Jurnal Civics
Media Kajian Kewarganegaraan
p-issn : 1829-5789 e-issn : 2541-1918

Jurnal Civics: Media Kajian Kewarganegaraan
Volume 21 Number 2 Year 2024
PP. 300-310
DOI. 10.21831/jc.v21i2.76295
Published by Universitas Negeri Yogyakarta with Indonesia Association Profession of Pancasila and Civic Education/Asosiasi Profesi Pendidikan Pancasila dan Kewarganegaraan (AP3KnI)

Personal social responsibility in ecological citizenship: Dimensionality and scale measurement with Aiken Index Analysis

Annisa Istiqomah *
Universitas Negeri Yogyakarta, Indonesia
annisaistiqomah.2022@student.uny.ac.id

Mukhamad Murdiono
Universitas Negeri Yogyakarta, Indonesia
mukhamad_murdiono@uny.ac.id

Mami Hajaroh
Universitas Negeri Yogyakarta, Indonesia
mami_hajaroh@uny.ac.id

*Corresponding Author

Article History
Submitted : 19-07-2024
Revised : 10-09-2024
Accepted : 21-09-2024
Published : 30-09-2024

Article Link
https://journal.uny.ac.id/index.php/civics/article/view/76295

Abstract
Personal social responsibility emphasises the importance of positively benefiting society, including the environment. Responsibility is one of the values influencing ecological citizenship so that individuals can prioritise environmental issues and realise the importance of sustainable living. This research aims to develop an instrument for personal social responsibility in ecological citizenship as a measurement scale. The instrument's contents are validated by experts (expert judgment), and the test is then performed using the Aiken-V formula. The research results show that: 1) The dimensions of personal social responsibility in ecological citizenship are determined by indicators, namely a) Have an interest in considering environmental issues and resolving environmental issues; b) Have an interest in sustainable behavior in protecting and preserving the environment; c) Have awareness in considering and resolving environmental issues; d) Have awareness of sustainable behavior in protecting and preserving the environment; e) Actively participate in considering environmental issues and resolving environmental issues; f) Actively participate in sustainable behavior in protecting and preserving the environment; g) Take collective action in considering environmental issues and resolving environmental issues; h) Take sustainable collective action in protecting and preserving the environment; 2) The results of content validation using the Aiken V coefficient show that the 60 items have a very high level of validity, because they meet the criterion index of $0.80 < V \leq 1.00$. Further research should be able to examine public policy and develop environmental education and awareness.

Keywords: ecological citizenship; measuring scale; personal social responsibility

Introduction

Responsibility is one of the values that affect ecological citizenship, a concept that refers to the active participation of individuals in environmental issues and the realisation of the importance of sustainable living (Jagers & Simon, 2010; Karatekin & Uysal, 2018). Research on personal social responsibility towards the environment has several important impacts on sustainability and environmental preservation. *First,* the level of personal social responsibility

towards the environment can be used to identify the tendency of individual behaviour to be environmentally friendly or not (Eden, 1993). *Second,* it is crucial to understand the factors that affect behaviour change in developing indicators and metrics to measure behaviour change and awareness (Davis et al., 2017; Laura et al., 2017; Korlat et al., 2022). This understanding is key to formulating public policies that support environmental protection. *Third, it* provides insight to policymakers on the extent to which individuals feel responsible for the environment. *Fourth,* develop a more effective approach to conveying information and education on environmental issues to the community (Estrada-Vidal et al., 2020). *Fifth,* facilitating collaboration and joint action for environmental conservation (Karwacka, 2019).

Previous research related to the development of responsibility instruments was conducted by Gupta and Agrawal (2017); the results of this study conceptualised a theory of environmentally responsible consumer behaviour and developed a standard scale to measure this. In another study conducted by Davis (2017), Davis, in his research, developed the concept of personal social responsibility and developed its measurement scale. This study aims to develop an instrument of personal social responsibility in ecological citizenship. The process involves identifying the tendency of individual behaviour towards the environment, understanding the factors that affect behaviour change towards the environment, and determining environmentally friendly strategies and campaigns. It also aims to assist in formulating public policies that support the protection and environmental conservation and contribute to environmental education and awareness by developing a more effective approach in conveying information and education about environmental issues to the community.

Dimensions of personal social responsibility in ecological citizenship

Social responsibility contributes to the good based on moral and prosocial reasons (Laura et al., 2017; Orozco et al., 2015). Personal social responsibility refers to the individual's perception of the obligation to help society and the community (Ecimovic et al., 2013; Hatch & Stephen, 2015). Individuals who have social responsibility are concerned about being active and proactive in the problems that occur in society (Babutau I.C, 2014; Pacesila, 2018). Personal social responsibility emphasises the role of the individual in society and the improvement of social welfare (Gallay, 2006; Ellingsen & Johannesson, 2011; DellaVigna et al., 2012; Golob & Matej, 2021). Responsibility is one of the important dimensions of ecological citizenship (Spaargaren & Oosterveer, 2010; Gustavsson & Elander, 2013; Melo-Escrihuela, 2015; Karatekin & Uysal, 2018). Ecological citizenship explains human obligations to protect the environment (Smith & Pangsapa, 2008; Usmi& Murdiono, 2021). On the other hand, ecological citizenship is often associated with global citizenship because environmental problems have penetrated global issues (Karetekin & Uysal, 2018; Halimah & Nurul, 2020). According to Morais and Ogden (2011), one of the dimensions of global citizenship is social responsibility. Murdiono (2014) added that individuals can learn to develop an attitude of social responsibility to overcome local and global problems as an exercise effort to respect differences and build social service ethics. This dimension of social responsibility can be developed through Citizenship Education, which focuses on important issues such as global inequality and justice, empathy and care, personal responsibility and global interconnectedness. Based on this theory, the dimensions of personal social responsibility in ecological citizenship are determined by 16 indicators, namely a) having an interest in considering environmental problems; b) have an interest in overcoming environmental problems; c) have an interest in sustainable behaviour in protecting the environment; d) have an interest in sustainable behavior in protecting the environment; e) behavioral awareness by considering environmental problems; f) behavioral awareness in overcoming environmental problems; g) awareness of sustainable behavior in protecting the environment; h) awareness of behavior in maintaining environmental preservation; i) actively participate in considering environmental problems; j) actively participate in overcoming environmental problems; k) actively participate in sustainable behavior in protecting the environment; l) actively participate in preserving the environment; m) carry out collective action in considering

environmental problems; n) taking collective action to overcome environmental problems; o) carry out sustainable collective action in protecting the environment; p) carry out collective action in maintaining environmental preservation.

Method

The research method uses a quantitative approach to test the hypothetical factors of the theoretical character steps.

Step 1: Define the construct and content domain

A literature review is conducted to define the construct and determine its boundaries to assign domains (Netemeyer et al., 2003). Researchers developed a scale with 16 indicators to measure personal social responsibility in ecological citizenship, as illustrated in Table 1.

Table 1.
Development of indicators and items of personal social responsibility in ecological citizenship

No	Indicator	Item	
1.	Have an interest in considering environmental issues	MIN1	I read about the issue of climate change in the mass media
		MIN2	I read about the issue of environmental pollution
		MIN3	I read about the contents of forest exploitation in the mass media.
		MIN4	I read about the issue of garbage accumulation
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
2.	Have an interest in solving environmental problems	MIN5	I discussed with colleagues regarding solutions to address climate change.
		MIN6	I discussed with colleagues in overcoming environmental pollution
		MIN7	I discussed with colleagues regarding greening efforts
			I discussed with colleagues regarding waste management efforts
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
3.	Have an interest in sustainable behavior in protecting the environment	MIN8	I study sustainable behavior towards climate change
		MIN9	I study sustainable behavior in preventing environmental pollution
		MIN10	I study sustainable behavior in reforestation
		MIN11	I study sustainable behavior in waste management
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
4.	Have an interest in preserving the environment	MIN12	I am trying to overcome climate change
		MIN13	I am trying to prevent environmental pollution
		MIN14	I am trying to participate in the greening movement
		MIN15	I am trying to clean the environment.
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
5.	Behavioral awareness taking into account environmental issues	KES1	Throwing rubbish carelessly can cause environmental pollution.
		KES2	The use of motor vehicles can cause air pollution
		KES3	Household waste can pollute water
		KES4	Forest exploitation can cause natural disasters
		KES5	Excessive use of electronic devices can cause climate change
		The intensity of this dimension is stated as follows, (1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly agree.	
6.	Behavioral awareness in addressing environmental problems	KES6	I throw rubbish in the place provided
		KES7	I use public transportation
		KES8	I dispose of household waste in a septic tank
		KES9	I use items made from synthetic alternative materials.
		KES10	I turn off electronic equipment when not in use

No	Indicator	Item	
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
7.	Awareness of sustainable behavior in protecting the environment	KES11	I sort waste according to its type
		KES12	I walk if the distance is close
		KES13	I use environmentally friendly household products
		KES14	I use products with an ecological label (Eco Label)
		KES15	I use energy-efficient electronic products
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
8.	Behavioral awareness in preserving the environment	KES16	I recycle waste into useful products
		KES17	I take care of plants in my home environment
		KES18	I keep the river/gutters around my home clean
		KES19	I plant trees in my home environment
		KES20	I use electronic products according to my needs
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
9.	Actively participate in considering environmental issues	PAR1	I bring a refillable water bottle on campus
		PAR2	I turn off electrical equipment when leaving an empty classroom
		PAR3	I prohibit people from throwing garbage into the gutter
		PAR4	I bring my own shopping bag when shopping
10.	Actively participate in solving environmental problems	PAR5	I throw plastic bottles in a special plastic trash can
		PAR6	I turn on the air conditioner in the classroom as needed
		PAR7	I use the services of a garbage collector
		PAR8	I use recyclable shopping bags
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
11.	Actively participate in sustainable behavior in protecting the environment	PAR9	I use the water refill facilities provided on campus
		PAR10	I encourage the campus to create regulations for using electronic devices
		PAR11	I encourage the local government to provide waste management facilities
		PAR12	I support the paid plastic program.
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
12.	Actively participate in preserving the environment	PAR13	I participated in cleaning up trash around the campus.
		PAR14	I participated in an energy saving program on campus.
		PAR15	I participated in cleaning the gutters in the surrounding area.
		PAR16	I reduce the use of plastic-based items
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
13.	Taking collective action in considering environmental issues	KOL1	I spread information about greening through social media
		KOL2	I run campaigns through social media to raise awareness about environmental issues.
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
14.	Taking collective action to address environmental problems	KOL3	I donate to environmental organizations that support reforestation.
		KOL4	I take part in environmental campaign activities
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	

No	Indicator	Item	
15.	Taking sustainable collective action in protecting the environment	KOL5	I join a community that works on greening efforts
		KOL6	I buy goods from companies that donate their profits to protecting the environment
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	
16.	Taking collective action to preserve the environment	KOL7	I donate plant material for reforestation in the city park.
		KOL8	I donate to crowdfunding platforms that support environmental conservation projects.
		The intensity of this dimension is stated as follows, (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.	

Step 2: Content validity test (expert judgement)

The research instrument was validated by experts or experts in their fields so that expert judgment as an instrument validator (Salkind, 2018). The validators consisted of five people, namely two experts in the environmental field, one expert in the field of character education, one expert in the field of Citizenship Education, and one expert in the field of evaluation and education assessment.

Table 2.
Instrument Assessment Aspects

No	Aspects	Aspects Reviewed Reviewed
1.	Material	Statement conformity with the formulation of item indicators, aspect indicators and attitude aspects
2.	Construction	Statements are formulated briefly and clearly
		Sentences are free from statements that are not relevant to the object in question or sentences are only necessary statements
	Language	Sentences are free from statements that may be left blank by almost all respondents
3.	Material	Communicative language and in accordance with the level of education of students or respondents
		Statements use standard Indonesian
		Use of language does not give rise to multiple interpretations

Step 3: Content validity test (Aiken's Formula)

The data obtained after conducting the content validity test by expert judgment is then analysed using the Aiken-V formula to determine the content validity value of the instrument that has been developed. Aiken (1980). formulated the Aiken-V formula to calculate the content validity coefficient based on the results of an expert panel consisting of n people who evaluate the extent to which an item substitutes the calculated construct. The formula proposed by Aiken are:

$$V = \frac{\sum s}{n(c-1)}$$

Information:
V = item validity index
s= r-lo
$\sum s = s1 + s2 + dst$
n = number of raters
c = the highest validity assessment number (eg 5)
lo = the lowest validity assessment number (e.g. 1)
r = the number given by an assessor

Furthermore, to interpret the content validity value obtained from the calculation above, the validity clarification shown below is used: $0.80 < V \leq 1.00$: Very high; $0.60 < V \leq 0.80$: High; $0.40 < V \leq 0.60$: Sufficient; $0.20 < V \leq 0.40$: Low; $0.00 < V \leq 0.20$: Very low. Guidelines for interpreting good content validity results, for a good Aiken formula calculation index is ≥ 0.70, if it is less than 0.70 then the content validity is not good (Sireci, S. G. & Geisinger, K. F, 1995).

Results and Discussion

The measurement instrument for personal social responsibility in ecological citizenship, with a total of 60 items, was developed based on 16 indicators of the dimensions of personal social responsibility in ecological citizenship, which was then tested for validity. According to Azwar (2019), the validity test of the measurement scale is used to assess a scale with high validity in research. The initial stage of content validity testing is carried out through a qualitative process of experts reviewing items (expert judgment). Expert notes on the instrument for personal social responsibility in ecological citizenship, include: 1) additional topics are needed regarding the hydrosphere, such as water use (efficient or wasteful); 2) additional information is needed about land, for example not dumping toxic substances or hazardous substances in the soil; 3) environmental aspects related to interests that can be carried out are arranged in detail and more explicitly related to climate, soil, water, and plants or forests; 4) behavior is divided according to its role in reducing or overcoming air, soil, water, and noise pollution; 5) awareness in fostering concern for the abiotic, biotic, and cultural environment; 6) active participation is divided according to each task in taking action on the environment (abiotic, biotic, cultural); 7) related to collective awareness, it can be done in stages on a micro, meso, and macro scale; 8) there are several improvements both in terms of content and editorial; 9) there are several spelling and grammatical errors that must be observed and corrected; 10) the intensity of the dimensions is better expressed with 4 scales, 1) never; 2) rarely; 3) often; and 4) always.

Azwar (2019) explained that the alignment of the items used to measure the scale cannot be based solely on the item writer himself but requires an assessment agreement from competent assessors (expert judgment). This meticulous assessment process, as Santoso & Widiana (2022) added, involves obtaining a value for each item according to the indicators in each item and recommendations if there are suggestions for improvement. The assessment results, which experts on each item carried out, demonstrate the instrument's reliability. Of the 60 items developed, the lowest score was on a scale of 3, indicating that the statement item is good with slight revisions. The assessment results of the five experts were then tabulated in Excel format to assess valid criteria based on Aiken's V formula, with the following detailed results.

Table 3.
Results of personal social responsibility instruments in ecological citizenship with Aiken's V formula

Item	Code	Assessor					S1	S2	S3	S4	S5	∑s	n (c-1)	V	Description
		I	II	III	IV	V									
Item -1	MIN1	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -2	MIN2	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high
Item -3	MIN3	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -4	MIN4	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high
Item -5	MIN5	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -6	MIN6	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -7	MIN7	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -8	MIN8	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -9	MIN9	4	4	4	3	4	3	3	3	2	3	14	15	0,93	Very high
Item -10	MIN10	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -11	MIN11	4	4	4	3	4	3	3	3	2	3	14	15	0,93	Very high
Item -12	MIN12	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -13	MIN13	4	4	4	3	4	3	3	3	2	3	14	15	0,93	Very high
Item -14	MIN14	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -15	MIN15	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high

Item	Code	Assessor					S1	S2	S3	S4	S5	∑s	n (c-1)	V	Description
		I	II	III	IV	V									
Item -16	MIN16	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -17	KES1	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -18	KES2	4	4	4	3	4	3	3	3	2	3	14	15	0,93	Very high
Item -19	KES3	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -20	KES4	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -21	KES5	4	4	4	3	4	3	3	3	2	3	14	15	0,93	Very high
Item -22	KES6	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -23	KES7	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -24	KES8	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -25	KES9	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high
Item -26	KES10	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -27	KES11	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -28	KES12	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -29	KES13	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high
Item -30	KES14	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -31	KES15	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -32	KES16	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -33	KES17	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -34	KES18	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -35	KES19	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -36	KES20	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -37	PAR1	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -38	PAR2	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -39	PAR3	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -40	PAR4	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -41	PAR5	4	4	3	4	4	3	3	2	3	3	14	15	0,93	Very high
Item -42	PAR6	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -43	PAR7	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -44	PAR8	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -45	PAR9	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -46	PAR10	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high
Item -47	PAR11	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -48	PAR12	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -49	PAR13	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -50	PAR14	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -51	PAR15	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -52	PAR16	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -53	KOL1	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -54	KOL2	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -55	KOL3	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -56	KOL4	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -57	KOL5	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -58	KOL6	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high
Item -59	KOL7	4	4	4	4	4	3	3	3	3	3	15	15	1,00	Very high

Item	Code	Assessor					S1	S2	S3	S4	S5	∑s	n (c-1)	V	Description
		I	II	III	IV	V									
Item -60	KOL8	3	4	4	4	3	2	3	3	3	2	13	15	0,87	Very high

The results of the interpretation of the validity value of the content obtained from the calculation in Table 3 are clarified according to the following criteria index: $0.80 < V \leq 1.00$: Very high; $0.60 < V \leq 0.80$: High; $0.40 < V \leq 0.60$: Enough; $0.20 < V \leq 0.40$: Low; $0.00 < V \leq 0.20$: Very low. According to (Sireci & Geisinger, 1995), the guideline for interpreting the results of the validity of good content for the index of the calculation results of a good Aiken formula is ≥ 0.70; if it is less than 0.70, then the validity of the content is not good. Based on the index of these criteria, the results of the interpretation of the validity value of the content of the social responsibility instrument as an individual in ecological citizenship all items have a very high level of validity because they meet the criteria index of $0.80 < V \leq 1.00$ with the following value distribution. Instrument items with codes MIN2; MIN4; KES9; KES13; PAR10; KOL8 get an index of 0.87, instruments with codes MIN1; MIN3; MIN8; MIN9; MIN11; MIN13; KES2; KES5; KES8; KES12; KES14; PAR5 get an index of 0.93, and instruments with codes MIN5; MIN6; MIN7; MIN10; MIN12; MIN14; MIN15; MIN16; KES1; KES3; KES4; KES6; KES7; KES10; KES11; KES15; KES16; KES17; KES18; KES19; KES20; PAR1; PAR2; PAR3; PAR4; PAR6; PAR7; PAR8; PAR9; PAR11; PAR12; PAR13; PAR14; PAR15; PAR16; KOL1; KOL2; KOL3; KOL4; KOL5; KOL6; KOL7 got an index of 1. Furthermore, to see the level of validity of the instrument content as a whole, the researcher calculated it using the Aikens formula as follows.

Table 4.
Results of Personal Social Responsibility Instruments in Ecological Citizenship with Aiken's V Formula

Item	Code	Evaluation					S1	S2	S3	S4	S5	∑s	n (c-1)	V	Information
		I	II	III	IV	V									
Item 1-60		234	240	233	235	234	174	180	173	175	174	876	900	0,97	High

Based on Table 4, it can be interpreted that all items with a total of 60 meet the very high criteria with an index of 0.97. It can be interpreted that the 60 items of the personal social responsibility instrument in ecological citizenship can be used further in limited testing because they have met the valid category elements.

Conclusion

Social responsibility attitude to address local and global issues as an effort to practice respecting differences and building social service ethics. The dimensions of personal social responsibility can be developed through Citizenship Education, which focuses on important issues such as global inequality and justice, empathy and care, and global interconnectedness. The dimensions developed based on a literature study on personal social responsibility in ecological citizenship was developed as a measurement scale with 16 indicators as follows: a) having an interest in considering environmental issues; b) having an interest in overcoming environmental issues; c) having an interest in sustainable behavior in protecting the environment; d) having an interest in sustainable behavior in protecting the environment; e) awareness of behavior by considering environmental issues; f) awareness of behavior in overcoming environmental issues; g) awareness of sustainable behavior in protecting the environment; h) awareness of behavior in preserving the environment; i) actively participating in considering environmental issues; j) actively participating in overcoming environmental issues; k) actively participating in sustainable behavior in protecting the environment; l) actively participating in preserving the environment; m) taking collective action in considering environmental issues; n) taking collective action in overcoming environmental problems; o) taking sustainable collective action in protecting the environment; p) taking collective action in preserving the environment. These indicators are then used to compile an instrument

measuring personal social responsibility in ecological citizenship with 60 items. The instrument is then tested for content validity by experts (expert judgment) qualitatively based on three aspects (Material, construction, and language). After going through a qualitative review process by experts, the instrument items are then calculated using the Aiken V formula, which shows the results that the interpretation of the content validity value of the personal social responsibility instrument in ecological citizenship all its items have a very high level of validity because they meet the criteria index of $0.80 < V \leq 1.00$.

Further research must delve into public policies that support environmental protection and preservation and encourage better behavioural changes. Additionally, there is a pressing need for research to develop environmental education and awareness by devising a more practical approach to disseminating information and education about environmental issues to the public. These areas hold significant potential for future development and can significantly contribute to advancing personal social responsibility and ecological citizenship.

References

Aiken, L. R. (1980). Content validity and reliability of single items or questionnaires. *Educational and Psychological Measurement*, 40(4), 955-959. https://doi.org/10.1177/001316448004000419

Azwar, S. (2019). *Penyusunan skala psikologi*. Pustaka Pelajar.

Babutau I.C. (2014). Responsabilitatea socială a individului-voluntariat. Retrieved from http://carpevita.uvvg.ro/images/materiale_consiliere/Responsabilitatea%20sociala%20a%20individului%20-%20voluntariat.pdf

Davis, S. L. (2017). *Personal social responsibility: measurement, dimensions and relations with corporate social responsibility*. Dissertation: Universidad De Murcia, Facultad De Economía Y Empresa Programa de Doctorado en Ciencias de la Empresa Departamento de Comercialización e Investigación de Mercados: Murcia

Davis, S.L, Rivesb, L.M., de Mayaa, R.S. (2017). Introducing personal social responsibility as a key element to upgrade CSR. *Spanish Journal of Marketing-ESIC. 21*(1), 146-163. https://doi.org/10.1016/j.sjme.2017.04.001

DellaVigna S., List J. A., Malmendier U. (2012). Testing for altruism and social pressure in charitable giving. *Quarterly Journal of Economics*, *127* (1), 1-56. https://eml.berkeley.edu/~ulrike/Papers/charsocpress10-06-17.pdf

Ecimovic T., et.al. (2013). The corporate and individual social responsibility (C&ISR)- a part of the sustainable future of humankind. *Age of Globalization*, 3, 132-142. https://www.socionauki.ru/journal/files/aog/2013_3/132-142.pdf

Eden, S. E. (1993). Individual environmental responsibility and its role in public environmentalism. *Environment and Planning A*, *25*(12), 1743-1758. https://doi.org/10.1068/a251743

Ellingsen, T & Johannesson, M. (2011). Conspicuous generosity. *Journal of Public Economics*, 95 (9-10), 1131- 1143. https://doi.org/10.1016/j.jpubeco.2011.05.002

Estrada-Vidal, L. I., Olmos-Gómez, M. D. C., López-Cordero, R., & Ruiz-Garzón, F. (2020). The differences across future teachers regarding attitudes on social responsibility for sustainable development. *International Journal of Environmental Research and Public Health*, *17*(15), 5323. https://doi.org/10.3390/ijerph1715532

Gallay, L. (2006). *Social responsibility*. In L. Sherrod, C. A. Flanagan, R. Kassimir, & A. K. Syvertsen (Eds.), Youth activism: An international encyclopedia (pp. 599–602). Greenwood Publishing.

Golob, T., & Matej, M. (2021). From consciousness to behaviour: individual, social, and environmental responsibility among Slovenian youth. *Soc. ekol. Zagreb, 30* (1), 27-43. https://hrcak.srce.hr/file/372479

Gupta, S., & Agrawal, R. (2017). Environmentally responsible consumption: construct definition, scale development, and validation. *Corporate Social Responsibility and Environmental Management*, 25 (1), 523-536. https://doi.org/10.1002/csr.1476

Gustavsson, E., & Elander I. (2013). Households as role models for sustainable consumption. the case of local climate dialogues in two Swedish towns. *Journal of Environmental Planning and Management*, 56 (2), 194-210. https://doi.org/10.1080/09640568.2012.660570

Halimah, L., & Nurul, S.F. (2020). Refleksi terhadap kewarganegaraan ekologis dan tanggung jawab warga negara melalui program ecovillage. *Jurnal Civics: Media Kajian Kewarganegaraan*. *17*(2). https://doi.org/10.21831/jc.v17i2.28465

Hatch C.D. & Stephen S.A. (2015). Gender effects on perceptions of individual and corporate social responsibility. *Journal of Applied Business and Economics*, *17*(3), 63-71. https://digitalcommons.butler.edu/cgi/viewcontent.cgi?article=1255&context=cob_papers

Jagers, S.C., & Simon, M. (2010). Ecological citizens: identifying values and beliefs that support individual environmental responsibility among Swedes. *Sustainability*, *2*(4), 1055-1079; https://doi.org/10.3390/su2041055

Karatekin, K., & Uysal, C. (2018). Ecological citizenship scale development study. *International Electronic Journal of Environmental Education*, *8*(2), 82–104. https://files.eric.ed.gov/fulltext/EJ1180924.pdf

Karwacka, M. (2019). *Personal social responsibility and its impact to consumerism*. in: długopolska-mikonowicz, a., przytuła, s., stehr, c. (eds) corporate social responsibility in Poland. CSR, Sustainability, Ethics & Governance. Springer, Cham. https://doi.org/10.1007/978-3-030-00440-8_15

Korlat, S., Holzer, J., Reiter, J, Pelikan, E.R, Schober, B, Spiel, C. (2022). *The role of the big two in socially responsible behavior during the covid-19 pandemic: agency and communion in adolescents' personal norm and behavioral adherence to instituted measures*. PLoS ONE, 17(6): e0269018. https://doi.org/10.1371/journal.pone.0269018

Laura, W., Amy K. S., & Flanagan, C.A. (2017). Developmental change in social responsibility during adolescence: an ecological perspective. *Dev Psychol*, 52(1), 130-142. DOI: https://doi.org/10.1037/dev0000067

Melo-Escrihuela, C. (2015). Promoting ecological citizenship: rights, duties and political agency. *ACME: An International Journal for Critical Geographies*, 7(2), 113–134. Retrieved from https://acme-journal.org/index.php/acme/article/view/799

Morais, D.B. & Ogden, A.C. (2011). Initial development and validation of the global citizenship scale. *Journal of Studies in International Education*, 15 (5), 445-446. https://doi.org/10.1177/1028315310375308

Murdiono, M. (2014). Pendidikan Kewarganegaraan untuk membangun wawasan global warga negara muda. *Cakrawala Pendidikan*. 33 (3), 349-357. https://doi.org/10.21831/cp.v3i3.2379

Netemeyer RG, Bearden WO, Sharma S. (2003). *Scaling procedures: Issues and Applications. Sage Publications:* Thousand Oaks, CA.

Orozco, C.S., María, G.H., & Saskias, C. (2015). It's sort of my calling: the civic engagement and social responsibility of latino immigrant-origin young adults. *Research in Human Development*, 12:1-2, 84-99, DOI: https://doi.org/10.1080/15427609.2015.1010350

Pacesila, M. (2018). The individual social responsibility: insights from a literature review. *Management Research and Practice, Research Centre in Public Administration and Public Services, Bucharest, Romania*, 10(1), 17-26.

Salkind, N. J. (2018). *Exploring Research (9th ed.)*. Pearson

Santoso, A.M., & Widiana, H.S. (2022). Penyusunan skala learning agility dengan aiken's v dan uji realibilitas. *Jurnal Konseling Andi Matappa*, *6* (1), 14-22. http://dx.doi.org/10.31100/jurkam.v6i1.1699

Sireci, S. G. & Geisinger, K. F. (1995). Using subject-matter experts to assess conten representation: an mds analysis. *Applied Psychological Measurement* 19 (3), 241-255.

Smith, M. J., & Pangsapa, P. (2008). *Environment & citizenship: integrating justice, responsibility, and civic engagement*. Zed Books

Spaargaren, G., & Oosterveer, P. (2010). Citizen-consumers as agents of change in globalizing modernity: the case of sustainable consumption. *Sustainability*, 2 (7), 1887-1908. https://doi.org/10.3390/su2071887

Usmi, R., & Murdiono, M. (2021). Ecological citizenship in textbooks on Pancasila and Citizenship Education subjects at the secondary education level. *Journal Civics*: Media Kajian Kewarganegaraan*, 18* (2), 242 – 256. DOI. https://doi.org/10.21831/jc.v18i2.38885