FLIPPED CLASSROOM LEARNING DESIGN USING SI RACA APP: HOW IS STUDENTS' READING SKILL?

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Keyword	Abstract
Flipped Classroom, Si Raca App, Reading Skill	*Early reading is the main way of knowledge for primary school students. Therefore, students have to be provided various reading materials which are available and make them feel comfortable in learning to read. The aims of this study are 1) to investigate flipped classroom learning design using Si Raca App in the early reading at primary school; 2) to investigate students' reading improvements when it has been implemented. This study implements qualitative research in form of classroom action research. The research subjects are first grade students with total of 36 students. This study had been conducted in the even semester of 2022-2023 at MI Muhammadiyah 22 Sugihwaras, Bojonegoro, Indonesia. Research instruments are in forms of reading test questions. Data is collected using test method. It is analyzed using descriptive comparative technique and critical analysis technique. This study concludes that first, flipped classroom using Si Raca App is designed by collaborating flipped classroom model and Si Raca App. This design is implemented in treatments of cycle 1 and cycle 2. It is started from students' and teacher's activities before learning, whilst learning, and after learning. Second, there is an improvement in the percentage of completeness in early reading of primary school students. It can be viewed from the completeness percentage in cycle 1 is 77,77%. In cycle 2, it is 91,66%. It means that the classical completeness has been fulfilled in cycle 2*

INTRODUCTION

Reading is an ability in translating words to obtain information through written texts (Hasanudin & Fitrianingsih, 2020). It is also considered as a skill in building connection between reading material and previous knowledge standards (Din, 2020). In Pfost et al. (2019), several linguists argue that reading is learning process starting from childhood which will last for a long time. It makes almost all children in the world need reading skill that is taught in formal education (Igarashi & Suryadarma, 2023). Therefore, reading is not only a skill to process writing to obtain information; it is also an important part of education, especially at the early stage students.

Reading skill is closely related to communicative competence which is able to improve students' speaking and writing skills (Kaowiwattanakul, 2021). Nation (2019) states that reading skill involves cognitive process and linguistics ability, so reading comprehension is considered as a complex task. However, in other study, it is considered as a skill with low level of fluency caused by several factors such as the absence of cognitive skill and loss of motivation to read (Pulkkinen et al., 2022). Based on previous ideas, reading skill should be important component to develop students' communicative competence. On the other hand, it can be said to be difficult to master and have low level of fluency because students have no motivation in the beginning of learning.

Initial motivation in the teaching and learning process can be provided using educational innovation. It can be in form of teaching materials, learning models, and varied learning designs. The learning design is able to give concrete evidences on students' behavioral changes and

learning outcomes (Rienties & Toetenel, 2016) which becomes main focus because it is able to improve students' and teachers' motivation (Viberg et al., 2018). There are various types of learning design, such as flipped classroom which is stated to be an active learning design (Hasanudin & Fitrianingsih, 2018) and has been proposed many times because it is considered to encourage and support teaching and learning process in the classroom and out of classroom (Lo et al., 2017).

Flipped classroom is learning design which has been emerged lately with a concept of learning that can be accessed out of classroom in which students' understanding are based on their own thinking (O'Flaherty & Phillips, 2015). Akçayır & Akçayır (2018) consider it as popular learning design which involves teacher in all of students' learning activities, such as discussion, direct activity, and problem solving. Flipped classroom has been built with a mixed concept of traditional learning and distance learning (Thai et al., 2017). It can be said that flipped classroom belongs to new learning design which is popular because it makes learning to be acceptable for students from outside of classroom. It makes teachers to be involved in all students' activities in traditional and distance learning.

In spite of being popular learning design, flipped classroom is able to provide positive impact for students' learning. It is an approach which make teacher and students to be the center of learning, so it creates dynamic and personal teaching and learning process (Munir et al., 2018). It is proven to be able to produce effective interaction and practice between teacher and students (Lai & Hwang, 2016), so the learning sources can be utilized easily in the teaching and learning process (Arianti et al., 2020).

In recent studies, flipped classroom has a significant impact on educational development. Gilboy et al. (2015) discuss flipped classroom in their study. Its results reveal that 142 students prefer flipped classroom learning because it gives positive impact on learning process. Its scope is very broad, so it is not detail enough. It only focuses on an object of teaching reading skill. Betihavas et al. (2016) conduct a research related to flipped classroom in teaching and learning process. It makes students to be actively involved in learning process, so they achieve good academic scores. It focuses on nurse education, while this study focuses on teaching reading skill. Moreover, that research finds that flipped classroom needs further evaluation. In line with this, this study will bring a new concept of flipped classroom which includes teaching materials in form of Si Raca as reading app. It is supposed to maximize students' learning outcomes in reading. Si Raca is an acronym of *Aplikasi Terampil Membaca* (Reading Skill Application). The homepage of Si Raca App can be viewed in figure 1.

Figure 1. Homepage of Si Raca App

Based on results of previous researchs, reading skill is important for students and it provides positive impact when flipped classroom learning is implemented. Therefore, the researchers want to investigate the impact of flipped classroom learning design using Si Raca App on students' reading skill. This study implies two research problems, namely: 1) how is flipped classroom learning design using Si Raca App?; 2) is flipped classroom learning design using Si Raca App able to improve students' reading skill?.

METHOD

This study implemented qualitative research in form of classroom action research. The research subjects were first grade students with a total of 36 children. The object of this study was the result of students' early reading. This study was carried out in the even semester of 2022-2023 at MI Muhammadiyah 22 Sugihwaras, Bojonegoro, Indonesia. Research instruments were in form of reading test questions which could be viewed in table 1.

Table 1. Reseach Instruments

No.	Type of Question	Fluency	Accuracy	Pronunciation	Intonation	Score	Final Score	Explanation
1.	Reading syllables							
2.	Reading words							
3.	Reading sentences							
4.	Reading narrative texts							

Explanation:

$$Final\ Score = \frac{Score}{25\ (maximum\ score)}\ x\ 100$$

The assessment of fluency, accuracy, pronunciation, and intonation in reading was used Likert scale. It was started from score 1 which implied very not good, score 2 implied not good, score 3 implied quite good, score 4 implied good, and score 5 implied very good.

Data was collected using reading test method. It was analyzed using descriptive comparative technique and critical analysis technique. The descriptive comparative technique was utilized to compare students' scores for each cycle. The critical analysis technique was utilized to investigate the strengths and weaknesses of students' reading skill. The formula of descriptive comparative technique was as follow:

$$X = \frac{\sum X}{N}$$

Explanation:
X   = Average score
∑X = Sum of students' scores
N   = Sum of students' numbers (Hidayah & Novita, 2016)

After obtaining average class score, classical completeness score was obtained using formula as follow:

$$P = \frac{F}{N} \, X \, 100\%$$

Explanation:

P = Percentage score

F = Sum of students who obtained complete score

N = Number of cases (total of frequency or students)

Classical completeness was fulfilled when the percentage score was 80% (Hidayah & Novita, 2016)

RESULTS

There were two findings of this study. The first finding was related to flipped classroom learning design using Si Raca App. Second finding was related to the improvement of students' reading skill. Both findings were described as follow:

Flipped classroom learning design using Si Raca App had three learning stages, namely before learning, whilst learning, and after learning. Those stages involved students' and teacher's activities. It was an important unity in teaching early reading. Its implementation could be viewed in table 2.

Table 2. Flipped Classroom Learning Design using Si Raca App

Learning Stage	Teacher's Activity	Student's Activity	Flipped Classroom Implementation
First stage Before learning	- Reviewing teaching materials in Si Raca App - Asking students (parents) to download and install Si Raca App - Preparing emulator installation in laptop to run the application - Providing assignments for students to learn the menu of Si Raca App	- Downloading Si Raca App - Reading materials of Si Raca App - Raising questions through WhatsApp group when having troubles - Having independent learning anytime and anywhere before joining class	**F**lexible Environment (F)
Second stage Whilst learning	- Dividing students into small groups - Presenting Si Raca App using LCD Projector	- Having group discussion to share difficult parts to be read, so <u>they are active in building their own knowledge</u> - Having reading practice in front of class	**L**earning Culture (L)
	- Asking many things related to texts <u>to develop students' cognitive skill</u> after reading.		**I**ntentional Content (I)
Third stage After learning	- <u>Observing</u> students' reading - <u>Giving assessment</u>	- Reading texts from other references	**P**rofessional Teacher (P)

Learning Stage	Teacher's Activity	Student's Activity	Flipped Classroom Implementation
	- <u>Giving feedback</u> for today's learning - Inviting students to read texts from other references		

This learning design was implemented in the treatments for each cycle. Each cycle had stages of planning, acting, observing, and reflecting or analyzing. The stage of reflecting or analyzing was implementing actions for the next cycle. This study had two cycles which implemented flipped classroom learning design using Si Raca app. In the pre-action activity, direct instruction method was implemented. Students' reading scores in pre-action, cycle 1, and cycle 2 could be viewed in following tables.

Table 3. Students' Early Reading Scores in Pre-action Activity

Lowest score	60
Highest score	80
Total score	2765
Average score	76,80
Sum of students who passed the grade	22
Sum of students who did not pass the grade	14
Percentage of classical completeness	61,11%

In table 3, it could be said that the students' lowest score was 60 and the highest score was 80. In pre-action activity, there were 22 students who had passed the grade. There were 14 students who had not passed the grade of early reading. The percentage of classical completeness in pre-action activity was 61,11%. It could be concluded that pre-action activity had not been completed classically.

Based on scores and critical analysis in pre-action activity, cycle 1 had been planned for teaching of early reading. It included 1) implementing flipped classroom learning design using Si Raca App, and 2) three meetings had been planned in which one meeting was utilized to conduct early reading test. Students' early reading scores in cycle 1 could be viewed in table 4.

Table 4. Students' Early Reading Scores in Cycle 1

Lowest score	70
Highest score	85
Total score	2865
Average score	79,58
Sum of students who passed the grade	28
Sum of students who did not pass the grade	8
Percentage of classical completeness	77,77%

In table 4, it could be said that the students' lowest score was 70 and the highest score was 85. In cycle 1, there were 28 students who had passed the grade. There were 8 students who had not

passed the grade of early reading. The percentage of classical completeness in cycle 1 was 77,77%. It could be concluded that cycle 1 had not been completed classically. However, there was an improvement in which there were 8 students who had not passed the grade. It was lower than pre-action activity. Consequently, the cycle 1 had to be analyzed and reflected.

Based on the results of analysis and reflection in cycle 1, cycle 2 had been planned. It included 1) implementing flipped classroom learning design using Si Raca App, and 2) three meetings had been planned in which one meeting was utilized to conduct early reading test as in cycle 1, 3) teacher created small groups at home to read text in Si Raca App in which it had been supervised by parents, and 4) teacher monitored students' activity through WhatsApp group by communicating with parents. Students' early reading scores in cycle 2 could be viewed in table 5.

Table 5. Students' Early Reading Scores in Cycle 2

Lowest score	75
Highest score	90
Total score	2905
Average score	80,69
Sum of students who passed the grade	33
Sum of students who did not pass the grade	3
Percentage of classical completeness	91,66%

In table 5, it could be said that the students' lowest score was 75 and the highest score was 90. In cycle 2, there were 33 students who had passed the grade. There were 3 students who had not passed the grade of early reading. The percentage of classical completeness in cycle 1 was 91,66 %. It could be concluded that cycle 2 had been completed classically. However, there were still 3 students who had not passed the grade. In this case, they had a significant improvement from pre-action activity, cycle 1, and cycle 2. Consequently, the cycle 2 had to be analyzed and reflected.

Based on the results of analysis and reflection in cycle 2, it had been stopped. Based on the criteria used, the classical completeness had to be more than 80%. In cycle 2, it was 91,66%. So, it had been fulfilled. Moreover, the classical completeness of pre-action, cycle 1, and cycle 2 could be summarized in figure 2.
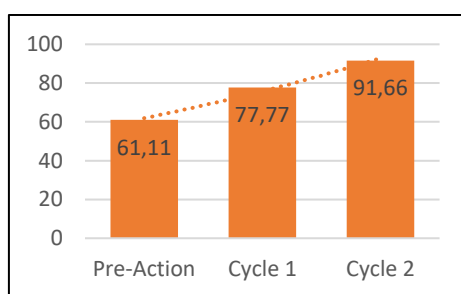

Figure 2. Percentage of Classical Completeness for Pre-Action, Cycle 1, and Cycle 2

DISCUSSION

Flipped classroom learning design using Si Raca App is designed by collaborating flipped classroom with Si Raca App. It produces a learning innovation in early reading at first grade of primary school. It is implemented in the actions of cycle 1 and cycle 2. Flipped classroom has ever been implemented by Chrismawati & Septiana (2021) using Microsoft Power Point and audio visual media; it improves students' learning outcomes. This research is conducted for 3 cycles

because the completeness of cycle 2 is still 77%. In this study, flipped classroom using Si Raca App has achieved its class completeness of 91,66. It is proven to improve students' reading skill faster than flipped classroom using Microsoft Power Point.

In this study, the improvement of students' early reading skill can be viewed from cycle 1 and cycle 2. In cycle 1, the percentage of its classical completeness is 77,77%. It has improved for 16,66%. In cycle 2, the percentage of its classical completeness is 91,66%. It has improved for 13,89%. These improvements are in line with Suriaman & Dewi (2019) who reveal that students' activities in the subject of reading for general communication which implement flipped classroom are improved in each cycle; it achieves successful indicators in cycle 3. Moreover, Suriaman & Dewi (2019) have used university students as the research subjects. In this study, students of primary school are the research subject. It has similarity in improving reading cycle for each learning cycle.

CONCLUSION

This study concludes that 1) flipped classroom learning design using Si Raca app is designed by collaborating flipped classroom and si Raca app. It is implemented in cyle 1 and cycle 2 which is started from teacher's and students' activities before learning, whilst learning, and after learning. 2) The percentage of classical completeness in early reading at primary school is improved. It can be viewed from the percentage of classical completeness in cycle 1 is 77,77%. It is 91,66% in cycle 2. The classical completeness has been fulfilled in cycle 2.

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