

CHAPTER V CONCLUSION

5.1 Conclusion

Based on the overall design process, it can be concluded that the designed learning medium has successfully addressed the need for educational materials that are not only visually appealing but also support the cognitive and motor development of young children. The issues identified in the early stages, which were the limited availability of STEM-based interactive books and children's low logical thinking skills in answering simple questions, served as the primary basis for this design.

Using the Research and Development (R&D) method with the ADDIE model, the design process was conducted systematically and structurally, starting from the needs analysis stage, concept design, design development, to media implementation. This approach enabled the creation of a design solution that is not only theory-based but also considers actual conditions in the field through observation, interviews, and Focus Group Conversation Group (FCG).

The use of an interdisciplinary STEM-based approach is one of the main strengths of this book, as it integrates science, technology, engineering, and mathematics into fun learning activities. Through this approach, children are not only introduced to the parts of the body and the senses, but also learn to understand their functions and how they relate to daily life. The designed activities encourage children to think logically, observe, experiment, and solve simple problems.

The episodic narrative concepts are also proven to align with the characteristics of young children, as they break down information into small, easily understandable parts. Each section of the book is designed with a simple flow that mirrors children's daily experiences, making it easier for them to grasp learning concepts step by step.

Visually, this book applies design principles suited to the characteristics of 5–6-year-olds. The illustrations are simple, expressive, and communicative to help children grasp the message visually. The color scheme is balanced to attract attention while maintaining the child's focus. Additionally, the use of large, easy-to-read sans-serif typefaces and a layout that supports the flow of activities further enhances the learning experience.

The inclusion of interactive elements such as lift-the-flap, wipe-and-clean, and simple puzzles provides a participatory learning experience. These activities not only increase children's interest and engagement but also develop fine motor skills and logical thinking through enjoyable activities, so that this book serves not only as a reading tool but also as an experiential learning resource.

Overall, this design contributes to the development of creative and relevant learning media for early childhood. It is hoped that this book will not only be useful as a final product but also serve as a reference for future designers and researchers in developing more varied and effective STEM-based learning media.

5.2 Recommendations

Based on the results that have been obtained, there are several recommendations that can be considered for future development. First, broader trials of the book's use are needed to more accurately assess its effectiveness in improving children's logical thinking and fine motor skills. Based on this, the book's content can also be expanded to include other relevant themes, thereby becoming part of a continuous learning series.

Although the interactive activities in this book have been designed and adapted to the characteristics and developmental stages of early childhood, its use still requires the involvement of a facilitator, whether a teacher or a parent. Therefore, the presence of a facilitator is crucial in providing appropriate guidance, clarifying understanding, and helping children arrive at the correct answers, so that the learning process can proceed optimally and achieve the intended goals.

Finally, further research is needed to examine in greater depth the effectiveness of applying the STEM approach in interactive learning media, particularly in the context of early childhood education, so that more comprehensive development can be achieved in the future.