Randwick International of Education and Linguistics Science (RIELS) Journal
Vol. 4, No. 4, December 2023 | Page 851-856 |
https://www.randwickresearch.com/index.php/rielsj

Development of a Pocket Book on Agloanema Plants on Students' Interest in Learning Biodiversity Material

DOI: *https://doi.org/10.47175/rielsj.v4i4.839*

| Annisa Arafah[1,*] | Hasruddin[2] | Khairiza Lubis[3] |

[1,2,3] *Postgraduate Program, Medan State University, Medan, Indonesia*

**annisaarafah7@gmail.com*

ABSTRACT

The lack of student interest in learning biology regarding biodiversity, especially the aglaonema plant, is due to insufficient teaching materials and inappropriate use of media, so it is necessary to develop learning media to increase students' interest in learning. The aim of this research is to produce the book product Aglaonema Ornamental Plants to increase interest in studying biology with the theme of biodiversity in students at SMA Negeri 2 Medan. This research is development research or Research and Development (R&D) using the ADDIE (Analysis, Design, Development, Implementation and Evaluation) development model. The subject of this research is the Aglaonema ornamental plant pocket book, while the object of this research is students' learning interests. The data analysis technique used in this research is quantitative analysis. The results of this research show that from the material expert validation process an average result was 3.35, the language expert validation obtained an average result of 3.7, and the design expert validation obtained a result of 3.5 and the interest in learning questionnaire data obtained 72.97%. or as many as 27 students in the very high category. So it can be concluded that the development product in the form of a pocket book on aglaonema ornamental plants is suitable and effective for use as a companion in learning which can increase students' interest in learning.

KEYWORDS

pocket book; aglaonema; interest; decorative plants.

INTRODUCTION

Reform initiatives in the application of technological results in the educational process are increasingly driven by advances in science and technology. Teachers must be able to use the resources the school offers, and it is conceivable that those resources reflect current trends and needs. Apart from being able to utilize the resources they have, educators must also be able to create learning materials that can be used when they are not yet available. The variety and creativity of learning media as a source of independent learning is currently still lacking, making it less effective in attracting student interest. In one of the schools in Medan City, SMA Negeri 2 Medan, the teaching process is still carried out with the teacher as the main source of knowledge. Researchers studied the relationship between ornamental plants and the school environment at SMA Negeri 2 Medan because this activity involved all students in environmental management which included the use, care and planting of ornamental plants in the school environment as well as other activities. It is also studied in terms of the quality and completeness of school facilities and infrastructure,

the completeness of media as a learning resource, teacher experience, and curriculum offerings.

According to the Big Indonesian Dictionary (2008), a pocket book is a book that is comfortable to carry in your pocket. Pocket books are also books that are light, compact, and designed to fit in a pocket. This makes it easy to carry around and read at any time. The presentation of this pocket book uses lots of pictures and colors, giving it an attractive appearance. Students tend to like interesting reading with little description and lots of pictures or color. Images can increase reading interest because images can help readers imagine. Imagination can help someone improve their memory performance. The presentation of the pocket book uses lots of pictures and colors, giving it an attractive appearance.

Biodiversity refers to the various types of plants found in nature, such as local potential plants that are capable of producing various kinds of image objects. However, there are still a number of educational media that contain local potential plant material in the Kayati Diversity material. While the concept of this material is based on the 2013 Revised Curriculum, the fundamental competency that students must have is analysis of various levels of biodiversity (genes, species and ecosystems) in Indonesia, as well as threats and conservation, while contextual learning is required. The 2013 Revised Curriculum requires students to become more familiar with learning objects to trigger the ability to think critically in the science learning process, (Sarip et al., 2022).

Communities, wherever they occur, are inseparably connected with other organisms in the habitat and form interdependent ecological systems . Industrial societies use biodiversity to produce various industrial products such as food, textiles, paper, pesticides, medicines and cosmetics. Indonesia's biodiversity is an important resource for national development. The main advantage of being able to exploit sustainably is their ability to improve themselves, (Siboro, 2019).

Currently, ornamental plants are becoming a favorite, not only for display, but ornamental plants are also a promising business. There are many types of ornamental plants that are not only beautiful but have fantastic value. One that is much sought after is aglonema or Sri Rezeki. Aglaonema or also known as Sri Rejeki is a favorite type of ornamental plant in Indonesia, (Sugiarti & Anwas, 2019). Aglaonema is an ornamental deciduous plant, namely an ornamental plant whose main attraction lies in the beauty of its leaves. The shape of Aglaonema leaves is actually simple, not wavy or fingered, which makes it look unique. and what makes it most attractive is its decorative colors and motifs, (Subono & Andoko, 2005).

Aglaonema is believed to originate from countries such as Malaysia, Myanmar, Thailand, Cambodia, Laos, Vietnam, Papua New Guinea, the Philippines and Indonesia on the Asian continent. This species inhabits dimly lit forests and is a member of the Araceae family, which also includes Dieffenbachia, Anthurium, Philodendrom, and Spathiphyllum. What's interesting about this figure, which is only a few centimeters tall, is its rounded, oval leaves, resembling a puppet mount (Traditional Javanese Art). Gives the impression of covering the stem so it looks compact. Apart from that, the color and pattern of the leaves are very beautiful, (Budiana, 2006).

It is difficult to grow a plant because it is necessary to understand what it needs to grow to become fruitful and beautiful. This plant is very sensitive to roots, stems and leaves, (Wicaksana et al., 2022). The beauty of Aglaonema lies in the shape, pattern and color of its leaves, so it is used as a decorative indoor plant. Aglionema is a plant that grows slowly, despite high market demand, (Haryanto et al., 2022).

Interest is basically the acceptance of a relationship between oneself and something outside oneself. The stronger or closer the relationship, the greater the interest, (Djaali, 2013). Interest is able to encourage someone to interact with the outside world which is interesting to know, making them have high enthusiasm to find out something that interests them. Children who have an interest in a particular subject tend to pay greater attention to that subject.

Learning without interest may be difficult to achieve learning goals optimally. Therefore, in learning activities, interest in the learning process is very important, especially interest that comes from within the child in order to achieve learning goals. Teachers can use various methods, such as good learning methods, appropriate instruments, appropriate intonation, and humor, to help attract students' interest and attention. As a result, it is clear that as a teacher, you have to motivate students and design many methods and alternatives to attract students to attend classes. As a result, it will be very effective if teachers and everyone who influences student motivation and interest work together well to achieve effective and efficient learning goals, (Rahmayanti, 2016).

Children's interest in the learning process is one sign of interest in learning. This interest results in a tendency to always pay attention and remember something continuously. This interest in learning is closely related to feelings of enjoyment, so it can be said that interest in learning occurs because of the attitude and feeling of enjoyment towards a learning activity. Based on several definitions that have been explained, it can be stated that interest in learning is a desire, will, encouragement or tendency that exists in a child towards something accompanied by attention and activity which ultimately gives rise to a feeling of enjoyment towards that something without any coercion from other people..

RESEARCH METHODS

This research was held in the Even Semester of the 2022/2023 academic year, precisely in March 2023. The research location was held at SMA Negeri 2 Medan. The test subjects for this research were 120 students of SMA Negeri 2 Medan for the 2022/2023 academic year. The object of this research is teaching material in the form of a pocket book on the diversity of aglaonema plants. The aim of the trial is to measure the quality of instruments and teaching materials from the aspects of practicality and effectiveness in implementing classroom learning. According to Sugiyono, "development research is a research method used to produce certain products and test the effectiveness of the product", (Sugiyono, 2014). There are various procedures or stages in developing new products or improving existing products that can be considered responsible for this development research.

The development model used in this research is the ADDIE model development. The ADDIE model is a research and development approach that is often used to create teaching materials such as modules, student worksheets (LKS), and textbooks, (Mulyatiningsih, 2011). According to its name, this model contains five phases or stages: (A) analysis, (D) design, (D) development, (I) implementation, and (E) evaluation.

The researchers chose the ADDIE model because it is an easy-to-implement development model with organized and very clear steps in the implementation process, according to the researchers. ADDIE learning system design model with its components. The development research method uses the ADDIE Model and goes through five stages: analysis, design, development, implementation and evaluation (Evaluation). Data collection techniques are "an activity of searching for data in the field that will be used to answer problems in research". In data collection, various data collection or measurement techniques can be used that are adapted to the characteristics of the data to be collected and the research respondents. The data collection technique in this development research is by

using expert team validation sheets, student and teacher response questionnaires and student learning ability tests.

RESULTS AND DISCUSSION

After the algaeonema ornamental plant pocket book has been developed and has met the criteria of being valid, practical and effective, the next step is to see students' interest in learning biology after using the ornamental plant pocket book. According to his understanding, interest is an important aspect in supporting student learning activities, (Susanto, 2013). defines interest as "liking, liking, or enjoyment of something". Feelings of joy, attention, curiosity, and participation are factors that influence students' interest in learning.

After that, the data is processed and checked. Students' interest in studying biology as a whole is carried out by explaining data that includes mean (mean), median, mode, frequency distribution, and standard default deviation when conducting data analysis. Table 1 shows total descriptive statistical data.

Table 1. Descriptive Statistics Results of Interest in Learning

No	Descriptive Statistics	Value
1.	Mean	71.86
2.	Median	73.00
3.	Mode	66
4.	Std. Deviation	3,917
5.	Variance	15,342
6.	Range	12
7.	Minimum	66
8.	Maximum	78
9.	Sum	2659
10	Data Valid	37

A closed-ended questionnaire with a total of 20 questions and response scores for affirmative items was used. Strongly Agree (SS) gets a score of 4, Agree (S) gets a score of 3, Disagree (TS) gets a score of 2, and Strongly Disagree (STS) gets a score of 1. For negative statements the scores given are Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS). Overall data was obtained from questionnaires, with students achieving a maximum score of 78 and a lowest score of 66. We also received a mean of 71.86, a median (Me) of 73, a mode of 66, and a standard deviation of 3.917 from this data.

Table 2. Frequency Distribution of Learning Interest Data

No	Value Interval	The number of students	Percentage (%)
1.	66-67	9	24.32
2.	68-69	2	5.41
3.	70-71	5	13.51
4.	72-73	3	8,11
5.	74-75	12	32.43
6.	76-77	5	13.51
7.	78-79	1	2.70
Amount		37	100.00

Then, to find out the interest category for each aspect, it can be seen based on the ideal average score (M) of each aspect which is used as a comparison criterion. The highest ideal score from 20 question items is 80 and the lowest ideal score is 20. Range (R) = 80–20 =

60. Ideal Mean Price (M) = 1/2(80-20) = 1/2 (100) = 50 and Ideal standard deviation (SD) = 1/6(80-20) = 1/6(60) = 10. And interval widths for five categories of interest SD=60/5=12. So the distribution of tendencies in the categories of students' learning interest in biology learning at SMA Negeri 2 Medan in terms of feelings of enjoyment, attention, interest and involvement can be seen in Table 3.

Table 3. Data on the Percentage of Student Interest

Value Interval	Category	The number of students	Percentage (%)
$x > 68$	Very interest	10	27.03
$56 < x \leq 68$	Interested	27	72.97
Total		37	100.00

Findings from subsequent experiments were used to determine how well the designed ornamental plant booklet met the criteria of validity, practicality, and effectiveness in terms of increasing student interest in biodiversity research.

Students were very enthusiastic during the learning process because they could see firsthand real examples of aglaonema plants, this was because learning using the pocket book learning media of aglaonema ornamental plants was something new and attracted the attention of students who had never used this media before. in learning, so that students do not feel bored with learning and students are more motivated to learn.

These findings support the belief that learning is effective if it meets the following criteria: (1) the percentage of student learning time devoted to learning activities is very high, (2) the average behavior of carrying out tasks among students is high, (3) the accuracy of the content of teaching materials according to student abilities, and (4) development of a friendly and positive learning environment.

The number of statement items used in this research was 20 questions. 5 statement items for good feeling indicators, 5 statement items for attention indicators, 5 statement items for interest indicators, and 5 statement items for involvement indicators. Based on the research findings, the results obtained from calculating data on students' interest in studying biology with a total of 37 students as respondents, it can be seen that when calculating the total score from the questionnaire results, students with an interval of $x > 68$ were classified as very interested. So, as many as 27.03% or 10 students were very interested. And there were 72.97% or 27 students who were interested in the aglaonema ornamental plant pocket book.

CONCLUSION

The aglaonema ornamental plant pocket book developed has the categories valid, practical and effective. From the interest in learning questionnaire which consisted of 20 statement items and a sample size of 37 students, there were 10 students in the very interested category (27.03%) and 27 people (72.97%), meaning that the majority of students were included in the interested group. This proves that when used to measure students' interest in studying biology at SMA Negeri 1 Medan, the aglaonema ornamental plant pocket book was proven to increase interest in studying biology, especially in biodiversity material.

ACKNOWLEDGMENT

The author would like to express his thanks to all parties involved in this writing, especially to the principal of SMA Negeri 1 Medan. The author hopes that this article will become a reference for various parties in developing books on ornamental plants to increase students' interest in learning and biology learning outcomes.

REFERENCES

Budiana. (2006). Agar Aglaonema Tampil Memikat Jakarta : Penebar Swadaya.

Djaali. (2013). Psikologi Pendidikan (Edisi 1, C). Jakarta : Bumi Aksara.

Haryanto, L. I., Sukrianto, Maulana, F. A., & Ulum, M. (2022). Keragaan dan Pendapatan Usahatani Tanaman Hias Aglaonema di masa New Normal. *Seminar Nasional Penelitian LPPM UMJ*, 1–11. http://jurnal.umj.ac.id/index.php/semnaslit

Mulyatiningsih, E. (2011). Riset Terapan Bidang Pendidikan dan Teknik. Yogyakarta : Alfabeta.

Rahmayanti, V. (2016). Pengaruh Minat Belajar Siswa dan Persepsi atas Upaya Guru dalam Memotivasi Belajar Siswa terhadap Prestasi Belajar Bahasa Indonesia Siswa SMP di Depok. SAP (Susunan Artikel Pendidikan), 1(2), 206–216. https://doi.org/10.30998/sap.v1i2.1027

Sarip, M., Amintarti, S., & Utami, N. H. (2022). Validitas dan Keterbacaan Media Ajar E-Booklet untuk Siswa SMA / MA Materi Keanekaragaman Hayati. *JUPEIS: Jurnal Pendidikan Dan Ilmu Sosial*, *1*(1), 43–59.

Siboro, T. D. (2019). Manfaat keanekaragaman hayati terhadap lingkungan. *Jurnal Ilmiah Simantek*, *3*(1), 1. https://www.simantek.sciencemakarioz.org/index.php/JIK/article /download/36/36

Subono, M., & Andoko, A. (2005). Meningkatkan Kualitas Aglaonema Sang Ratu Pembawa Rezeki. Depok : AgroMedia Pustaka.

Sugiarti, Y., & Anwas, E. O. M. (2019). TEKNOPRENEUR AGLAONEMA : Mengubah hobi menjadi rezeki. Jakarta: Grasindo.

Sugiyono. (2014). Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, dan R&D (Cetakan 19). Bandung: Alfabeta.

Susanto, A. (2013). Teori belajar dan pembelajaran di sekolah dasar (Cetakan 1). Jakarta : Kencana.

Wicaksana, L. P. A., Setiawan, A., & Lim, R. (2022). Aplikasi Monitoring Pada Tanaman Aglaonema menggunakan IoT. Infra, 10(2), 70–75.