

Exploration of Mathematics Learning Motivation of Madrasah Aliyah (MA) Students in Geometry Material

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Abstrak:

Pada penelitian ini peneliti melakukan observasi awal yang dilakukan pada siswa kelas XI IPA di MAN 2 Kota Malang, masih ada siswa yang motivasi belajarnya rendah dalam mengikuti mata pelajaran matematika. Terlihat dari hasil belajar tengah semester yakni sekitar 37 % hasil belajar siswa di bawah kriteria ketuntasan minimal (KKM). Tujuan penelitian ini untuk mengeksplorasi motivasi belajar siswa pada pelajaran matematika di materi geometri. Penelitian dilaksanakan di MAN Kota Malang. Populasi dalam penelitian ini adalah seluruh siswa kelas XI MIPA di MAN 2 Kota Malang yang berjumlah 226 siswa yang terdiri dari 8 kelas. Pengambilan sampel dilakukan dengan simple random sampling, jumlah sampel yaitu 150 siswa. Instrumen yang digunakan metode angket, skala pengukuran yang digunakan pada instrumen angket ini adalah skala likert dengan bentuk checklist (√). Berdasarkan dari data penelitian ini didapatkan indikator tujuan orientasi intrinsik memperoleh skor 3,68% dengan kategori baik. Sedangkan, indikator motivasi ekstrinsik dikategorikan baik dengan persentase 3,72%. Indikator nilai tugas dikategorikan baik dengan skor 3,80%. Indikator kontrol kepercayaan untuk pembelajaran memperoleh 3,50% dikategorikan baik. Indikator kepercayaan diri dengan skor 3,57% menunjukkan kriteria baik. Indikator terakhir kecemasan saat tes memperoleh skor 3,32% menunjukkan kriteria baik. Dengan mempunyai motivasi belajar yang tinggi, siswa akan mampu mengatasi kecemasannya saat menjelang Ujian sebagai suatu tantangan yang harus dihadapi untuk menuju keberhasilan.

Abstract:

In this study, the researcher made preliminary observations on students of class XI IPA at MAN 2 Malang City, there were still students who had low learning motivation in participating in mathematics. It can be seen from the mid-semester learning outcomes, namely around 37% of student learning outcomes under the minimum completeness criteria (KKM). The purpose of this study was to explore students' motivation in mathematics in geometry material. The research was conducted at MAN Malang City. The population in this study were all students of class XI MIPA at MAN 2 Malang City, totaling 226 students consisting of 8 classes. Sampling was done by simple random sampling, the number of samples was 150 students. The instrument used was the questionnaire method, the measurement scale used in this questionnaire instrument was a Likert scale with a checklist form (√). Based on this research data, it was found that the objective indicator of intrinsic orientation obtained a score of 3.68% in the good category. Meanwhile, indicators of extrinsic motivation are categorized as good with a percentage of 3.72%. The task score indicator is categorized as good with a score of 3.80%. Trust control indicators for learning to get 3.50% are categorized as good. The self-confidence indicator with a score of 3.57% indicates good criteria. The last indicator of anxiety when the test scores 3.32% indicates good criteria. By having high learning motivation, students will be able to overcome their anxiety when approaching exams as a challenge that must be faced to achieve success.

Keywords: Motivation learning, Mathematics, Geometry

Kata Kunci: Motivasi belajar, Matematika, Geometri

Introduction

Education is an effort that is carried out programmatically to develop higher potential and individual abilities in taking the learning process. Education is an individual need that must be met, given the meaning of education itself based on the

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Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System Chapter 1 Article 1 which states that: Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively developing his potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by himself, society, nation and state (Pavlovičová & Bočková, 2021; Sugianto, Darmayanti, et al., 2022).

The main activity of education is learning, there is no education without learning. Learning is an individual activity to acquire knowledge, behavior and skills as a result of an experience (Hosseini et al., 2022; ND Safitri et al., 2023). The results of learning a person can find out what is not yet known, can do what he has not been able to do to the extent of his ability to what capacity he can get (Chen, 2019; Inganah et al., 2023; Lin et al., 2017). The desire to learn is the main capital for someone in pursuing their education, this cannot be separated from a factor that influences learning, one of which is motivation (Alphonse & Mwantimwa, 2019; Sundi et al., 2020; Vidyastuti et al., 2022). Motivation is the impetus that moves and directs one's activities to achieve a goal (Hasanah et al., 2022; Pradilasari et al., 2019; Sah RWA et al., 2022).

Someone who has motivation in learning will look more enthusiastic, show a serious attitude to learn, want to achieve the best performance and so on (Fauza et al., 2022; Lin et al., 2017; Sarkar et al., 2020; Schukajlow et al., 2022). Conversely someone who does not have motivation in learning looks unenthusiastic, lazy, does not have the power to compete to get the best achievement in learning (Casanova et al., 2021; Hamidah et al., 2020; Sugianto, Cholily, et al., 2022). The results of initial observations made by researchers in class XI IPA students at MAN 2 Malang City, there are still students who have low learning motivation in participating in mathematics. It can be seen from the mid-semester learning outcomes, namely around 37% of student learning outcomes under the minimum completeness criteria (KKM). This means that the motivation to learn in education also influences the learning outcomes they obtain.

Intrinsic motivation is the motivation to get involved in an activity because of the value/benefits of the activity itself (Abramovich et al., 2019; Filgona et al., 2020; Sibiya, 2019). Extrinsic motivation is motivation to involve oneself in an activity as a way to achieve a goal. Students' intrinsic motivation can be affected by challenge, curiosity, control and fantasy (Darmayanti et al., 2022; Haftador et al., 2021). Referring to this opinion, it can be concluded that the indicators of intrinsic motivation are challenge, curiosity, control and fantasy. Individuals who are extrinsically motivated to work on tasks because they believe that participation will result in desirable outcomes such as rewards, teacher praise, or avoidance of punishment (Manzano-León et al., 2021; Mensah & Nabie, 2021). Extrinsic motivation indicators are getting gifts, receiving praise from teachers and avoiding punishment. This study explores students' motivation in learning mathematics towards geometry material.

Method

The method used is descriptive research method with a quantitative approach. The research was conducted at MAN 2 Malang City. The population in this study were all students of class XI MIPA at MAN 2 Malang City, totaling 226 students consisting of 8 classes. Sampling was done by simple random sampling, the number of samples was 150 students. The instrument used was the questionnaire method, the measurement scale used in this questionnaire instrument was a Likert scale with a checklist form (\surd). The statement

items submitted to respondents with alternative answers strongly agree, agree, disagree, disagree and strongly disagree.

Results and Discussion

The results showed that students' intrinsic motivation was 3.68%, and extrinsic motivation was 3.72%. The magnitude of the two motivations is balanced and there is no motivation that dominates the student's learning motivation.

Table 1. The results of the analysis of students' learning motivation in learning geometry

Indicator	Mean	Category
Intrinsic orientation goals	3,68	Good
Extrinsic orientation goals	3,72	Good
Assignment Grades	3,80	Good
Confidence Control For Learning	3,50	Good
Confidence	3,57	Good
Test anxiety	3,32	Good
Accumulation average	3,60	Good

Based on this research data, it was found that the objective indicator of intrinsic orientation obtained a score of 3.68% in the good category. Learning motivation on intrinsic indicators involves internal motivation in doing something for one's own interests (Anjani et al., 2016). Students who have high learning motivation are students who have high learning concentration, are diligent in learning and focused (Khikmawati et al., 2021). This shows that students want to have some challenging materials and learn more about geometry. If students have enough time to practice, the results will be better and contribute a lot in life.

Meanwhile, indicators of extrinsic motivation are categorized as good with a percentage of 3.72%. This means proving that students are interested and have curiosity about geometry material. Also, choosing the right learning pattern because learning geometry can increase overall academic scores because of that students tend to think about questions that cannot be answered in the previous section. In this case, the teacher plays an important role in increasing students' extrinsic learning motivation (Hasanah et al., 2022; Inganah et al., 2023; Suharini, 2021). Various ways can be done so that students are motivated to learn. Teachers who are successful in teaching are teachers who are good at arousing students' interest in learning (Haq, 2018; Rizki et al., 2022).

The assignment score indicator is categorized as good with a score of 3.80%, which means that it proves that students have a great desire to understand the content of geometry learning material, and hope to get a higher score than other classmates. students have the desire and passion in learning math material and are able to complete math assignments to get maximum grades(Nurhayati & Purwanto, 2021). Students feel that geometry material is very useful and is a part of mathematics that is very close to students (Sholihah & Afriansyah, 2018a), because almost all visual objects around students are geometric objects (Andriliyani et al., 2022), if not learn better, then it is his own fault. Students tend to think about the consequences if they fail the assessment.

The control indicator of confidence for learning to get 3.50% is categorized as good, which means that it shows that some students want to have more homework which will help them learn more, although this will not increase grades. In studying geometry, students need a mature concept so that students are able to apply their geometry skills (Fauzi & Arisetyawan, 2020). In addition, the control of belief in learning is also very important. With high confidence in learning, students can show their abilities to their classmates. The lack of self-confidence that students have in learning mathematics, causes low interaction in the

classroom (Rustan & Bahru, 2018). If students can understand the content of geometry learning material well, then students will be able to master each topic in the lesson (Sholihah & Afriansyah, 2018b) although still feel nervous and worried during the exam.

The self-confidence indicator with a score of 3.57% shows good criteria, which means that students are able to understand material topics by working hard and have the ability to teach them to their classmates. Confidence can encourage children to dare to express opinions, dare to appear, dare to ask questions, and so on, which can make these children superior or achievers compared to their less confident peers (Nurani et al., 2018). Children who lack self-confidence tend to close themselves off, don't dare to express opinions, don't dare or are embarrassed to appear, don't dare to try, and are afraid of being wrong (Khaeruman & Saleh, 2016). These things will result in a lack of motivation to learn in children. Confidence is a need for every individual. If children have self-confidence, then they are ready to face the dynamics of life in a school environment which is full of challenges (Gusnita & Solfema, 2022). Having confidence in one's own abilities and not hiding one's weaknesses can lead children to become successful and independent adults (Pradja & Tresnawati, 2018). Oxford Advanced Learner's Dictionary defines "Self-confidence as believing in your own ability to do something and succeed".

The last indicator of anxiety when the test obtained a score of 3.32% indicates a good criterion that students are able to reduce anxiety, especially when facing questions on geometry material given by the teacher. Students tend to prepare themselves better for exams by studying harder and taking more breaks. Students who have high learning motivation will have a lot of energy to carry out learning activities so that with the learning motivation contained in students, students will try to make changes in behavior that are better in meeting their needs. (Suardana & Simarmata, 2013). By having high learning motivation, students will be able to overcome their anxiety when approaching exams as a challenge that must be faced to achieve success. Students who have high learning motivation will also be able to overcome anxiety problems that can interfere with the process of carrying out the exams they face which can later impact on the final results of the exams they face. Motivation is the first step in the occurrence of good learning because learning is said to be good if the initial, general, and specific goals are achieved (Azrai et al., 2018). Conversely, if students who have low learning motivation tend to experience anxiety when approaching exams. If anxiety is allowed to continue, it will result in unresolved problems faced by students, so that students are unable to control themselves. Students will view exams as a burden and this of course makes students feel that it is a scary thing (Apriani et al., 2021)

Conclusion

The conclusion section contains a summary of the results achieved and is the answer to the problem formulation. Therefore, conclusions must be aligned with the formulation of the problem and research objectives. As is the case with research objectives, if there is more than one conclusion written down, the number should be numbered and not bulleted. In conclusion, it can also be added the prospect of development from research results and further applications which will become prospects for the next study.

The conclusion of the research seen from the results of this study obtained that students' intrinsic motivation was 3.68%, and extrinsic motivation was 3.72%. The magnitude of the two motivations is balanced and there is no motivation that dominates the student's learning motivation. The task score indicator is categorized as good with a score of 3.80%. Trust control indicators for learning to get 3.50% are categorized as good. The self-

confidence indicator with a score of 3.57% indicates good criteria. The last indicator of anxiety when the test scores 3.32% indicates good criteria.

Confidence can encourage children to dare to express opinions, dare to appear, dare to ask questions, and so on, which can make these children superior or achievers compared to their less confident peers. Students who have high learning motivation will have a lot of energy to carry out learning activities so that with the learning motivation contained in students, students will try to make changes in behavior that are better in meeting needs. By having high learning motivation, students will be able to overcome their anxiety when approaching exams as a challenge that must be faced to achieve success. Students who have high learning motivation will also be able to overcome anxiety problems that can interfere with the process of carrying out the exams they face which can later impact on the final results of the exams they face.

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