



## Improving Student Motivation and Learning Outcomes Through Inquiry Learning

Forsblom Leif <sup>1</sup>, Gooding Steven <sup>2</sup>, Tuomi Carol <sup>3</sup>

<sup>1</sup> California Institute of Technology, United States

<sup>2</sup> University of East London London, United Kingdom

<sup>3</sup> Kyambogo University, Uganda

**Corresponding Author:** Forsblom Leif, E-mail; [forsblomleif@yahoo.co.id](mailto:forsblomleif@yahoo.co.id)

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### ABSTRACT

School is basically a place where the teaching and learning process takes place between teachers and students. The students at school are always filled with the learning process from morning until going home at noon which makes the students' learning motivation decrease. Increasing student motivation in learning can be done through inquiry learning at school. This study was conducted to find out how the increase in motivation and learning outcomes of students studied through inquiry learning. In this regard, this research is a quantitative research by collecting data through surveys and in-depth interviews, the survey tool used by researchers is google form. This study found that inquiry learning can improve most of the students' motivation and learning outcomes, however, a small number of students did not see any improvement. The conclusion of this study shows that through this inquiry learning can increase student motivation and learning outcomes, however, inquiry learning needs to be improved in terms of its model and how the teacher's creativity in providing the latest innovations so that students are more independent and more active. The limitation of this research is the lack of inquiry learning models owned by educators, therefore researchers hope that future researchers if conducting the same research in order to design an inqui learning model that is more attractive to students.

**Keywords:** *Inquiry Learning, Learning Outcomes, Student Motivation*

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## INTRODUCTION

Education is a form of endeavor carried out by humans in it in order to achieve a certain target (Banegas, 2021; Fernandez-Rio & Casey, 2021; Jess et al., 2018). Through this education, humans can release and develop all the potentials that are possessed within themselves. (Benítez-Cardoza & Vique-Sánchez, 2020; Cait et al., 2019). In general,

education is widely implemented in schools, which is a place where a teaching and learning process or interaction between educators and students occurs. To develop the ability of students, educators or what is referred to as teachers always make innovations in their learning in order to increase the motivation and activeness of students. One of the things that teachers do is to implement learning that can help learners or students to be more independent and have the initiative in carrying out the learning process provided by their teachers in order to increase student motivation and learning outcomes. So that education must be utilized as well as possible.

Education is always related to a teaching and learning process which is a form of interaction between a teacher and his students and students. the point in this education is a knowledge given by educators to students from what they do not know until students become aware, the process of transferring knowledge carried out by teachers is carried out with a variety of special strategies, innovations and creative ideas of teachers in delivering learning that attracts students to learn. (Ahn et al., 2019; Ferraris et al., 2020; Yan et al., 2020). so that in each student a good personality is embedded, independent and has the enthusiasm to accept the learning that will be given. For the sake of realizing the independence and activeness of students in the teaching and learning process at school, educators must also be prepared to plan and strive for good quality and quality learning for their students.

Motivation is a form of energy change that occurs within individuals which can be seen from the affective (feelings) and (reactions) of a student to achieve a certain goal. (Y. Lin et al., 2018; Nazir et al., 2019; Wu et al., 2020). Motivation is a force that arises from within an individual that encourages that individual to carry out and carry out certain goals he wants to achieve. Everyone must have and have goals based on the activities that are being carried out in their lives, including in the aspect of education. (Burakov et al., 2018; Otunola & Ololade, 2020; Wang et al., 2020). Therefore, a person must have a very strong motivation for the achievement of these educational goals, by all means and efforts he makes to achieve them. With the efforts made it can be seen from how to increase motivation to achieve a learning goal. (Esfandiar et al., 2019; Fisher et al., 2020; Troiano & Nardi, 2021). However, a person's motivation can be influenced by several factors, for example, environmental factors, physical factors and psychological factors of an individual in the learning process.

In this day and age, it cannot be denied that the learning that is always applied by educators in schools uses a lot of lecture methods, notes and also memorization which indirectly has a negative impact on students, and makes most of them uninterested and lack of interest in learning, not independent and creative, so that students are more monotonous and passive in capturing the learning provided by educators. (Coccia, 2021; Zhang et al., 2019). As a result, it will create a mindset and mindset of students that, learning at school will give a very boring and unpleasant impression and lack of enthusiasm, interest and desire to learn, which will ultimately affect the results of student learning. (J. Li et al., 2021; Mahmoodzadeh et al., 2021; Xu et al., 2019). The learning

model that can increase learning motivation creatively and innovatively (Hong et al., 2019) is the inquiry learning model.

The inquiry learning model is learning that is the most important component in the constructive approach to the learning process, which has a long history in educational innovation and renewal. (Arain et al., 2019; Bouzid & Salhi, 2020; Mandal et al., 2020). In this inquiry learning, it can encourage students to be active and innovative in learning by applying certain principles and concepts, teachers also encourage students to be able to find their own independence principles in learning. (Budiyono & Dipojono, 2020; Lavrijssen, 2022; Seyed-Aghazadeh & Modarres-Sadeghi, 2018). through this inquiry learning model can develop the potential of students to express their own opinions and knowledge to try to solve a problem, so that it can reduce the dominance of the teacher in controlling how the teaching and learning process takes place in the classroom. (Benítez-Cardoza & Vique-Sánchez, 2020; Gajula et al., 2021; Vique-Sánchez, 2021). Students' learning independence must be built from the elementary school level to strengthen students' intellectual foundation and self-confidence.

Inquiry learning can be applied by teachers through steps and stages which can be simply formulated as follows: The first is orientation to the problem, which requires teachers to have creativity in guiding students who have problems. (Shahmansoori et al., 2018; J. Yang et al., 2020). Second, formulate the problem, where students can formulate the problem with the help of a teacher. (Peng et al., 2021; Plante et al., 2020; D. Yang et al., 2021). Furthermore, the third is to propose a hypothesis which is the formulation of the problem to be studied. (Gasnikov & Kovalev, 2018; H. Li et al., 2020; L. Lin et al., 2020). The fourth step is gathering information, where students search for relevant data and information that aims to solve the problems they are facing. (de Moura et al., 2019; Johnson et al., 2020; Rodriguez et al., 2019). Kelima, menguji hipotesis, siswa di ajak aktif dalam memproses data-data yang mereka collect and then test the truth of the data set that they have obtained and have through the previous steps. Finally, the conclusion is where students conclude the results of the research they have done so that students can understand something from before.

Inquiry learning can be defined as a learning model that involves all students to play a maximum active role and think critically in investigating and analyzing, so that they can formulate and express something by themselves from various findings with more confidence. (Flavián et al., 2019; Northcutt et al., 2021; Turan, 2019). Utilization of inquiry learning can be used by teachers to try as much as possible how to direct students and make them realize that what they have gained during learning can be realized to be able to think and be actively involved in intellectual-based activities so that they have many learning experiences that have meaning in their personal lives. (Pepper et al., 2019; Rakshit & Konar, 2018; Shajin & Rajesh, 2022). This inquiry learning is also beneficial for students in the learning process to foster and increase student confidence both in terms of intellectual, creative, innovative and mental students in facing problems in their learning.

Based on the description above, researchers are interested in examining more deeply how to increase student motivation and learning outcomes by implementing inquiry learning in elementary schools. The purpose of this research is to observe how the creativity of educators in providing ikuir-based learning in their classes as well as students whether they can accept and apply the learning provided by the educator. Researchers hope that through this inquiry learning can encourage students' enthusiasm for learning, independence and their creativity in the classroom or outside the classroom in order to create a generation that has a high spirit in learning and has a good intellectual base so that it releases its potential to the maximum and gets the expected learning outcomes. And researchers also hope that further use of inquiry learning will further develop the creativity of the methods provided to further attract students' interest in learning, so that students are more motivated and active in developing their potential in learning.

## RESEARCH METHODOLOGY

Researchers in this case use a quantitative research model, the type of quantitative research method that has been carried out is using a survey, the purpose of this study is to find out and observe how the creativity of educators or teachers in providing ikuir-based learning in their classes. (Baas et al., 2020; “Journal Article Reporting Standards for Quantitative Research in Psychology,” 2018; Stamatakis et al., 2019). Likewise, students can accept and apply the learning provided by the educator so that it can be seen to what extent the level of understanding of students. this research was conducted at one of the elementary schools in the odd semester (1) of the 2022/2023 school year. This learning time can be said to be good because learning is 100% offline unlike the school year in the covid-19 period which was mostly online. This survey method also serves to find out directly how the development and improvement of student learning outcomes in the learning process they are running.

The source of this research comes from educators or teachers and students from one of the elementary schools who participated in filling out a questionnaire or google from (Cloitre et al., 2018; Levis et al., 2019). This questionnaire is distributed and shared by researchers via online media, so that it can be known from the answers of educators and students in the questionnaire regarding this inquiry-based learning. The inquiry learning method can be used by educators in schools on a permanent basis, because it can help increase student learning motivation so that students can learn actively and creatively in developing their potential, although there are still obstacles such as a teacher's lack of creativity in learning innovations that make students often monotonous and rigid in receiving learning. So, in this regard, educators must prepare an inquiry learning model that is like what is more likely to increase student interest in learning so that the results of student learning will certainly also increase.

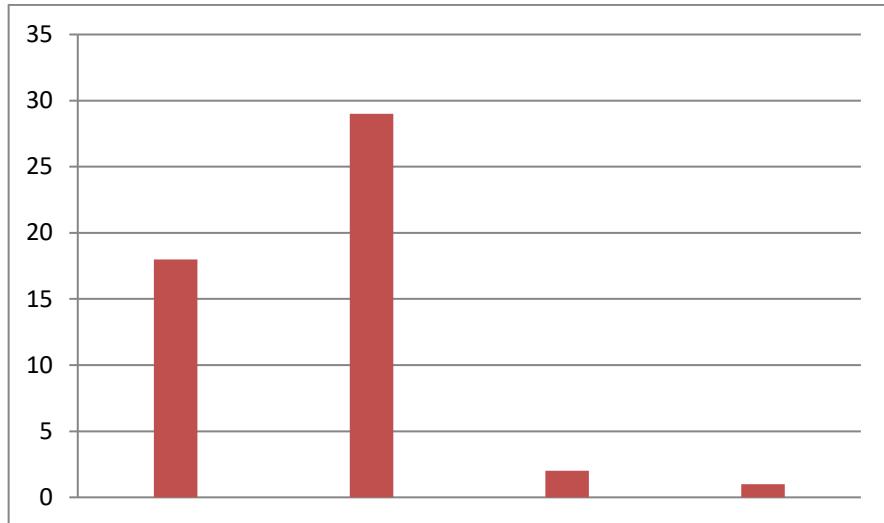
The results of this study were collected in the form of surveys and questionnaires that had been distributed, before researchers distributed questionnaires to educators and students, researchers had included several questions in it to get data from educators and

students, criticism and suggestions from several validators that researchers made as a basis for reference in making the questionnaire, so that researchers got good respondents from the research site. The questions that researchers share are related to how to improve learning and student learning motivation in inquiry learning whether there needs to be innovations and improvements in the learning process. The research data that has been collected, then the researcher analyzes using quantitative research, namely by looking at the percentage results of the questions in the questionnaire that have been distributed and then from the percentage that has been obtained will be described by researchers through discussion with the opinions of experts in their fields and corrected by relevant previous research. Researchers will make the results in the conclusion of the existing discussion. The most important purpose of this research is to increase learning motivation so that there is an increase in learning outcomes from these students.

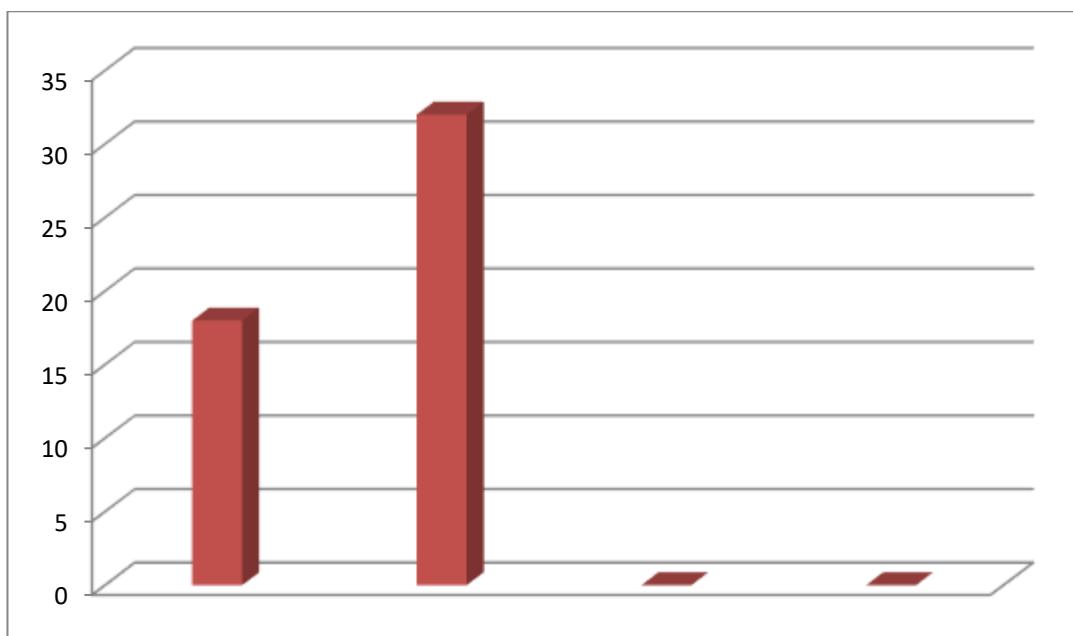
## **RESULT AND DISCUSSION**

Education is a form of endeavor carried out by humans in it in order to achieve a certain target, through this education humans can release and develop all the potentials that are owned within themselves. This education is always related to the occurrence of the learning process in it, where the process occurs between the interaction of educators and students from students who do not know what until the student has knowledge. So that learning from teachers is needed by students for the sake of increasing students' knowledge and intellectuals, especially in this day and age it cannot be denied that knowledge is increasingly developing so that educators and students are required to be able to understand learning well and can be applied in the development process in the future, in line with that, the latest learning innovations are also needed so that the learning atmosphere does not feel monotonous and passive.

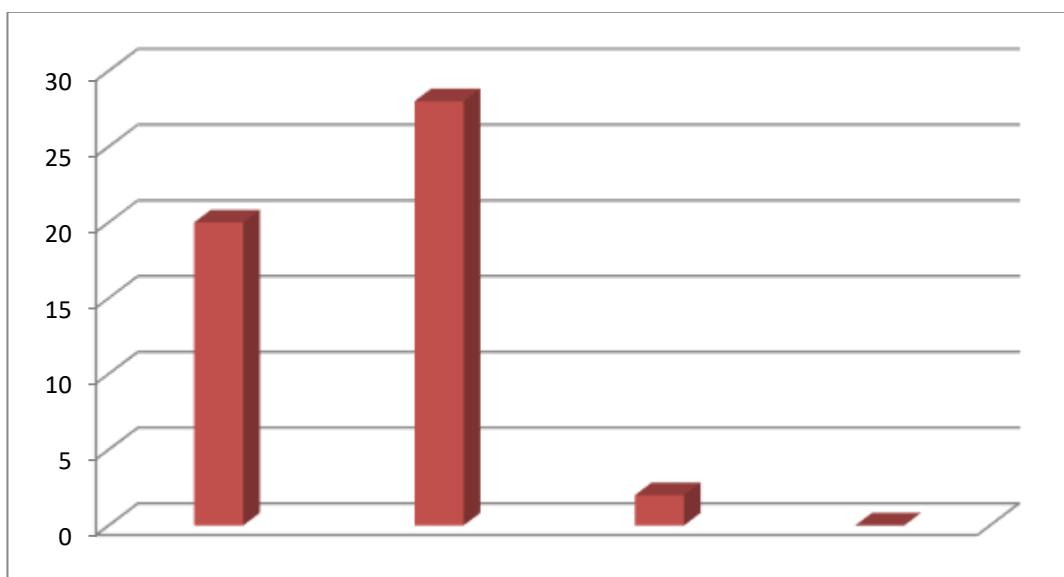
In this regard, inquiry learning is considered appropriate to increase learning motivation and student learning outcomes because in this inquiry-based learning students can openly and freely express their opinions and arguments in the learning process with control from the teacher, so that from that method students can play an active role and can be seen increasing the potential of students in learning. In line with that, educators must also have certain creativity and learning innovations in order to create student motivation to learn so that, of all things that can make an increase in student learning outcomes and help the development of student independence in learning. Therefore, the results of research related to increasing student motivation and learning outcomes through inquiry learning are described as follows:



It can be seen from the diagram data above how the opinions of educators and students on the need for inquiry learning for students, where educators and students choose different answers, some answer strongly agree, agree, disagree, and disagree. This research was conducted in one elementary school. It can be seen from the diagram above that the educators and students who filled out the questionnaire more dominantly chose to agree and 36% of their opinions chose strongly agree with the need for inquiry learning for students and 2 of them chose to disagree and one (1) of the many educators and students who filled out the questionnaire chose to disagree. From the results obtained from the diagram data above that many choose to agree and strongly agree because the benefits of this inquiry learning for students are enormous as through this learning can increase student learning motivation and become the foundation of student independence in learning..



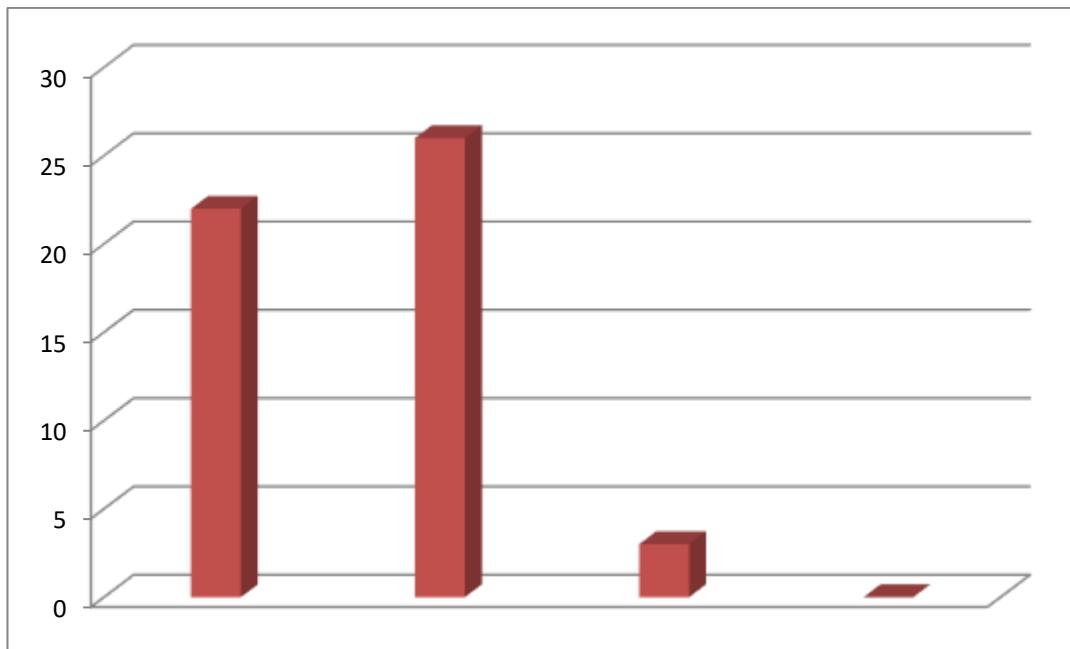
From the diagram data above, it can be seen that there is a significant difference in improving student learning outcomes through inquiry learning, from filling out questionnaires conducted by educators and students through online media, it can be explained that of the 50 people who filled out the questionnaire, 32 of them chose to agree and 18 of them thought strongly agree. So that from this data it can be compared that no one disagrees or disagrees. Researchers also analyzed from the respondent's data it can be seen that many strongly agree that the use of inquiry learning can improve student learning outcomes and more choose to agree on the improvement of learning outcomes that have been carried out by students. The benefits of what students get will also increase student enthusiasm so that this inquiry-based learning must continue to be applied in the learning process.



From the results of data collection conducted by researchers by distributing questionnaires via online it can be seen how the use of inquiry learning can increase student motivation to learn this is based on data that researchers have obtained that most educators and students agree and strongly agree if this inquiry learning can increase learning motivation, from the data of these respondents who chose to strongly agree with this learning reached 20 people out of 50 respondents, who chose to agree reached 28 respondents out of 50 respondents educators and students, and also 2 of them had a disagreeing opinion that this inquiry learning could help increase student learning motivation. apart from that educators must also have creativity and certain inquiry learning innovations so that the learning process does not seem monotonous like the lecture method where the course of learning is fully controlled by the teacher all, and with the inquiry learning model that has been creatively designed by the teacher, Apart from that, educators must also have certain creativity and innovation in inquiry learning so that the learning process does not seem monotonous like the lecture method where the learning process is fully controlled by all teachers, and with the inquiry learning model that has

been designed as creatively as possible by educators can further increase student motivation in learning and students can also develop the potentials that are within themselves and have their own way (independence) in formulating and solving their own learning problems without having to have help from a more dominant teacher.

From the explanation that has been done by researchers through the diagram data above, which data is obtained from certain respondents, both teachers and students because in the interaction process, the teacher and students will have feedback or feedback between the teacher and the student, so that from the learning interaction it will produce an expected result according to the efforts made. related to this, it can be implemented that this inquiry learning forms and requires students to learn actively and bring up creative ideas from these students. From the description of the respondent's data above obtained from distributing questionnaires online, it can be seen that activeness and creativity are the results of the students' inquiry learning form. 17 respondents strongly agreed, 32 people agreed and there was 1 person who disagreed with it. So it can be concluded that the benefits of this inquiry learning to form student activeness and creativity in the learning process are very necessary for students to serve as the basis for the development of the intellectual quality of these students in the future..

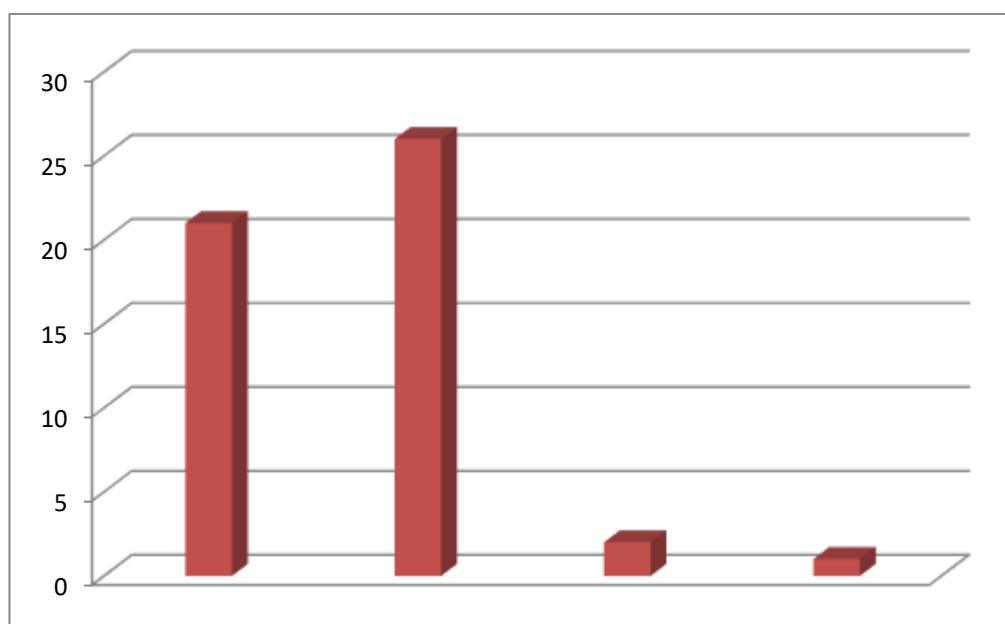


Based on the percentage diagram above that there are those who choose strongly agree, agree, disagree and no one chooses to disagree. The data from the diagram above is obtained from filling out a questionnaire distributed by researchers to respondents who are educators and students in one of the elementary schools. Based on this data, 22 people strongly agree on increasing student learning motivation through learning innovation, 25 of them think they agree and 3 people disagree if learning innovation can increase learning motivation, however, no one disagrees. So from the exposure of these data, learning innovation is needed by students in learning, apart from that educators must also

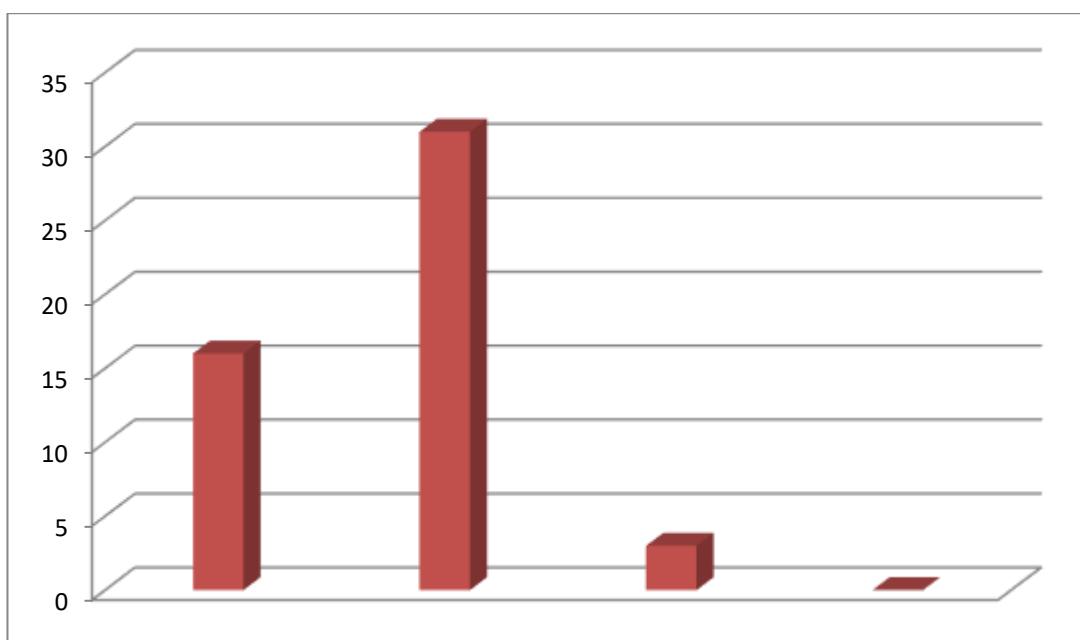
have creativity in creating new learning innovations so that the learning process seems more active because students have increasing motivation to receive learning, therefore, creative and innovative learning designs by educators can increase student motivation in learning and students can also develop their abilities to the fullest.

Based on the bar chart above, it can be seen that inquiry learning can solve learning problems faced by students in learning who choose to strongly agree there are 18 respondents, 30 people choose to agree with inquiry learning can solve learning problems, however, there is less agree 1 person, even 1 other person chooses to disagree with this. From the data above, in general, students can solve learning problems but, there is still a student who cannot solve his learning problems through this inquiry-based learning, because the student does not capture the inquiry learning provided by the teacher and cannot maximally apply the inquiry learning in the learning process, so that the student must increase his focus on learning and the teachers must also provide this inquiry-based learning in an easy and simple way for students to understand.

Regarding the results of the opinions that have been given to researchers through filling out a questionnaire or google form that has been done by respondents as many as 50 samples taken by researchers, it can be seen that teacher creativity is needed in the learning process, from the data above 23 people strongly agree on the need for teacher creativity, 25 people agree, and 2 people disagree and none of them disagree. In this regard, in order to improve the quality and quality of students through inquiry learning, teachers are required to have creative ideas in the learning process, if the teacher does not have creativity in learning this will also have an impact on students such as, students find it difficult to understand the learning provided by the teacher, students find it difficult to develop their insights or give their opinions in the learning process so that students do not have independence in learning. That's why teachers must provide learning methods as creative as possible so that students can apply them well.

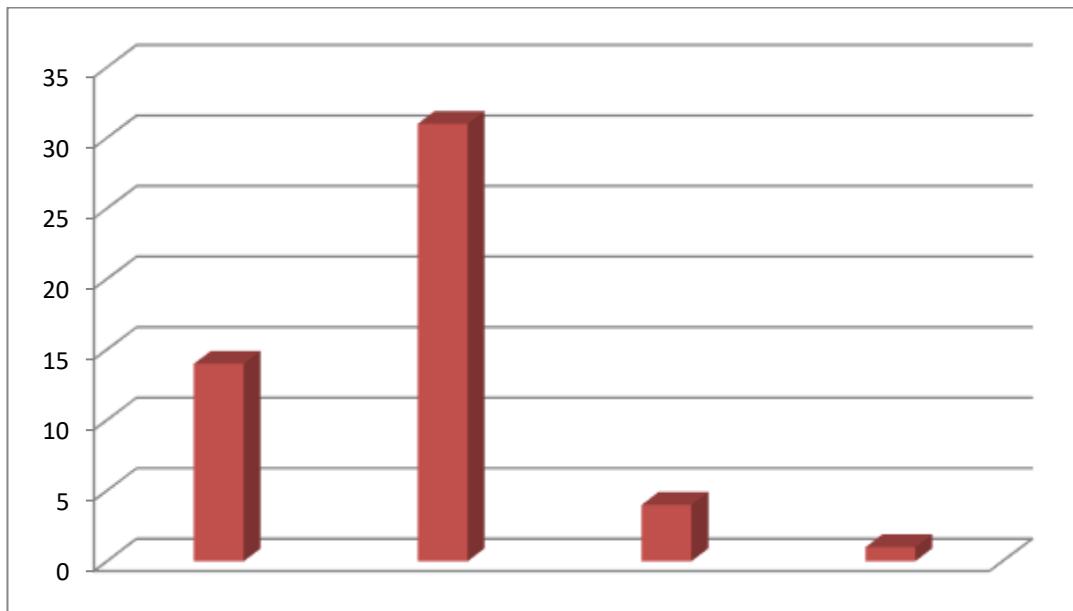


Regarding the learning atmosphere in the classroom, it can be seen from the diagram above that many agree that this inquiry learning can make the learning atmosphere in the classroom more active and students also feel free to express their opinions or arguments in the learning process carried out. This data is obtained by researchers through a survey that has been conducted through the distribution of questionnaires or the distribution of google forms which are then answered all questions that have been provided by researchers by educators and students, through the presentation of the data above, it can be seen that 21 people chose to agree with the learning atmosphere, 26 people chose to agree and 2 people disagreed, and there was one person who disagreed with it. From these data, this inquiry learning is necessary to liven up the classroom atmosphere and with this inquiry learning, researchers can also see the increasing potential of students through arguments conveyed by students later, with this active classroom atmosphere, active and efficient learning will be created so that educators are comfortable teaching and students are also comfortable in receiving learning.



In connection with the quantitative research design that has been carried out by researchers, it can be seen from the data above that many of the educators and students who agree with this inquiry-based learning can foster student independence in learning so that students can conclude their own learning outcomes. This data was obtained by researchers through the distribution and distribution of questionnaires in the form of google forms to educators and students in elementary schools. From the explanation of the diagram above, it can be seen that 16 people answered strongly agree, 31 one person among teachers and students answered agree to this, while 3 of them stated that they did not agree that inquiry learning could make students learn independently. From the explanation of the data above, it is hoped that this inquiry learning can be applied in every

learning process carried out because the benefits of this inquiry-based learning can create learning independence which is so meaningful for the continuity of student learning, and students are also able to conclude the results of the learning they receive themselves, so it is very useful for the intellectual development of students in the future.



Based on the diagram data that can be seen above that students are also able to apply this inquiry-based learning well in the learning process. This data is obtained by researchers from an angker or google form created by researchers with several questions in it which are distributed to educators and students in elementary schools so that researchers get data as quickly as possible by sharing it via the internet or online media. From the data above there are 14 people who strongly agree that this inquiry learning can be applied by students, 31 of them agree on this because it is also well received by students, however, 4 people from educators or students disagree with it and there is even 1 person who disagrees if students are able to apply and accept this inquiry learning well. In line with that, in general, students can apply and accept this inquiry learning well because learning with this inquiry method can be accepted easily through certain innovations and the creativity of educators in delivering learning so that motivation and desire arise within these students in accepting learning.

## CONCLUSION

Inquiry learning is one of the learning methods that can be used by educators in the teaching and learning process indoors and outdoors. This inquiry learning is also effective and efficient when applied in elementary schools. inquiry learning is considered appropriate and suitable for increasing student motivation and learning outcomes because in this inquiry-based learning students can openly and freely convey all their opinions and arguments in the learning process of course in the control and supervision of the teacher

who teaches, so that from that method students can play an active role and can be seen increasing the potential of students in learning. In line with that, educators must also have an active role in fostering student confidence in certain learning in order to create student motivation to learn so that, of all things, the objectives of inquiry-based learning can be achieved, namely increasing student motivation and learning outcomes and helping the development of student independence in learning and intellectual development of these students.

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