

THE CONTRIBUTION OF POSITIVE THINKING SKILLS TO STUDENTS' LEARNING OUTCOMES

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Received March 24, 2023; Revised May 28, 2023; Accepted June 09, 2023

Abstract:

Positive thinking is one of the factors that influence student learning outcomes. This is because students' negative assumptions result in students not trying to solve the problem properly. Therefore, this research was conducted to see the contribution of positive thinking to student learning outcomes and how to grow it. This research was conducted at MAN 2 Soppeng involving 24 students of class XI. Data was collected by giving points and interview guidelines to measure students' positive thinking, while the learning outcomes data were obtained through student exam results. Interviews were conducted with 3 students who were considered to represent each category of positive thinking level. By using the regression analysis test it is known that positive thinking has a significant effect by contributing 35.3% so this also needs to be a concern in the learning process so that students can optimize their abilities. The ability to think positively can be improved in various ways, such as by creating a good environment, setting goals, applying appropriate learning models, and utilizing learning media. Therefore, each element plays an important role in optimizing students' abilities.

Keywords: Positive Thinking Skills, Learning Outcomes

KONTRIBUSI KETERAMPILAN BERPIKIR POSITIF TERHADAP HASIL BELAJAR SISWA

Abstrak:

Berpikir positif menjadi salah satu faktor yang mempengaruhi hasil belajar siswa. Hal ini karena anggapan negatif siswa mengakibatkan siswa tidak berusaha menyelesaikan soal dengan baik. Oleh karena itu, penelitian ini dilakukan untuk melihat kontribusi berpikir positif terhadap hasil belajar siswa dan cara menumbuhkannya. Penelitian ini dilakukan di MAN 2 Soppeng dengan melibatkan 24 siswa kelas XI. Data dikumpulkan dengan memberikan angket dan pedoman wawancara untuk mengukur berpikir positif siswa, sedangkan data hasil belajar diperoleh melalui hasil ujian siswa. Wawancara dilakukan kepada 3 siswa yang dianggap mewakili setiap kategori tingkatan berpikir positif. Dengan menggunakan uji analisis regresi, diketahui bahwa berpikir positif berpengaruh signifikan dengan memberikan kontribusi sebesar 35.3% sehingga hal ini juga perlu menjadi perhatian dalam proses pembelajaran agar siswa dapat mengoptimalkan kemampuannya.

Kemampuan berpikir positif dapat ditingkatkan dengan berbagai cara, seperti menciptakan lingkungan yang baik, menetapkan tujuan, menerapkan model pembelajaran yang sesuai, dan memanfaatkan media pembelajaran. Oleh karena itu, setiap elemen memegang peranan penting dalam mengoptimalkan kemampuan siswa.

Kata Kunci: Keterampilan Berpikir Positif, Hasil Belajar

How to Cite: Baliana. (2023). The Contribution of Positive Thinking to Students' Learning Outcomes. *MaPan : Jurnal Matematika dan Pembelajaran*, 11(1), 103-119. <https://doi.org/10.24252/mapan.2023v11n1a7>.

INTRODUCTION

Education is a universal aspect that must always exist in human life so it cannot be denied that education is something that cannot be avoided in life (Nurfitriyanti & Rusmana, 2020). Education is needed to give birth to a different future and is self-formation (Colebrook, 2017). Education is a means of social survival (Dewey, 1921). In addition, education is also a series of processes with goals that form the basis of the implementation of education (Zuhdi, Firman, & Ahmad, 2021). Education is organized to broaden knowledge and improve the skills acquired to develop their lives as individuals, members of society, and citizens (Shaturaev, 2021). Therefore, education becomes a necessary element for economic development and the growth of personal knowledge so it becomes one of the basic needs that plays an important role in developing countries (Filho, Azul, Brandli, Salvia, Ozuyar, & Wall, 2021).

The educational process that takes place in schools is carried out based on the applicable curriculum. One of the subjects taught to students at all levels is mathematics. Mathematics supports the development of science, technology, and fields in various other professions so that they can meet human needs (Alhaq, Asnawati, & Sutiarso, 2014; Skemp, 1971), many sciences whose discoveries and developments apply mathematics, so mathematics is very useful for students as a basic science for application in other fields (Sholihah & Mahmudi, 2015). Its existence in the world is needed and its life continues to develop in line with the demands of human needs because there is no human activity/behavior that is separate from mathematics (Kamarullah, 2017). Therefore, mathematics is a subject that is taught at all levels from elementary school to university.

Learning mathematics is a complex thing because it is a process that involves cognition and affective domains (Pollard & Birdsall, 2021). Mathematics is needed to build students' basic knowledge which can train the brain to become more familiar with the world of mathematics (Pereira, Jianlan, Wijaya, Purnama, Hermita, & Tamur, 2021). Mathematics is very important to improve the welfare and progress of society by having a positive impact (Genc & Erbas, 2019). However, as an important subject, mathematics is a frightening subject for students. Laurens, Batlolona, Batlolona, and Leasa (2018) show that many students feel afraid and have difficulty dealing with mathematics. In addition, negative cognitive biases, such as the tendency to pay attention to certain stimuli and interpret them as threatening, are considered part of the early processing components that enable distraction, making it difficult for a person to focus on the details of a math problem and instead dwell on negative thoughts (Barroso, Ganley, McGraw, Geer, Hart, & Daucourt, 2021).

Many factors make students vulnerable in mathematics, such as low positive attitudes, environmental support, and even teacher factors contribute to student abilities, so students' positive attitudes towards mathematics need to be strengthened to maintain student enthusiasm for learning (Ariyanto, Herman, Sumarmo, & Suryadi, 2019). If not, students may find mathematics too difficult so they don't like math lessons (Simamora, Sidabutar, & Surya, 2017). This resulted in mathematics lessons that should be important to learn being unattractive to students (Simamora, Saragih, & Hasratuddin, 2019).

These negative assumptions will make students unable to solve problems properly so they affect student learning outcomes. The mental condition of students is an important aspect of the process of learning mathematics (Ulandari, Amry, & Saragih, 2019). In response to this, various studies were conducted to see the effect of positive thinking in the learning process, as was done by Andinny (2015) which shows that positive thinking can affect mathematics learning achievement. Similar research was also conducted by Anggraeni, Ismail, and Damayanti (2020); Buhais and Hatmoko (2022); Yuliany, Mania, and Iftitah (2021) which shows the effect of positive thinking skills on students' mathematical abilities.

Positive thinking can be defined as an individual's ability to support himself psychologically amidst the complexities of difficult life situations, argue for self-acceptance, emotional and stress reactions, and an optimistic worldview, which is characterized by moments of a world that is far from ideal and characterological qualities of people in around (Bessaraba, Melnyk,

Shakhov, Shakhov, Mateiko, and Ryhel (2022). Positive thinking skills include turning negative thoughts into positive ones, highlighting positive aspects of situations, interrupting pessimistic thoughts using relaxation and distraction techniques, practicing positive thinking, breaking problems into small parts, initiating optimistic beliefs with each part of the problem, and generating feelings positive by controlling negative thoughts (Bekhet & Zauszniewski, 2013). Positive thinking, seen as a reflection of positive psychology, is a mental attitude that keeps thoughts in mind enough to be successful (Celik & Saricam, 2018). Positive thinking is not about not facing problems, but about taking the right approach without giving up when faced with problems (Sabouri, Rambod, & Khademan, 2023). When someone thinks positively, he makes his mind positive in looking at life's problems and problems, implementing solutions in reality, by following a positive approach to solutions (Al-Husaini, 2021).

The ability to think positively usually only occurs in people who live in a positive environment. The positive environment referred to here is an environment that is full of love, and mutual respect and complements each other (Nurfitriyanti & Rusmana, 2020). Positive thinking skills help a person to have self-confidence and communicate with others (Mirza, Ghaleh, Nasiri, & Taheri, 2022) thus producing a positive mental attitude and can help individuals to build hope (Nurmayasari & Murusdi, 2015). The ability to think positively can help students achieve success both at school and in society by forming a good personality and optimistic attitude (Purnamasari, Yusmansyah, & Rahmayanthi, 2015). Therefore, this research was conducted to see the effect of positive thinking skills on learning outcomes by collecting data in the form of questionnaires, and learning outcomes, and conducting interviews with selected samples.

METHODS

This research is a type of Ex post facto quantitative research using student learning outcomes obtained from exam results. Ex post facto research is research with independent variables that have occurred and aims to find causes that allow changes in behavior, symptoms, or phenomena caused by an event, behavior, or things that cause changes in the independent variables as a whole that have occurred (Ibrahim, Alang, Madi, Baharuddin, Ahmad, & Darmawati, 2018). In this study, positive thinking as the independent variable was observed and learning outcomes as the dependent variable that had

occurred. This research was conducted at MAN 2 Soppeng with 24 students in class XI.

Data was collected using questionnaires and interview guidelines to measure students' positive thinking and tests used to measure student learning outcomes. The questionnaire was compiled based on indicators of positive thinking, namely self-confidence, initiative, diligence, and creativity (Asmani, 2011) with 36 statement items. These indicators are also a reference in asking questions to students in interviews. The number of samples in the interviews was 3 people with 1 person in each category. The data obtained were analyzed by simple linear regression to answer the formulated hypothesis, namely that there is an influence of positive thinking on student learning outcomes. Before the test, prerequisite tests were carried out, namely the normality test and homogeneity test.

RESULTS AND DISCUSSION

The results should be clear and concise. The results should summarize (scientific) findings rather than provide data in great detail. The results can be presented in figures, tables, and texts. The discussion or analysis of the findings is not enough to just state that it relates to prior studies. The Discussion should be an interpretation of the results rather than a repetition of the Results. The discussion links the data and analysis results with the problem or research objective and a broader theoretical context.

In this study, two variables are the focus of researchers, namely learning outcomes as the dependent variable and the ability to think positively as the independent variable. Collecting data on these variables is done differently.

The test result data then becomes student learning outcome data. The following is data on student learning outcomes based on test scores that have been collected.

Table 1. Description of Student Learning Outcomes MAN 2 Soppeng

Statistics	Statistics Value
Samples	24
Lowest score	86
Highest score	92
Average	88.29
Standard deviation	1.92

From the table, it can be seen that the lowest score obtained from 24 students was 86 and the highest was 92. The data from the 24 students were also averaged to obtain a value of 88.29 with a standard deviation of 1.92. In addition, student learning outcomes data are also categorized into three, namely high, medium, and low categories which can be seen in the following table.

Table 2. Categorization of Student Learning Outcomes at MAN 2 Soppeng

Category	Interval	Frequency	Percentage (%)
High	$x > 92.24$	5	20.83
Medium	$85.28 \leq x \leq 92.24$	25	62.5
Low	$x < 85.28$	5	20.83
Total		24	100

From the table, it can be seen that student learning outcomes dominate the medium category with a percentage of 62.5%, about three times that of the low category which is 20.83%. While the high category is 20.83%.

Student positive thinking data was collected using a questionnaire with 36 items. The data is then processed and a description of the data is presented in the following table.

Table 3. Description of Positive Thinking Students of MAN 2 Soppeng

Statistics	Nilai Statistik
Samples	24
Lowest score	81
Highest score	127
Average	102.25
standard deviation	10.48

Descriptive analysis showed that the lowest score of positive thinking of 150 students was 81 with the highest score of 127. From the 24 data obtained an average positive thinking of 102.25 with a standard deviation of 10.48. Data from 24 students are then categorized in the following table.

Table 4. Categorization of Positive Thinking Students of MAN 2 Soppeng

Category	Interval	Frequency	Percentage (%)
High	$110 < x \leq 130$	4	16.67
Medium	$90 < x \leq 110$	17	70.83
Low	$70 < x \leq 90$	3	12.50
Total		24	100

In the table above, it can be seen that students' positive thinking is dominated in the medium category by exceeding half of the research sample, which is equal to 70.83%. Although dominated by the medium category, the high category has a difference of 1 with the low category.

To find out the contribution of positive thinking to learning outcomes, a simple regression test was carried out. By using this test, the model equation, in this case, is also obtained. Before carrying out a simple regression test, the prerequisite tests must be fulfilled, namely the normality test and the linearity test. The following are the results of the normality test for learning outcomes and positive thinking data.

Table 5. Normality Test

Data	Sig.	Information
Learning outcomes	0.086	Normal
Positive thinking	0.200	Normal

The significance value of the two data shows a value greater than 0.05 so that the data on learning outcomes and positive thinking is normally distributed so that it is continued to the next prerequisite test, namely the linearity test with the test results as shown in the following table.

Table 6. Linearity Test

Data	F	Sig.	Information
Learning outcomes*positive thinking	0.527	0.836	Linear

Based on the linearity test that has been carried out, a significance value is obtained that is greater than 0.05, namely 0.836 so the data is said to be linear. With the fulfillment of these two prerequisite tests, a simple regression test is performed to test the hypotheses that have been formulated.

Table 7. Simple Regression Test

Data	t	Sig.	R Square
Hasil belajar*berpikir positif	3.47	0.002	0.353

The simple regression test shows a significance value of 0.002 which is less than 0.05 so it can be concluded that there is a positive and significant influence of positive thinking on student learning outcomes. From the tests carried out, it was also obtained that the R square value was 0.353 which indicated that the percentage of the effect of positive thinking on learning outcomes was 35.3% and the remaining 64.7% was influenced by other variables. The regression equation is $Y = 77.143 + 0.109X$. This equation shows that for every increase in positive thinking by 1, the learning outcomes will increase by 0.109.

In addition, through the interviews that have been conducted, students with high positive thinking actively ask questions in class and discuss with friends solving problems. In addition, math problems are considered a challenge so try to solve them either by searching the internet or by asking. This is also a reason for students to keep trying to rework the problem even though they have failed so in working on the problem, understanding is important. Whereas students with moderate positive thinking even though they realize that mathematics is quite difficult still take MIPA classes so they can choose study programs according to their expectations when registering at university. Students with moderate positive thinking do not always perceive mathematics as a difficult subject. In addition, they also have the initiative in discussing with friends or asking the teacher. In contrast, students with low positive thinking think mathematics is a lesson that must memorize formulas, so when you forget the formula it will be difficult to work on the problem. This shows that students' views of mathematics can affect student performance in working on problems so it has an impact on student learning outcomes. In addition, the existence of goals will make students the motivation to study better to achieve these goals.

This research was conducted to see the contribution of positive thinking to student learning outcomes. According to Nabillah and Abadi (2020), student learning outcomes can be influenced by internal factors and external factors. Internal factors are factors within students such as interest and motivation, while external factors are factors that come from outside the student's self, such as teachers, facilities, and learning environment. In their research, Astiti,

Mahadewi, and Suarjana (2021) more specifically show the influence of learning styles and the use of media on student learning outcomes. As an external factor, the influence of learning facilities and teaching methods of teachers is surrounded by Yasmin and Santoso (2019) and shows that learning facilities and teacher teaching methods have a significant effect both simultaneously and partially on student learning outcomes. As part of internal factors, positive thinking also plays a role in determining student learning outcomes so positive thinking becomes one of the things that need to be developed in students to optimize learning outcomes. This underlies this research conducted with the novelty of interviews with students with high, medium, and low positive thinking to show students how to grow their positive thinking skills.

The results of this study are supported by previous research, such as that done by Leonard (2012) which shows a positive and significant influence of positive thinking skills on student learning outcomes. The ability to think positively is a manifestation of a person's commitment and awareness to be able to see the positive side and the benefits of everything that happens to him. The ability to think positively usually only occurs in people who live in a positive environment. also shows the effect of positive thinking on learning outcomes of 31.36%. People who can perceive positively are better able to adapt, influence situations, and show their abilities better, allowing them to avoid negative psychological reactions. In line with this, Celik and Saricam (2018) in their research showed that positive thinking has a positive effect on student learning outcomes. As students' positive thinking skills scores increased, so did their persistence scores. It can be said that students who think positively have more grit or students who are persistent think more positively. This causes student learning outcomes to be better. Positive thinking can support problem-solving (Altakhayneh, 2020).

Positive thinking is a cognitive process that creates hopeful images, develops optimistic ideas, finds solutions to problems, and makes decisions (Bekhet & Zauszniewski, 2013). Positive thinking is looking at events knowing that there will be good and bad, but emphasizing the good (Peale, 1959). The ability to think positively is a form of one's commitment and awareness to be able to see the positive side and the beneficial side of everything that happens within him (Nurfitriyanti & Rusmana, 2020) and helps students improve their academic success (Panahi, Panahi, & Sobhani, 2016). Positive thinking skills are effective in reducing student academic procrastination (preparing for

exams, preparing for homework, and completing final assignments) (Elgohary, Soleman, & Mohtady, 2022). Positive emotions such as positive thinking add to the intellectual and psychological resources of students (Fredrickson, 2001). Teachers, parents, and peers are very important in building students' positive attitudes toward mathematics (Mazana, Montero, & Casmir, 2019).

In addition, through the interviews that have been conducted, students with high positive thinking actively ask questions in class and discuss with friends solving problems. This shows that students have the initiative in solving problems by discussing them with others. In addition, math problems are considered a challenge so try to solve them either by searching the internet or by asking. This is also a reason for students to keep trying to rework the problem even though they have failed, so in working on the problem, understanding is important. This is in line with the opinion of which states that positive thinking is a method or result of a positive focus on constructive problems, which eliminates negative or destructive thoughts and emotions. Positive thinking can make individuals show enthusiastic behavior in various circumstances (Anggraeni, 2020). This causes students who experience failure to keep trying to solve the questions given. Mathematics is considered something challenging so it encourages students to continue studying it. This positive view has a positive impact on student learning outcomes.

Whereas students with moderate positive thinking even though they realize that mathematics is quite difficult still take MIPA classes so they can choose the study program according to their expectations when registering at the university. Students with moderate positive thinking do not always perceive mathematics as a difficult subject. Some questions are difficult and some are easier questions. In addition, they also have the initiative in discussing with friends or asking the teacher. This shows that goals can lead students to become individuals who have the desire to get things done in achieving these goals. With these goals, students can change their way of thinking to achieve goals (Ahmad & Maulana, 2019). Predetermined goals make students dare to take risks (Perdana, 2019) and still choose the MIPA class even though they realize that mathematics is a subject that will often be studied.

In contrast, students with low positive thinking think mathematics is a lesson that must memorize formulas, so when you forget the formula it will be difficult to work on the problem. Memorizing formulas in math lessons can help students work on problems. It's just that, without understanding the

formula, you can't work on various questions so when you get non-routine questions, students tend to think that the questions are difficult. Understanding concepts is very important in supporting students' ability to understand mathematics further (Fauzi, Sawitri, & Syahrir, 2020; Sari, 2017). With an understanding of the concept, students can use these concepts in solving problems in various ways (Annisa, Amir, & Vebrianto, 2021). In her research, Annisa, Amir, and Vebrianto (2021) show that students have difficulty applying the formula. This can lead to inappropriate answers (Firdaus, Amalia, & Zumeira, 2021). Therefore, understanding is the most important thing so that the formula can be used in solving problems. To overcome this, the learning process needs to emphasize understanding concepts so that students are no longer fixated on using formulas alone, but on how to use these concepts in various situations.

This shows that students' views of mathematics can affect student performance in working on problems so it has an impact on student learning outcomes. Student environments such as teachers, parents, and friends can help students in the learning process, so a good environment will also have a good impact, including students' views of mathematics. Setting goals will also have an impact on student enthusiasm for learning. For this reason, it is important to direct students in setting future goals so that they can foster motivation in students and have a better enthusiasm for solving problems. The importance of understanding in the process of learning mathematics also needs to be emphasized. Mathematics needs to be learned not only limited to my formulas, so the habit of memorizing formulas should be done after students understand the concept of the material.

CONCLUSION

Descriptive analysis showed that the average student learning outcome was 88.26, dominating in the medium category with a percentage of 63.33%, while positive thinking was with an average of 103.97 and also dominated by the medium category with a percentage of 65.34%. Testing the hypothesis with the inferential test shows a significance value of 0.0001 so it is concluded that there is a positive and significant influence of positive thinking on student learning outcomes of 21.1% with the regression equation $Y = 74.076 + 0.136X$. Students' views of mathematics will affect student learning outcomes so teachers need to give positive affirmations to students so that mathematics becomes a subject that students can understand. In addition, the existence of

goals can make students the motivation to do something that they consider difficult so that there is encouragement in students to continue solving problems under any circumstances.

For further research, researchers suggest using other variables. Given that it is not only effective aspects that can affect learning outcomes, cognitive aspects can also be used as variables that can affect student learning outcomes, for example, the ability to represent and understand concepts. In addition, external factors that can affect learning outcomes can be used as independent variables, such as the learning model and media used. Several other aspects that can be examined will complement each other in improving the quality of student learning outcomes so it needs to be done.

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