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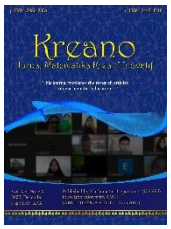

Analysis of Students' Mathematical Concept Understanding Ability in Terms of Student Resilience at Ban Kadeng School Thailand

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Abstract

Concept understanding ability is one of the main elements in learning mathematics. Understanding students' concept understanding ability will help teachers to plan better learning. Therefore, by understanding students' concepts, understanding ability, and resilience, teachers can improve the quality of education in a school. This study aims to analyze the relationship between students' resilience and understanding of mathematical concepts through story problems. The type of research is qualitative descriptive, the subject of this research is fifth-grade students of Ban Kadeng School, Thailand, and the object of research is the ability to understand students' mathematics concepts in terms of student resilience. The research instruments used are the resilience questionnaire, concept understanding ability test questions, and interviews. The analysis was carried out on indicators of concept understanding, such as restating concepts, classifying objects based on mathematical concepts, and giving examples or counter-examples to the concepts being learned obtained through the instruments that have been carried out. The results showed that in the ability to understand mathematical concepts, Ban Kadeng School students have a moderate level of resilience, namely 65% of students can understand the two main indicators, 25% of students with high resilience can understand all indicators, and 10% of students with low resilience are lacking in understanding the given indicators. So it can be concluded that there are differences in concept understanding ability between high resilience, moderate resilience, and low resilience students in class V Ban Kadeng School, Thailand. The results of this study can be used as a basis for research on the application of learning models, assessments, or types of feedback that are appropriate for students.

Keywords: Understanding; Mathematical Concepts; Resilience

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Abstrak

Kemampuan pemahaaman konsep adalah salah satu unsur utama dalam belajar matematika. Memahami kemampuan pemahaman konsep siswa, akan membantu guru dalam merencanakan pembelajaran yang lebih baik. Oleh sebab itu, dengan memahami kemampuan pemahaman konsep, serta resiliansi siswa, guru akan mampu memperbaiki kualitas pendidikan di suatu sekolah. Penelitian ini bertujuan untuk menganalisis antara resiliensi siswa dan pemahaman konsep matematis melalui penggunaan soal cerita. Jenis penelitian deskriftif kualitatif, subjek penelitian ini adalah siswa kelas V BanKadeng School, Thailand, dan objek penelitiannya adalah kemampuan pemahaman konsep Matematika siswa ditinjau dari resiliennsi siswa. Instrumen penelitian yang digunakan adalah angket resiliensi, soal tes kemampuan pemahaman konsep dan wawancara. Analisis dilakukan terhadap indikator pemahaman konsep, seperti menyatakan ulang konsep, mengklasifikasikan objek berdasarkan konsep matematika, dan memberikan contoh atau kontra contoh pada konsep yang dipelajari yang diperoleh melalui instrumen yang telah dilakukan. Hasil penelitian menunjukkan dalam kemampuan pemahaman konsep matematis siswa Ban Kadeng School memiliki tingkat resiliensi sedang yaitu sebanyak 65% siswa dapat mememahami dua indikator utama, siswa dengan resiliensi tinggi sebanyak 25% dapat memahami keseluruhan indikator, dan siswa dengan resiliensi rendah sebanyak 10% kurang dalam memahami indikator yang diberikan. Jadi dapat disimpulkan bahwa terdapat perbedaan kemampuan pemahaman konsep antara siswa resiliensi tinggi, resiliensi sedang, dan resiliensi rendah di kelas V Ban Kadeng School, Thailand. Hasil penelitian ini dapat digunakan sebagai dasar untuk riset tentang penerapan model pembelajaran, asesmen, ataupun jenis feedback yang tepat untuk siswa.

INTRODUCTION

Concept understanding is the basis for learning mathematics (Wulansari et al., 2021). Conceptual ability must be acquired by a student (Kementrian Pendidikan dan Kebudayaan Republik Indonesia 2016) stated that concept understanding is the basis for learning mathematics (Afifah et al., 2024). In previous research, it was also stated that in a learning process, the ability to understand concepts is fundamental. (Syaifar et al., 2022). Understanding concepts in mathematics is related to each other, so it will be difficult for students to learn the next material if they are constrained in understanding the concepts (Fairus et al., 2023). Dahar mentions that "if compared to concepts, concepts are the building blocks of thinking", therefore students who are unable to understand concepts well will find it difficult to continue to the next learning (Aledya, 2019). Concept understanding is the ability of students to master the material and students can reapply the material with a more understandable language, not only knowing or remembering the concepts learned. (Suendarti & Liberna, 2021). The ability of students to understand mathematical ideas in an applied and universal manner can be called concept understanding. The ability to understand concepts is very important for students to be able to continue learning at the next level. However, the low ability of students to understand mathematical concepts is a problem. This can be seen from the results of the Trends in International Mathematics and Sciences study (TIMSS) survey, where Indonesia is ranked 6th from the bottom (Natasya et al., 2023).

Conceptual understanding refers to an integrated and functional understanding of mathematical ideas. Students with conceptual understanding know more than just isolated facts and methods. They understand why the mathematical idea is important and the type of context in which the idea is useful. They have organized their knowledge into a coherent whole, which allows them to learn new ideas by connecting those ideas to what they already know. Conceptual understanding also supports retention because facts and methods learned with understanding are connected, so they are easier to remember and use, and indeed

reconstructed when forgotten (Bartell et al., 2013; Booth, 2002; Godino, 1996; Schoenbach et al., 1999; Yuliani & Suragih, 2015)

Furthermore, to understand a concept Polya said the importance of understanding the problem. A problem is a big problem, if it is very difficult then it is only a small problem if it is only slightly difficult. But a certain degree of difficulty is part of the idea of a problem, if there is no difficulty then there is no problem. A common problem is finding your way to a predetermined place in unfamiliar territory. We can easily imagine how serious this problem must have been for our primitive ancestors living in the primeval forest. This may or may not be the reason why the solution to a problem looks like finding a way: a way out of difficulty, a way out of obstacles (Polya, 1962).

To understand a concept, one must understand the problem too. The purpose of the "problem to find" is to find a particular object, the unknown of a problem, fulfilling the condition of the problem that connects the unknown with the data of the problem. Let us consider two examples. Given two line segments a and b, and angle y, construct a parallelogram whose line segments are adjacent sides including angle y. Given two line segments a and b, and angle y, construct a parallelogram whose line segments are its diagonals including angle y. In both problems, the data is the same, line segments a and b, and angle y. In both problems, the unknown is a parallelogram so our problems cannot be distinguished a priori based on the properties of the unknown. What distinguishes our two problems is the condition, the necessary relation between the unknown and the data: of course, the relation of the parallelogram to its sides is different from its relation to its diagonals (Aslan, 2021; Burton, 1984; Gravemeijer & Doorman, 1999; Herbst, 2006; Leavy & Hourigan, 2020)

In terms of understanding concepts, everyone has differences in dealing with the problems they have (Wahyuti et al., 2023). In dealing with difficult situations, students are expected to have resilient behavior, namely if a person can deal with the problems being faced positively and can survive until they get the expected results (Ramadanti & Herdi, 2022). In learning mathematics, to understand the concept, resilience is important Click or tap here to enter text. Resilience has an important role in mathematics learning because students tend to be able to confidently deal with the difficulties, they face (Maarif et al., 2023). Resilience can also be interpreted as a student's positive behavior in dealing with problems and not giving up easily when experiencing difficulties (Rahmatiya & Miatun, 2020). This includes a positive attitude and perseverance, which have a significant impact on success in tackling maths problems (Nyiagani & Kristinawati, 2021). However, the low ability of students to understand mathematical concepts is a problem, what must be done is to instill mathematical resilience in students (Al Ghifari et al., 2022). Resilience is needed in mathematics because it can help review students in learning, things that make students tend to feel heavy and dislike learning mathematics (Awais et al., 2023; Setiawan et al., 2022). Mathematical resilience includes a strong desire to learn mathematics, self-confidence, and resilience in the face of adversity (Salsabila & Hadi, 2023). Academic resilience is also important because it allows students to get back on track after experiencing difficulties. (Mardhatillah et al., 2022). Resilience in students is necessary because it can stimulate student confidence and will get good results (Azizah & Abadi, 2022). The high

resilience of students will show an attitude that does not give up easily and always seeks a way out of the problems faced. (Ang et al., 2022; Lee & Lee, 2023; Lutfiyana et al., 2023). In line with that, previous researchers also stated that as much as 50.3% of understanding ability and learning tendencies were related to mathematical resilience, which means that resilience and learning tendencies greatly affect mathematical ability (Eliza et al., 2023). According to the statement (Arifin, 2020; Mai et al., 2021), mathematical resilience is the ability to respond to the difficulty of solving mathematical concept problems.

In observations made by researchers in collaborative research with teachers at partner schools, the learning model used at Ban Kadeng school, especially mathematics teachers, uses several learning models, one of which is the lecture method. In the lecture method, students listen to the learning material presented, after which students are given questions related to the material and answered together. The second is teaching using the help of learning media where in the learning process the teacher demonstrates learning media related to the material presented, the teacher also demonstrates learning media in the classroom, after which the teacher gives exercises to students. One of the media that teachers use in the learning process is class television, in the learning provided sometimes the teacher will give practice assignments to do at home outside the tasks that have been done at school.

In Ban Kadeng School's fifth-grade students, it was found that most of the students were not very interested in mathematics for various reasons, one of which is the doctrine embedded in their minds that mathematics is a scary subject. Previous researchers also (Ansori, 2020) stated that some students feel anxious and consider maths difficult and boring. In this case, students' resilience is faced with challenges, especially in overcoming difficulties in understanding mathematical concepts. Cooperation between teachers, students, and educational institutions is needed to improve resilience. This is relevant to previous research; research shows there is a positive contribution to students who have good mathematical resilience to mathematical learning. (rizqa et al., 2020).

Based on the things that have been described above regarding the ability to understand concepts and student resilience, a study was conducted with the title "Analysis of Students' Mathematical Concept Understanding Ability in Terms of Resilience at Ban Kadeng School" aims to understand the relationship between students' mathematical concept understanding ability and student resilience at the school. The benefits of the research include theoretical contributions to the understanding of mathematical concepts and practical benefits for students, teachers, schools, and researchers. Thus, this research is expected to make a significant contribution to the development of mathematics education at Ban Kadeng School and more broadly in the realm of national education in Thailand.

METHOD

In the introduction, it has been described how concept understanding is important to be studied. Therefore, to find out how the level of concept understanding and students' resilience in mathematics, it is necessary to conduct research that describes these phenomena. This research is a descriptive study with a qualitative approach at Ban Kadeng School, Narathiwat, Thailand, for fifth-grade students. The aims and

objectives of this study were to describe the ability to understand mathematical concepts in terms of student resilience in solving story problems on fraction material. Data collection in this study used a student resilience questionnaire, mathematical concept understanding story problems on fraction material, and interview guidelines.

Table 1. Resilience questionnaire grid

No.	Indicators of student resilience	Questionnaire number
1.	(a) Convinced that Mathematics is important and worthwhile	1,10,20
2.	There is a strong sense of desire to learn Mathematics, even when facing unpleasant things and difficulties in the learning process;	2,3,5,16, 18,21
3.	Confidence in one's ability to learn and master mathematics, based on an understanding of mathematics, the ability to create strategies, the help of tools and other people, and the experience built;	7,8,11,13, 14,15,17,19,23,24
4.	There is a strong sense of going through the difficulties experienced, not giving up easily, and always giving a positive response in learning mathematics.	4,6,9,12, 22,25

The sample used in this study was class V students consisting of 20 people. Data collection methods involved a mathematical resilience questionnaire, mathematical concept understanding ability test, and interview. The mathematical resilience questionnaire includes 25 statements with a certain score, followed by a narrative-based mathematical concept understanding test given to students as many as 5 questions about fraction material and each question represents an indicator of students' mathematical concept understanding. Interviews were conducted to gain a deeper understanding of the relationship between student resilience and mathematical concept understanding. The sampling technique in this study uses purposive sampling, namely the researcher takes samples by determining the characteristics that are by the research objectives so that they are the research objectives and can answer research problems (Imam, 2023). The above data collection techniques were validated by 2 experts (a Mathematics teacher at Ban Kadeng School, Thailand, and a lecturer in mathematics education at Universitas Muhammadiyah Tapanuli Selatan). The data will be analyzed through data reduction, by grouping students' resilience into high, moderate, and low. The results are expected to provide an overview of the correlation between student resilience and mathematical concept understanding ability at Ban Kadeng School. Students are categorized as having high resilience if 77>, Students are categorized as having moderate resilience if 66 ≤x <77, and Students are categorized as having low resilience if ≤66. This instrument is carried out offline after that, the recapitulated results are selected from 3 students from each level of high, moderate, and low resilience. After that the researcher will analyze students based on the level of resilience to the students' mathematical concept understanding ability by utilizing instruments in the form of mathematical concept understanding ability test questions which are arranged based on indicators of mathematical concept understanding, the researcher also conducts interviews based on the results of students' mathematical concept understanding tests on fraction material interviews conducted in this study are arranged based on indicators of mathematical concept understanding. Data were obtained through triangulation techniques, comparing the results of observations, questionnaires, and interviews with mathematics teachers at Ban

Kadeng School. All data obtained, both from observations of student activities and interviews, were analyzed using the data reduction method to obtain systematic information and can be interpreted clearly.

The research stages are presented in the flowchart as follows:

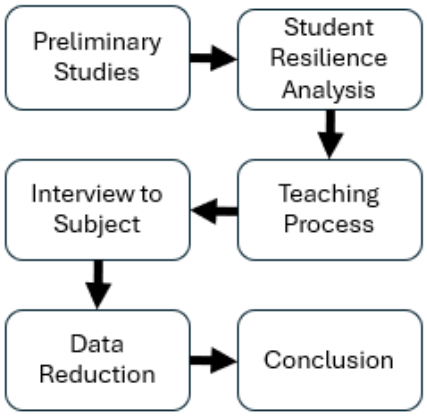

Figure 1. Research Stages

RESULT AND DISCUSSION

Result

The researcher analyzed the students' mathematical concept understanding ability in terms of student resilience according to the indicators of mathematical concept understanding ability, which was obtained through the answers to the mathematical concept understanding ability test questions and, conducted interviews to find out more about the concept understanding ability possessed by students. So then an analysis is carried out to get an idea of how much the ability to understand students' concepts in terms of student resilience.

Table 2. Percentage of student resilience

Score (x)	Resilience level	Number of students	Percentage
$x \leq 66$	Low	2	10%
$66 \leq x < 77$	Moderate	13	65%
$x \geq 77$	High	5	25%

Based on Table 2, the resilience of fifth-grade students at Ban Kadeng School is at a moderate level, namely 65% as many as 13 people, while high resilience is at a percentage of 25% and low resilience is a percentage of 10%. To determine the concept understanding ability of students, researchers conducted tests on story problems that were the indicators of understanding mathematical concepts.

Table 3. Indicators of concept understanding ability

Indicator of Concept Understanding Ability	Sub Indicators	No. Question
Restate a concept.	Explaining concepts related to fractions	1
Classify objects based on mathematical concepts.	a) determine the parts or properties found in addition fractions	2
	b) determine the parts or properties found in multiplication fractions	3
Provide examples or counter-examples on the concept learned	a) Giving opinion in distinguishing which is the solution in fraction operation	4
	b) Giving opinion in distinguishing which way of working in fractions	5

From the questions that have been done by students by the indicators of concept understanding, researchers take samples of student answers from each different level of resilience, namely high, moderate, and low resilience levels. To find out the differences in concept understanding abilities possessed by the three students with different resilience.

Table 4. Analysed student data

Category	Student ID	PR	NS
High	RT	83%	100
Moderate	RS	72%	80
Low	RR	62%	40

Description: NR: Narrative Problem Score, PR: Resilience Percentage

Mathematical concept understanding ability in high resilience students

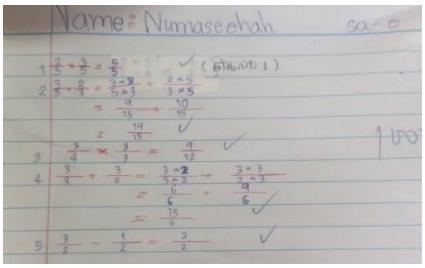

Figure 1. High resilience students' answers.

Students can solve problems and understand the understanding of concepts based on indicators of restating a concept, namely, students can follow the understanding of mathematical concepts, and can answer the type of fraction that has been solved. This can be seen in Figure 1 which has been attached. In problem 1, students can answer the types of fractions contained in the problem, this is by the indicators of students' understanding of mathematical concepts in fraction material restating a student concept. In question 2, students can describe the answer well and precisely. In question 3, students can work on problems with multiplication operations, which means that students can distinguish the work between multiplication and addition fraction operations by the indicators of understanding concepts and classifying objects based on mathematical concepts. In question 4, students are also able to describe the answer correctly based on students' understanding of working with fractions with addition operations. In question 5, in giving examples or counter-examples, students were able to distinguish problem-solving between addition and subtraction in fractions. To obtain clearer data about the ability to understand mathematical concepts of students, researchers conducted interviews regarding indicators of understanding mathematical concepts.

In the interview results, students with high resilience can confidently provide a simple explanation of the questions that have been asked by the researcher. From the results of interviews and test questions, students with high resilience on indicators of understanding of student mathematical concepts on fraction material students can restate a concept, students can classify objects based on mathematical concepts students with high resilience can explain the properties of the fraction operations they have completed. Students also explain how the properties of fractions in multiplication or addition operations smoothly. On the indicator of students' understanding of mathematical concepts on fraction material Provide examples or counter-examples in the concepts studied. Students with high resilience can distinguish the workmanship in working on fraction problems. Able to provide a brief explanation of how to work on fractions with different operations. Students with high resilience do not have problems in understanding mathematical concepts in fraction material, high resilience students can easily solve the problems given smoothly and can write how to work on the problems given correctly. The results showed that students with high resilience were able to restate concepts, classify objects, and provide examples or counter-examples on fraction materials.

Mathematical concept understanding ability in moderate resilience level students

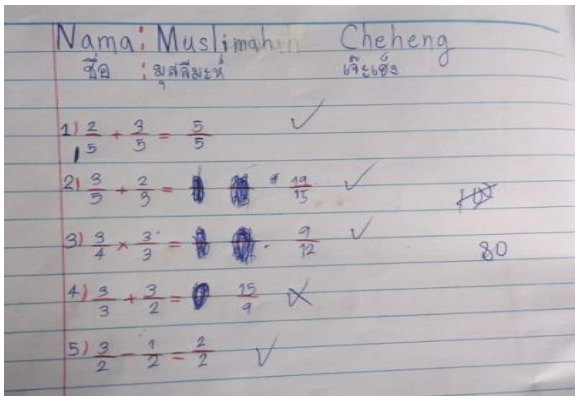

Figure 2. Answers of moderate resilience students

In the indicator of students' understanding of mathematical concepts on fraction material, restating a concept of students with moderate resilience (RS). Students with moderate resilience can provide a simple explanation of the questions that have been asked by researchers but have doubts about stating the types of fractions listed on the questions given. This can be seen in Figure 2 which has been attached. In question 1, students can answer the questions that have been given but, doubt in answering the type of fraction contained in the answer obtained. In question 2, students who have the right answer only attach the answer and cannot describe the answer properly and precisely in the test question. In question 3, students can work on problems with multiplication operations, which means students can distinguish the work between multiplication and addition fraction operations. In question 4, the student gave the wrong answer on the answer sheet, the student gave the right result for the numerator but the wrong answer for the denominator. In question 5, students were able to differentiate the problem-solving between addition and subtraction in fractions. To obtain clearer data about the ability to understand mathematical concepts of students, researchers conducted interviews regarding indicators of understanding mathematical concepts, especially on students' clarity of the answers that have been attached. In the interview results, students with moderate resilience can answer some of the questions given but are lacking in providing a simple explanation of the questions that have been asked by the researcher.

The results of the analysis of test questions and interviews conducted on indicators of students' understanding of mathematical concepts on fraction material can classify objects based on mathematical concepts, and students with moderate resilience can explain the properties of the fraction operations they have completed. Students also explain how the properties of fractions in multiplication or addition operations smoothly. However, students with moderate resilience do not apply the solution to the answers written down. On the indicator of students' understanding of mathematical concepts on fraction material Provide examples or counter-examples in the concepts studied. Students with moderate resilience can distinguish workmanship in working on fraction problems. Able to provide a brief explanation of how to work on fractions with different operations. However, it is constrained to solving fraction problems with subtraction operations, because students feel that every fraction works on different operations has a different way.

Students with moderate resilience do not have problems at the worrying stage, it's just that students with moderate resilience need more emphasis and explanation in the learning provided. Moderate resilience students show ability in the first two indicators, but there is a tendency to lack confidence in providing explanations for

fraction operations. On the other hand, low-resilience students have difficulty in restating concepts, classifying objects, and providing examples or counter-examples on fraction materials.

Mathematical concept understanding ability of low resilience students

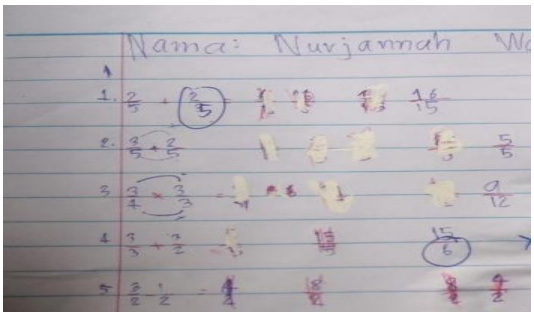

Figure 3. Low resilience students' answers

In the indicator of understanding mathematical concepts, students on fraction material restate a concept with low resilience (RR). Students with low resilience cannot explain the types of fractions in the problem. This can be seen in Figure 3 which has been attached. In question 1, students were unable to answer the questions that had been given, and there were a lot of scribbles on the student's answer sheet which meant that students were doubtful in the answers given. In question 2, students who have the right answer only attach the answer and cannot describe the answer properly and precisely in the test question. In question 3, students can work on problems with multiplication operations, which means that students can distinguish the work between multiplication and addition fraction operations. In question 4, the student gave the right answer after several times giving the wrong answer. In question 5, the student was not able to distinguish the problem-solving between addition and subtraction in fractions. To obtain clearer data about the ability to understand mathematical concepts of students, researchers conducted interviews regarding indicators of understanding mathematical concepts, especially on students' clarity of the answers that have been attached. In the interview results, students with low resilience can answer some of the questions given but are lacking in providing a simple explanation of the questions that have been asked by the researcher. From the results of test questions and interviews conducted, the results obtained by low resilience students on indicators of understanding of student mathematical concepts in fraction material in restating a concept student are unable to explain or write down. classify objects based on mathematical concepts students with low resilience cannot explain the properties of the fraction operations they have completed and, in the questions, given students are also wrong in their work. Giving examples and counter-examples students are only able to provide a little explanation about the differences in working on problems with different operations. Students with low resilience have a problem that is quite worrying because these students have problems solving problems and can hardly understand the overall concept understanding ability. Students with moderate resilience also have low levels of confidence and doubt about what has been completed. Low resilience students have difficulty in restating concepts, classifying objects, and providing examples or counter-examples in fraction material.

Table 5. Students' comprehension ability based on students' resilience level

Concept Understanding Indicator	Subject			Number of questions that can be answered		
	RT	RS	RR	RT	RR	RR
Restate a concept.	✓	✓	-	1	1	1
Classify objects based on mathematical concepts.	✓	-	-	2, 3	2, 3	3
Provide examples or counter-examples on the concept being learned.	✓	✓	-	4, 5	4	-

Description: RT: High Resilience, RS: Moderate Resilience, RR: Low Resilience

The results showed differences in the understanding of mathematical concepts about fractions between three groups of students with high (RT), moderate (RS), and low (RR) resilience levels. Students with a high level of resilience (RT) were able to deal well with various problems about fractions, showing strong concept understanding and good verbal ability in explaining the working process. On the other hand, students with a moderate level of resilience (RS) showed good ability in solving problems, but there was a tendency to lack confidence in mentioning types of fractions and providing detailed explanations.

Meanwhile, students with a low level of resilience (RR) showed the ability to solve problems, but difficulty in understanding fraction concepts and communicating understanding verbally. In conclusion, resilience can affect not only academic ability but also verbal ability and students' confidence in handling mathematical materials, such as understanding fraction concepts.

In understanding the concept of fraction material, high and moderate resilience students can understand the properties of the concept well, but moderate resilience students show doubts at certain points. Low resilience students, on the other hand, experienced difficulties and inabilities in understanding the concept of fractions, especially in the aspects of restating concepts and giving examples or counter-examples.

Discussion

Several things become obstacles to improving concept understanding ability which are the findings of this research, namely:

Teachers often use the same standardized examples repeatedly. This can build greeting knowledge on that one concept. For example, isosceles triangles are rarely drawn with orientations other than having a horizontal base. This can lead students to conclude that the shape is not an isosceles triangle when rotated. This is not in line with the concepts of problems, problem-solving, and understanding. In various research, standardized examples need to be given to students as a learning experience. (Fried, 2006; Gravemeijer & Doorman, 1999; Nurhayati, 2013; Polya, 1962; Watson & Mason, 2005).

Simple but important things are not covered enough in learning; some important steps in understanding a topic may even be missed. For example, a good understanding of numbers, side, corner points, profit, loss, even collecting the data. Teachers often just hand out definitions without giving meaning. This is certainly in line with the results of previous research that in teaching teachers must be able to give meaning to the material presented. Teachers can build experiences based on the local environment, geography, and culture (Karlström & Hamza, 2019; Mitrevski & Zajkov, 2011; Pantić & Wubbels, 2010; Sahin-Taskin, 2017; Simons et al., 2020; Thiagarajan, 1974).

Students are not encouraged to make

connections between the different things they learn. For example, the meaning of a side, angle, in a cube, cuboid or cone. These concepts are connected but students often memorise these two things separately (Awais et al., 2023; Lee & Lee, 2023).

Lack of opportunities to visualize and observe phenomena, either through hands-on experiments or virtual simulations. For example, the concepts of volume and area. Students are often given in the form of formulas and calculations when given problems. They do not see that there is meaning in the words volume and area, which is a quantity. This is contrary to several studies that convey the need to give students experience. One of the important steps in the knowledge formation process is to provide real experiences to students. (Cesaria & Herman, 2019; Prabowo et al., 2021).

Teachers' (often unconscious) belief that students' minds are blank slates. When teachers teach without recognizing students' initial mental models, students may continue to maintain their unscientific beliefs while giving 'correct answers' in exams. Going back to the example of falling objects, a student may maintain his or her belief that 'heavier objects fall faster' even though the equations of motion learned in school contradict that belief. Students often do not realize that they hold these conflicting beliefs. Students' prior knowledge becomes a prerequisite in learning certain material. Students are considered to have good learning readiness if they have good pre-requisite skills. (Brousseau, 2002a, 2002b).

Implication of Research

The results of this study can be directly applied to the improvement of lesson plans for schoolteachers. In addition, this research can also be the basis for other larger studies, namely the application of learning models, assessment models, or the application of feedback in learning so that students become more understanding of learning materials. Students also become more resilient in dealing with mathematical problems.

Limitation

The subjects of this study were grade 5 students at Ban Kadeng School. Students with characteristics such as the southern region of Thailand, with most Malay students, can apply the results of this research in their respective regions. However, this research cannot be generalized to different student characteristics. Further research needs to be conducted for more generalized results.

CONCLUSION

Based on the research findings, it is concluded that the ability to understand mathematical concepts of grade V students of Ban Kadeng School, Narathiwat, Thailand, in dealing with narrative problems can be reflected in the level of student resilience. In general, the resilience of fifth-grade students of Ban Kadeng School is included in the moderate category, which is 65%, the low category is 10%, and the high category is 25%. Students with high resilience can understand the whole concept, students with moderate resilience are only able to understand two main indicators of concept understanding, and moderate resilience students are hesitant in understanding all indicators of concept understanding. From the data above, student resilience affects the ability to understand mathematical concepts of students at Ban Kadeng School.

As a suggestion for teachers and students, they are expected to collaborate in

building resilience in students such as instilling motivation in students who have low resilience and for students to also be encouraged to be active in learning, practice working on narrative problems, and not hesitate to ask questions to others. Furthermore, to ensure this research is more accurate, it is hoped that future research will use a large enough data source and be carried out over a longer period than previous researchers.

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