



Document details

< Back to results | 1 of 1

↗ Export Download Print E-mail Save to PDF ☆ Add to List More... >

Full Text

View at Publisher

Journal of Teacher Education for Sustainability **Open Access**
Volume 22, Issue 1, 1 June 2020, Pages 84-97

Education for Sustainable Development as Diffusion of Innovation of Secondary School Students (Article) (Open Access)

Prabawani, B.^a ✉, Hadi, S.P.^a, Zen, I.S.^b ✉, Afrizal, T.^a, Purbawati, D.^a 👤 👤

^aDiponegoro University, No. 13, Tembalang, Semarang, Central Java, 50275, Indonesia

^bInternational Islamic University Malaysia, Jalan Gombak, Kuala Lumpur, 53100, Malaysia

Abstract

View references (39)

Education for sustainable development (ESD) is essential to study in order to understand environmental changes from the perspective of student character building. This concept is the main foundation that refers to individual personality as a medium to build excellent capacity from an early age. At adolescent age, children experience a period with high emotional growth that encourages changes in attitudes and behavior patterns towards the surrounding environment. This exploratory study aimed at describing the relationship between environmental knowledge and students' attitudes and behaviors, along with challenging factors as the moderating variable, involving 320 participants from two junior high schools in two cities in Central Java, Indonesia. The data were analyzed using partial least square Smartpls v3.0. This study found that junior high school students had low environmental and social knowledge, but there was a good attitude and behavior tendency concerning the environment. The students' knowledge significantly influenced environmentally-friendly attitudes and behaviors, especially the social environment that the obstacles also became a significant moderating variable. Thus, schools and related parties should develop programs to increase the students' study orientation towards the environment and to have a collective awareness of the environment, specifically the ability to analyze and synthesize the surroundings. © 2020 Bulan Prabawani et al., published by Sciendo 2020.

SciVal Topic Prominence ⓘ

Topic: Education For Sustainability | Higher Education Institutions | Sustainability Science and Engineering

Prominence percentile: 99.498



Author keywords

attitude behavior education for sustainable development knowledge

ISSN: 16914147

Source Type: Journal

Original language: English

DOI: 10.2478/jtes-2020-0007

Document Type: Article

Publisher: Sciendo

References (39)

View in search results format >

Metrics ⓘ View all metrics >



PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Related documents

Emotional competence and individual style of action of future teachers of higher education in the system of education for sustainable development

Suleimenova, A. , Ivanova, O. (2018) *Journal of Teacher Education for Sustainability*

Sustainable Development from the Viewpoint of Iranian English Teachers: Practicing what they do not Preach

Ganji, M. , Arshadi, E.K. , Mahbubzadeh, S. (2020) *Journal of Teacher Education for Sustainability*

Students' difficulties on solving mathematical problem based on ESD objectives

Nikmah, I.L. , Juandi, D. , Prabawanto, S. (2019) *Journal of Physics: Conference Series*

View all related documents based on references

Find more related documents in Scopus based on:

- ☐ 1 Azabany, A., Azabane, A., Khan, K., Shah, M., Ahmed, W.
 Analysis of an SME using silicon and flexible organic solar cells as replacements for fossil fuel sources of electricity in UK and Iraq
 (2016) *Journal of Environmental Science and Engineering B*, 5 (4), pp. 173-178.
<https://doi.org/10.17265/2162-5263/2016.04.003>

- ☐ 2 Bagozzi, R.P., Yi, Y.
 On the evaluation of structural equation models
 (1988) *Journal of the Academy of Marketing Science*, 16 (1), pp. 74-94. Cited 11987 times.
 doi: 10.1007/BF02723327
[View at Publisher](#)

- ☐ 3 Cebrián, G., Grace, M., Humphris, D.
 Academic staff engagement in education for sustainable development
 (2015) *Journal of Cleaner Production*, 106, pp. 79-86. Cited 54 times.
 doi: 10.1016/j.jclepro.2014.12.010
[View at Publisher](#)

- ☐ 4 Cebrián, G., Junyent, M.
 Competencies in education for sustainable development: Exploring the student teachers' views [\(Open Access\)](#)
 (2015) *Sustainability (Switzerland)*, 7 (3), pp. 2768-2786. Cited 104 times.
<http://www.mdpi.com/2071-1050/7/3/2768/pdf>
 doi: 10.3390/su7032768
[View at Publisher](#)

- ☐ 5 Fitriani, R.
 (2017) *Environmentally Friendly Behaviour at Senior High School in Muhammadiyah 1 Yogyakarta*
 Undergraduate thesis.
<https://eprints.uny.ac.id/55047>

- ☐ 6 Flavell, J.H.
 Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry
 (1979) *American Psychologist*, 34 (10), pp. 906-911. Cited 3701 times.
 doi: 10.1037/0003-066X.34.10.906
[View at Publisher](#)

- ☐ 7 Grantham-McGregor, S., Cheung, Y.B., Cueto, S., Glewwe, P., Richter, L., Strupp, B.
 Developmental potential in the first 5 years for children in developing countries
 (2007) *Lancet*, 369 (9555), pp. 60-70. Cited 1540 times.
 doi: 10.1016/S0140-6736(07)60032-4
[View at Publisher](#)

-
- 8 Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tatham, R.L.
(2006) *Multivariate Data Analysis* (6th). Cited 57511 times.
ed. New Jersey: Prentice Hall
-
- 9 Heasley, B., Lindner, J., Iliško, Dz., Salite, I.
From initiatives, to insights, to implementation of the sustainability and securitability agenda for 2030
(2020) *Discourse and Communication for Sustainable Education*, 11 (1), pp. 1-4. Cited 5 times.
-
- 10 Jain, C.R., Apple, D.K., Ellis, W.
What is self-growth?
(2015) *International Journal of Process Education*, 7 (1), pp. 41-52. Cited 6 times.
-
- 11 Jetly, M., Singh, N.
Analytical study based on perspectives of teacher educators in India with respect to
education for sustainable development ([Open Access](#))

(2019) *Journal of Teacher Education for Sustainability*, 21 (2), pp. 38-55. Cited 2 times.
<http://www.degruyter.com/view/j/jtes>
doi: 10.2478/jtes-2019-0016

[View at Publisher](#)
-
- 12 Jones, P., Trier, C.J., Richards, J.P.
Embedding Education for Sustainable Development in higher education: A case study
examining common challenges and opportunities for undergraduate programmes

(2008) *International Journal of Educational Research*, 47 (6), pp. 341-350. Cited 76 times.
doi: 10.1016/j.ijer.2008.11.001

[View at Publisher](#)
-
- 13 Kusumaningputri, R., Widodo, H.P.
Promoting Indonesian university students' critical intercultural awareness in tertiary
EAL classrooms: The use of digital photograph-mediated intercultural tasks

(2018) *System*, 72, pp. 49-61. Cited 12 times.
<http://www.elsevier.com/locate/issn/0346251x>
doi: 10.1016/j.system.2017.10.003

[View at Publisher](#)
-
- 14 Larson, R.W., Brown, J.R.
Emotional development in adolescence: What can be learned from a high school
theater program?

(2007) *Child Development*, 78 (4), pp. 1083-1099. Cited 73 times.
doi: 10.1111/j.1467-8624.2007.01054.x

[View at Publisher](#)
-

- 15 Lavanya, B., Saraswathi, S.
Education for sustainable development
(2014) *National Conference on Management and Social Sciences-Its Impact on Sustainable Development*, 5, pp. 132-136.
Retrieved from
<http://www.unesco.org>
-
- 16 McDonald, Z., Gachago, D., Clowes, L., Condy, J., Livingston, C., Ivala, E., Moodley, T.
The Piaget theory of cognitive development: An educational implications
(2014) *Educational Psychology*, 1 (1), pp. 1-9.
-
- 17 Meinhold, J.L., Malkus, A.J.
Adolescent environmental behaviors: Can knowledge, attitudes and self-efficacy make a difference?

(2005) *Environment and Behavior*, 37 (4), pp. 511-532. Cited 186 times.
doi: 10.1177/0013916504269665

View at Publisher
-
- 18 Michalos, A.C., Creech, H., McDonald, C., Kahlke, P.M.H.
Knowledge, Attitudes and Behaviours. Concerning Education for Sustainable Development: Two Exploratory Studies

(2011) *Social Indicators Research*, 100 (3), pp. 391-413. Cited 28 times.
doi: 10.1007/s11205-010-9620-9

View at Publisher
-
- 19 Nomura, K.
A perspective on education for sustainable development: Historical development of environmental education in Indonesia

(2009) *International Journal of Educational Development*, 29 (6), pp. 621-627. Cited 21 times.
doi: 10.1016/j.ijedudev.2008.12.002

View at Publisher
-
- 20 Ors, F.
Environmental education and the role of media in environmental education in Turkey
(2012) *Procedia-Social and Behavioral Sciences*, 46, pp. 1339-1342. Cited 8 times.
<https://doi.org/10.1016/j.sbspro.2012.05.298>
-
- 21 Pipere, A., Veisson, M., Salite, I.
Developing research in teacher education for sustainability: Un DESD via the journal of teacher education for sustainability (Open Access)

(2015) *Journal of Teacher Education for Sustainability*, 17 (2), pp. 5-43. Cited 26 times.
<http://www.degruyter.com/view/j/jtes>
doi: 10.1515/jtes-2015-0009

View at Publisher
-

□ 22 Prabawani, B., Hanika, I.M., Pradhanawati, A., Budiatmo, A., Musfirowati, I., Pradhanawati, A., Budiatmo, A. Primary schools eco-friendly education in the frame of education for sustainable development (2017) *International Journal of Environmental & Science Education*, 12 (4), pp. 607-616. Cited 8 times.

□ 23 Pröbstl, G., Schmidt-Hönig, K. Self-efficacy in social science (2019) *Discourse and Communication for Sustainable Education*, 10 (2), pp. 49-59.

□ 24 Rieckman, M. Key themes in education for sustainable development (2018) *Issues and Trends in Education for Sustainable Development*, pp. 61-84. Cited 43 times. In Leicht, A., Heiss, J., & Byun, W. J. (Eds). Paris: UNESCO Publishing

□ 25 Rogers, E.M. (1983) *Diffusion of Innovations*. Cited 40461 times. New York: The Free Press

□ 26 Salīte, I. Searching for sustainability in teacher education and educational research: Experiences from the Baltic and Black Sea Circle Consortium for educational research (2015) *Discourse and Communication for Sustainable Education*, 6 (1), pp. 21-29. Cited 22 times.

□ 27 Salite, I., Drelinga, E., Iliško, D., Olehnoviča, E., Zariņa, S. Sustainability from the transdisciplinary perspective: An action research strategy for continuing education program development ([Open Access](#)) (2016) *Journal of Teacher Education for Sustainability*, 18 (2), pp. 135-152. Cited 26 times. <http://www.degruyter.com/view/j/jtes> doi: 10.1515/jtes-2016-0020
[View at Publisher](#)

□ 28 Settersten Jr., R.A. Socialization and the life course: new frontiers in theory and research (2002) *Advances in Life Course Research*, 7, pp. 13-40. Cited 13 times. doi: 10.1016/S1040-2608(02)80028-4
[View at Publisher](#)

□ 29 Sinakou, E., Boeve-de Pauw, J., Goossens, M., Van Petegem, P. Academics in the field of Education for Sustainable Development: Their conceptions of sustainable development (2018) *Journal of Cleaner Production*, 184, pp. 321-332. Cited 35 times. doi: 10.1016/j.jclepro.2018.02.279
[View at Publisher](#)

- 30 Siraj-Blatchford, J., Smith, K.C., Samuelsson, I.P.
(2005) *Education for Sustainable Development in the Early Years*, pp. 1-47. Cited 30 times.
Retrieved from
<http://www.327matters.org/Docs/ESD%20Book%20Master.pdf>
-
- 31 Stapp, W.B.
Watershed education for sustainable development

(2000) *Journal of Science Education and Technology*, 9 (3), pp. 183-197. Cited 6 times.
<http://www.kluweronline.com/issn/1059-0145>
doi: 10.1023/A:1009430215477

View at Publisher
-
- 32 Sterling, S.
Learning for resilience, or the resilient learner? towards a necessary reconciliation in a paradigm of sustainable education

(2010) *Environmental Education Research*, 16 (5-6), pp. 511-528. Cited 140 times.
<http://www.tandfonline.com/toc/ceer20/current>
doi: 10.1080/13504622.2010.505427

View at Publisher
-
- 33 (2017) *Education for Sustainable Development Goals*. Cited 364 times.
United Nations.,
<http://unesdoc.unesco.org/images/0024/002474/247444e.pdf>
-
- 34 Valackienė, A., Kairienė, B.
Students' participation in search for sustainability: A case study from Lithuania
(Open Access)

(2019) *Journal of Teacher Education for Sustainability*, 21 (2), pp. 56-72.
<http://www.degruyter.com/view/j/jtes>
doi: 10.2478/jtes-2019-0017

View at Publisher
-
- 35 De La Vega, R.M.C.L.
(2004) *Awareness, Knowledge, and Attitude about Environmental Education: Responses from Environmental Specialists, High School Instructors, Students, and Parents*. Cited 5 times.
Dissertation. University of Central Florida
-
- 36 Werbach, A.
(2009) *Strategy for Sustainability: A Business Manifesto*. Cited 84 times.
Massachusetts: Harvard Business Press
-
- 37 Zen, I.S., D'Souza, C., Ismail, S., Arsath, M.
University living learning labs: An integrative and transformative approach

(2019) *Journal of Sustainability Science and Management*, 14 (4), pp. 139-155.
<http://jssm.umt.edu.my/>
-

□ 38 Zen, I.S.
Exploring the living learning laboratory: An approach to strengthen campus sustainability initiatives by using sustainability science approach
(2017) *International Journal of Sustainability in Higher Education*, 18 (6), pp. 939-955. Cited 9 times.
<http://www.emeraldinsight.com/info/journals/ijshe/ijshe.jsp>
doi: 10.1108/IJSHE-09-2015-0154
[View at Publisher](#)

□ 39 Zen, I.S., Subramaniam, D., Sulaiman, H., Saleh, A.L., Omar, W., Salim, M.R.
Institutionalize waste minimization governance towards campus sustainability: A case study of Green Office initiatives in Universiti Teknologi Malaysia
(2016) *Journal of Cleaner Production*, 135, pp. 1407-1422. Cited 30 times.
doi: 10.1016/j.jclepro.2016.07.053
[View at Publisher](#)

🔍 Prabawani, B.; Diponegoro University, No. 13, Tembalang, Semarang, Central Java, Indonesia;
email:bulan@live.undip.ac.id
🔍 Zen, I.S.; International Islamic University Malaysia, Jalan Gombak, Kuala Lumpur, Malaysia;
email:irinazen@iiu.edu.my
© Copyright 2020 Elsevier B.V., All rights reserved.

< Back to results | 1 of 1

^ Top of page

About Scopus

What is Scopus
Content coverage
Scopus blog
Scopus API
Privacy matters

Language

日本語に切り替える
切换到简体中文
切换到繁體中文
Русский язык

Customer Service

Help
Contact us

ELSEVIER

[Terms and conditions ↗](#) [Privacy policy ↗](#)

Copyright © Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

RELX