

## ANALYZING THE IMPACT OF GOOGLE EARTH ON THE LEARNING MOTIVATION OF ELEMENTARY SCHOOL STUDENTS

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### ABSTRACT

This study aims to determine the effect of Google Earth on the learning motivation of elementary school students in Jakarta using the RADEC (Read, Answer, Discuss, Explain, and Create) model. The sample consists of 40 fifth-grade students from a Jakarta elementary school. This is qualitative and quantitative research. The study's average results indicate that using Google Earth motivates 45.5% of students to learn. Before and after using Google Earth, based on the presentation, there was an increase of 23% in the learning motivation of Jakarta elementary school students. Before using Google Earth, student learning motivation was at 34%. Meanwhile, after using Google Earth, students' learning motivation increased by 57%. This study uses the RADEC model (Read, Answer, Discuss, Explain, and Create) in teaching and learning activities. Then, we discovered that Google Earth had an influence on indicators of students' learning motivation, such as their desire to learn, their needs, their ability to reach goals, their encouragement, and the creation of a pleasant learning atmosphere. Earth. The RADEC model with Google Earth technology further increases elementary school students' learning motivation compared to the RADEC model without Google Earth technology.

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## 1. INTRODUCTION

In Industry 5.0, education and teaching combine teaching and learning activities with technology (Safaruddin et al., 2020). Technology serves not to supplant the teacher in teaching and learning activities, but rather to assist teachers and facilitate students' acceptance of the teacher's material. Then, technology can influence students' learning interests and motivation. Results, achievements, interests, and student achievement in learning are the driving forces. Motivation to learn requires encouragement or a sense of interest from within and outside the students (Heckhausen & Heckhausen, 2018).

Educational problems always arise with the development and improvement of students' abilities, existing environmental situations and conditions, the influence of

information and culture, and the development of science and technology. Education is a form of communication, as it involves the use of communicators and messages, which are integral components of the educational process (Sprague, 2002; Englund, 2016; Dahama, 2019). Information technology has permeated various aspects of life, including education, and its presence has significantly influenced learning. Along with the development of information technology applications in the world of education, students have produced and consumed various learning materials through the medium of information technology in very varied packaging forms.

In contrast to the traditional learning process, which relies on the teacher as the first and foremost source of learning, other sources are only complementary to learning activities (Randon et al., 2013; Wei et al., 2017). So far, they have known and even used several forms of educational technology to assist learning activities. Some of these tools include OHP, LCD, projectors, computer use, and several types of laboratory equipment. The emergence of assistive devices in educational technology brings new nuances, especially in the implementation of the learning process. The community's response to educational technology users is tremendous, so in a short period of time, this technology has become very familiar in aiding the smooth implementation of education and learning. The rapid development of technology, especially communication technology, has brought significant changes in various fields.

The field of education and learning is also developing as a result of advances in communication technology (Zhang et al., 2022). Suppose the relationship between educators and students only occurred through face-to-face activities, limited by space and time barriers, or through print media. Online communication, which transcends space and time barriers, now allows for the development of this relationship. In addition to the many added values or "advantages" of this electronic medium from a pedagogical perspective, there are undoubtedly many factors that require close attention. These factors include how the pattern of educational communication shifts between teachers and students, the effectiveness of teaching and learning techniques, the participants' understanding of students, and several other aspects of learning psychology.

Revolutions in science and technology, changes in society's understanding of how children learn, advances in communication media, and so on give meaning to educational activities. These demands make it a policy to utilise technological media and approaches in managing education. Education, as part of culture, is a means of transmitting values and ideas so that everyone can participate in the transformation of importance for the betterment of the nation and the state (Zmuda & Kuklis, 2004; Baker, 2014). This means education is a vessel for transforming science and technology to benefit human life.

Based on field surveys, there is still low learning enthusiasm among elementary school students in Jakarta. The contributing factors include a lack of student participation and interest in learning. Furthermore, the distribution of facilities supporting technology-based teaching and learning activities is uneven (Tisza, 2021). Then, some teachers still do not understand and adapt to using technology as a learning medium, so learning is not fun and makes students less enthusiastic about learning

(Sukendro et al., 2020). So, there is still a need for training so that teachers can create a fun learning environment and use technology. Teachers are essential in turning student boredom into interest or motivation (Prameswari et al., 2020).

At this time, technology dramatically affects education. We cannot avoid encouraging students to be enthusiastic about learning through technology. They are even required to use technology for learning activities (Crittenden et al., 2019; Ghani et al., 2022; Imbar et al., 2022). Therefore, having some skills in using technology for educational purposes is essential. One uses Google Earth to teach elementary school students in Jakarta.

The framework of teaching and learning activities demands the utilization of communication technology, educational technology, and educational media. This educational technology demands a scientific, systematic, and rational approach, which leads to the achievement of effective and efficient educational goals (Scheerens et al., 2003; Scheerens, 2016). Elementary schools continue to focus solely on mastering certain aspects of knowledge. The described class atmosphere remains ineffective and inefficient in facilitating the learning process, as many students are preoccupied with their own activities rather than actively discussing the delivered subject matter. When asked to respond to problems and discuss the material, the classroom atmosphere remains ineffective and inefficient. When presented, students often find it difficult to respond and tend to remain silent.

Using technology like Google Earth aims to capture students' attention and inspire them to learn (Pan, 2020). Motivation is critical in teaching and learning activities. If students feel happy, students will be active and readily to accept the material the teacher provides. In addition, student achievement has increased (Daumiller et al., 2021).

Google Earth is an application that offers visual images and interactive quizzes. Teachers can use it to present material, and it provides detailed information on topics such as ASEAN countries and the lessons of fifth-grade elementary school students. Students can see the actual ASEAN countries and their uniqueness (Liang et al., 2018; Pudjastawa, 2022). In addition, researchers will use the RADEC (Read, Answer, Discuss, Explain, and Create) model to implement Google Earth in student teaching and learning activities. Thus, researchers aim to create a fun learning atmosphere through teaching and learning activities, thereby motivating students to learn (Siregar et al., 2020).

It is known that there are still many students who are passive in expressing their opinions. Students tend to sit, listen, and take notes on what the teacher says, but many students are less active in seeking information on their own from other sources. The teacher's perspective, which prioritizes cognitive aspects for students to master, often hinders students' independence in gaining understanding. The teacher cannot transfer knowledge to the students; it requires active habituation in learning, where students acquire either the same or even more knowledge than the teacher possesses.

During the learning process, the teacher primarily provides a conceptual explanation of the material, focusing solely on the concepts themselves, without making any connections to the student's everyday life. Under the teacher's guidance, it's evident that

many students remain passive in their understanding of the delivered material. When the teacher asks students about learning problems, many students are still passive (silent and confused, looking for questions from textbooks). In group activities, many students were found to only depend on their friends when doing assignments given by the teacher, and students were not yet active in expressing their opinions or responding to the problems that had been presented.

In a broader context, information and communication technology encompasses all aspects related to machines (computers and telecommunication) and the techniques used to capture, collect, store, manipulate, and deliver. Computers that control all kinds of ideas and information play an essential role. Microelectronics combines computing and telecommunication to collect, process, store, and disseminate voice, image, text, and number information. Information and communication technology combines computerized technology, telecommunications, electronics, and information fields such as data, facts, and processes.

If someone wants to continue learning throughout his life, learning at school must be a pleasant experience. A person engages in the process of learning to bring about a comprehensive shift in their behavior, which stems from their personal interactions with their surroundings. Learning is a series of physical and mental activities to achieve a change in behavior due to individual experiences in interactions with their environment, which involve cognitive, affective, and psychomotor. Learning is a process of change, namely changes in behavior resulting from interaction with the environment to meet their needs.

Frustrated students often receive low grades in addition to reprimands, criticisms, and reproaches for going against all forms of formal learning and not having enough motivation to continue their studies. Therefore, the majority of students who receive low grades and face frustration tend to discontinue their education and fail to cultivate skills that could benefit society.

Based on previous research that did not explain and analyze the influence of Google Earth on the learning motivation of elementary school students in Jakarta, it is necessary to conduct research so that teachers can innovate in using technology to influence student learning motivation, which is a crucial part of learning.

### **Learning Motivation**

Motivation is a change in energy and encouragement within a person, such as an emotional state that is characterized by a feeling of pleasure and boredom when carrying out an activity. We divide motivation into two categories: intrinsic motivation and extrinsic motivation (Puspitarini & Hanif, 2019). Intrinsic motivation is encouragement from within students; for example, curiosity and learning become a need and goal to achieve very well. Meanwhile, extrinsic motivation refers to encouragement that students receive from outside themselves, such as support from parents, fun learning partners, and exciting and fun teaching and learning activities.

Considerations are essential for shaping and enhancing student learning motivation. Teachers need to know and understand student characteristics when shaping student motivation (Ginsberg & Wlodkowski, 2019; Hariri et al., 2020). One is choosing

suitable learning models and media for students. The teacher must make learning meaningful and show appreciation to elementary school students. So students feel valued. As a result, students will have high self-confidence in themselves.

### Google Earth

Google Earth is a technological medium in the form of an application that presents a complete image of the earth's surface or a specific object, such as scales, pictures, lines, and symbols (Hamdanah et al., 2020). Google Earth divides its use into several dimensions: space, time, and three dimensions. Google Earth ensures the authenticity of its images. In addition, Google Earth can provide activity for creatures in specific environments (Liang et al., 2018).

Google Earth is thought to be capable of increasing or attracting the learning motivation of elementary school students in Jakarta. Using Google Earth in teaching and learning activities can increase student awareness, expand global knowledge information, and develop students' critical thinking skills (Hadi et al., 2021). This can support a variety of educational standards in Jakarta and Indonesia.

Google Earth is available for free use (Alfatikh et al., 2020). This is a benefit that both teachers and students can take advantage of. Additionally, the intuitive presentation of the Google Earth application allows individuals who have never used it to operate efficiently without prior training. The Google Earth application does not update all owned data. Therefore, there are still limitations if you want to see a picture of an area's condition. There are some areas that Google Earth cannot reach.

The memory capacity and bandwidth of internet access, which are quite large, as well as the monitor screen's ability to produce good image quality, influence the image quality of the Google Earth application (Tamiminia et al., 2020).

Model RADEC (Read, Answer, Discuss, Explain, and Create) The RADEC model is easy for elementary school teachers to implement. In addition, the RADEC model falls under the category of competence, character, and literacy in the 21st century (Satria & Sopandi, 2019; Pratama et al., 2020). Previous research has proven that this model can positively impact student learning (Ma'ruf et al., 2020). As a result, the researchers used the RADEC model to implement Google Earth in Jakarta elementary school students' teaching and learning activities.

This model uses four stages: first read, in which students read the material to be studied, which can be learned from several sources such as books, Google Earth applications, and the internet (Karlina et al., 2020). After completing reading activities, the teacher will pose questions to the students in the second stage. This question-and-answer stage can stimulate students' critical thinking. In addition, students will be enthusiastic about learning so they can answer the given questions. In the third stage, the teacher divides the students into several groups to facilitate their discussion of answers and material. In the fourth stage of explaining, the teacher asks students to make group presentations and take turns. In this activity, the teacher ensures that other students understand the delivered presentations.

Then, the teacher encourages other students to have the courage to give their opinions to the group making the presentation. The fifth stage is create, the teacher facilitates

students to have motivation in learning activities and can master the material so that students can generate an idea or think creatively in answering the questions or problems given (Pratama et al., 2019; Sukmawati et al., 2020).

## 2. METHOD

The research design uses a qualitative descriptive research approach and a quantitative experiment (Bauer et al., 2021; Berends & Deken, 2021). The design aims to describe and analyze the impact of Google Earth on the learning motivation of elementary school students in Jakarta. The research population consisted of 40 elementary school students from Jakarta. This study uses a random sampling technique to select research data samples (Jiang, 2021). The stages of this research apply the RADEC model (Read, Answer, Discuss, Explain, and Create).

Based on the qualitative research design, data collection uses three stages: questionnaires, observations, interviews, and documentation. Next, we process, analyze, and reduce the gathered data (Guest et al., 2020). In addition, this study uses the stages of the RADEC learning model (Read, Answer, Discuss, Explain, and Create).

During the initial use of this model with Google Earth, the teachers instruct the students to read the material available in both the Google Earth application and textbooks. In the second stage, the teacher uses Google Earth to pose questions about ASEAN material to students, aiming to capture their attention and gauge their initial understanding of the material. The third stage involves discussion. At this stage, the teacher divides students into 10 small groups, consisting of 4 students in each group. The fourth stage is the teacher explaining and presenting, using Google Earth, the ASEAN material to students (Fuadi et al., 2021).

At this discussion stage, students can ask questions about ASEAN that they have not understood. In the fifth stage of creation, we expect students to articulate the characteristics of ASEAN countries. Researchers conducted questionnaires, observations, and interviews with 40 elementary school students in Jakarta.

## 3. RESULTS AND DISCUSSION

Learning motivation is essential because it determines the maximum effectiveness of teaching and learning activities (Zimmerman & Schunk, 2012; Alamri et al., 2020). Students' learning creates a pleasant learning atmosphere. Learning will be of high quality because students are active, as there is feedback when the teacher asks. This is due to the high motivation for student learning. Thus, encouraging curiosity and activities are no longer a burden for students.

To foster student learning motivation, it is necessary to involve student learning in achieving achievements in the academic field because it can influence the learning process and improve it (Alderman, 2013; Mega et al., 2014). Student involvement is crucial to improving the achievement of superior students in school. Student involvement allows students to have good attitudes and behaviors toward school,

supporting learning activities that will lead to success in school. High student involvement will affect the intellectual development of students who make themselves qualified and achieve superior academic achievements (Dwivedi et al., 2019). If there is student involvement, intellectual competence will increase, resulting in superior student achievements. If student involvement in schools is high, academic achievement in schools is also high.

The involvement of students in school is crucial because, at that time, students get information and recognize a concept so that they can relate it through their knowledge and experience. Student involvement will affect the learning process because students will become more active. In contrast, students who do not involve themselves in the learning process will find it difficult to accept and understand learning, and they will not want to interact with teachers and friends (Reeve & Shin, 2020). Several factors can influence student involvement, including encouragement from friends to support themselves in learning activities and beyond, positive relationships between teachers and students, self-confidence, interest, and motivation to learn, the ability to participate in learning, student approaches or efforts in carrying out learning, independence in seeking information, and a strong awareness of learning (Qureshi et al., 2021).

Student involvement in the learning process includes physical, intellectual, and mental activities because it aims to achieve academic and social competence. In learning, teachers must be more active in involving students, such as doing direct practice in the field or in the laboratory so that students can more easily understand learning because students are assigned to make reports of objects that have been observed then the results will be presented (Osborne et al., 2019).

The following five indicators measure student involvement in the learning process: (1) Observing the problems given by the teacher, (2) Recording important points obtained from learning activities, (3) Listening to material explained by the teacher, (4) Have learning materials that are under learning materials and read them during the learning process activities, (5) Conduct trials or experiments (Schmidt et al., 2018). In addition, student involvement in learning can also be seen from substantial behavioral involvement in learning activities, such as attendance, participation in learning activities, obeying rules and doing assignments. Learning activities involve paying attention to lessons, asking questions, and participating in discussions and psychomotor activities. Students adjust their behavior during the learning activity process to measure these indicators.

To create this, it is necessary to have supporters, namely Google Earth as a technology that assists teaching and learning activities (Zulherman et al., 2021). Students do not become bored with teaching and learning activities. Furthermore, few teachers are aware that students can utilize Google Earth as a learning medium.

Generally, people use Google Earth only for maps and directions. However, Google Earth no longer has many icons that can be innovated as learning media that attract students' attention because they can see accurately and realistically about ASEAN material (Erdiwansyah et al., 2019). Table 1 illustrates how the RADEC model (Read, Answer, Discuss, Explain, and Create) can be implemented using these five stages when

using Google Earth to enhance student learning motivation in teaching and learning activities.

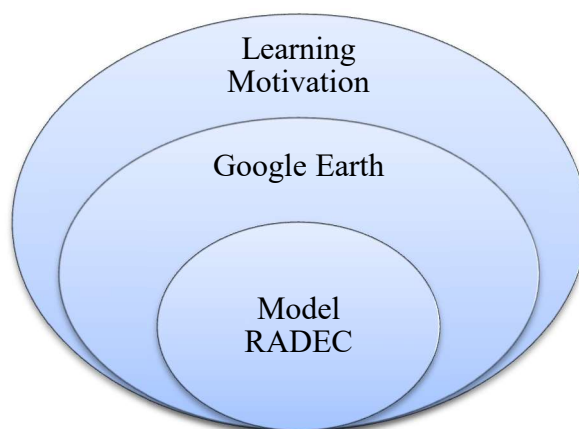
Using Google Earth, this study obtained 57% of students' learning motivation. The presentation of the average value after using Google Earth at the five stages of the RADEC model, namely the reading stage, obtaining 75%, is very high compared to the other stages. As it is known that students tend to be low in reading motivation but using Google Earth, students become happy and high in reading. Furthermore, in the answering stage, 65% of student motivation is due to the presence of courage and self-confidence in students. Therefore, students are willing to answer the given questions.

Then, during the presentation discussion stage, 65% of students became motivated to be active or involved in group learning activities. Students are no longer just going along in groups; they are passive. The explanation stage has a presentation score of 40%. Groups of students advance to present ASEAN material in turns. The final stage involves creating presentations for 40% of the students, where the teacher will facilitate their mastery of the material and ask them to come up with ideas or solve problems related to the ASEAN material.

**Table 1.** Implementation RADEC Model in Learning Google Earth

Learning stage	First meeting (before)	Second meeting (after)	Average
Read	50%	75%	62.5%
Answer	40%	65%	52.5%
Discuss	45%	65%	55%
Explain	20%	40%	30%
Create	15%	40%	27.5%
Average	34%	57%	45.5%

Table 1 presents a comparison of the average presentation of student responses to Google Earth. It is known that before using Google Earth, student learning motivation was still relatively low, especially at the creation stage; only 15% of students made ideas and solved problems that exist in everyday life or ASEAN material.



**Figure 1.** Relationship Model RADEC, Google Earth, Learning Motivation



The data analysis results presented in Figure 1 show a significant relationship between analyzing student motivation and using Google Earth as a technological medium (intermediary) for students to understand the material. Furthermore, the RADEC (Read, Answer, Discuss, Explain, and Create) model helps teachers guide students in teaching and learning activities. Therefore, it is appropriate to combine the RADEC model, Google Earth, and learning motivation in the teaching and learning activities of Jakarta elementary school students.

According to the indicators of learning motivation, there are generally five indicators that students have enthusiasm for learning: first, having a desire to learn; second, learning is a necessity for themselves; third, learning is a process to reach goals; fourth, encouragement and appreciation in learning activities; and fifth, fun and conducive teaching and learning. In this case, there is still a lack of fun learning activities that tend to be dull with less attractive learning media. Consequently, students struggle to comprehend the presented material. Finally, students are lazy and not motivated to learn (Code, 2020; Trajkovik et al., 2018).

In learning using Google Earth media, the teacher not only conveys information to students but also invites them to think about and explore the locations of natural and artificial features that exist in everyday life. The teacher engages students in active learning activities to uncover new knowledge and concepts, establishing connections between their existing knowledge and concepts to enhance their understanding of the provided material. The teacher invites students to engage in class discussions using Google Earth media. Students are allowed to ask questions related to Google Earth learning media in addition to allowing asking students when learning.

The results of this study prove differences in students' motivation before and after using Google Earth media in teaching and learning activities for elementary school students in Jakarta. The increase occurs not only in motivation but also in students' learning outcomes. It is known that motivation can significantly influence students' learning outcomes. Therefore, teachers need to either provide or encourage students' motivation to learn.

**Table 2.** The Impact of Student Motivation When Learning Using Google Earth

1. Class	2. f	3. Sig	4. Conclusion
5. Pre-test Motivation	7. <sup>calculated</sup> 3.843	8. 0.055	9. Homogeneous
6. Post-test Motivation	10. 0.028	11. 0.867	12. Homogeneous

Based on Table 2, regarding the results of the homogeneity test of the research variables, it is known that the f calculated pre-test of learning motivation is 3.843 with a significant value of 0.055 while the f calculated post-test of learning motivation is 0.028 with a significant value of 0.867. From calculating the significant value of the

pre-test and post-test data, learning motivation is more significant than 0.05 ( $\text{sig} > 0.05$ ). We can conclude that the use of Google Earth in learning can influence students' motivation for learning.

The researcher also tested the effect size used to see how much influence Google Earth-based learning had on student motivation and learning outcomes and compared it to the control class. The following table displays the results of the effect size test:

**Table 3.** Effect Size Test Results: Increased Student Motivation

14. Group	15. Test	16. Average	17. SD	18. D	19. Conclusion
20. Experimental	21. Pre-test	22. 81.98e	23. 7.167	24. 0.93	25. Very High
	26. Post-test	27. 88.12	28. 5.939		
29. Control	30. Pre-test	31. 80.69	32. 5.51	33. 0.13	34. Very Low
	35. Post-test	36. 81.41	37. 5.88		

Table 3 of these calculations concludes that Google Earth-based learning significantly influences student learning outcomes, with a magnitude of 1.40. According to Cohen's value interpretation in Table 4, the influence is significant. Meanwhile, the impact of learning without using Google Earth on student learning outcomes is 0.46. Table 3's interpretation of Cohen's value classifies this effect as moderate.

Previous research on increasing student motivation through technology in teaching and learning activities (Dunn & Kennedy, 2019; Zhonggen & Xiaozhi, 2019) supports this research. Technology in the Society 5.0 era greatly influences and has an extraordinary impact on education. Therefore, the minister of education stated that teaching and learning activities are required to use technology (Junaidin et al., 2022). In schools, it is required to have supported facilities, including projectors, laptops, LCDs, and sound systems.

Google Earth learning can enhance students' critical thinking skills and deepen their comprehension of the studied concept. Based on this description, using Google Earth media in learning will significantly assist the teacher in conveying natural and artificial appearance material. Additionally, the teacher's material will be easier for students to understand with the aid of Google Earth learning media.

First, learning media aids teachers in clarifying the delivery of material and information, which can enhance learning outcomes. Second, the use of learning media can boost students' motivation to learn, enabling them to interact directly with their environment and learn independently according to their interests and talents. Thirdly, we can use learning media to transcend the constraints of space, sense, and time. Fourth, learning media can give students similar experiences with events in their environment, allowing them to interact directly with teachers, the community, and the surrounding environment through activities such as field trips, visits to historic places, etc.

When using the Google Earth application for learning, there are several benefits. Firstly, it enhances the understanding of natural and artificial features that are not

present in the region. Second, students have experience exploring locations virtually, such as visiting locations with the “street view” feature. Third, provide students with information about foreign locations. Fourth, increase students’ knowledge about the facts and history of a sighting location through descriptions on the “voyager” feature. Besides the benefits possessed by Google Earth media, there are also obstacles in its application, namely limited internet access, which makes it difficult for users to access locations on Google Earth.

Schools can improve the quality of internet access to overcome weaknesses or problems experienced by teachers when using the Google Earth application for internet connection issues, ensuring optimal learning outcomes. In addition, teachers can use hotspots from cell phones if there is a problem with the school’s Wi-Fi. Teachers can also record a location on a laptop screen with a video recorder. To overcome several locations that can only access street views on the edge of the location, that means looking for alternative locations that can reach a broader and more complete street view.

A professional teacher must be more adaptable to technological developments and changes, not only relying on the lecture method, but also expanding their teaching methods by utilizing technology as a learning medium (Kartowagiran et al., 2020; Ramalingam, 2022; Sabirli & Oklar, 2020; Williamson, 2019).

The Google Earth application, which elementary school teachers had not widely used in learning activities, was the focus of this study's technology (Akrim, 2018). Google Earth provides many benefits, namely the number of icons that can be used, such as the presentation section, which presents pictures and explanations, the presence of sound, and interactive quizzes whose fields are adjusted to the material being taught (Ross et al., 2018; Sukowati & Sartono, 2020).

Using Google Media demonstrates that engaging students in learning activities is crucial. Students are enthusiastic about finding natural and artificial features by mentioning the location they want to visit. Students show curiosity when learning takes place. Students actively engage in experimenting with the Google application, presenting their findings in front of the class on alternate days. They look for the location they want to visit and explain to their friends the types of natural features there. Students also take advantage of the features available in Google Shows. Google Learning Media demonstrates that it encourages students to actively participate in learning. Teachers intentionally stimulate students' self-confidence by encouraging them to express their opinions through questions or statements, demonstrating one of the characteristics of active students. Elementary school students in the fifth grade actively inquire about topics they don't fully understand, like rice fields, including their appearance.

Other students actively voice their opinions and respond to questions from friends or teachers. They complement each other’s opinions and answers from their friends when they are not under their own opinion. When students use Google Media for learning, it demonstrates that the teacher not only prioritizes student learning outcomes, but also their comprehension of the presented material, which includes both natural and artificial appearances. In meaningful learning, the emphasis is on students actively participating

in the learning process to comprehend the reference material holistically (Winstone et al., 2019).

The use of Google learning media shows that it makes it easier for students to understand material on types of natural and manufactured features because students can see the appearance and position of a location more genuinely. Students also get new experiences that are more informative and interesting, which can motivate them when using learning media like Google Shows. Students can engage in a virtual exploration experience that creates lasting memories, ensuring they retain the material they are studying. In learning using Google media, students' insights also increase regarding descriptions of visited locations found on Google showing the Voyager feature. Students can discover unexplored locations, both domestically and abroad, which enhances their understanding of the differences in appearance between Indonesia and other countries. Besides that, with the I am Feeling Lucky feature, students can find unique locations with historical facts that have never been visited worldwide.

When using Google Earth in teaching and learning activities, students experience an increase in learning motivation, according to managed data. This is because Google Earth students attract attention and are actively involved in learning activities. The learning atmosphere feels more fun. Students dare to convey their answers and opinions without fear of being wrong.

#### 4. CONCLUSION

Elementary school students' motivation has increased after implementing Google Earth as a medium in teaching and learning activities. This is evidenced by the fact that before the learning activities did not apply Google Earth, students did not have the motivation or desire to learn. The use of Google Earth on the learning motivation of Jakarta elementary school students has a significant effect. Initially, students have an average motivation of 34% to 57%. In addition, it can be stated that the effect of learning using Google Earth with the RADEC model can motivate elementary school students to learn. Then, the effect size is also affected in testing, namely 1.40 with the RADEC model and Google Earth technology when learning.

This is because student motivation needs encouragement to attract students' attention and curiosity in the learning process. Therefore, using Google Earth, which the teacher has never used during the learning process, makes students enthusiastic and motivated to learn.

This study has described indicators of motivation to learn and linked them to the use and benefits of Google Earth simultaneously in the learning process. So, it is necessary to follow up on the use of Google Earth in elementary schools in Jakarta. This distinguishes it from previous research, which analyzed the use of Google Earth on the learning motivation of Jakarta elementary school students

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