

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

Based on the results of research that has been carried out on the development of powtoon-based audio-visual media in chemical bonding material at SMA Negeri 11 Medan, it can be concluded that:

1. A needs analysis is carried out through the distribution of teacher needs questionnaires and student needs which are distributed via the Google form. Based on the results of the teacher needs analysis, it shows that the chemistry teacher at the school has never developed audio-visual media in the learning process. Teachers still tend to use the lecture method and do not use media in teaching chemical bonding. Based on the results of the analysis of the needs of students, students gave positive responses which explained that they needed learning media in the learning process.
2. Based on the results of material and media validation by 2 expert validator and 20 practitioner user validator teams it showed the results of the material expert's assessment, the feasibility value of powtoon-based audio-visual media was obtained the results of the material validation obtained "very feasible" results with a percentage of 86.63%. In media validation, was obtained a proportion of 94.79% with the "very feasible" criteria. The practitioner user validation was obtained "very feasible" results with a percentage of 89.38%. So, it can be concluded that the powtoon-based audio-visual media developed is very suitable for use as a learning medium on chemical bonding material. for the development of powtoon-based audio-visual media on chemical bonding material at SMA Negeri 11 Medan.
3. Based on the results of the student response questionnaire in class X MIPA 3 SMA Negeri 11 Medan towards the development of powtoon-based audio-visual media, the percentage was 90.63% with the criterion "strongly agree".

5.2. Suggestion

The suggestions that can be given by researchers for research and development are as follows:

1. For Chemistry Teachers

Chemistry teachers can make the media developed as material for consideration in using the Powtoon-based audio-visual learning media developed for use in chemical bonding learning. With the development of this media, it is hoped that it can encourage teachers to always explore creativity in making and using relevant learning media so that it attracts students' attention to learning in a pleasant atmosphere.

2. For Next Researcher

Animated videos that have been developed by researchers certainly still have deficiencies both in terms of media design and delivery of material and language. So that it can be input for future researchers to be able to improve this animated video even better and it is better if the media that has been developed is disseminated and evaluated regarding student learning outcomes after using the media, to get more measurable results. appropriateness. Due to time constraints, this research was not implemented during learning, so it is hoped that further research will carry out media implementation in order to find out the progress of students. With the existence of animated video learning media, it is hoped that it will increasingly attract the interest of other researchers to be able to develop animated videos on other chemical materials.