

Learning Fun English through Pop-Up QR Book: An Audio-Visual Aid for Early Childhood Foreign Language Development

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ABSTRACT

English is a language that has been widely studied at almost every level of education. Especially at the PAUD level, English can be introduced in portions that are appropriate to the child's level of language development. Introduction to English for children can start with the introduction of simple English vocabulary and expressions. In practice, English language learning in PAUD does not go completely well due to various factors. This research aims to respond to the needs of English language learning in PAUD, namely by implementing Pop-Up QR Book media, which has been developed within the framework of classroom action research. This research uses classroom action research by applying the Kemmis and McTaggart (1988) model. This model is often quoted in books and articles and consists of four stages: plan, act, observe, and reflect. The research consisted of 2 cycles, each cycle consisting of 2 meetings. This research was carried out at a preschool in Salatiga, Indonesia. The class used to conduct research was Kindergarten A class, consisting of 5 children with an age range of 3–4 years. The data collection uses observational techniques by observing ongoing activities. Activities are performed as needed to achieve goals. The results of the observations are recorded in anecdotal records summarizing key events or processes for use as documents for analyzing the development of children's English skills in terms of vocabulary recognition. To analyze the data from this classroom action research, there were four criteria related to children's vocabulary recognition ability using the Pop-Up QR Book learning media as a reference: 'attracted', 'active', 'remember' and 'understand'. The result of this study shows that the Pop-Up QR Book "Trip to Grandparents' House" is very good to use as a medium for learning English vocabulary for children aged 3–4 years. It stimulates students' interest and the ability to remember and understand English vocabulary.

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1. INTRODUCTION

Early childhood learners typically learn English through a combination of immersion, play and repetition. Immersion involves creating an environment in which English is used consistently, even if only for short periods each day. This helps children become familiar with the language and its sounds (Dalim *et al.*, 2020; Zuo *et al.*, 2022). Play is an important aspect of preschool children's learning. Young children learn best through fun, engaging activities. English can be included in games, songs and stories. Interactive, hands-on activities such as puzzles, coloring or playing with English-themed toys also contribute to

language development (Bubikova-Moan *et al.*, 2019). Repetition is essential because young learners will benefit from hearing and using English words and phrases over and over again. This strengthens their understanding and helps them remember vocabulary (Wu, 2021).

Furthermore, children often learn by observing and mimicking adults, so having teachers or caregivers who model correct English pronunciation and usage is important. Encouraging curiosity and questions, as well as providing positive reinforcement, can boost children's confidence and motivation to learn English. The process should be flexible, recognizing that each child has their own pace and learning style (Clegg *et al.*, 2021; Vartiainen



et al., 2020). The combination of immersion, play, repetition, modeling, and encouragement creates an effective and enjoyable environment for early childhood learners to acquire English language skills. Knowing children's English learning styles leads us to some possible challenges.

Children in common may face several challenges when learning English. One common challenge is the pronunciation of unfamiliar sounds and phonetic patterns, as English may contain sounds not present in their native language. Additionally, young learners might struggle with vocabulary retention and grammar rules, as English can be more complex than their first language. Comprehension difficulties can arise when children encounter fast-paced or native speaker conversations (Hu & Tsai, 2019; Vančová, 2019). Moreover, motivation can fluctuate as children may initially find learning English exciting but might later experience frustration or boredom if not presented with engaging and age-appropriate materials and activities. Teacher support, a conducive learning environment, and a focus on creating a positive and encouraging atmosphere can help address these challenges and facilitate effective English language acquisition (Humaeroah *et al.*, 2023; Zhang *et al.*, 2020).

Children who do not speak English encounter many unique challenges when learning English. First, they often have difficulty with pronunciation because their native language may have different phonetic patterns, making it difficult to pronounce English correctly (Hu & Tsai, 2019). Vocabulary acquisition can be difficult due to the large number of English words, some of which have no direct equivalents in their native language. Understanding can be difficult when faced with rapid dialogue, idiomatic expressions, and regional accents (Kurniawan & Tanone, 2018). The other issue that arises is motivation. Maintaining motivation and persistence in learning English can be a hurdle, as the initial excitement may wane over time (Zhang *et al.*, 2020). To overcome these challenges, non-native English-speaking children benefit from patient and supportive teachers, culturally sensitive materials, immersive language environments with additional supporting technology and a focus on practical language skills that can be applied in real-life situations.

Teaching English to non-native English-speaking preschool students when the teachers are not trained in English poses a number of challenges. Teachers may have difficulty pronouncing and demonstrating accurate language use, which is essential for young learners who are forming their language foundation. Effective communication can also be hindered if teachers and students have limited English proficiency (Tsai, 2019). To address these challenges, the teacher must undergo English language training and receive support and resources to enhance their English proficiency. Utilizing multimedia or audio-visual resources can also help bridge the language gap and create a more conducive learning environment for early childhood non-native English-speaking learners (Kurniawan & Tanone, 2018).

Teaching English to early childhood learners is a delicate and rewarding process. At this age, children are like sponges, absorbing language skills through play and exploration. It is crucial to create an environment that is not

only educational but also engaging and age-appropriate (Muhammadova, 2023). Visual aids, such as colorful flashcards and storybooks, can help children to associate words with images, while songs and rhymes make learning enjoyable and memorable. Interactive games, arts and crafts, and role-play activities help children actively use English in practical scenarios. Technology can also be a valuable tool, with interactive apps and websites designed for young English learners (Majuddin *et al.*, 2021; Puimège & Peters, 2019). Themed units, real-life contexts, and repetition ensure a comprehensive learning experience. Encouraging conversation and involving parents in the learning process further enhances language development. Patience and flexibility are essential, as every child learns at their own pace. Ultimately, teaching English to early childhood learners should be a joyful and nurturing experience that lays a strong foundation for language skills and a lifelong love for learning. A creative learning method will be perfect if it is supported by creative learning materials (Kurniawan, 2021).

Teachers can use a variety of creative learning materials to engage children in English lessons. Integrating multimedia resources such as educational videos, interactive applications, and digital games can make learning more interactive and enjoyable. Storytelling with colorful props, puppets or audio-visual storybooks can capture children's imaginations (Kurniawan, 2021). Creative arts and crafts activities that involve completing English-themed projects, such as drawing, painting, or making crafts, can build vocabulary and encourage hands-on learning. Additionally, music and songs with lyrics that match the lesson can help children memorize words and phrases in a fun way. These innovative approaches not only make learning English fun but also accommodate different learning styles and get young learners excited about acquiring language skills (Alwasilah, 2019).

Effective learning materials for early childhood learners must be carefully designed to suit their unique developmental characteristics. These children are naturally curious and active, with shorter attention spans. Therefore, learning media must be engaging, interactive and multi-sensory to maintain interest (Makhametova, 2023). Visual aids, such as colorful illustrations and books, satisfy children's intuitive nature, while interactive games and puzzles spark their love of exploration and play. Storytelling with expressive voices and tactile books with interactive elements will capture children's imagination and foster a love of language. Digital apps and games can be helpful if they are age-appropriate because they provide a means of interactive and technological learning (Kurniawan & Tanone, 2018). By using learning materials that are developmentally appropriate for children, educators can create a rich and stimulating learning environment that makes language acquisition an enjoyable experience. Tasteful and effective for preschool learners.

Presenting the analysis of early childhood education needs, the researchers observed a preschool in the city of Salatiga, Indonesia. This school has 5 students aged 3–4 years. So far, learning English for children aged 3–4 years at this school is still inconsistent. English learning is carried out there when the teacher or children from

the school have no activities and can ultimately help with English learning. So, it is true that the English language learning schedule has not been properly scheduled. The obstacles faced by this school are starting to show that the school requires teaching staff who are appropriate to their field. The level of teachers' ability to master English is still lacking. It is also known that the learning media used for children's English learning is not optimal and still needs to be innovated because it seems that they still use paper posters with pictures of English writing and their meanings. Teachers have not optimally utilized today's technology in introducing English vocabulary.

To help with the problems that exist in the school, the idea arose about developing pop-up books that would be modified according to children's learning needs and technology integration. By using a pop-up book, educators will present stories with 3-dimensional surprises in the book. As we also know, by telling stories, children will gain good language and speaking skills, so it is appropriate if we use the storytelling method. Therefore, researchers developed the Pop-Up QR Book as a Media for Learning English Vocabulary for Children Aged 3–4 Years, which, in this research, was applied in classroom learning to help develop children's English vocabulary.

2. REVIEW OF THE RELATED LITERATURE

2.1. Early Childhood English Learners Characteristics

English language learning for early childhood learners is a critical educational endeavor with its own set of characteristics, opportunities, and obstacles. First, the characteristics of early childhood learners are marked by their natural curiosity, short attention spans, and an innate ability to absorb new information like sponges. They are highly influenced by sensory experiences, which makes engaging and interactive learning media essential for their development (Muhammadova, 2023). Language acquisition at this age is primarily intuitive; children tend to imitate sounds and patterns, and pronunciation and spoken language are fundamental aspects of the learning process.

There are many options for teaching English to early childhood learners. Introducing a second language like English at an early age lays the foundation for lifelong language skills and cultural awareness. Early exposure to English promotes cognitive development, improves problem-solving skills, and improves future academic performance. Since English is the international lingua franca, it also opens the door to global opportunities. Teaching English to young children can be a rewarding experience for educators, as it provides an opportunity to instill a love of language and learning, which can have a lasting impact on their behavior (Fox et al., 2019; Whitehead & Greenier, 2019).

However, there are also significant barriers to teaching English to early childhood learners. One of the biggest challenges is staying alert and motivated. This is because their attention spans are short, and their activities need to be changed frequently (Zhang et al., 2020). Pronunciation can be a hurdle, as children may have difficulty mastering

English sounds that are absent in their native language. Additionally, ensuring that lessons are age-appropriate and culturally sensitive is vital to avoid overwhelming or confusing young learners. Educators must also be mindful of the potential for language interference, where elements of the child's native language affect their English language development (Hu & Tsai, 2019).

Another obstacle is the lack of well-trained teachers who are familiar with both English and how to teach young students. Resources such as age-appropriate materials and technology may be limited, especially in non-English speaking regions. Additionally, assessing preschool learners' progress in English can be difficult because traditional testing methods may not be appropriate for this age group (Dore & Dynia, 2020).

English for early childhood learners is characterized by innate curiosity and a preference for sensory learning. The opportunities for teaching English to these young learners are vast and include cognitive development, academic benefits and future global opportunities. However, educators face barriers related to attention span, pronunciation, age-appropriate instruction, language interventions, educator responses, and more. Despite these challenges, teaching English to preschoolers can have profound and positive effects on language and cognitive development.

2.2. Formal vs. Fun English Teaching for Kids

Formal English teaching and fun English teaching for early childhood learners represent two distinct approaches, each with its own advantages and drawbacks. Formal English classes typically follow structured lessons, focus on grammar and vocabulary, and may rely on traditional teaching methods. Although this approach provides a solid foundation of language skills, it may not be appealing to young children and may not take full advantage of their natural curiosity and playfulness.

On the other hand, fun English teaching focuses on creating an interesting and interactive learning environment that meets the unique characteristics of preschool learners. These often include games, stories, songs, audiovisual media, and hands-on activities that make language learning a more fun and memorable experience. For example, instead of formal lessons about colors and shapes, a fun English lesson might include games in which children identify objects of a certain color or create projects. Art projects use English vocabulary, making learning through play an integral part of the program (Kolarska & Lyubomirova, 2020; Pawlak, 2021).

One advantage of formal English teaching is that it can provide a structured and systematic approach to language acquisition, ensuring that children receive a comprehensive understanding of grammar and vocabulary. However, it may be less engaging, and younger learners may find it difficult to maintain concentration during long periods of instruction (Fox et al., 2019). In contrast, fun English teaching fosters enthusiasm and a love for language, as learning is intertwined with enjoyable activities. For example, learning about animals might involve singing a song about different animals and their sounds and the pronunciation of certain words, making the lesson memorable and engaging (Zou, 2020).

The disadvantage of formal English lessons is that the language-learning process can feel tedious, leading to resistance and a lack of interest in learning. Fun English lessons solve this problem by incorporating activities that encourage exploration, creativity, and play, such as building structures using blocks while practicing English vocabulary related to shapes and sizes. The informal and fun nature of these activities can help keep children motivated and eager to learn (Zou, 2020). However, a potential drawback is that it does not provide the same in-depth and structured language foundation as formal education.

Both formal and fun English teaching approaches have their merits and challenges when it comes to early childhood learners. Formal classes provide systematic and comprehensive language instruction but may lack motivation to learn. Fun classes, on the other hand, emphasize fun learning experiences but may be less structured. The key to effectively teaching English to young children is finding a balance between the two approaches and leveraging the best of both to create a balanced learning environment (Mohd Arif et al., 2019). By combining formal instruction with fun and interactive activities, educators can help young learners acquire language skills while fostering a genuine love for English.

2.3. Developing Innovative English Learning Media

Creative and innovative learning media play a pivotal role in supporting children's English language learning by making the process engaging, interactive, and effective. Such media cater to children's unique characteristics, including their innate curiosity and love for exploration and play. Interactive apps and digital platforms, for example, can provide a dynamic and adaptable learning experience. These platforms often incorporate games, quizzes, and animated characters, fostering an enjoyable and self-paced approach to language acquisition (Putra, 2023). For instance, a well-designed app might gamify English lessons, where children earn rewards or progress through a storyline as they master new vocabulary and concepts.

Storytelling is another creative way to capture children's imagination when teaching English. Interactive e-books or pop-up storybooks provide an immersive reading experience where children can engage in the story through touch, sound and animation. These digital tools often allow children to click on objects or words to hear their pronunciation and discover their meaning. By combining technology and storytelling, children not only learn English but also develop a love of literature and storytelling, which are essential cognitive and linguistic skills (Kurniawan, 2021).

Incorporating multimedia elements into learning media can enhance children's understanding of English. Visuals can be used to illustrate complex concepts or introduce cultural aspects of the language, helping children grasp the context and nuances of English (Wong et al., 2021). For instance, pictures, cartoons and any similar elements featuring children from different parts of the world speaking English can teach not only the language but also promote cultural awareness and appreciation. Moreover, multimedia can serve as a valuable resource for educators

to convey pronunciation, intonation, and context more effectively than traditional methods.

Creative and innovative learning media bring countless benefits to children learning English. They respond to children's developmental characteristics by providing interactive and engaging experiences (Alwasilah, 2019). These media include interactive applications, storytelling applications and multimedia elements, all of which enrich language acquisition by making learning fun and engaging. When used effectively, these learning tools can foster a lifelong love of English and support children on their language development journey.

3. METHOD

This research uses classroom action research by applying the Kemmis and McTaggart (1988) model. This model is often quoted in books and articles and consists of four stages: plan, act, observe, and reflect. The research consisted of 2 cycles, each cycle consisting of 2 meetings.

This research was carried out at Compassion Preschool (name disguised) in Salatiga, Indonesia. The class used to conduct research was Kindergarten A class, consisting of 5 children with an age range of 3–4 years.

Cycle 1 and Cycle two have similar stages to do. Researchers started by planning the lesson. The activity is carried out by implementing a QR Book Pop-Up Book with the aim of being able to increase children's English vocabulary. This first cycle was carried out with an opening from the preschool teacher and core activities from the researchers. Class actions are carried out in accordance with planning, starting from opening activities to core and closing activities, in accordance with the plans that have been prepared. Learning in this core section uses the Pop-Up QR Book as the main learning medium that introduces English vocabulary to children. In this action section, the researcher focuses on fun learning through the storytelling method using Pop-Up QR Book media.

At the observation stage, researchers collect data using instruments that are used to assess the situation, process, results and obstacles experienced when carrying out activities. Researchers used anecdotal notes to describe all the situations that occurred when implementing the Pop-Up QR Book learning media. The data collected in the observation section will later become material for analyzing the achievement of vocabulary mastery. The last stage is reflection. The researcher reflects on the activities that have been carried out and as improvements for implementing actions in the next learning cycle or as a reference for developing English language learning in the future. Fig. 1 shows the process of classroom action research in simple visualization.

Data collection uses observation techniques by observing ongoing activities. Activities are carried out according to needs by looking at the achievement of objectives. The results of observations are recorded in anecdotal records that summarize events or processes that are important to be used as material for analyzing the development of children's English language skills in terms of vocabulary recognition.

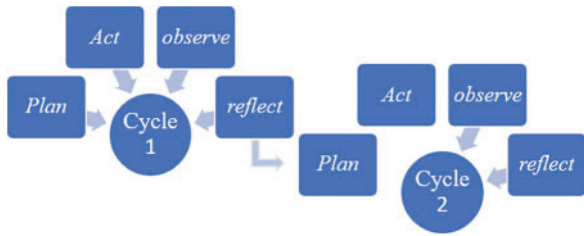


Fig. 1. Classroom action research stages (Kemmis & McTaggart, 1988).

To analyze the data in this classroom action research, there are 4 criteria related to children's vocabulary recognition abilities using the Pop-Up QR Book learning media as a reference. These criteria include the child's interest in the media, the child's level of ability to remember the vocabulary presented, the child's level of understanding regarding the meaning of the existing vocabulary and the activeness of learning English with the media used. Each criterion is assessed with indicators that appear and have not yet appeared. The final calculation of the collected data is by calculating percentages, where the obtained score is a comparison of the data score with the ideal score.

4. FINDINGS AND DISCUSSION

4.1. Need Analysis of English Learning at School

At Compassion Preschool itself, from the results of interviews with the teaching staff, researchers said that there was still very little English language learning due to several factors, so there was a need to develop needs there. First, there is a lack of teacher skills in teaching complex English. Teachers are still limited in their ability to teach basic vocabulary that they know. Not much English vocabulary can be presented due to limited abilities. Teachers are also still limited to the use of general greetings such as 'thank you', 'see you', 'sorry', and various simple daily expressions that are often used.

Second, teachers are not used to consistently allocating English language learning materials in schools. English language learning at school is only carried out as needed and if conditions permit, such as learning material that can be delivered, including if teachers who can speak English are not busy with daily activities in class or other non-learning activities. Thus, it is clear that the consistency of providing English language learning services at school for children aged 3–4 years is still relatively low. Then, the lack of learning media that can support basic English learning in these schools also plays a role in the less-than-optimal learning of English in these schools.

Several things that are still considered inadequate are among the reasons why English is not taught optimally in these schools. From the need for personnel in teaching to learning media, Compassion Preschool still needs to make improvements so that it can improve children's English language skills and be able to compete with schools in the surrounding area. The presentation of Table I makes it easier to understand the need for English language learning in schools.

TABLE I: NEED ANALYSIS OF ENGLISH LEARNING AT SCHOOL

Obstacle	Level (%)	Need
Vocabulary	15%	Vocab. teaching list
Pronunciation	40%	Pronunciation audio aid
Learning media	35%	Fun & attractive media
Learning schedule	10%	Regularly schedule

4.2. Pop-Up QR Book Implementation in Learning Cycles

The initial activities were in accordance with the planning and agreement with Compassion Preschool, where the initial opening activities were carried out by the teacher, and then the core activities were handed over to the researchers. Every day's opening begins with morning exercise with Kindergarten A and Kindergarten B and then entering their respective classes. In this first cycle, there were 5 children from Kindergarten A, but only 2 went to school, namely Student 2 and Student 3. To start the activity, the children sing along with the song "Baby Shark". Next, the researcher started telling stories using the Pop-Up QR Book learning media. In entering this initial activity, the researcher began to show the contents of the existing Pop-Up QR Book.

Seeing a book with interesting pictures, Student 2 and Student 3 started to approach and listen carefully. The researcher tells stories and invites children to actively interact. "Today, we will listen to the story of a trip to my grandparents' house. Is the book good or not?" Student 3 answered, "Good." The first part of the book that is told is about the house and the city. When they saw and heard the first story, Student 2 and Student 3 approached and pointed to the pop-up part of the book. Then the researcher said, "Well, try it, kids. Do you know if there's a sound? We can listen to the sound. Later, big brother, we'll use a cell phone so we can hear the sound in this book. Who wants to hear?"

Simultaneously, Student 2 and Student 3 raised their hands excitedly to hear the QR voice on the Pop-Up Book. The researcher then scanned the first story. In the first story, the word "rumah" (Indonesian term for house) or "house" in English is emphasized. After the QR Code voice was finished, the researcher again emphasized the word "house" to Student 2 and Student 3. With embarrassment and a small voice, Student 2 said, "house". Student 3, who actively moves a lot, also says "house".

Researchers also asked questions about what the story was about. Student 3 actively answered, "House, dog", by pointing at it. Continue to the second page of the story, namely "city". The researcher asked the trigger question, "Wow, look, what is there here?" Student 3 answered, "There are people on motorbikes." Student 2 answered, "There is a way." Then QR sound plays then Student 2 and Student 3 listen while saying the word "city". Then we all clapped because Student 2 and Student 3 today were great. Then, the researcher continued with the next story: Justin had arrived at his grandparents' house. Student 2 and Student 3 noticed and immediately became curious until they sat too far forward, close to the researcher. Look at this page for anything you can think of. Student

TABLE II: THE RESULT OF POP-UP QR BOOK IMPLEMENTATION—CYCLE 1

Student	Students' development by implementing media				Total score
	Attracted	Active	Remember	Understand	
Student 1	0	0	0	0	0%
Student 2	1	0	0	1	50%
Student 3	1	0	0	1	50%

3 answered, “*There is a kale.*” Student 2 answered, “*There are chickens.*” Then the researcher played the QR sound by inviting Student 3 to try accessing the QR accompanied by the researcher. A voice had sounded while saying the words “*grandparent's house*”. The researcher asked Student 2 and Student 3 a question: “*Who likes going to their grandparents' house?*” Student 3 answered, “*That's Uti,*” because Student 3 takes his ‘Uti’ (Javanese term for grandmother) every day to school. Student 2 answered, “*Kakung (Javanese term of grandfather) at home*”. Then, the children rested and ate lunch together. After that, it was time to go home. The researcher carried out a recall of today's learning activities and asked, “*What have you learned?*” Student 3 answered, “*Home story.*” Student 2 answered, “*To the city, to my house.*” Researchers invite children to remember and repeat the words “*house*”, “*city*”, and “*Grandparents' house.*” Time is over and ready to go home.

In this first cycle, several aspects of assessment can be seen and emerge, such as children's interest in media. Even though the child's understanding is still limited, the child can understand what is being studied. Children are active because they have been interested in books from the start. I am starting to want to get closer to looking at the learning media book. Actively points to whatever is on the page, understanding that it is the house, town, and grandparents' house. Based on the data analysis in this section, it shows that research arguments from Zou (2020) and Kurniawan and Tanone (2018) seem to be relevant. Creative and innovative learning media and activities directly motivate students to learn more and pay more attention to the lesson. Student 2 has a total score of 50%, and Student 3 has 50%. The score is the same because the child does not fully remember the English vocabulary in the book. Thus, researchers still need to provide direction regarding this so that the objectives can be achieved. For future reflection, researchers will repeat words so that children can record their memories well. Table II shows the data gathered in cycle 1.

The next activity in cycle 2 continues Justin's story. Before continuing, the researcher reviewed the first pages of the book so that children could easily remember them. On this day, 3 children went to school, namely Student 1,

Student 2 and Student 3. Because Student 1 was not present in the first cycle, the researcher repeated the first story. Student 3 excitedly said, “*Home.*” Student 2 said, “*There is Mr Ibuke (There are a man and woman).*” Researchers asked children to name one English vocabulary word at a time in the book. Then, the next story continues, where Justin is invited to the farm in his grandfather and grandmother's village. Student 3 said, “*Wow, there is a tractor.*” Student 2 said, “*There is a cow.*” Student 3, while standing, pointed to “*The clouds are cloudy.*” Student 1 sat quietly, watching. The QR sound is played, and the children listen to it and say “*farm.*” In turn, the children are asked to say the word “*farm.*” Then, the next page is about going to the beach. The researcher asked, “*Who has ever been to the beach?*” Everyone raised their hands enthusiastically. Student 2 said, “*There are crabs.*” The QR sound is played, and the children listen while wanting to hold the pop-up image on the book. Then, the researcher invited everyone to say “*beach.*” After that, the researcher reviewed it quickly, and the children imitated the researcher.

When it was time to rest and eat, it was time to wash their hands and eat the snacks their parents had brought. After eating, as usual, the children played together in the playground area. Then, the bell rang signaling it was time to go home. The researcher reviewed today's study book. On the first page, Student 3 answered, “*House.*” Student 2 follows, “*House.*” On the second page, Mose answered first “*city.*” Student 1 is more silent and observes the surroundings. Student 3 stood up, jumped up and down and answered, “*City.*” Children can answer with a little help from the researcher. Table III show the data gathered in Cycle 2.

The reflection that can be given is the need for daily stimulation of language so that children remember it better. Today's children are enthusiastic about responding to stories in books. That is why innovative methods like storytelling with audio-visual supports still have the power to help children acquire and learn a language, as stated in Kurniawan's (2021) and Alwasilah's (2019) research. Student 1 got a score of 25% today because he was less active but willing to listen. Student 2 and Student 3 experienced improvement because it had been 2 days since they

TABLE III: THE RESULT OF POP-UP QR BOOK IMPLEMENTATION—CYCLE 2

Student	Students' development by implementing media				Total score
	Attracted	Active	Remember	Understand	
Student 1	1	0	0	0	25%
Student 2	1	1	1	1	100%
Student 3	1	1	1	1	100%

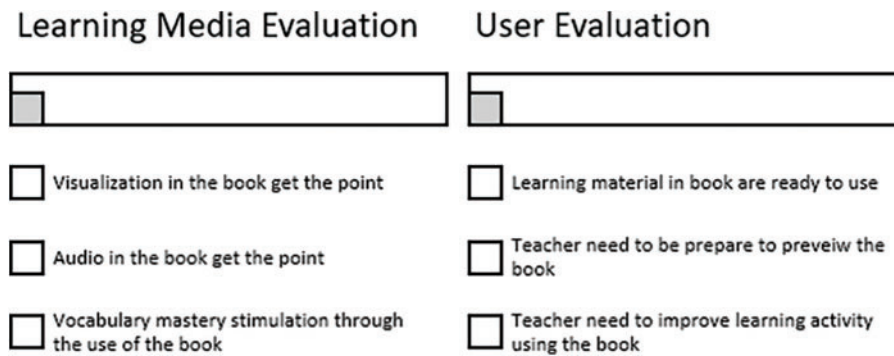


Fig. 2. Pop-Up QR book implementation evaluation.

had been given this story, so Student 2 and Student 3 remembered and were still interested in the pop-up book. Student 2 and Student 3 were also active in the discussion. This makes the goal achieved well for 2 English vocabulary words that can be remembered.

4.3. Pop-Up QR Book Implementation Evaluation

The implementation that has been carried out in the classroom action pattern is considered successful because, with the Pop Up QR Book media, the English language skills of children aged 3–4 years can be improved, shown by remembering and understanding two vocabulary items progressively. Apart from the results in the form of improving language skills, the implementation of this learning media also has an impact on children's learning behavior, namely growing enthusiasm, and motivation to learn, which is shown in engagement in teacher-guided learning. From the user's perspective, this Pop Up QR Book media can be used easily but requires special preparation for the correct pronunciation of each English vocabulary, which is the core of learning so that the teacher's pronunciation will be in line with the audio available in the learning media. Preparations also need to be made, including mastering the storyline and creating activities that need to be prepared so that this media can be used effectively and interestingly. In general, Fig. 2 shows the results of the implementation evaluation.

In implementing media in learning, there was no need for adjustments in terms of layout or content. Therefore, this media can be used as a reference for learning English at the vocabulary level and can be used according to the creativity of learning development by teachers/parents or children's learning companions.

5. CONCLUSION

Based on the discussion and research results, it can be concluded that the Pop Up QR Book "Trip to Grandparents' House" is very good to use as a medium for learning English vocabulary for children aged 3–4 years. This media has been implemented in classroom action research on 3 out of 5 students aged 3–4 years. The implementation results show that the 'attractive' criteria were achieved by all students. The active, remember and understand criteria were achieved by 2 students. Two students showed progress in vocabulary mastery, while one student was still in the

process of being involved in learning, which was considered enjoyable. From the results of this study, this media has advantages, including being able to increase children's interest in learning (attracted criteria), QR Code technology that is easy to use, QR Sound English vocabulary that is easy for children to understand and also has very good effectiveness in learning success of children in terms of language.

However, research has limitations, namely, the implementation of media in learning is limited by time. For further research, this media can be implemented in classroom learning that is more structured and has sufficient time duration. This research was also only attended by limited students as part of this research so that the results of this research can be used as a learning reference, but a broader review is needed if generalization of the results is to be carried out.

The development of the Pop-Up QR Book as a medium for learning English vocabulary for children aged 3–4 years is very good and interesting to continue to develop for higher age levels, or books with other themes so that the learning medium continues to be able to compete with the rapid development of technology at this time. Specifically referring to the results of media evaluations, when using this media, teachers, parents, or media users need to master the vocabulary so that it is in harmony with the audio provided. Users can also design accompanying activities using this learning media so that children's English learning will be more meaningful.

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CONFLICT OF INTEREST

The authors declare that they do not have any conflict of interest.

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