

ENVIRONMENTAL-BASED STUDENT WORKSHEETS DESIGN FOR ECONOMICSS SUBJECTS IN SENIOR HIGH SCHOOL

Yopi Nisa Febianti

Universitas Swadaya Gunung Jati
taniabekker@yahoo.com

Meli Nurkholis

Universitas Swadaya Gunung Jati
melynurkholis06@gmail.com

Abstract

This study aims to identify the activities of the tofu and tempeh industry that can be used as a source of economics learning in senior high school, and how the design of environmental-based student worksheets. This study uses a qualitative method that is carried out on tofu and tempeh craftsmen in Cisambeng Village, Majalengka Regency. The subjects in this study were the community of tofu and tempeh craftsmen. The data collection techniques in this study are participatory observation, in-depth interviews, documentation, also interview instruments, observation instruments, recordings, and cameras are used. The data analysis technique in this study uses the Miles and Huberman model which includes data collection, data reduction, data presentation, and drawing conclusions. The results of this study indicate that various economics activities can be found in the tofu and tempeh industry in Cisambeng Village, Majalengka Regency which can be used as learning resources in economics subjects in senior high school. Suggestions for other researchers are to be able to continue this research in terms of utilizing environmental-based learning resources in the form of Students' worksheets in order to assist in the process of learning economics.

Keywords: Student Worksheets, Environmental Learning Resources, Economics Subjects.

INTRODUCTION

The learning process can be successful or not is mostly determined by a teacher because the management and learning strategies are very important to create an active, innovative, creative, efficient, and fun learning atmosphere, therefore, students do not feel bored and can easily understand the material. To create an innovative and fun learning atmosphere, the learning process should not only carry out in the classroom but can also in the surrounding environment. Basically, learning is an interaction between individuals and their environment.¹ It is hoped that utilizing the surrounding environment can help improve the quality of student's learning in the learning process.

In the learning process, of course, the teacher uses teaching materials, the selection of good teaching materials is very necessary for the success of teaching and learning

¹ Fitriani, A., Purnomo, A., & Ginanjar, A. Pemanfaatan Lingkungan Sebagai Sumber Belajar Terhadap Hasil Belajar IPS Kelas VII SMP Negeri 2 Ambarawa. *Sosiolum: Jurnal Pembelajaran IPS*, 1(2) (2019): 164-168. <https://doi.org/10.15294/sosiolum.v1i2.36422>

activities. In the current era of globalization, teachers are required to not only use teaching materials that focus on textbooks, but also to prepare more “mature” teaching materials to provide good learning to students, one of them is by developing student worksheets that use the environment as a learning resource. The development of social environment-based teaching materials is the development of teaching materials that promote and utilize an environment that is beneficial for the development of student competencies, especially to build students’ awareness of the environment.²

One of relevant environments to use as a source of learning economics subject is the economics environment because it is related to economics activities performed by the community in everyday life. The economics environment in the tofu and tempeh community in Cisambeng Village, Majalengka Regency can be used as a source of learning, because there were economics activities such as production, distribution, and consumption processes. These activities were related to the material on economics subjects in senior high school.

Based on the researcher’ experience in performing the Teacher Training Program (PLP) and the result of interviews with several economics teachers in senior high school, it can be seen that most economics teachers only used textbooks in providing learning and they did not implement the environment as a learning resource. This caused the learning process became more monotonous and boring because it still tends to apply teacher centered learning.

Meanwhile, the results of previous studies were also known as the low use of the environment as a learning resource. In the learning process there are still economics teachers who did not utilize optimally the environment as a medium or source of learning.³ Learning in schools is only done in the classroom and only use the planned or prepared learning resources, without utilizing learning resources in the surrounding environment.⁴

Based on the problems above, researchers tried to develop appropriate teaching materials to help teachers to be able to provide teaching materials in the form of student worksheets sourced from the environment. Therefore, researchers were interested in conducting this research to find these problems.

From the explanation above, this research aims to: 1) identify the activities of the tofu and tempeh industry that can be used as a source of economics learning in senior high school; 2) find out the environmental-based student worksheets design from the activities of the tofu and tempeh industry in Cisambeng Village, Majalengka Regency.

² Supriyadi, dkk. Pengembangan Bahan Ajar Berbasis Lingkungan Untuk Membentuk Karakter Siswa Pada Mata Pelajaran IPS Di SMP Negeri 5 Model Palu Sulawesi Tengah. *Jurnal Kreatif Online*, 8(2) (2020): 133-140.

³ Bowo, A. N. A. Pengembangan Pengelolaan Pembelajaran Ekonomi Berbasis Lingkungan Dengan Strategi *Small Group Discussion* Di SMA Muhammadiyah 1 Surakarta. *Academy Of Education Journal*, 6(1) (2015): 42-45. DOI: <https://doi.org/10.47200/aoej.v6i1.124>

⁴ Annisya, dkk. *Pemanfaatan Sumber Belajar Lingkungan Dalam Pembelajaran Ekonomi Di SMA*. Diunduh 10 Maret, 2021. From National Conference On Economic Education (2016): <http://pasca.um.ac.id/conferences/index.php/ncee/article/view/717>

METHODS

The research method used is a qualitative research method. This research method aimed to describe the situation or a socio-economics environmental phenomenon in the tofu and tempeh community that can be used as teaching materials in economics learning. Based on the type of the research taken, the design in this study used the Research and Development (R&D) approach from Borg & Gall which was developed by Sukmadinata, the research design consisted of three stages, they are: (1) Preliminary study, consisted of literature study, survey and compiling the teaching materials; (2) Design development, consisted of desk evaluation and revision of teaching materials; (3) Validation, consisted of validation and recommendation of teaching materials. The subjects in this study were the community of tofu and tempeh craftsmen. The data collection techniques in this study were through participatory observation, in-depth interviews, documentation, and used interview instruments, observation instruments, recordings, and cameras. The data analysis technique used the Miles and Huberman model which included data collection, data reduction, data presentation, and drawing conclusions.

RESULTS AND DISCUSSION

The Economy Activities of the Tofu and Tempe Industry that can be used as a Source of Economics Learning in Senior High School

First, the production process in the tofu and tempeh industry in Cisambeng Village can be categorized as a learning resource because production economy activities can be used as environment-based learning resource and relevant as a source of economics learning on economics activities material.⁵ Therefore, the production economy activities found in the tofu and tempeh industry can be used as a source of learning because these activities were related to the material in economics subjects in senior high school.

As mapped in Table 1 below:

Table 1 Tofu and Tempe Industrial Production System as a Learning Resources

No	Learning objectives	Main Subject	Description of Research Results
1.	Identified the production process	Definition of production	There were several stages in producing tofu and tempeh. In tofu production process, including soaking, washing, grinding, boiling, filtering, clumping,

⁵ Nuryatim, S. *Aktivitas Ekonomi Masyarakat di Terminal Tanah Habang Kota Pelabuhan Sebagai Sumber Belajar* (2021). ResearchGate:

https://www.researchgate.net/publication/350385591_AKTIVITAS_EKONOMI_MASYARAKAT_DI_TERMINAL_TANAH_HABANG_KOTA_PELAIHARI_SEBAGAI_SUMBER_BELAJAR

			molding, and boiling. While in tempeh production process, including boiling, soaking, grinding, washing, draining, giving yeast, packaging, and fermentation/ripening.
2.	Students can analyze the factors of the production	<p>The Factors of the production include:</p> <ul style="list-style-type: none"> • Natural resources • Human Resources • Capital • Entrepreneurship 	<p>In producing tofu and tempeh, there were several factors of production including:</p> <ul style="list-style-type: none"> • Natural resources which included raw materials for soybean seeds, water, and weather. • Human resources which included distributors, tofu and tempeh craftsmen, and administrative experts. • Capital which included money, factory buildings, and factory equipment. • Entrepreneurship which included responsibility, entrepreneurial spirit, and hard worker.

From the table above, it can be concluded that the production economy activities found in the tofu and tempeh industry in Cisambeng Village can be used as an environment-based learning resource. This was because the activities of the production economy in the tofu and tempeh industry were related to economics learning, thus, the production process can provide an overview or description to students regarding production activities.

Second, the distribution process in the tofu and tempeh industry in Cisambeng Village can be categorized as a learning resource because distribution economy activities can be used as an environment-based learning resource because it related to economics learning in the tenth grade of senior high school on the role of economics agents in economics activities material.⁶ Therefore, distribution economy activities in the tofu and tempeh industry can be

⁶ Nuryatim, S. *Aktivitas Ekonomi Masyarakat di Terminal Tanah Habang Kota Pelabuhan Sebagai Sumber Belajar* (2021). ResearchGate:

used as a source of learning because it was one of the economic activities contained in economics subjects. As mapped in table 2 below:

Table 2 Distribution System of Tofu and Tempeh Industry as a Learning Resources

No	Learning objectives	Main Subject	Description of Research Results
1.	Described the distribution process	Definition of Distribution	The distribution area for Srikandi's tofu and tempeh products is not only in Majalengka, but also sent every day to several cities including Cirebon, Kuningan, Indramayu, and Sumedang. The distribution process started at 03.00 a.m. In this distribution process, Srikandi company did not provide a vehicle to distribute tofu and tempeh products to consumers because the finished tofu and tempeh products were directly taken by distributors and retailers.
2.	Students can identify distribution traffic?	Distribution traffic included: <ul style="list-style-type: none"> • Direct distribution traffic • Indirect distribution traffic 	In the distribution process, Srikandi's tofu and tempeh industry used two distribution traffics, they were: <ul style="list-style-type: none"> • Direct distribution traffic, which was done directly to the consumers. Usually, consumers came directly to the tofu and tempeh industry or consumers can order by telephone. Orders directly by consumers is usually for large events. • Indirect distribution traffic, was producers served in large quantities to wholesalers who

			will then resell to retailers. In addition, producers also sold their products to retailers, then retailers sold them to small shops and some were sold directly to consumers.
--	--	--	--

From the table above, it can be concluded that the distribution economy activities found in the tofu and tempeh industry in Cisambeng Village can be used as an environment-based learning resource. Because with distribution activities in the tofu and tempeh industry, students can know and understand the meaning of distribution. In addition, students can find out the distribution processes performed by producers until these products reached the consumers.

Third, consumption activities performed by the consumers who consumed tofu and tempeh products can be categorized as learning resources because consumption activities can be used as environment-based learning resources and relevant as a source of economics learning following basic competencies 3.3: analyzing the role of economics agents in economics activities.⁷ As mapped in table 3 below:

Table 3 Consumption System of Tofu and Tempeh Industry as Learning Resources

No	Learning objectives	Main Subject	Description of Research Results
1.	Described the consumption process	Definition of Consumption	The process of consuming tofu and tempeh was carried out by consumers who bought or consumed tofu and tempeh products. Tofu and tempeh can be processed into a variety of dishes to fulfill daily needs.
2.	Students can identify consumption activities of economics agents	Consumption Activities of Economics agents include: <ul style="list-style-type: none"> • Family Household 	Consumption agents in tofu and tempeh craftsmen were family households consisting of fathers, mothers, children, and other family members. Tofu and tempeh were consumed to fulfill

⁷ Jumriani. Kegiatan Produksi Dan Distribusi Di Kampung Sasirangan Sebagai Sumber Belajar IPS. *Jurnal Pendidikan dan Pembelajaran Ilmu Pengetahuan Sosial*, 7(1) (2018): 105-116. <http://dx.doi.org/10.20527/jurnalsocius.v7i1.5280>

		<ul style="list-style-type: none"> • Manufacturer Household • State Household 	daily needs.
--	--	---	--------------

From the table above, it can be concluded that consumption activities carried out by consumers who consumed tofu and tempeh products can be used as an environment-based learning resource. Because with consumption activities in the tofu and tempeh industry, students can know and understand the meaning of consumption that was unconsciously carried out every day.

Environmental-based Student Worksheets Design of Tofu and Tempeh Industry Activities in Cisambeng Village, Majalengka Regency

a. Title/Cover

The title was determined from the basic competencies that will be achieved in learning or learning experiences contained in the curriculum.

b. Preface and Table of Contents

The preface contained the objectives in the preparation of the student worksheets and the researchers' expectations for the preparation of the student worksheets. This preface also contained the availability of researchers in receiving constructive input and suggestions. Meanwhile, the table of contents was made in accordance with the existing components in the student worksheets.

c. Introduction

The contents of the introduction are (1) Core Competencies (KI), were knowledge and skills that must be achieved and known by students; (2) Basic Competencies (KD), were skills that must be mastered by students in the learning process; (3) competency indicators, were something that must be achieved in understanding or analyzing the material in learning activities; and (4) learning objectives, which were goals that must be achieved by students after conducting the learning process.

d. Concept maps

The concept maps in this student worksheets explained the material that will be delivered during the learning process.

e. The Main Subject

The main subject in this student worksheets was the summary result of research that has been performed in the tofu and tempeh industry in Cisambeng Village, Majalengka Regency which was then adjusted to the existing basic competency needs.

f. Task

The tasks in the student worksheets teaching materials that have been made are adjusted to the accomplished learning objectives or the goals of basic competencies.

Design Appropriateness Study Results

First, the appropriateness aspect of the student worksheets' relevance with learning needs consisted of four assessment points, they were the relevance of the material to KI and KD, the relevance of the material to the syllabus, the relevance of tasks and questions to learning objectives, and the sufficiency of the number of exercises and questions. The results of the appropriateness from the four validators on the assessment of the student worksheets' relevance with learning needs based on the four assessment points stated that they were adequate. Consequently, it can be stated that the material in the student worksheets was appropriate and in accordance with the learning needs the student worksheets were said to be proper if the material presented was in accordance with KI and KD as well as syllabus, hence it can increase knowledge and made it easier for students to learn the material.⁸

Second, the appropriateness aspect of the student worksheets accuracy with learning needs consisted of three assessment points, namely: the accuracy of the material presented that in line with everyday life, the accuracy with concepts and definitions, and the accuracy of examples that match the material. The results of the appropriateness from the four validators in assessing the accuracy of the student worksheets with learning needs based on three assessment points, there were three validators stated it was adequate, and one validator stated it was not adequate with a note "The material presented was not comprehensive, it was better for completing the environmental approach, then the description of the material used one economic activity in the student's environment. For exercise/evaluation, you can present other portraits of the surrounding environment". This was in accordance with research conducted the material presented in the student worksheets was adequate if it is in accordance with everyday life because it can motivate students in the study.⁹

From the notes given by the validator, the researcher improved the student worksheets according to the suggestions from the validator. Because the description in the distribution activities section in the student worksheets used a description outside the context of tofu and tempeh, thus the researcher corrected the description with the context that is in accordance with this research, about tofu and tempeh.

⁸ Yunipiyanto, dkk. Pengembangan Lembar Kerja Peserta Didik (LKPD) berbasis masalah untuk meningkatkan kemampuan berpikir kritis dalam proses pembelajaran ekonomi. *Jurnal Studi Sosial*, 8(1) (2020): 1-15.

⁹ Yunipiyanto, dkk. Pengembangan Lembar Kerja Peserta Didik (LKPD) berbasis masalah untuk meningkatkan kemampuan berpikir kritis dalam proses pembelajaran ekonomi. *Jurnal Studi Sosial*, 8(1) (2020): 1-15.

Third, the aspect of linguistic appropriateness with the student worksheets content consisted of three assessment points: regarding the use of spelling in sentences, the use of terms, and the simplicity of sentence structure. The results of the appropriateness from the four validators on the linguistic assessment with student worksheets content based on the three assessment points stated that they were adequate. Therefore, it can be stated that the student worksheets that have been designed are in accordance with the rules of good and proper Indonesian language the student worksheets is to be proper if the material presented used sentences and terms that were easily understood by students.¹⁰

Based on the results of the student worksheets appropriateness assessment obtained from the four validators, overall, the student worksheets teaching materials were adequate, but the teaching materials still have shortcomings that must be corrected by researchers to make the student worksheets teaching materials became better and proper to recommend.

CONCLUSION

Economics activities in the tofu and tempeh industry presented in student worksheets teaching materials referred to the Core Competencies (KI), namely KI 3 and KI 4, as well as Basic Competencies (KD), namely KD 3.3 and KD 4.3 with competency indicators that explain production activities, distribution activities, and consumption activities. After studying the student worksheets teaching materials, students were expected to be able to describe production, distribution, and consumption activities according to the learning objectives.

Environment-based student worksheets design was an innovation in learning because, in the current era of globalization, teachers were required to not only use teaching materials that focused on textbooks but also to prepare more mature teaching materials in providing good learning for students. Utilization of the environment as a learning resource can facilitate the learning process, had an attraction, and motivated students to be more active, interactive, and critical in solving problems that existed around them.

REFERENCES

- Adriani, & Soesetyo. (2019). Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Contextual *Teaching And Learning* Pada Pelajaran Ekonomi Siswa Kelas X SMA. *Jurnal Pendidikan Ekonomi*, 12(2), 88-92.
- Annisya, dkk. (2016). *Pemanfaatan Sumber Belajar Lingkungan Dalam Pembelajaran Ekonomi Di SMA*. Diunduh 10 Maret, 2021. From National Conference On Economic Education: <http://pasca.um.ac.id/conferences/index.php/ncee/article/view/717>.

¹⁰ Adriani, & Soesetyo. Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Contextual *Teaching And Learning* Pada Pelajaran Ekonomi Siswa Kelas X SMA. *Jurnal Pendidikan Ekonomi*, 12(2) (2019): 88-92.

- Bowo, A. N. A. (2015). Pengembangan Pengelolaan Pembelajaran Ekonomi Berbasis Lingkungan Dengan Strategi *Small Group Discussion* Di SMA Muhammadiyah 1 Surakarta. *Academy Of Education Journal*, 6(1), 42-45. DOI: <https://doi.org/10.47200/aoej.v6i1.124>
- Dermawati, N., Suprata, S., & Muzakkir, M. (2019). Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Lingkungan. *Jurnal Pendidikan Fisika*, 7(1), 74-78. DOI: <https://doi.org/10.24252/jpf.v7i1.3143>
- Fitriani, A., Purnomo, A., & Ginanjar, A. (2019). Pemanfaatan Lingkungan Sebagai Sumber Belajar Terhadap Hasil Belajar IPS Kelas VII SMP Negeri 2 Ambarawa. *Sosiolum: Jurnal Pembelajaran IPS*, 1(2), 164-168. <https://doi.org/10.15294/sosiolum.v1i2.36422>
- Indrianawati, E., & Soesatyo, Y. (2017). Pengaruh Tingkat Pendapatan Dan Pengetahuan Ekonomi Terhadap Tingkat Konsumsi Mahasiswa Program Pascasarjana Universitas Negeri Surabaya. *Jurnal Ekonomi Pendidikan dan Kewirausahaan*, 3(1), 214-226. <https://doi.org/10.26740/jepk.v3n2.p214-226>
- Jumriani. (2018). Kegiatan Produksi Dan Distribusi Di Kampung Sasirangan Sebagai Sumber Belajar IPS. *Jurnal Pendidikan dan Pembelajaran Ilmu Pengetahuan Sosial*, 7(1), 105-116. <http://dx.doi.org/10.20527/jurnalsocius.v7i1.5280>
- Nuryatim, S. (2021). *Aktivitas Ekonomi Masyarakat di Terminal Tanah Habang Kota Pelaihari Sebagai Sumber Belajar*. Diunduh 20 Juli, 2021. From ResearchGate: https://www.researchgate.net/publication/350385591_AKTIVITAS_EKONOMI_MASYARAKAT_DI_TERMINAL_TANAH_HABANG_KOTA_PELAIHARI_SEBAGAI_SUMBER_BELAJAR.
- Subagja, D. J., Syaodih, E., & Ilyas, ilyas. (2017). Pengembangan Media Pembelajaran Lembar Kerja Siswa (LKS) Untuk Meningkatkan Kemampuan Berpikir Kritis. *Jurnal Pendidikan dan Pembelajaran Ekonomi Akuntansi*. 3 (1), 52-65.
- Sukmadinata, N. S. (2016). *Metode Penelitian Pendidikan*. Bandung: PT Remaja Rosdakarya.
- Supriyadi, dkk. (2020). Pengembangan Bahan Ajar Berbasis Lingkungan Untuk Membentuk Karakter Siswa Pada Mata Pelajaran IPS Di SMP Negeri 5 Model Palu Sulawesi Tengah. *Jurnal Kreatif Online*, 8(2), 133-140.
- Yunipiyanto, dkk. (2020). Pengembangan Lembar Kerja Peserta Didik (LKPD) berbasis masalah untuk meningkatkan kemampuan berpikir kritis dalam proses pembelajaran ekonomi. *Jurnal Studi Sosial*, 8(1), 1-15.