



How to Make Use of Animation to Improve Primary School Students' English Achievement?

Nurdyansyah Nurdyansyah¹, Vidya Mandarani²*, Pandi Rais³

¹Madrasah Ibtidaiyah Teacher Education Study Program, Universitas Muhammadiyah Sidoarjo, Indonesia, ²English Education Study Program, Universitas Muhammadiyah Sidoarjo, Indonesia, ³Faculty of Shariah, the State Islamic Institute of Kediri, Indonesia

One of the innovations in English Language Teaching is through the use of moving images. This research aims to investigate how animation contribute to the students' achievement in their English class. A classroom action research was applied with 39 first grade students involved. Observation sheet, test and documentations were used to collect the data. Three components (reduction activity, data presentation and interpretation) were used to analyze the collected data. The results indicate that the use of animation can significantly enhance lower class of primary school students' achievements in learning English. This can be measured through their average score improvement. This result suggests teachers use moving images in order to assist students' progress in learning English. This study implies that teachers should equip themselves with a skill to create fun classroom activities through animation.

Keywords: animation, English learning, students' achievement

INTRODUCTION

English language teaching gains its attention in every stage of education, specifically in Primary School, as it becomes basic knowledge for the next education stage (Jatmiko et al., 2018). The success of language learning in the stage is determined by some fundamental factors, such as student's competency and teacher's ability to teach and create a constructive and meaningful learning activities based on targeted objectives within the curriculum, saying "English language teaching in primary school aims to make students understand fundamental knowledge of English" (Nurdyansyah et al., 2019).

Education in Islamic Primary School (*Madrasah Ibtidaiyah/MI*) still face some following problems, specifically in English subject: (1) Students' low language proficiency; (2) Minimum awareness of English language for their futures; (3) Old-fashioned teaching method such as spoon-feeding lecture, question-answer and task giving; (4) Unstable approaches in practical learning activities, and (5) Text-book oriented material. In order to achieve its ultimate goal in education, Indonesia still has to struggle more in fixing many things within its giant system of education (Duckworth and Yeager, 2015). This is an obligatory step to deal by the government to show that they really mean to improve education quality. Indeed, the government has done some efforts such as: (1) Improving Islamis primary school teachers' competences from those who are only graduated from SPG (Teacher of Vocational High School) to Bachelor Degree of Islamic Primary School; (2) Giving non-degree training and workshops for Islamis primary school teachers, and (3) Developing curriculum for Islamic primary schools.

OPEN ACCESS

ISSN 2503 3492 (online)

*Correspondence:

Vidya Mandarani vidyamandarani@umsida.ac.id

Received: 10th December 2020 Accepted: 7th March 2020 Published: 1st April 2020

Citation:

Nurdyansyah N, Mandarani V and Rais P (2020) How to Make Use of Animation to Improve Primary School Students' English Achievement?. J. Eng. Educ. Society. 5:1. doi: 10.21070/jees.v5i1.365

The other problems faced in primary school is that students' understanding of English subject is still very low. This is partially resulted by inappropriate approaches of teaching for them, as learning English for children at first grade is not as same as in higher grades. This is due to their difference in physical and physiological development. English language teaching for first grade of MI focuses on the introduction to surrounding environment, climate change, as stated within K-13 curriculum. Practical problems faced by teachers in Primary School are in the developing and practicing of English, where it is so far only limited in the use of old-fashioned style of teaching: lecturing, question-answer, and task giving, instead of using more creative and full of joy media. This status quo impacts low-level competency among students is 44, while the minimum standard is 70. That is why the headmaster fully supports this study, hoping that English learning quality in the school can be significantly improved.

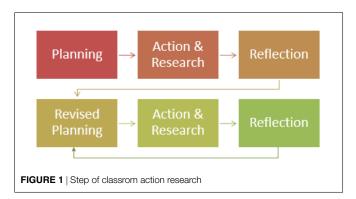
This research refers to outcomes from a study from Nurdyansyah et al. (2017) claimed that a technology and mediabased education is crucial in assisting learning process. A learning activity will become effective if assisted with media that are matched with learning aim in aim to minimize inhibiting factors within learning activities. In accordance with such result, it was clarified as well in (Huang et al., 2018), who stated that in attempt to support the development of learning mastery standard, medias are required in order to bolster education quality. According to these previous studies, this research then, will become a follow–up from media development in learning activity to become more effective, which is through the implementation of motion picture media in enhancing students' competency and achievement in learning English for 2^{nd} semester of 1^{st} grader in Primary School.

Based on the current problems, hence the study elaborates learning improvement using animation. The media display moving images in the form of various kinds of fruit with various colors so that students will more easily understand the difference of fruits and colors. Students also become very enthusiastic in participating in the learning process because they can immediately see fruit images that have various colors. So, they can distinguish fruit and color at once in one lesson. The media are chosen to improve students' achievements in learning English. Besides, it creates more active and joyful learning activity in the class.

METHODS

This research design is classroom action research with a descriptive qualitative approach. It was done through two cycles adjusted to time allocation and targeted basic competencies. Each cycle was done in two meetings. The steps are begun with preparation, field investigation (in the class), le Roux and Nagel's report and interpretation. Dasna (2008) stated that every cycle in classroom action research consist of four steps: (a) **Planning**, (b) **Action**, (c) **Observation**, and (d) **Reflection**.

Those steps are explained in Figure 1



The research takes place in one of Islamic primary schools in Pasuruan, East Java, Indonesia. The subjects are teacher (as researcher), first grade students that are 19 male students and 20 female students. Activities in cycle I and II are explained in detail as follows:

Planning

- 1. Constructing a lesson plan to be used in cycle I and II which consists of two meetings;
- 2. Preparing media or making moving images about fruits and colors in English (see **Figure 2** as the example);
- 3. Constructing test and exercise sheets according to the material given in cycle I and II related to the learning objectives;
- 4. Arranging observation guidelines to measure students' activeness in the class by implementing animation.



Action

The action in cycle I is done based on the lesson plan. In cycle II, researcher applies the revised lesson plan based on field experience in cycle I.

Observation

Before the action, an observation should be done. Researcher and his collaborator observed and noted every single event during the teaching and learning activity in the class in accordance with the guidelines. After observation, a small group discussion was done to elaborate the findings. The main focus in the observation is students' activeness and their learning achievements while learning climate change (indicators of rainfall and dry season) using animation media.

Reflection

Observation result was discussed among researchers and collaborator. At the end of cycle I and II, a comprehensive portrayal on how group learning can influence students' activeness and their learning achievements. The discussion reflected on what was happened during the application of lesson plan in cycle I and II, and if students' average scores are still under the minimum criterion after cycle I, then it continues to cycle II.

Data Collection Technique

Technique to collect data in this research consisted of some following steps: 1) Observation, it was done along with the implementation of lesson plan, accompanied by collaborator. The data was processed by comparing students' who passed the minimum standard with the rest of students who did not, and 2) T-test, which is carried through comparison result of both pre and post-test that further will be observed for its significance in a percentage form. Rusnayati and Prima (2011) defined it as set of questions or exercises or any other instruments used to measure skills and knowledge of person or group. In this study, test is used to measure and compare students' achievement before and after treatment (Kewajiban et al., 2018). It is also used because of its level objectivity, and the study tends to free students in answering questions based on their thought.

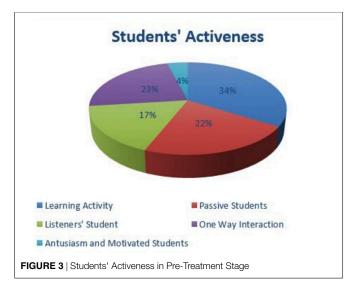
Data Analysis

Data reduction technique is used to analyze the collected data. In this step, data containing students' activities from each cycle is analyzed through its average. Besides, students' achievements are measured through its average. Analysis results are explained in the form of data. It is an effort to present the data clearly and easily as narrative, graphic or other form. The next step is interpretation and conclusion. This step is how the researchers picks the core of the presented data which had been organized in sentences or short expression with holistic meaning.

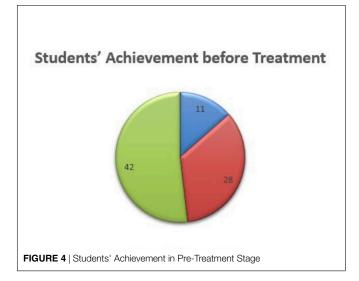
RESULTS AND DISCUSSION

Preliminary Stage

In accordance with this first observation result, the pretreatment was used as basic data and foundation to arrange next treatment in Cycle I. Learning process seemed to be less active and students did not totally engage to the lesson as there were no remarkable activities projecting to an active learning. Students were just receiving material through lecturing so that no one of them initiates the learning. The learning seemed to be monotonous and not able to trigger students to be active. They were just listening to the given information in a one-way interaction.



According to **Figure 3**, only 4% students are being enthusiastic during the learning process. Whereas, 96% of students are not being enthusiastic because of various factors, such as: 1) Monotonous learning activity (34%); 2) Passive students (22%); 3) Students are listening to the information only (17%), and 4) One-way interaction (23%). These results are absolutely bad for the education development, especially at the primary stage which actually became a fundamental stage in developing psychomotor, psychology and cognitive.



Also, in accordance with the test in the relevant topic, students' achievements were very low and not even reaching the minimum standard. This is explained in detail in \$. It informs the average score of the class is 42.05, and it is below standard. There are 10 students who passed the test (25.64%) and 29 students who failed (74.35%).

Some findings during the observations before the treatments are explained as follows: 1) Most of the material delivery is spoon-feeding lecture; 2) Teacher did not use appropriate media which made less joyful learning; 3) Teacher has very low attention to lead group discussion. That is why in cycle I teacher must lead students to be more active in group discussion; 4) Students were only writing, listening, reading and memorizing; 6) Students were passive and not eager to ask, feel bored, and not feel any enjoyment during the learning, as well as 7) Students' achievements were low and unsatisfied.

These data can easily lead us to a conclusion that the learning process is not yet successfully done. Thus, researcher should arrange structured action and treatment for the improvement and be applied in cycle I using animation media. Students can improve their achievements personally or in group.

Cycle I

Planning

It is adjusted to the research objectives to improve learning process and to enhance students' achievements. Several activities are done in this planning, such as: (1) arranging lesson plan based on the evaluation and observation of the status quo (before treatment); (2) The treatment which is prepared is the use of moving images about climate; (3) arranging observation instrument for every activity in the class, test, scoring, media and time allocation, and (4) time allocation to implement the treatment.

Action

Implementation of the treatment is done by the researcher. The collaborator plays his role as observer in accordance with the

guidelines. The first meeting is opened by greeting, praying, and checking students' presence. Teacher starts the teaching with apperception in the form of introduction to material. Next learning activity is questioning, where teacher leads students to question the moving images, seeking for deeper information behind the illustration of fruits in English. Next, students are being conditioned to express their feeling or to say their personal goal in learning English, specifically in the topic about "fruits around my house".

Core Activity

In this step, teacher divides the class into six groups consisting of 6-7 students for each. Exercise sheets are distributed to them, as each group will get one. The leader of the group will show the exercise sheets to his/her member before they start to do the exercise (Sweller, 1988). Teacher gives directions for students who are having difficulties to understand the instruction written in the exercise sheet. At the very beginning, students seem to face difficulties answering the questions because they did not get used to do such an exercise. But, after getting some explanations from teacher they can do it normally Nurdyansyah (2017). This activity is ended as the time allocation passed. Then, teacher will randomly select all groups to present their answer in front of the class. Only the third group is called to present their discussion result.

Observation

Based on the observation result from the first cycle, the average score of students' activeness in first and second meeting is 63.52. This is including their initiatives and punctuation of work compared to the pre-treatment stage. Students start to be more active to deliver their opinion and initiate even before being ordered to do. Classically, the average score of their activeness is also constructed by their willing to involve, only half of them can be categorized as less-active. This condition will become evaluation point before implementing cycle II.

Reflection

There are some points which can be reflected from the first and second meeting in cycle I:1)Generally, the learning process using moving pictures is good enough; this can be seen through the students' score percentage 61.45% which is stated in observation sheet. In term of asking students and giving motivation, teacher is still less-active. In accordance to students' observation sheet, some students are still playing as passive listener and observer, and2) Classical passing grade do not reach the minimum standard (60%) among all students.

Cycle II

Planning

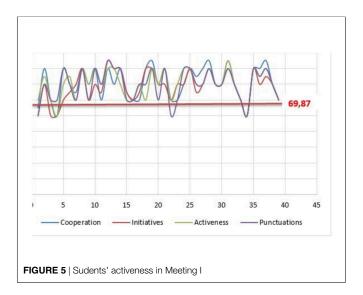
The planning is based on the evaluation in cycle I. Researcher and collaborator try to solve some problems in cycle I. The concrete step to solve is to re-arrange the lesson plan for the next two meetings, enhancing teacher role to motivate students to be more active. At the end, the observation demand that 60% of students can pass the minimum standard of average score.

Action

Activity is started with dividing students into groups containing 6-7 students each. Teacher shows various moving images illustrating types of fruits in English. The next step, teacher delivers some orders within the learning process. After that, students look busy discussing with their groups to solve the tasks. All students look actively involving in the group discussion. At the end, teacher reinforces students with Question-Answer. In this occasion teacher also give feedback and reflection. The learning is ended with concluding what has just been studied. Teacher asks students to finish some exercises which are about climate change.

Observation

Implementation of treatment and observation are done by researcher and collaborator cooperatively. The observation in first meeting is on the students' activeness and their achievements. The result of this observation can be used as reflections at the end of the process. Generally, students' activeness in Meeting I can be explained in Figure 5.



According to **Figure 5**, it can be seen that in cycle II, students' activeness in learning English has improved and reached the minimum standard. During the observation, discussion and presentation, students are active and more initiative to involve. Classically, the average score of all students is 69.87 and the implementation of cycle II is considered successful because classically their average score is 80%. Observation data over learning achievements is a combination between process score and students result in cycle II.

Reflection

Learning process has applied the usage of moving images appropriately in general. This can be seen from the students' activeness based on the observation sheet. This is also cannot be separated from teacher role during the learning process, as can be seen through teacher observation sheet. This is also concluded from the classical average score 70.35%. Classical passing grade reached 70.61%, crossing beyond the minimum standard of 60% of all students. Thus, we can conclude that the improvement in the learning process is done significantly. 32 students have passed the minimum standard, while those who are not passing are only 7. The implementation of animation media can improve students' achievement in learning English, specifically for first grade. This can be concluded by comparing average score of pre-treatment stage 42.05, while in Cycle I is 60.12 and in Cycle II is 70.92. **Table 1** explains the comparison of students' achievements.

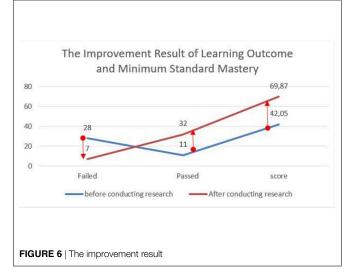
According to **Table 1**, the average score before treatment is 42.05 and gains improvement 18.07 (42.97%) and becomes 60.12 in cycle I. Percentage of average improvement since pretreatment to cycle I can be categorized as low. The average score in cycle I is 60.12 which gains improvement 10.8 (17.96%) and becomes 70.92 in cycle II. Percentage of average improvement since cycle I to cycle II is very low. Overall, the average score since pre-treatment to the end of cycle II gains improvement 28.87 (68.65%). This can be categorized as high and successful.

According to the disclosure above, it was shown that English lesson with a learning material of various fruits and colors in English upon pre-cycle is quite low or rather unsuccessful. The factors that cause unsuccessfulness in the material of various kinds of fruit and colors in English are due to the several factors, amongst them are the lack of a detailed material deliverance and the students who are unable to understand what steps that ought to be taken for the next lesson. So, students are still unable to understand the teaching and learning procedures in accordance with the stated planning goals.

As for the treatment conducted for Cycle II in overcoming the problem above are: 1) Directing a revision upon lesson plan drafting; 2) Preparing the media or composing motion picture about any kinds of fruit and colors in English; 3) Preparing Students Activity Sheet that is adjusted with their weakness upon Cycle I; as well as 4) Conducting further observation for students activeness analyzing in learning activity. The step was taken based on the statement (Sweller, 1988), namely: replanning by: 1) the teacher corrects the existing lesson plans, 2) revised the Worksheet to all students before they start doing the exercises, and 3) The teacher provide direction for students who have difficulty understanding the instructions written in the worksheet.

The outcome on Cycle II is related with students' activity in English lesson that has undergone an improvement and fulfilled the minimum passing criterion that is predetermined by the school. Such matter is seen from: 1) the result of observation carried by the researcher; 2) discussion outcome, which stated that students are already at 72% compared to the mere previous 32%; as well as 3) the result of students' presentation that is very active and dynamic. As for these data is shown in **Figure 6**

	Classical Average			Stages		
	Pre- Treatment	Cycle I	Cycle II	Pre- Treatment to Cycle I	Cycle I to Cycle II	Pre- Treatment to Cycle II
	42.05	60.12	70.92	-	-	-
Improvement of Classical Average				18.07	10.18	28.87
Percentage of Average Improvement (%)			42.97	17.96	68.65	
Improvement Category				Low	Very Low	High



According to the overall result, the average score of students' achievements prior to research activity is 69.87 and considered as successful since classical average score is 80%. Before the treatment implementation, the number of students who achieved scores that are below the minimum standard mastery is as many as 28 students and 7 students after the treatment. Such matter is equal to the number of students who did not pass the minimum standard mastery, which is as many as 11 and 32 students after the treatment. From the identification, it was clearly visible that there is a significant improvement of students' learning and activity result prior and after the treatment.

These results are in accordance with the research procedures submitted by Dasna (2008) which have been improved throughout the cycle process in research ranging from: (a) planning, (b) action, (c) observation, and (d) reflection. Based on observations during the first and second cycles, it can be seen that the first cycle has not succeeded in fulfilling the minimum passing criterion. After revision stage, the second cycle showed better results indicating the completion of minimum passing criterion. Accordingly, the research stopped at this point.

Such finding is seen from: 1) Class mastery score that surpassed the standard predetermined by the school; 2) Percentage of students who are passed and underwent an improvement, and 3) The result of media implementation and usage that properly applied. The success of animation in assisting students' English learning is in line with Kittidachanupap et al. (2012) who agree that animation is an effective way for vocabulary development. In addition, in term of the function of animation in teaching action verbs, visual-aided vocabulary learning is promoted by Lin (2009).

CONCLUSION

In brief, the application of moving picture media in classroom activities can significantly improve students' competencies and achievements in learning English for first grade of second semester in Primary School. This can be proven using average score from pre-treatment to the end of Cycle I. At the end of Cycle I, the average score is increased from the pretreatment score. Also, English language learning process can be seen through students' activeness during the application of animation media while learning about fruits and colors. This can be proven through the increasing score from pre-treatment till the end of Cycle II. At the pre-treatment, the average score is increased at the end of Cycle I, it increased again at the end of Cycle II. The results of this study imply that to support learning activities, teachers can use animation as the media. Teachers' digital literacy need to be heightened through their active contribution in workshop or other teacher professional development activities. This helps them to build their creativity to make more modification and development of animation.

As the limitation of this study, the researchers focus on two kinds of materials which have been exposed from pre-school level. Thus, To know the role of animation to support learners in mastering new vocabulary items during their primary school, the next investigation is needed. The future research are recommended to conduct similar study with different context, research design such as experimental, and language focus.

ACKNOWLEDGEMENTS

Thanks to Universitas Muhammadiyah Sidoarjo for giving the chance to do the research.

REFERENCES

Dasna, I. W. (2008). Penelitian Tindakan Kelas dan Penulisan Karya Ilmiah. Malang.

- Duckworth, A. and Yeager, D. (2015). Measurement Matters: Assessing Personal Qualities other than Cognitive Ability for Educational Purposes. *Educational Researcher*, 44(4):237–251.
- Huang, J., Hmelo-Silver, C. E., Jordan, R., Gray, S., Frensley, T., Newman, G., and Stern, M. J. (2018). Scientific discourse of citizen scientists: Models as a boundary object for collaborative problem solving. *Computers in Human Behavior*, 87:480–492.
- Jatmiko, B., Prahani, B. K., Munasir, Supardi, I. Z., Wicaksono, I., Erlina, N., and Zainuddin (2018). The Comparison of OR-IPA Teaching Model and Problem based Learning Model Effectiveness to Improve Critical Thinking Skills of Pre-Service Physics Teachers. *Journal of Baltic Science Education*, 17(2):300–319.
- Kewajiban, T. ., Mustaji, and Bachri, B. (2018). Challenges and Solutions of Webbased Learning on Mobile Devices. *Educational Technology to Improve Quality* and Access on a Global Scale, pages 287–296.
- Kittidachanupap, N., Singthongchai, J., Naenudorn, E., Khopolklang, N., and Niwattanakul, S. (2012). Development of animation media for learning English vocabulary for children. 2012 IEEE International Conference on Computer Science and Automation Engineering (CSAE), 2:341–345.
- le Roux, I. and Nagel, L. (2018). Seeking the best blend for deep learning in a flipped classroom – viewing student perceptions through the Community of Inquiry lens. *International Journal of Educational Technology in Higher Education*, 15(1).
- Lin, C. C. (2009). Learning action verbs with animation. *The Jalt Call Journal*, 5(3):23–40.

- Nurdyansyah (2017). Integration of Islamic Values in Elementary School. In and others, editor, *ICIGR 2017, Sidoarjo*, volume 125, pages 190–192.
- Nurdyansyah, Abdullah, A. H., Daud, N., Mohamad, M. Z., Mohamad, M. Z., and Mohamad, M. Z. (2019). Teaching Media Design Innovation Using Computer Application with Scientific Approach. *International Journal of Academic Research in Business and Social Sciences*, 9(3):373–382.
- Nurdyansyah, N., Rais, P., and Aini, Q. (2017). The Role of Education Technology in Mathematic of Third Grade Students in MI Ma'arif Pademonegoro Sukodono. *Madrosatuna: Journal of Islamic Elementary School*, 1(1):37–37.
- Rusnayati, H. and Prima, E. (2011). Penerapan model pembelajaran problem based learning dengan pendekatan inkuiri untuk meningkatkan keterampilan proses sains dan penguasaan konsep elastisitas pada siswa SMA. Jurnal Pengajaran MIPA, 179(184):331–337.
- Sweller, J. (1988). Cognitive Load During Problem Solving: Effects on Learning. Cognitive Science, 12(2):257–285.

Conflict of Interest Statement: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Copyright © 2020 Nurdyansyah, Mandarani and Rais. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.