

Research Article

Using the Reading Eggs Application as a Support Teaching-learning Using Technology in Reading: Teachers' Perspectives

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Abstract.

In today's digital age, teaching how to read using technology offers a transformative approach to literacy education, enhancing student engagement, comprehension, and mastery of foundational reading skills. This research investigates the experience of Reading Eggs Application as a support learning Program for teachers in SIS Semarang. SIS Semarang is an Apple school in Semarang. Teachers at SIS Semarang are required to implement lessons using Apple devices. This study aims to examine how Reading Eggs supports primary teaching-learning activities. This study used qualitative methods. English teachers from the primary department were selected to participate in this research. Data collection was using online questionnaires through Google Forms and interviews. Content analysis was used for analyzing the data. The result of this study indicated that all participants had progressive insight into the Reading Eggs Application in supporting teachers' teaching-learning programs. According to certain data, teachers think that Reading Eggs cannot replace the main material in learning even though the contents of Reading Eggs are excellent. Some data shows that a few teachers find it a little difficult to learn technology for implementation in the learning and teaching process. Reading Eggs is a helping tool for teachers to find fun activities and improve their skills in using technology.

Keywords: Reading Eggs, reading, teaching-learning program, teachers perspectives, technology

1. Introduction

In today's rapidly evolving world, technology has become integral to every facet of human life, transforming how people live, work, and communicate. With the rise of artificial intelligence and automation, technology is not just a tool but a driving force shaping the future. As it breaks down geographical barriers and increases efficiency, technology empowers individuals and societies to reach new heights. However, along with its benefits, the rapid pace of technological advancement brings challenges related to privacy, ethics, and equity, which are vital to address in the pursuit of a balanced, sustainable future. The incorporation of digital technologies in education is now a

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necessity, as it plays a crucial role in preparing students with essential 21st-century skills like critical thinking, teamwork, and digital literacy [1].

During the COVID-19 pandemic, technology played a pivotal role in enabling remote work and online education, significantly reducing the impact of social distancing measures on daily life. In this case, education is one of the institutions that has been forced to use technology. To meet educational needs, the teaching and learning process involves the transfer of knowledge from teachers to students [2], [3]. It encompasses various components, including the educator's role in identifying and setting learning objectives, developing teaching materials, and implementing effective teaching strategies. Teachers who used technology as a support before the pandemic then had to rely on it as the primary means of learning during that time. Teachers flocked to understand and optimize their use of technology. Various platforms were used to ensure that students at home could continue learning, even while in quarantine. Furthermore, digital technologies have significantly transformed the teaching-learning environment.

As UNESCO (2020) highlights, integrating technology into education has the potential to enhance the accessibility and quality of learning, fostering inclusivity and engagement across diverse educational settings. Modern pedagogies increasingly emphasize blended and technology-enhanced learning, where students actively participate in their learning through digital tools, facilitating both in-person and remote education [4]. From this experience, teachers realized that technology is not just a backup but a necessity. To promote active learning, teachers sought various ways to prevent students from feeling bored during online lessons. However, this habit has carried over to offline activities. Children accustomed to using gadgets tend to feel more engaged when learning with them. As a result, researchers have conducted studies on the role of technology in the teaching and learning process. The United Nations' Sustainable Development Goals [5] agenda includes achieving educational equality, as outlined in Goal number 4. The aim is to ensure inclusive and equitable quality education for all. Digital technology has emerged as an important tool in achieving this goal. Technology can provide wider access to educational resources, bridge gaps between different regions or social groups, and help reach students who may otherwise be excluded from traditional educational systems. In essence, technology has become a crucial tool in making education more accessible, equitable, and efficient for learners worldwide.

Teaching using technology refers to a specific instance or example where technological tools are integrated into the teaching and learning process. Many teachers use applications to be a medium in their teaching-learning activities, such as Quizziz,

Duolingo, Kahoot, and others. In this article, the researcher chose Reading Eggs to be the subject of the research. Reading Eggs is a subscription-based digital literacy platform designed to improve the reading skills of children aged 2 to 13. The program is developed by 3P Learning (Personalization, Participation, and Knowledge Pull) and offers five modules tailored to specific age groups. Reading Eggs can be an effective medium to assist teachers in the classroom by providing interactive and engaging literacy resources. Reading Eggs supports core literacy teaching based on the five essential pillars of reading: phonics, phonemic awareness, vocabulary, comprehension, and fluency[6]. In a previous study exploring the effects of the Reading Eggs program on reading development in elementary students, Lowery (2017) conducted an action research project with two 2nd-grade classrooms at Fairfield Magnet School for Math and Science in South Carolina. The treatment group participated in a supplemental Reading Eggs intervention for at least 60 minutes per week over six weeks. The findings revealed that the program significantly improved reading proficiency. The percentage of students reading below grade level in the treatment group dropped by 19%, while the control group saw no change[7].

For a digital transformation to be successful, schools must enhance their digital capacity by developing the essential culture, policies, infrastructure, and digital skills of both students and staff. This ensures the effective integration of technology into teaching and learning practices[8] Without these foundational components, the potential of digital tools, such as educational applications, may remain underutilized or ineffective in achieving desired outcomes in education.

Recognizing the importance of these factors, the researcher has chosen to investigate the role of the Reading Eggs application in enhancing literacy instruction. This study explores how Reading Eggs, a widely used digital platform, can support teachers in creating an engaging and effective classroom environment for reading instruction. By understanding the program's potential and its alignment with the evolving digital landscape, the research aims to provide insights into its practical benefits and implementation strategies.

The central questions guiding this research are: (a) How can Reading Eggs serve as a medium to help teachers in the teaching and learning process within classrooms? (b) What challenges do teachers encounter when integrating the Reading Eggs application into their reading instruction? (c) In what specific ways can Reading Eggs support teachers in delivering effective reading instruction? Addressing these questions will shed light on the application's strengths and limitations, offering valuable recommendations

for educators and schools aiming to integrate technology into their reading programs effectively.

2. Methods

This study used qualitative methods, and English teachers from the primary department were selected to participate. Qualitative research primarily adopted an inductive approach regarding the connection between theory and research, focusing on the development of theories. The participants in this study were selected through a non-probability sampling method[9]. Case studies generally involve a small sample size to explore a real-life event rather than to draw statistical conclusions about the broader population. The subjects of this research were English teachers from SIS Semarang. Singapore Intercultural School (SIS) Semarang, a prestigious educational institution located in Semarang, Indonesia, adopted a tri-curricular approach to the Singaporean curriculum for its primary and secondary education programs. This curriculum focused on three domains of learning: Life Skills, Knowledge Skills, and Subject-Based Learning to ensure students acquire the knowledge and values necessary for the 21st century. This study aimed to explore the perspectives of teachers on the use of the Reading Eggs application as a support tool in the teaching-learning process for reading instruction. It focused on gathering insights from elementary school teachers who had incorporated the Reading Eggs program into their reading curriculum. Specifically, it examined how teachers perceived the application's effectiveness in improving students' reading skills, its ease of integration into the classroom, and its impact on student engagement. The data was collected through semi-structured, in-depth interviews.

3. Result and Discussion

Teachers at SIS Semarang understand that the school supports the Sustainable Development Goals program on Quality Education. Because of this understanding, teachers were expected to optimize the use of technology in teaching and learning activities. Most of the teachers could use technology in the classroom, and they felt comfortable using it.

The qualitative analysis of the data gathered from teacher interviews and open-ended questionnaire responses revealed several key themes related to using the Reading

Eggs application as learning support. Teachers in SIS Semarang are qualified as Apple teachers, and using Apple devices is a requirement.

The researcher used a questionnaire to ensure that teachers at SIS Semarang used technology in their teaching activities. There were five questions in the questionnaire that needed to be answered. All teachers stated that they had their gadgets and used them for teaching. Reading Eggs was mentioned in the list of applications used in teaching. The next question was about the availability of gadget access for students in learning activities. They answered that students had access to gadgets at school with adequate internet facilities. The last question concerned the willingness of teachers to conduct more in-depth interviews about the use of technology in learning, especially Reading Eggs.

This section presents the findings from interviews conducted with five elementary school teachers. The interviews explored their experiences and perspectives on using the Reading Eggs application in their classrooms.

3.1. Technology Plays an Important Role in Education

From the results obtained, the teacher explained that technology was very important to apply in learning. It helped students to explore vast amounts of information, collaborate with peers across the globe, and engage with interactive tools that made complex concepts easier to understand. The existence of technology means that it is a way to increase the usefulness and efficiency of knowledge[10]. However, one stated that technology had to be balanced with traditional teaching methods so that students could also develop critical thinking, communication, and social skills. SIS Semarang, which was part of the SIS Group of Schools, implemented technology in the teaching and learning process to support the SDG on Education Quality. Teachers were equipped with adequate devices that were expected to optimize the use of technology. SIS Semarang also prepared five iPad carts, each consisting of 25 iPads, which students could access at any time. SIS Semarang is an Apple School, with all teachers achieving Apple certification. Apple School refers to educational programs, resources, and tools provided by Apple designed to support schools in integrating technology into teaching and learning environments. It encompasses various initiatives and products to help educators and students make the most of Apple devices like iPads and Macs in the classroom. Teachers said that iPads and MacBooks are good devices for technology

applications. Apple devices, especially iPads, provide many fun applications for students. In addition, Apple provided professional development programs and workshops for teachers, helping them to use Apple technology effectively in the classroom. This training can include lessons on incorporating apps, digital tools, and project-based learning strategies. They said they encourage teachers to implement and integrate lessons using Apple Devices. The benefits of using Apple Devices are to help Increase student engagement, learn important skills such as collaboration and presentation skills, work with various types of media, and solve complex problems. Students moving at their own pace means no one is held back by their peers, and no one is pulled along by their peers whether they are ready or not. Improving students' digital literacy and digital citizenship [11].

3.2. Experience in teaching Reading using Technology

The use of technology in Indonesian education provided various benefits, including improving learning efficiency, enhancing educational accessibility, and enabling distance learning [12]. This question about experiences in technology was well-received, as respondents appeared excited to answer. Most of them shared the different applications they used for teaching and learning. The list of applications used included Reading Eggs, Canva, Seesaw, and Kahoot. Most of the respondents stated that Canva made it easier to deliver lessons and made them more interactive, while Reading Eggs was an application that helped students improve their reading skills. Seesaw is an application that is only used to make learning more effective. Teachers can create various worksheets and can upload them. Seesaw can be used as a paperless learning medium. Kahoot is designed to make learning fun by turning quizzes into competitive games. Players earn points based on the correctness and speed of their answers, and Kahoot is game-based learning. In detail, teachers have a unified opinion that Reading Eggs helped the students to read better for lower primary students and better comprehension for Upper Primary students. Reading Eggs is a suitable application mentioned by the respondent.

3.3. Training in Maximizing the Technology

Qualifications for professional teachers must have four pedagogical competencies: personality competencies, social competencies, and professional competencies. Professional competence is required to have qualified knowledge and be able to keep

up with changes in science and technological developments. Changes in science and technology have significantly impacted teacher professionalism in carrying out teaching and learning [13]. In response to this question, teachers agreed that they had received training to apply technology in learning. This training was conducted internally by the school as part of a Professional Development event, which was held once every three months, and also through external training programs, such as Apple Training. In recent years, training has been conducted online or hybrid. Starting this year, training is conducted offline, as was recently conducted at the Jakarta Intercultural School on the use of applications on iPads. If the training was related to Reading Eggs, teachers said that they only explored the platform by themselves. However, each school had an administrator who managed Reading Eggs, and teachers were free to ask questions at any time about the difficulties they experienced.

3.4. Challenges in Teaching Reading Using Technology

Teachers had many ways to make the class enjoyable. One of them was the use of technology. As a generation that had experienced many eras, using technology was a new challenge that they needed to master quickly. There are many challenges in using technology in the teaching and learning process [14], such as student distraction and technical issues. The following statement has been explained by the researcher to the respondents. Until now, there have been no significant obstacles because the teacher has disciplined the students when learning shifts from traditional to modern using technology. They said that they were explained the class rules for using the iPads in the classroom. The class was manageable. SIS Semarang also provided enough iPads for the students. While technology can make reading more engaging, there is a risk that students might become overly reliant on interactive or gamified elements, losing interest in traditional reading activities like books or written exercises, said one of the teachers. The students were more excited when teachers asked them to get the iPads and do Reading Eggs. In line with technical issues, teachers said that SIS Semarang is very responsive about technical issues like internet connection or device malfunction the IT department is very helpful.

3.5. Reading Eggs as a Medium to Support Literacy Awareness

Literacy awareness for students involves understanding the importance of reading and writing skills in everyday life. It encompasses recognizing how literacy affects communication, learning, and participation in society. One teacher mentioned that literacy awareness for young children starts with knowing the alphabet and understanding how words work. As they grow, they use these skills to learn more, communicate better, and understand the world around them. However, teachers face difficulties in teaching literacy due to language limitations, especially at the lower primary level. SIS Semarang is an intercultural school that includes students from various countries, many of whom are ESL and EFL learners. Another statement from the teachers said that those problems were brought to a conclusion after using Reading Eggs. Reading Eggs helped the students to learn at their own pace. Reading Eggs can be an effective medium to assist teachers in the classroom by offering interactive and engaging literacy resources. Reading Eggs supports core literacy teaching based on the five essential pillars of reading: phonics, phonemic awareness, vocabulary, comprehension, and fluency. “Reading Eggs is a great help!” said one teacher during the interview.

3.6. Lesson Integrating with Reading Eggs

Education in Indonesia continued to develop, including in terms of the use of technology in the learning process. Incorporating Reading Eggs into learning meant incorporating technology into education. At SIS Semarang, they used the Cambridge Curriculum for the Primary level. It would have been great if teachers could have integrated Reading Eggs with the curriculum, but most of them stated that Reading Eggs was a form of supplementary or reinforcement for English lessons and neither part of the curriculum nor a replacement for the worksheets.

3.7. Reading Eggs for Supporting Tools in Teaching

Reading Eggs is a comprehensive online literacy program designed to help children develop essential reading and comprehension skills through interactive activities, games, and lessons. It is particularly aimed at children aged 2–13, and it is widely used both in schools and at home to support early literacy development. This statement is supported by all English teachers who use Reading Eggs in their teaching-learning

activity. Many schools, especially those with ESL (English as a Second Language) or EFL (English as a Foreign Language) students, use Reading Eggs as a supplemental resource to support literacy programs. While it may not always be a part of the formal curriculum, it is often used to reinforce lessons, support individualized learning, and boost reading confidence. Integrating Reading Eggs with school curriculums can help teachers enhance students' literacy awareness and provide a rich, interactive learning environment. Teachers also stated that after using Reading Eggs, students understood the text better and were able to work more effectively according to their abilities. A teacher shared their experience about their students who managed to collect eight thousand Eggs (rewards).

4. Discussion

This study aimed to explore teachers' perspectives on the use of Reading Eggs as a supplementary tool in the teaching-learning program in SIS Semarang. Three main themes emerged from the interviews: the perceived effectiveness of Reading Eggs, challenges with integrating it into the curriculum, and the program's impact on student motivation. All the teachers agreed that reading Eggs is one of the best applications to support teaching-learning. Key Features of Reading Eggs to support teaching reading are :

- a) Reinforcement and Support: Reading Eggs offers reinforcement activities like quizzes and revision lessons to ensure that students retain the skills they've learned.
- b) Interactive and Engaging Content: The program includes a wide variety of activities, such as interactive games, songs, animations, and quizzes. This gamified approach makes reading fun and motivates students to keep progressing.
- c) Phonics-Based Learning: Reading Eggs uses phonics as a foundation for teaching children how to read. It systematically introduces letter sounds, sight words, and word families to build reading fluency.
- d) Comprehensive Reading Library: Reading Eggs offers a digital library filled with hundreds of books covering various genres and reading levels. This helps students develop a love for reading by giving them access to a wide range of texts.

However, similar to Lowery (2017) conducted an action research project with two 2nd-grade classrooms at Fairfield Magnet School for Math and Science in South Carolina. The findings revealed that the program significantly improved reading proficiency. This means that reading Eggs also helped the students and teachers.

5. Conclusion

Reading Eggs provides a highly adaptive and personalized learning experience that caters to students with varying abilities. Its design ensures that learners receive content and activities suited to their skill levels, promoting gradual and effective literacy development. This adaptability is especially important for young learners, as it enables them to progress at their own pace, building confidence as they master foundational skills. By addressing diverse needs, the program helps bridge gaps in learning and ensures that no student is left behind, making it an inclusive and practical tool for educators.

The program's online accessibility offers unparalleled flexibility, allowing students to learn anytime and anywhere, whether at home or school. This convenience is particularly beneficial in modern educational settings, where technology plays an increasingly important role in teaching and learning. Teachers can easily integrate Reading Eggs into their lessons, monitor progress, and provide targeted support, while parents can engage in their children's literacy journey from home. This dual support system fosters a collaborative learning environment that benefits all stakeholders, further enhancing the program's effectiveness.

By focusing on essential early literacy skills such as phonics, sight words, and comprehension, Reading Eggs equips young learners with the foundational tools needed for reading success. The gamified elements and reward system not only make the process engaging but also keep students motivated to continue learning. These features ensure that children view reading as an enjoyable activity rather than a chore, fostering a lifelong love for literacy. With its robust design and proven outcomes, Reading Eggs serves as a powerful resource for teachers seeking to optimize the use of technology in teaching reading to students.

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