

## CHAPTER V

### CONCLUSION AND SUGGESTION

#### 5.1. Conclusion

Based on the result and discussion in this research, the researcher concluded,

- 1) In improving students' critical thinking skills, the researcher conducted a learning process with applied Creative Problem Solving (CPS) assisted by Desmos in the material Linear Equation System of Two Variables. In cycle I of the learning process, the researcher, as the teacher, conducted the learning process based on Teaching Modules with Creative Problem Solving syntaxes and arranged Desmos. The result of this cycle is 61,29% of students had achieved the criteria of critical thinking skills, improvement of the score is 0,24 (low improvement), and the percentages of students' activity reached 37,27%. These results didn't meet the indicator of success, categorized as fail. Because of that, the researcher proceeded this study to the second cycle. The taken actions after reflected on the first cycle errors were: a) the researcher became more assertive, minimized lecturers, and made Desmos more interesting, b) shared the link with students a day before the class begins, upgraded and changed some parts of Desmos to make it easier to use, c) prepared rewards to encourage students' liveliness during the learning process, d) improved the problem in Desmos and worksheets to assist students in understanding, analyzing, and solving the contextual problem, and e) prepared the new challenging problem to be discussed in the group. The result of this cycle is 87,10% of students have met the criteria of critical thinking skills, the improvement score is 0,53 (medium improvement), and the percentages of students' activity reached 80%,
- 2) The implementation of Creative Problem Solving (CPS) assisted by Desmos in the material Linear Equation System of Two Variables can improve students' critical thinking skills. The researcher determined that, based on the observation

result, students' critical activities increased from 32,37% to 80%. During cycle II, students became more active in asking, responding, sharing, comparing, deciding, and evaluating their ideas, their teamwork also improved, and determined gain index 0,70 (medium improvement). Based on the tests, there is improvement in each indicator, namely, students' skills in understanding, identifying, and modifying information in the given contextual problem (69,76 to 85,66), in solving, writing down, and explaining the reasons behind their problem-solving techniques (67,74 to 81,18), in writing down their conclusion after solving the problem (60,48 to 74,19), in adjusting the solution to the new problem and clarifying their final solution for the given contextual problem (45,16 to 74,19), and in reviewing or re-checking their solutions, making decisions, and drawing conclusions (58,06 to 88,71). The mean score also improved from 62,60 (not critical) to 81,45% (critical), with classical score improved from 61,29% to 87,10%, with gain index 0,67 (medium improvement). The responses to the interview also indicate an improvement in students' critical thinking. The responses for the first interview revealed that most of the students still copied their classmates' solutions, answered the problem hastily, and believed in their solution but couldn't explain the reasons behind that. Furthermore, in the second interview, several students confidently explained the techniques of their solution and the proof.

## 5.2. Suggestion

The suggestions in this research are as follow:

1. For mathematics teachers in teaching mathematics, especially linear equation system of two variables, can try to use learning model Creative Problem Solving assisted by Desmos in learning process in improving students' critical thinking skills.
2. For mathematics teachers, the researcher also suggests to explain about procedures for solving mathematical problems, especially contextual problems, and pay attention to students' answers for that.
3. For other researchers that want to conduct similar or the same research, this research result can be a consideration to be a reference and help to perfect the research.