CHAPTER V
CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on the results of the research and discussion, the following conclusions are obtained:

1. The improvement of mathematical problem-solving ability in grade VIII at SMP Negeri 2 Tebing Tinggi through a realistic approach has shown significant results. The implementation of a realistic approach in teaching has improved students' engagement and understanding of mathematical concepts. Students demonstrated marked improvements in the four key stages of problem solving:
    a. Understanding the Problem: Students became more adept at comprehending the problems presented to them, identifying the relevant information and the core issues needing resolution.
    b. Devising a Plan: There was noticeable progress in students' ability to formulate appropriate strategies and methods for solving mathematical problems. They were more capable of selecting and organizing the steps needed to approach a solution effectively.
    c. Carrying Out the Plan: The students improved in their execution of the planned steps, following through systematically and accurately. Their ability to apply the chosen methods and perform calculations correctly showed significant enhancement.
    d. Looking Back: The habit of reviewing and verifying their solutions was more evident among the students. They became more critical and reflective, assessing the correctness and efficiency of their solutions and considering alternative methods when necessary.

Based on the problem solving ability test, it is found that students' mathematical problem solving has increased through a realistic approach to probability material in grade VIII SMP Negeri 2 Tebing Tinggi. This can be seen from the increase in the average student mathematical problem solving from the initial test, cycle I, and cycle II. The percentage increase of 33.1%, namely from 48.5 (48.5%) with very low ability level in the initial test to 64.58 (64.58%) with low ability level in cycle I and it became 83.1 (83.1%) with high ability level in cycle II with the percentage increase of 28,69%. Based on indicators of students' mathematical problem solving ability, there was also an increase from cycle I to cycle II. In the step of understanding the problem, it increased from 80.56 (80.56%) with high ability level to 95.14 (95.14%) with very high ability level. In the step of devising a plan, it increased from 66.67 (66.67%) with low ability level to 88.89 (88.89%) with high ability level. In the step of carrying out the plan, it increased from 59.38 (59.38%) with low ability level to 78.13 (78.13) with medium ability level. In the step of looking back, it increased from 40.97 (40.97%) with very low ability level to 63.19 (63.19%) with medium ability level.

2. Based on the results of the study, it was found that students' mathematics learning completeness increased through a realistic approach to probability material in grade VIII SMP Negeri 2 Tebing Tinggi. This can be seen from the increase in the number of students who completed the initial test, cycle I, and cycle II, namely from 1 (2.2%) student who completed the initial test to 18 (50%) students who completed the first cycle and to 32 (88.9%) students who completed the second cycle. Learning observation results are included in very good with an average score of 63 in cycle II.

5.2 Suggestion

1. To teachers, especially mathematics teachers, using this realistic approach can be an alternative to improve students' mathematical problem solving abilities, particularly in probability material, and it should also be tested on other materials.

2. It is recommended that mathematics teachers emphasize the aspect of understanding the problem in the steps of realistic learning and encourage students to actively identify what is known and what is asked in the given problems, so that students become more skilled in formulating appropriate solutions to solve the problems. Additionally, it is recommended to motivate students to ask questions and express their opinions or ideas and to create media that attracts students to learn.
3. To the students of SMP Negeri 2 Tebing Tinggi, it is recommended to be more courageous in expressing opinions or ideas, to use all learning tools as references, and to be more active as teachers involve students in the learning process.
4. For future researchers, it is necessary to emphasize the looking back indicator to students to find alternative solutions after finding the first solution in the steps of mathematical problem-solving abilities, so that students become more accustomed to reviewing their solutions and considering the possibility of more efficient or simpler methods, as students often experience difficulties in the looking back indicator.
5. For future researchers, the results of this study can be used as a consideration for implementing learning through a realistic approach in probability material, and other materials can also be developed for further research.