

## MATHEMATICAL DISPOSITION SCHEME OF ELEMENTARY SCHOOL STUDENTS BASED ON ADVERSITY QUOTIENT (AQ)

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### ABSTRACT

This research is motivated by the lack of public awareness of the importance of affective aspects in the world of education, especially mathematics. In mathematics, a positive attitude towards mathematics which includes self-confidence, flexibility, persistence, curiosity and appreciation of the role of mathematics is called a mathematical disposition. One of the internal factors that influence the mathematical disposition is Adversity Quotient (AQ) which has three levels, namely climber, camper and quitter. The purpose of this study is describe the mathematical disposition of students with AQ climbers, campers and quitters. The approach used in this research is qualitative with descriptive type. The instrument used is an aq questionnaire which is used to classify students' aq levels and an observation sheet which is used to determine students' mathematical dispositions. The research subjects were fifth grade students in the Mataram City area. The conclusions of this research are (1) Subjects with AQ climber have a mathematical disposition score of 90% can show all indicators of students' mathematical disposition, namely self-confidence, flexibility, persistence, curiosity and appreciation of the role of mathematics. (2) Subjects with AQ camper have a score of 57.5% mathematical disposition can show three indicators of students' mathematical disposition, namely self-confidence, curiosity and appreciation of the role of mathematics. (3) Subjects with AQ quitter have a mathematical disposition score of 41.5% that does not show a mathematical disposition at all.

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### INTRODUCTION

Education is one of the important things in an effort to educate the nation's life. One of the efforts made by the government is the renewal of the education curriculum (Hakim & Murtafiah, 2020). In Indonesia has implemented a. The curriculum is called the 2013 Curriculum. The 2013 curriculum is designed with one of the characteristics of developing

attitudes, knowledge and skills and applying them in various situations in schools and communities (Hidayat, 2017).

Most people assume that knowledge and skills are the most important aspects of education and override attitudes, even though if these three aspects are combined they are equally important to support student success. One of the affective skills of students in mathematics learning is currently known as mathematical disposition (Mirza & Atrizka, 2018). Mathematical disposition according to Ahyani (2016) is the tendency to think and act positively. Talking about mathematics, students are expected to have a strong curiosity, interest, always want to express collaboration, confidence, and can produce knowledge that is well acquired. A good apperception in students in mathematics is called mathematical disposition. The orientation of curriculum development at this time in Indonesia is the achievement of balanced competencies between competencies, skills and knowledge, ways of learning that are holistic and enjoyable, learning based on science, and not supporting memorization. Current learning in terms of curricula that apply in Indonesia has been approved for the ability of students, not only in the mastery of understanding concepts and one of them is the ability to think critically.

In an effort to improve students' mathematical disposition, one of the internal factors that influence it is Adversity Quotient. Adversity Quotient (AQ) is a factor that can determine how, so or not, and the extent to which individual attitudes, abilities, and performance are manifested in the world (Yani et al., 2016); (Sholikhah & Miftahuddin, 2019). Adversity Quotient (AQ) is persistence in overcoming all obstacles in climbing the desired peak of success (Listiwati & Sebayang, 2019). In dealing with problems, there are three types of children, namely: the quitter type (those who quit), the camper type (those who camp), and the climber type (those who climb). The quitter type is a child who will try to stay away from problems. The camper type is a child who has not yet reached the peak but is satisfied with the conditions he has achieved and does not want to take risks. The climber type is a child who already has goals and targets. To achieve that goal he was able to work with tenacity and persistence.

Adversity Quotient (AQ) plays an important role in determining one's success, regardless of the profession one is engaged in. AQ has three forms, namely: (1) AQ is a new conceptual framework for understanding and improving all aspects of success, (2) AQ is a measure to determine a person's response to difficulties, (3) AQ is a series of tools that have a scientific basis to improve a person's response to difficulties (Sari et al., 2016); (Fatmahanik, 2018). Furthermore, Ekayanti & Nasyiithoh (2018) said that AQ can predict a person's performance, motivation and creativity. In learning activities, motivation is the driving force in students, so that students are willing to learn. The learning motivation of climber students is higher than that of camper and quitter students. But the motivation of camper and quitter students can be raised.

## **METHOD**

The method used in this research is descriptive qualitative. This research will be carried out on fifth grade elementary school students in the Mataram City area in the even semester of 2020/2021. The instruments used to collect research data are questionnaires and observation sheets. Questionnaire is used to determine the level of Adversity Quotient of students. The questionnaire used is arranged based on the dimensions of the Adversity Quotient. From the results of the student questionnaire, they will be grouped based on the Adversity Quotient level. One student will be taken from each group who will be used as the research subject. The observation sheet is used to determine the students' mathematical disposition. This observation sheet is filled in by observers during the two lessons (Somaratne et al., 2020).

Furthermore, the data obtained will be analyzed by time triangulation. The results of data analysis will be tested using SPSS software as the basis for drawing conclusions. The validity test of the data used in this study is a credibility test with a source triangulation examination technique, namely by means of the data obtained (the results of the TPA and interviews) from the first subject compared to the second subject of each type of AQ and seen the suitability between the two sources or subjects. The data obtained from the two subjects from each type of AQ can be said to be credible if the results of the triangulation are mutually compatible with the percentage of conformity 60% of the total number of indicators of adaptive reasoning (Amelia, 2015). Meanwhile, if the percentage of conformity is < 60% of the total number of adaptive reasoning indicators, then other sources are needed until there are many similarities between the two subjects or sources from each type of AQ.

## RESULTS AND DISCUSSION

Based on the results of the Adversity Quotient questionnaire, 6 students were obtained in the climber group, 20 students in the camper group, and 4 students in the quitter group. From each group, one student was selected as the research subject with the following scores:

**Table 1.** Student scores according to category.

Subject	Experiments
Climber	102
Camper	93
Quitter	68

### *1. Students' mathematical disposition on the Adversity Quotient Climber*

The results of students' mathematical disposition on the AQ Climber have an average percentage of 90% mathematical disposition. The subjects with the AQ Climber showed all indicators of mathematical disposition, namely self-confidence, flexibility, persistence, curiosity and appreciation of the role of mathematics.

This is in line with the research of Sanit et al. (2019) explains that the higher the intelligence of students, the better the mindset and able to improve their thinking skills, one of which is reasoning and solving mathematical problems. As long as students who have AQ climbers carry out problem solving processes related to adaptive reasoning, students continue to try to solve the problems presented. If students experience problems in solving problems, students never give up and always try to get answers that are in accordance with what was planned. So that students with AQ climbers get the best results in solving the problems presented. This is in accordance with the theory of Putra et al. (2016) which states that students with the AQ climber type are the type of students who always try to reach the peak of success and are ready to face existing obstacles. Students with AQ climbers always have the motivation to achieve a target to be achieved.

### *2. Students' mathematical disposition in Adversity Quotient Camper*

The results of students' mathematical dispositions at AQ Camper have an average percentage of mathematical dispositions of 57.5%. Subjects with AQ Camper can show three indicators of mathematical disposition, namely self-confidence, curiosity and appreciating the role of mathematics.

From these results, it can be seen that students with AQ campers have better adaptive reasoning than students with AQ quitters in solving math problems. This is in accordance with the opinion of Sakdiah (2017) which states that students who have a camper AQ have

adaptive reasoning which tends to be better than students who have a quitter AQ. Based on the results of interviews, students with AQ camper find it difficult to solve math problems. However, they try to finish even though in the end they are only satisfied with the results obtained. This is in accordance with the theory of Jasak et al. (2020) which states that students with AQ campers are individuals who are easily satisfied with what they have achieved. Thus, it can be seen that students who have a camper AQ are less than optimal in their reasoning.

### **3. Students' mathematical disposition on Adversity Quotient Quitter**

The results of students' mathematical disposition on AQ Quitter have an average percentage of 41.25% mathematical disposition. The subjects with the AQ Climber did not show their mathematical disposition on all indicators, whether they were confident, flexible, persistent, curious or appreciating the role of mathematics.

This is in line with the results of Purwasih's research (2019) that students with AQ quitters are only able to write down information obtained from the mathematical problems presented. In addition, based on the results of interviews, students with AQ quitters assume that problems mate and answer modestly in solving problems without maximizing their reasoning. This is in accordance with Kusumawati's (2018) theory which states that students who have AQ quitters are students who easily give up, give up easily and are not enthusiastic about achieving success. So students who have AQ quitters do not have the motivation to solve a problem, especially in math problems. The conclusion of the research results can be seen in table 2.

**Table 2.** Research achievement.

<b>Indikator</b>	<b>AQ Climber</b>	<b>AQ Camper</b>	<b>AQ Quitter</b>
Self-confident	√	√	-
Flexible	√	-	-
Persistent	√	-	-
Curiosity	√	√	-
Appreciate the role of mathematics	√	√	-

## **CONCLUSION**

From the results of the data that has been obtained, the authors can conclude that:

1. Students with AQ can show indicators of mathematical disposition, namely self-confidence, flexibility, persistence, curiosity and appreciation of the role of mathematics.
2. Students with AQ camper can show indicators of mathematical disposition, namely self-confidence, curiosity and appreciate the role of mathematics
3. Students with quitter AQ cannot show mathematics at all.

## **REFERENCES**

- Ahyani, L. N. (2016). Meningkatkan Adversity Quotient (Daya Juang) Pada Anak Anak Panti Asuhan Melalui Penguatan Sosial Support. *Jurnal Psikologi Perseptual*, 1(1). <https://doi.org/10.24176/perseptual.v1i1.1079>
- Amelia, mona. (2015). Pengaruh Adversity Quotient, Iklim Kelas, Dan Kebiasaan Belajar Terhadap Prestasi Belajar Ekonomi Siswa Kelas Xi.Is Sma Negeri Di Kabupaten

- Tanah Datar. *Economica*, 4(1), 149–159.  
<https://doi.org/10.22202/economica.2015.v4.i1.263>
- Ekayanti, A., & Nasyiithoh, H. K. (2018). Profile of Students' Errors in Mathematical Proof Process Viewed from Adversity Quotient (AQ). *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, 3(2), 155. <https://doi.org/10.24042/tadris.v3i2.3109>
- Fatmahanik, U. (2018). Pola Berfikir Reflektif Ditinjau Dari Adversity Quotient. *Kodifikasia*, 12(2), 275. <https://doi.org/10.21154/kodifikasia.v12i2.1525>
- Hakim, F., & Murtafiah, M. (2020). Adversity Quotient And Resilience In Mathematical Proof Problem-Solving Ability. *MaPan*, 8(1), 87. <https://doi.org/10.24252/mapan.2020v8n1a7>
- Hidayat, W. (2017). Adversity Quotient Dan Penalaran Kreatif Matematis Siswa Sma Dalam Pembelajaran Argument Driven Inquiry Pada Materi Turunan Fungsi. *KALAMATIKA Jurnal Pendidikan Matematika*, 2(1), 15. <https://doi.org/10.22236/KALAMATIKA.vol2no1.2017pp15-28>
- Jasak, F., Sugiharsono, S., & Sukidjo, S. (2020). The Role of Soft Skills and Adversity Quotient on Work Readiness among Students in University. *Dinamika Pendidikan*, 15(1), 26–39. <https://doi.org/10.15294/dp.v15i1.23530>
- Kusumawati, E. D. (2018). Pengaruh Adversity Quotient, Regulasi Diri Dan Efikasi Diri Terhadap Motivasi Berprestasi Siswa Kko Smp Negeri 13 Yogyakarta. *Jurnal Pendidikan Agama Islam*, 14(1), 131–165. <https://doi.org/10.14421/jpai.2017.141-08>
- Listiawati, N., & Sebayang, S. K. (2019). The Association Between Sociodemographic Factors And Teachers' Guidance Towards Students' Adversity Quotient. *International Journal of Education*, 11(2), 109. <https://doi.org/10.17509/ije.v11i2.15341>
- Mirza, R., & Atrizka, D. (2018). Kepuasan Kerja Ditinjau dari Adversity Quotient dan Work Family Conflict pada Perawat Wanita yang Telah Menikah di Rumah Sakit Umum Daerah Dr. RM. Djoelham Binjai. *JURNAL DIVERSITA*, 4(2), 119. <https://doi.org/10.31289/diversita.v4i2.2049>
- Purwasih, R. (2019). Kemampuan Berpikir Kreatif Matematis Siswa Smp Dalam Menyelesaikan Soal Pemecahan Masalah Di Tinjau Dari Adversity Quotient Tipe Climber. *AKSIOMA: Jurnal Program Studi Pendidikan Matematika*, 8(2), 323. <https://doi.org/10.24127/ajpm.v8i2.2118>
- Putra, M. R. G., Hidayati, N. O., & Nurhidayah, I. (2016). Hubungan Motivasi Berprestasi Dengan Adversity Quotient Warga Binaan Remaja Di Lpka Kelas Ii Sukamiskin Bandung. *JURNAL PENDIDIKAN KEPERAWATAN INDONESIA*, 2(1), 52. <https://doi.org/10.17509/jpki.v2i1.2853>
- Sakdiah, H. (2017). Urgensi Adversity Quotient Dalam Membangun Keluarga Sakinah (Pendekatan Konseling Pernikahan). *KONSELING RELIGI Jurnal Bimbingan Konseling Islam*, 7(2), 99. <https://doi.org/10.21043/kr.v7i2.1862>
- Sanit, I. N., Subanji, S., & Sulandra, I. M. (2019). Profil Penalaran Aljabaris Siswa Dalam Memecahkan Masalah Matematika Ditinjau dari Adversity Quotient. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 4(9), 1213. <https://doi.org/10.17977/jptpp.v4i9.12711>
- Sari, C. K., Sutopo, S., & Aryuna, D. R. (2016). The Profile of Students' Thinking in Solving Mathematics Problems Based on Adversity Quotient. *JRAMathEdu (Journal of*

Research and Advances in Mathematics Education), 1(1), 36–48.  
<https://doi.org/10.23917/jramathedu.v1i1.1784>

Sholikhah, T. I., & Miftahuddin, M. (2019). Attending University Course And Islamic Boarding School: The Case Of Pai Students Of Iain Salatiga (Study of Motivation and Implications for Adversity Quotient). *JURNAL TARBIYAH*, 26(2).  
<https://doi.org/10.30829/tar.v26i2.476>

Somaratne, C. S. N., Jayawardena, L. N. A. C., & Perera, B. M. K. (2020). Role of Adversity Quotient (AQ) on Perceived Stress of Managers: with specific reference to AQ Dimensions. *Kelaniya Journal of Management*, 8(2), 40.  
<https://doi.org/10.4038/kjm.v8i2.7603>

Yani, M., Ikhsan, M., & Marwan, M. (2016). Proses Berpikir Siswa Sekolah Menengah Pertama Dalam Memecahkan Masalah Matematika Berdasarkan Langkah-Langkah Polya Ditinjau Dari Adversity Quotient. *Jurnal Pendidikan Matematika*, 10(1).  
<https://doi.org/10.22342/jpm.10.1.3278.42-57>.