

Education on the Introduction of Livestock and Animal-Derived Food Products for Improving Students' Knowledge in Elementary School

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Abstract: The community service aimed to enhance students' knowledge of various livestock and the importance of animal-derived food products as the foundation for a healthy and nutritious life. One of the potentials for children's intelligence comes from consuming healthy food products. Activities were carried out using exposure and evaluation methods through pre-test and post-test. The activity results showed increased students' knowledge, with the average pre-test score being 50.74 and the average post-test score after the material presentation being 83.70. During the activity, students were seen as enthusiastic about the material presented. In conclusion, this activity improved knowledge regarding the recognition of various livestock and animal-derived food products. Students were able to enhance their understanding of various ruminant and poultry livestock based on their characteristics and names. Additionally, students better understood the sources of healthy and nutritious animal protein food products.

Keywords: education; food; livestock

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INTRODUCTION

Peudada 1 State Elementary School is one of the elementary schools in Peudada District, Bireuen-Aceh Regency. According to data from the Central Statistics Agency, the livestock population in the Peudada District of Bireuen Regency consists of 3326 beef cattle, 479 buffalo, 2145 goats, 2007 sheep, 52374 free-range chickens, 132 laying hens, 2334 broiler chickens, 64831 Manila ducks (BPS, 2022). This livestock population is one of the supporting factors for conducting

community service activities, as early knowledge about livestock and their products is essential for elementary students in the area. Livestock products are animal foodstuffs, and it is also important to introduce students to their types and benefits for health.

Learning in elementary school education is an effort to improve the quality of the nation's generation (Mayasari et al., 2022). Learning is related to each student's understanding, creativity, and interest in skills (Hanifa et al., 2020). Students can feel happy when

introduced to something interesting and enjoyable, so the learning media used can influence students' interest and learning outcomes (Joni et al., 2014).

The main problem in this community service activity is based on information from the school principal that students lack knowledge in recognizing livestock animals and animal-derived food products as sources of healthy food. There is a lack of students' knowledge about food ingredients typically consumed daily, such as the origin of eggs commonly eaten, milk consumed, and so on (Yahya & Mavaza, 2020).

Improving the health status of school-aged children through promoting healthy and nutritious living by providing animal-derived protein consumption. Food consumption as a source of animal protein can improve growth and prevent stunting (Nursani et al., 2023). The ultimate goal is to enhance the intelligence and growth of students as high-quality human resources, enabling them to learn, grow, and develop optimally.

Students' high or low learning outcomes can be influenced by the learning media used. Therefore, innovation in delivering materials is needed. Additionally, utilizing media can facilitate material delivery so that students can easily understand livestock-related material. Nowadays, learning through technology media is more captivating for students and makes it easier for educators to deliver the material.

The purpose of introducing livestock to elementary school students is to increase their knowledge of the various types of livestock and the importance of animal-derived food products as the foundation for a healthy and nutritious life. One of the potential sources of intelligence in children comes from healthy food products. Therefore, knowledge and understanding are

necessary to develop this potential for intelligence.

Livestock can be classified into three groups: those that produce meat, those that produce milk, and those that produce eggs (Soekarto, 2020).

The solutions implemented in this community service activity are: (1) Socialization of livestock education: Ruminants and poultry. (2) Socialization of animal protein food education: Milk and eggs. The expected outcomes are: (1) Students can recognize and identify various ruminant and poultry livestock in the community, thereby gaining information about the characteristics and names of these livestock and enhancing students' love for livestock. (2) Students can recognize and identify healthy and nutritious sources of animal protein food, thus increasing students' preference for consuming milk and eggs.

METHOD

The activity occurred at Peudada 1 State Elementary School in Peudada District, Bireuen-Aceh Regency. This activity was conducted in September 2023. The community service project was participated by 60 sixth-grade students.

The community service activity was carried out using the method of presentation and evaluation. The activity began with a pre-test to measure students' abilities regarding types of livestock and animal-derived food products. Next, the material about various types of ruminant livestock and poultry and animal-derived food products (meat, eggs, and milk) was presented. The subsequent stage concluded with a post-test to assess students' knowledge after hearing and seeing the presented material (Figure 1) (Magdalena et al., 2021).

The questions in the pre-test and post-test activities consisted of 10 multiple-choice questions. The results obtained before and after the test were compared using the same measuring instrument

(William & Hita, 2019). The results were analyzed qualitatively (Magdalena et al., 2021).



Figure1 Pre-test and post-test activity

RESULTS AND DISCUSSION

Livestock are animals intentionally raised (provided with shelter, food, and breeding conditions) to benefit humans. Livestock include cattle, goats, sheep, buffalo, chickens, ducks, and quails. In the field of animal husbandry, there are various types of livestock with different sizes that can be classified. Large livestock include cattle, goats, sheep, buffalo, and horses, while small livestock include chickens, ducks, rabbits, and quails (Fitroh, 2022).

The identified issue at the school was the lack of students' knowledge regarding the types of livestock and animal food products. The necessity of early education about livestock was expected to enhance students' awareness of the animals in their environment. Additionally, knowledge about the products derived from livestock as a healthy food source was crucial. Eating animal-based food, especially at a young age, could promote growth (Kaimila et al., 2019).

The Community Service activity was conducted for the sixth-grade students of Peudada 1 State Elementary School, with material delivered through interactive learning media, namely multimedia. Multimedia is a medium that combines images, text, photos, animations, audio, and video in an integrated manner (Taha

et al., 2022). This community service activity began with a pre-test, followed by the delivery of material and a post-test (Figure 1).

During the material presentation, which consisted of images and videos, it was evident that students paid close attention to what was being conveyed (Figure 2). This was evident from the students' focused gaze on the presented material. Media serves as a nonverbal component of the teaching method; therefore, it is essential to ensure that media used in teaching is engaging to keep students enthusiastic and prevent boredom (Supriyono, 2018).



Figure 2 The delivery of the material

The material presented was interspersed with quizzes or questions with prizes. This approach made the class environment more captivating and engaging. Throughout the activity, positive responses were observed from the students, particularly during the question-and-answer session, where many students enthusiastically participated by answering and even asking questions.

The observation results indicated an improvement in student understanding (Figure 3). The average pre-test score was 50.74, while the post-test score after the material delivery was 83.70. The increase in the average score was attributed to the high interest of students in the presented material and the improvement in understanding due to the engaging visuals such as images and videos.

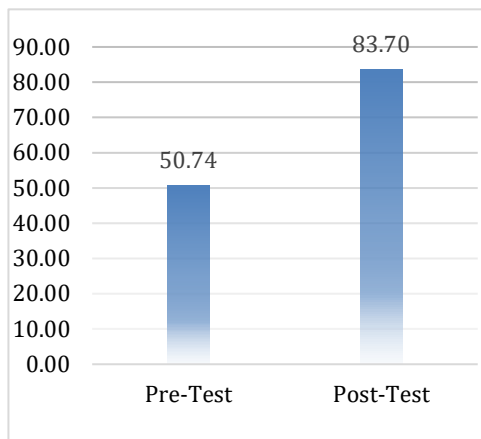


Figure 3 Pre-test and post-test results

Fatchiya and Jakaria (2018) also obtained the same results, stating that the implementation of livestock education activities in elementary school children could have a positive impact.

Students could easily absorb interesting material. This was consistent with the research of Aldifa et al., (2021), as evidenced by the test results showing an influence of learning about livestock and their diseases using media such as learning modules and video materials. Unique learning media could facilitate students' understanding of the material (Pratiwi et al., 2017). Media use in learning had implications for students as it could stimulate them to be more active, innovative, creative, and enjoyable (Supriyono, 2018). At the end of the activity, the community service team distributed animal food products like boiled eggs and commercial milk.

CONCLUSION

The community service activity that the sixth-grade students attended demonstrated increased knowledge of identifying types of livestock animals and animal-derived food products. This was evidenced by the pre-test and post-test scores, which increased the average score from 50.74 to 83.70. The students improved their understanding of various types of ruminant livestock and poultry in the community based on the

characteristics and names of these animals. Furthermore, they also enhanced their understanding of healthy and nutritious animal protein sources. It was hoped that the school authorities and students would continue consuming animal-based protein for development and intelligence.

REFERENCES

- Aldifa, S. Z., Prasetyowati, E., Fidi Nur Aini Eka Puji Dameanti, F. N. A. E. P. (2021). Edukasi pengenalan hewan ternak dan penyakit ternak pada siswa SDN Deyeng 02 Kabupaten Kediri. *Prosiding Seminar Nasional UNIMUS*, 4.
- Badan Pusat Statistik (BPS). (2022). Kabupaten Bireuen dalam Angka 2023.
- Hanifa, D. B., Robandi & Mulyasari, E. (2020). Peningkatan keterampilan berbicara siswa kelas III SD melalui penerapan metode bermain peran di Bandung. *Jurnal Pendidikan Guru Sekolah Dasar*, 5(2),131-138.
- Fitroh, B. A. 2022. Edukasi pembelajaran dunia peternakan kepada siswa SMK Muhammadiyah 3 Karanganyar. *Dedication: Jurnal Pengabdian Masyarakat*, 6 (1), 7-12.
- Kaimila, Y., Divala, O., Agapova, S. E., Stephenson, K. B., Thakwalakwa, C., Trehan, I., Manary, M. J., & Maleta, K. M. (2019). Consumption of animal-source protein is associated with improved height-for-age z scores in Rural. *Nutrients*, 1–22.
- Magdalena, I., Annisa, M. N., Ragin, G., & Ishaq, A. R. (2021). Analisis penggunaan teknik pre-test dan post-test pada mata pelajaran matematika dalam keberhasilan evaluasi pembelajaran di sdn bojong 04. Nusantra: *Jurnal Pendidikan Dan Ilmu Sosial*, 3(2), 150–165.
- Mayasari, S., Fitroh. B. A., Oktyajati. N., Purwati. S., Rachmawatie. S. J & Kodir. W. (2020). Edukasi siswa mi hidayatul insan karanganyar melalui

- pembelajaran muatan lokal peternakan. *Jurnal Pengabdian Masyarakat Indonesia (JPMI)*, 2 (2), 753-758.
- Nursani., Amaliah, R., Indriani., Ramadani, D., Lestari, R, H., Amaliah, D, D., Parawansyah, A., Juanda., Tahyul., Wangsa, M. A. (2023). Pkm pentingnya konsumsi protein hewani bagi anak usia dini di SD Inpres. *Jurnal Pengabdian Mandiri*, 2 (7), 1667-1672.
- Pratiwi, N. W. M., Ugiarto, M. & Cahyono, B. (2017). Media pembelajaran pengenalan Binatang dengan konsep game edukasi untuk PAUD berbasis macromedia flash. *Jurti*, 1 (1), 27-34.
- Purwono, J., Yutmini, S., & Anitah, S. (2014). Penggunaan media audio-visual pada mata pelajaran ilmup engetahuan alam di sekolah menengah pertama negeri 1 pacitan. *Jurnal Teknologi Pendidikan dan Pembelajaran*, 2 (2), 127-144.
- Supriyono, S. (2018). Pentingnya media pembelajaran untuk meningkatkan minat belajar siswa SD. *Jurnal Pendidikan Dasar*, 11(1), 43-38.
- Soekarto, S. T. (2020). Teknologi hasil ternak. Bogor: IPB Press.
- Taha, S. R., Mukhtar, M. & Mokodongan, A. (2022). Pengenalan ternak unggas dan ruminansia melalui media internet bagi anak usia dini di Desa Talumelito Kabupaten Gorontalo. *Jambura Journal of Husbandry and Agriculture Community Serve (JJHCS)*, 2 (1), 32-37.
- William, W., & Hita, H. (2019). Mengukur tingkat pemahaman pelatihan powerpoint menggunakan quasi experiment one-group pretest-posttest. *Jurnal SIFO Mikroskil*, 20(1).
- Yahya, S & Mavaza, D. L. (2020). Perancangan boardgame hewan ternak bagi anak-anak menggunakan model Four-D" dalam *International Conference on Art, Design, Education and Cultural Studies (ICADECS)*. Organized by Art and Design Department, Faculty of Letters, Universitas Negeri Malang.