

# Social Studies Within Transdisciplinary Learning: Preparing Students to Have an Ability Supporting Sustainability Living

Sari Pratiwi

[Saripratiwi30@upi.com](mailto:Saripratiwi30@upi.com)

Department of Social Studies Education, Universitas Pendidikan Indonesia

Submitted  
October 31, 2019

Revised  
December 19, 2019

Accepted  
December 20, 2019

<https://dx.doi.org/10.17509/jpis.v28i2.20862>

## ABSTRACT

*Social Studies learning is a scientific field that cannot be separated from its role in solving problems that occur in society. Students will participate as agents of change in society that have knowledge, insights, attitudes, and understandings that are upholding sustainability. Social studies need more authentic learning, which simulates a real-world environment by making it a source and a medium of learning, so that the context and allowance are used with similar situations, meaningful and connected to the real world by applying transdisciplinary learning. This paper contains a literature review on the application of learning in social studies learning to prepare students to live in harmony with the sustainable living. This literature study refers to the theoretical aspects of transdisciplinary learning, social studies within transdisciplinary learning, and learning outcomes related to sustainable living.*

**Keywords:** *Transdisciplinary Learning, Social studies, Sustainable living*

## ABSTRAK

*Pembelajaran IPS adalah bidang ilmiah yang tidak dapat dipisahkan dari perannya dalam menyelesaikan masalah yang terjadi di masyarakat. Siswa akan berpartisipasi sebagai agen perubahan di masyarakat yang memiliki pengetahuan, wawasan, sikap, dan pemahaman yang menjunjung tinggi keberlanjutan. Studi sosial membutuhkan pembelajaran yang lebih otentik, yang mensimulasikan lingkungan dunia nyata dengan menjadikannya sumber dan media pembelajaran, sehingga konteks dan kelonggaran digunakan dengan situasi yang sama, bermakna dan terhubung ke dunia nyata dengan menerapkan pembelajaran transdisipliner. Makalah ini berisi tinjauan literatur tentang penerapan pembelajaran dalam pembelajaran sosial untuk mempersiapkan siswa untuk hidup harmonis dengan kehidupan yang berkelanjutan. Studi literatur ini mengacu pada aspek teoritis pembelajaran transdisipliner, studi sosial dalam pembelajaran transdisipliner, dan hasil belajar terkait dengan kehidupan yang berkelanjutan.*

**Kata Kunci:** *Toleransi, Agama, Bangsa*

## PENDAHULUAN

This article refers to research studies which contain transdisciplinary learning and reference books on social studies learning related to sustainability. This article is based on our concern for social studies learning which has not

maximized its role in improving students' skills in carrying out life in a real-world context, including their social and ecological skills [1], [2]. It has been known that since a few years ago, social studies learning has existed as a lesson that promotes memorization where

teachers act out as drill masters and students as listeners and text coverers [3], [4].

Thus, as stated by Trilling [5] social studies require authentic learning, which simulates a real-world environment by making it a source and media of learning, so that concepts and contexts are appropriate and allow lessons to be remembered and can be used elsewhere with similar situations, "Meaningful" and "connect to the real world" in social studies learning. One of the authentic learning that educators can do is to apply transdisciplinary learning.

Savage, Nicolescu, and Hasan explained that the term "transdisciplinary" first emerged in the 1970s, defined as a comprehensive framework that tried to go beyond incorporating existing disciplinary approaches in interdisciplinary ways to create new frameworks, synthesis, describe the life of the world community, development of technology that creates inequalities and inability to solve various humanitarian problems, and combines exposure to various knowledge and disciplinary methods to transform knowledge and methods into solutions to complex social problems [6], [7], [8]. It started and basically was born from a real-world problem, and that is the main point of starting transdisciplinary learning. Just like an explanation on two studies before [9], [10] transdisciplinary learning is the exploration of a relevant issue or problem that integrates perspectives of multiple disciplines (and sectors) in order to connect new knowledge and deeper understanding of real life experiences'. Transdisciplinary learning in several studies is related to sustainability issues. Nicolescu & Ertas [7] in their book

discussed Epistemological Awareness and Transdisciplinary Attitude; one of which is about planetary sustainability with an educational program that unites several majors to unite science also enforce tenure and promotion policies and procedures that accommodate transdisciplinary work and the unconventional teaching, service, and research demands of such work. Gulikers, et al [9] in their study put forward the goal so that students can understand environmental sustainability issues by creating a transdisciplinary project equipped with evaluation tools and specifically tested rubrics. This allows students to learn from others, around the boundaries, and to develop the ability to create new knowledge and work towards innovative or sustainable practices.

Social studies provide opportunities for students to look at and think about human behavior and activity realistically, objectively, and with sensitivity. In its implementation in Indonesia, referring to Supriatna [2], we can conclude that social studies are the right subjects in discussing sustainability issues. Philosophically, social studies are integrated, value-based, problem-based, and contextual. Integration of social studies is seen from the integration of basic concepts from social science disciplines to be developed in the lesson. Social studies also make the values that develop in the community as a study material to equip students to become good citizens and make the problem of inequality and hope in society an interesting theme to learn and find alternative solutions to, where these problems are contextual with life everyday students, including environmental and social problems.

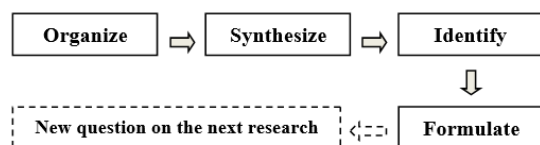
Based on the presentation of the study of transdisciplinary learning and

our search results on the transdisciplinary learning literature, there are still very few who use social studies learning as a method of learning about sustainability issues. For this reason, this article will answer the question descriptively about: transdisciplinary learning, social studies within transdisciplinary learning, and learning outcomes related to sustainable living. It is expected that this article can be an input for educators to be able to apply it and test it in real terms at school, so that in the future it can be used as a policy driver for the social studies education curriculum in Indonesia.

#### METODE PENELITIAN

This type of research is library research. Taylor [10] mentions that there are four procedures used in this type of research, which we will describe in the following figure.

**Figure 1.** The four steps in literature review



The method aims to identify major findings across various studies. A general survey of literature is conducted to determine the scope and topics faced. As presented in Figure 1, this process of literature study in this article includes organizing, synthesizing, identifying, formulating, and raising new questions. Therefore, all the scientific literature from books and journal articles are reviewed based on the aforementioned stages.

#### HASIL DAN PEMBAHASAN

##### ***Transdisciplinary Learning***

Transdisciplinary in education is founded on the inexhaustible richness

of the scientific spirit which is based on questioning and of the refusal of all a priori answers and all certitude contradictory to the facts. At the same time, it revalues the role of the deeply rooted intuition, of the imaginary, of sensitivity, and of the body in the transmission of knowledge. As Nicolescu, Oandasan and Reeves suggest the following competencies to foster the goals of transdisciplinary education, namely the ability to:

- (1) describe one's roles and responsibilities clearly to other professionals and community stakeholders;
- (2) recognize and observe the constraints of one's role, responsibilities, and competencies, yet perceive needs in a wider framework
- (3) work with other professionals to effect change and resolve conflict in the provision.

To make a dynamic transdisciplinary learning impactful to the environment, teachers should pay attention to these three fundamental preconditions: (1) is ideally driven by the interconnections between and beyond disciplines; (2) is ideally built on problem-based learning; and (3) ideally allows and strongly enhances "real-life" feedback and the co-creation of knowledge due to the integration of (non-academic) stakeholders from outside the classrooms.

After educators have carried out preconditions as explained earlier, educators must also pay attention to some essential points in applying transdisciplinary learning, understanding about the real-world problem and collaboration.

To make a meaningful collaboration, students draw together concepts, theories, and approaches from parent disciplines' and

stakeholders' knowledge systems and lived experiences, and then transforms these into new transdisciplinary knowledge, which is possible because boundaries have been broken down or transcended. Students would learn to expect that disciplines' and stakeholders' knowledge systems will come into play as needed or desired throughout the joint problem-solving process. So it is necessary to socialize learners to expect to create new, integrated intellectual frameworks, not just to draw disciplinary concepts together. Co-creating new knowledge requires also need collaboration. Effective collaboration presupposes, at a minimum, a rough understanding of (or at least respect for) each actor's values. Plus, everyone uses terms that have different meanings in different disciplines, institutions or sectors. Savage added, upon becoming familiar with each other's values, as well as disciplinary and sectoral jargon and concepts, learners can combine perspectives to build new transdisciplinary knowledge. Furthermore, Gilis [11] stated in his study that it is important to add that transdisciplinary thinking and practices are not contradictory to disciplinary activities; rather, they complement and even extend disciplinary understanding. The collaborative nature required for transdisciplinarity goes beyond institutions and into the larger global community, and fosters reconciliation between "all sciences and civil society," inviting a more holistic perspective.

To develop learning in the classroom, teachers can also carry out a series of activities to support transdisciplinary learning by taking the following steps [8], [12], [13]. First, gaining knowledge that is relevant and of global significance. Transdisciplinary

learning began with a specialist/teacher collaboration to start thinking aloud about how social studies is a great way to solve sustainability issues local or global. Most important is the creation of an inclusive space, which brings along particular challenges in terms of starting and creating continuous feedback processes between all involved collaborators.

Second, developing an understanding of the concept; which allows them to make connections throughout learning. Through inquiry, teachers having the students identify the words they are a bit familiar with and, in groups, be able to discuss and come up with a hypothesis of what it really means through the discussion by paying attention to the key and related concept. Every student comes to the table with his or her own purpose, concepts, knowledge, and interpretations of the world with this issue.

Third, acquiring transdisciplinary and disciplinary skills. The Approaches to Learning skills include: observing, analysis, and communication skills were developed in a truly transdisciplinary context, helping students and teachers alike to recognize their long-term and immediate value. Basic competencies such as critical thinking and communication skills are a prerequisite to foster competencies in sustainability and to prepare students for actual inter- and transdisciplinary challenges.

Fourth, developing attitudes that will lead to international-mindedness. Students recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. By being informed by their internal perspectives, each student

poses actions, which have a series of expected and unexpected effects.

Fifth, students take action as a consequence of their learning. These actions and consequences are observed and described by each student, leading to a convergence of viewpoints inspiring the creation of new knowledge, ideas and concepts, then developed ways for the citizens to communicate with each other, solving yet another problem by making a personal project/exhibition at the end of the year. After more discussion and brainstorming, the students figured out they needed specific people that could reinforce them in the community. Each student's interpretation of these shared data, their view of the problem, their chosen approach and possible solutions might shift, which could lead to new ideas and concepts, and the transdisciplinary learning cycle continues.

Based on the definitions and principles of transdisciplinary learning mentioned by some of these researchers, we conclude that what often needs to be considered by teachers in developing this learning in the classroom is: transdisciplinarity must be stimulated from students' understanding of problems related to the continuity of their lives, students are given the appropriate role to motivate them engaging the learning, meaningful collaboration is very necessary, and the need for teachers to develop and connect the interrelationships between learning concepts so that students' skills in learning become intact and have an impact on increasing their skills and attitudes as a result of learning.

### ***Social Studies within Transdisciplinary Learning***

We got an idea to write about social studies learning in a

transdisciplinary manner based on a document issued by the IB as the development of the six transdisciplinary themes proposed in 2005. In this discussion, we call it the main source which is then integrated with other documents so as to form writing that generally contains how transdisciplinary can be applied in social studies learning by referring to any curriculum being applied at school.

The International Baccalaureate Organization which is currently named International Baccalaureate (IB), in 2005 develops a transdisciplinary basic education curriculum model based on the philosophy that is "committed to structured, purposeful inquiry as the leading vehicle for learning". On the basis of that philosophy, six transdisciplinary themes are produced which are considered globally significant. The six themes are Who we are, Where we are in place and time, How we express ourselves, How the world works, How we organize ourselves, Sharing the planet. The six themes are woven with six fields of study, namely language, social studies, mathematics, art, science and technology, and personal, social, and sports education. The six human themes are closely related to the purpose and objectives of transdisciplinary development which are actually developing. this is in line with what was stated by Batmang [14] in his study that in a disciplinary view, education must concern the development of human potential and the humanity of a student. A student must develop his personal life concerning various aspects of personality with regard to social life, culture, religion, art, economics, science and technology as a human being who can make himself an agent for the welfare of people's lives and use

discipline as a tool for welfare human life because basically education cannot avoid its "pivotal position" in realizing human well-being and humanity so as to enhance human and human identity, and balance human life and humanity throughout the planet.

IB named the document "social studies scope and sequence" [15] for the primary level and developed to be more specific in the scientific field in "individual and societies" for the level middle years program [16] which developed according to the age of the learner included in the social studies learning document. Exposure to and experience with social studies, therefore, opens doors to key questions about life and learning. Contributing to transdisciplinary learning in social studies, five essential elements of the program knowledge, concepts, skills, attitudes, and action—informs planning, teaching and assessing in social studies. The knowledge component of social studies is arranged into five strands: human systems and economic activities, social organization and culture, continuity and change through time, human and natural environments and resources and the environment. These strands do not have fixed boundaries; many areas will necessarily overlap with each other and with other subject areas. Students should be made aware of the inevitable links to other areas of the curriculum in order to understand the interconnected nature of the subject areas, both with one another and with the transdisciplinary themes through social studies transdisciplinary skills developed by IB, there are : (1) Formulate and ask questions about the past, the future, places and society, (2) Use and analyze evidence from a variety of historical, geographical and societal

sources, (3) Orientate in relation to place and time, (4) Identify roles, rights, and responsibilities in society, and (5) Assess the accuracy, validity and possible bias of sources.

Philosophically, social studies are integrated, value-based, problem-based and contextual. Integration of social studies is seen from the integration of basic concepts from social science disciplines to be developed in the lesson. Social studies also make the values that develop in the community as a study material to equip students to become good citizens and make the problem of inequality and hope in society an interesting theme to learn and find alternative solutions to, where these problems are contextual with life everyday students, including environmental and social problems. Thus, a core can be drawn that any problem that has an impact on human social life can be found a solution in the generalizations that exist in social studies learning, including sustainable living issues.

Facingthefuture.org [17] developed a social studies subject guide that refers to understanding sustainability for grade 9-11. This guide helps students visualize a sustainable future in both their local and global communities and the connections between the economy, history, democracy, and sustainability, providing students with creative ideas and tools for action-based projects. Each lesson is aligned with the National Council for the Social Studies curriculum standards for easy classroom integration. Students will learn about: Investigate sustainable and unsustainable societies in history and what led to their success or failure, understand the negotiations between government, civic organizations, and private sectors regarding energy policy,

and critically evaluate commercial messages that promote unsustainable, unhealthy behaviors. One of the learning examples is titled “Watch Where You Step”. In this chapter, the activity emphasizes the interconnectedness of lifestyle, population, and environmental impacts, and focuses on solutions to reduce ecological footprints. By Integrate Social studies concepts and Science (Biology, Environmental), students develop their knowledge by the inquiry questions such as What are the environmental, economic, and social impacts of a typical American diet and lifestyle?; What would be the consequences if the rest of the world adopted a typical American lifestyle?; What can we do to reduce negative social, environmental, and economic impacts associated with resource consumption?. Just like IB, they also take transdisciplinary skills to solve the questions.

Social studies learning with the 2013 curriculum (the latest curriculum) in Indonesia has supported the existence of transdisciplinary learning. This is shown in several explanations in the 2013 curriculum documents as we list them in the Table 1.

**Table 1.** Transdisciplinary Learning in Social Studies 2013 Curriculum

No.	Document	Statement
1	Konsep dan Implementasi Kurikulum 2013	The need for an additional transdisciplinary approach through the contextual learning themes surrounding it to ensure that the practice is relevant.
2	Silabus mata pelajaran sekolah dasar/madrasah	Social studies subjects are formulated on the basis of social

No.	Document	Statement
	ibtdaiyah (SD/MI)	reality organized with an interdisciplinary, multidisciplinary and transdisciplinary approach.
3	Buku Guru Kelas IX SMP/MTs Edisi Revisi	Social studies learning needs to be organized with an interdisciplinary, multidisciplinary or transdisciplinary approach from the social sciences, humanities, and developmental psychology

Social Studies 2013 Curriculum allow transdisciplinary learning because the content of the curriculum is not limited and confined to a single discipline, especially in primary levels, but does not rule out the possibility of secondary levels of transdisciplinary learning because learning in the 2013 curriculum promotes scientific that allows students to find learning resources other than teachers and books. There are various themes in social studies that can be developed and reviewed by teachers in answering sustainability issues which can be seen in the Table 2.

**Table 2.** The material of social studies related to Sustainable Living Issues

Material	Sustainable Living Issues
Potential natural resources of Indonesian land and waters	Managing water and land resources around schools to uphold sustainability
Social Institution	Non-governmental organizations and institutions in their role in handling

Material	Sustainable Living Issues
	environmental problems
Human interaction with the natural, socio-cultural and economic environment	Rights and obligations of citizens in using public facilities
Population and environmental issues	The explosion of the population
Establishment of national awareness	Nationalism in the love of local products

In addition, in his book, Supriatna [18] also exemplifies the continuity issues from the perspective of culture, history and contemporary icons that are currently developing into a new understanding, namely consumerism, Supriatna's own consumerism is defined as a notion that emphasizes excessive attitude in consuming things so it is increasingly detrimental to sustainability in life. In terms of the environment, consumerism has an impact on environmental damage because often people do not position themselves as green consumers, so unwittingly this damages the environment and even belongs to exploiting the environment. In terms of culture, tourism is also part of 'commodities' which is the consumption needs of the global community. If it is not addressed wisely, it also causes consumerism. In terms of economics, the attitude of consumerism is shown by the public not wisely in buying goods which are not according to their needs but only because of the trend factor. On this basis, social studies that are transdisciplinary are needed so that students can grow into a society that explores things more thoroughly. For example, in looking at gadgets, how can these objects be viewed in terms of

technology, culture, and even health so that students as a generation that grows with ease in obtaining and accessing their gadgets can become good gadget consumers.

### **Learning Outcomes Related to Sustainable Living**

The transdisciplinary emphasis in the example mentioned above is to unify the concepts of other disciplines that are not reflected in the concepts of social studies disciplines. In transdisciplinary learning, students become knowledge producer and teacher as interactive learning designer [18].

Sustainable living generally defined as a way of living that meets the physical and environmental needs of the current generation without depleting the resources available to future generations [9]. In education, according to Buchanan [19], sustainability extends traditional environmental knowledge to include examining social, environmental, and economic issues of local and global importance. Traditionally, the studies of sustainability issues and solution-oriented teaching have been consistently prominent in science standards initiatives and science education research. Environmental sustainability, however, also is located in the social studies curriculum. Sustainability topics, for example, are found in standards for geography, history, and global citizenship. As integrated instruction often provides relevance for students' lives, and environmental sustainability is interdisciplinary by nature, cross-subject integration affords students the ability to address sustainability concepts and skills across traditionally discrete



disciplines, which is a primary goal of social studies education.

As Biberhofer [12] explained, transdisciplinary processes create collaboration among science and society, which is able to emphasize joint problem definition and knowledge integration. The emergence of these new modes of science and the growing need to deal with sustainability issues ask for transdisciplinary approaches (including and integrating also mono- and interdisciplinary work). As such, they are well suited for sustainability science that deals with complex, ambiguous, real-world problems and aims at producing robust and practice-oriented knowledge. This is reinforced by Gulikers' explanation, that education for sustainability should not focus primarily on student content or answers. Cross-learning process processes are critical for getting a grip on the unpredictable future. By applying transdisciplinary learning, it allows students to work with others around the boundaries, and to develop the ability to create knowledge and work towards innovation or sustainable practice. Finally, it has proven that transdisciplinary learning promotes authentic learning which is one of the key factors in sustainable education [19].

## SIMPULAN

The transdisciplinary learning framework contained in IB documents and facingthefuture.org provides an applicative picture that educators can do in social studies learning at school. This learning begins with social issues that are developed into a process of inquiry carried out by students. By combining social studies concepts and other disciplines, students look for alternative problem solving with the

skills they have, namely inquiry skills that are carried out on a daily basis.

Schools are becoming more conscious with the dangers of environmental change thus pedagogues are encouraging the development of learning model in social studies to prepare students ability to support sustainable living, more sensitive to sustainable issues and leads to changes in behavior in everyday life to a better direction. Transdisciplinary learning is an alternative that can be used as a model in social studies learning to be closer to sustainable living. focus on the problems of everyday life, provide opportunities for meaningful collaboration, build inquiry skills so students have the opportunity to be more sensitive to problems and contribute to solving problems by becoming agents of change in supporting sustainable living.

## DAFTAR PUSTAKA

- [1] E. Maryani, "PENGEMBANGAN PROGRAM PEMBELAJARAN IPS UNTUK MENINGKATKAN KOMPETENSI KETERAMPILAN SOSIAL," *vol 9 No 1*, vol. 9, no. 1, pp. 1–111, 2009.
- [2] N. Supriatna, *Ecopedagogy*. Bandung: PT. Remaja Rosdakarya, 2016.
- [3] M. N. Somantri, *Menggagas pembaharuan pendidikan IPS*. Bandung: PT. Remaja Rosdakarya, 2001.
- [4] S. H. Hasan, "History Education in Curriculum 2013 ;," *Int. J. Educ.*, vol. XIV, no. 2, pp. 163–178, 2013.
- [5] B. Trilling and C. Fadel, "[Bernie\_Trilling,\_Charles\_Fadel] \_21st\_Century\_Skil(BookFi)," 2009.
- [6] M. J. Savage and S. M. Drake, "Living transdisciplinary

- curriculum: Teachers' experiences with the international baccalaureate's primary years programme," *Int. Electron. J. Elem. Educ.*, vol. 9, no. 1, pp. 1–20, 2016.
- [7] S. H. Hasan, "Disajikan pada Seminar Mengenai Transdisciplinarity di UNJ pada tanggal 29-10-2007 Guru Besar Pendidikan Sejarah, UPI," vol. 2, 2007.
- [8] B. Nicolescu and A. Ertas, *Transdisciplinary, Theory Practice*. 2013.
- [9] J. Gulikers and C. Oonk, "Towards a Rubric for Stimulating and Evaluating Sustainable Learning," *Sustain.*, vol. 11, no. 4, 2019.
- [10] D. Taylor and M. Procter, "The literature review: a few tips on conducting it," *Writ. Support. Univ. Toronto. Retrieved*, pp. 4–5, 2008.
- [11] D. Gillis, J. Nelson, B. Driscoll, K. Hodgins, E. Fraser, and S. Jacobs, "Interdisciplinary and Transdisciplinary Research and Education in Canada: A Review and Suggested Framework," *Collect. Essays Learn. Teach.*, vol. 10, p. 203, 2017.
- [12] P. Biberhofer, "Transdisciplinary learning and teaching as answers to urban sustainability challenges," *Int. J. Sustain. High. Educ.*, vol. Vol. 18 Is, pp. 63– 83, 2004.
- [13] L. Wahyuni and M. Ruhimat, "DEVELOPMENT OF PROJECT ASSESSMENT MODEL FOR MEASURING THE PSYCHOMETRIC ASPECT OF GEOGRAPHY SUBJECT," *J. Pendidik. ILMU Sos*, vol. 27, no. 1, pp. 76–86, 2018.
- [14] Batmang, "PENDEKATAN TRANSDISIPLINER (Suatu Alternatif Pemecahan Masalah Pendidikan)," *J. Al-Ta'dib*, vol. Vol. 9 No., pp. 44–54, 2016.
- [15] International Baccalaureate Organization, "Individuals and Societies Guide," no. January, p. 64, 2014.
- [16] International Baccalaureate Organization, *Social studies scope and sequence*. International Baccalaureate Organization, 2008.
- [17] Papolulis and Pillai, *Understanding Sustainability*. Facing The Future, 2012.
- [18] J.-Y. Park and J.-B. Son, "Transitioning toward Transdisciplinary Learning in a Multidisciplinary Environment," *Int. J. Pedagog. Learn.*, vol. 6, no. 1, pp. 82–93, 2010.
- [19] L. B. Buchanan and E. O. Crawford, "Teaching for Sustainability in a Social Studies Methods Course : Opportunities and Challenges," *Soc. Stud. Res. Pract.*, vol. 10, no. 2, pp. 135–158, 2015.