discussed	✓					
		There is a question about the identity of the child (on the front cover).				✓		
		There are some questions about the identity of the child and the school (on the back cover).				✓		

characteristic that can increase a child’s curiosity in something and in accordance with the development period of a complete individual child (Pertwi et al, 2018). The statement is supported by research conducted by Muzamil (2020) which reports that DAP can help improve Arabic alphabet reading skills in children at TPQ Subulussalam Surabaya. It shows that the material on the book coloring pictures and English with the period of development of the child is appropriate and feasible.

Furthermore, echolalia/repetition has a 25% eligibility percentage result with an unfit qualification which means that the book should not be used. Echolalia has a definition as the repetition of words, phrases, or sentences (Kesi et al, 2022). For this study, an echolalia/repetition analysis was performed on the book. This is because the book Coloring Pictures and English is not found repetition activities that children can do. Books should be given activities or revisions related to the repetition of material at the end of the topic in order to improve children’s memory of things that have been learned.

The monologue activity resulted in a eligibility percentage of 62.5% with a decent qualification which means that the book may be used but must be revised first. The monologue category has the objective that children know the correct pronunciation and writing of a word (Slamet, 2022). This is supported by Silawati’s research (2018) which explains that monologues are able to express children’s willpower and improve two-way communication skills with their surroundings. The statement indicates that the book Coloring Pictures and English can be used but should be given an aspect that fits the

category of monologue that is revised to fill in the missing letters/words in a word and rewrite the words that have been learned.

In the comment and request results obtained as large as 75% eligibility percentage with decent qualifications which means that the book can be used but has a minor revision. This category has the aim that children are able to show creativity with ideas from the results of carrying out learning activities and carrying out requests or instructions that are in accordance with the learning material (Slamet, 2022). The goal is already feasible and appears on several criteria related to the category in the comment and request. But the book Coloring Pictures and English still needs to revise the criteria for filling in the missing letters in the given word so that children can unleash their creativity in carrying out learning activities.

While the question and answer has a percentage of eligibility results sebesar 62.5% with a decent enough qualification which means that the book may be used but must be revised in a major way. This category has the purpose of measuring children's understanding after reading books related to things that are known and have not been mastered (Sujariati et al., 2016). Seen in the book Coloring Pictures and English still does not appear the activity of questions and answers related to the material, the criteria should be done to find out how the child's ability in the material so that it can be guided and taught things that have not been mastered.

4 Conclusion

The conclusion of this study is the book Coloring Pictures and English can be used but must revise because the book has a different feasibility on each cognitive criteria. DAP (Developmentally Appropriate Practice) criteria have a 100% eligibility percentage with very decent qualifications. Repetition (echolalia) has a 25% eligibility percentage with unfit qualifications. Furthermore, monologue has an eligibility percentage of 62.5% with quite decent qualifications. Comment and request has an eligibility percentage of 75% with decent qualifications and questions and answer has an eligibility percentage of 62.5% with decent qualifications.

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Authors' Contribution. RAM collects data and writes articles. SS examines, reviews and revises articles to completion.

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