

The Effect of Living Values-Based Authentic Assessment on Character Development of High School Student

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Abstract

This study seeks to: 1) to generate a product of a living values-based authentic assessment model in civic learning in high school; 2) to test the effectiveness of the model on the character development of students. Research and Development design was employed. Data were collected through questionnaires, attitude scales, interviews, and focus group discussions. An interactive analysis model, quantitative descriptive, and the two-difference test mean were utilised to analyse the data. Participants in the study were Students and Civics Education teachers in ten high schools in Bandung, Indonesia. Results reveal: 1) the model product comprised attitude assessment, self-assessment, and peer assessment which integrates the values of life into the assessment aspects of learning material according to the curriculum; 2) The results of model trials indicate that significant differences arise in the character development of students before and after the application of the model.

Keywords: *authentic assessment, character, high school, living values, civic education.*

Introduction

The 4.0 Industrial Revolution has commonly been deemed the digital and literacy era (Aoun, 2017). It is also well-known as the era of disruption marked by fundamental changes in almost all aspects of life. In the Indonesian context,

this revolution, in general, has brought about two central issues: 1) a shift in social ethics in social interactions, including phubbing (phone snubbing); and 2) the erosion of character of the nation, especially among Indonesia's younger generations. Therefore, it is deemed necessary to revamp national character education through education in schools, especially through civic education as one of the subjects upholding the mission of educating the Indonesian nation's life through the corridor of „value-based education” and “nation and character building” (Komalasari & Sapriya, 2016; Komalasari & Saripudin, 2017).

Assessment is among the key components of civic learning because it is a benchmark for achieving learning objectives. The assessment espoused in the Indonesia 2013 Curriculum is an authentic assessment, i.e., an assessment requiring students to use the same competencies, or combinations of knowledge, skills, and attitudes that they need to apply in the criterion situation in professional life. Authentic assessments should resemble meaningful performances in real-world contexts and involve real-life tasks with multiple solutions for the student (Gulikers et al., 2004; Khaira & Yambo, 2005). In practice, however, teachers in schools have been more inclined to adopt a traditional assessment, assessing learning outcomes solely in the knowledge domain using paper and pencil tests. Thus, students' character in the context of everyday life remains untouched (Pantiwati, 2013). In traditional assessment, reflective and social knowing are weakly assessed, and this can and should be addressed through the use of more authentic assessment (Poikela, 2004). Mueller (2011) has described how authentic assessment differs from the traditional assessment: “By traditional assessment, we suggest that the authors are referring to curriculum design around a narrower set of predominantly cognitive learning objectives where assessment methods mirror the requirements to absorb and faithfully reproduce knowledge but not necessarily to critique and use it in relevant ways”.

For this reason, it is of necessity to reconstruct a learning assessment system towards an authentic assessment that is comprehensive (prioritising assessment of attitudes, in addition to the assessment of knowledge and skills), contextual (according to the realities of everyday life), based on school cultures, and fosters higher-order thinking skills (analysis, synthesis, evaluation, and creation) (Rohayani et al., 2018; Komalasari & Saripudin, 2020). All these characteristics must be integrated into the assessment of civic learning through an authentic assessment model based on living values to hone students' character. It is the void this research is occupying.

Problem of Research

The formulation of the problem under study is as follows:

1. What is the product of a living values-based authentic assessment model in civic education to nurture the character of students?
2. How does the model of living values-based authentic assessment influence students' character development?

Research Methodology

General Background of Research

The Research and Development Design (Borg & Gall, 2003) was used to develop and test a living values-based authentic assessment model. The exploratory method was used to manufacture the product model, and the Within Group Design Experiment with The One Group Pre-test – Post-test (Creswell, 2012) was used to test the model.

Sample of Research

The research took place in Bandung Regency and West Bandung Regency, West Java Province, Indonesia. The research subjects were students enrolled in Civic Education and Civic Education teachers in class XI in ten high schools. The research sample consisted of 379, with 17 civic education teachers representing the ten high schools.

Instrument and Procedures

Data collection techniques used interviews, focus group discussions, questionnaires, and attitude scales. The research procedure utilised steps 5 to 7 of Borg and Gall's ten-steps framework, namely: 1) main product revision; 2) main field testing; and 3) operational product revision

Data Analysis

The employed data analysis technique was an interactive analysis model (Fraenkel & Wallen, 2006) to analyse exploratory data in making the model product. A descriptive quantitative analysis was used to analyse the results of questionnaires related to students' characters (Creswell, 2012), and quantitative analysis was performed through the N-gain score test and t test (Shadish et al., 2002) to analyse the data collected through the attitude scales in the experiment.

Results

Living Values-based Authentic Assessment Model

Based on the results of interviews and focus group discussions with experts and practitioners, it was formulated that the living values-based authentic assessment is an assessment model that integrates living values (peace, respect, love, responsibility, happiness, teamwork, honesty, humility, tolerance, modesty, freedom and unity) into the civic learning assessment by heeding the authentic assessment principles, and ensuring conformity with the core competencies and basic competencies according to the Indonesia 2013 curriculum (Komalasari & Saripudin, 2020).

The proposed assessment model was developed in the form of attitude assessments, self-assessments, and peer assessments. Attitude assessment is associated with students' attitudes towards phenomena that occur in their everyday lives according to the core competencies and basic competencies mandated by the curriculum using high order thinking skills and are contextual. Self-assessment is associated with student ability to reflect on the application of living values, while peer assessment is associated with the ability of students to evaluate each other in applying living values. The sample product of the authentic assessment model in civic learning in Grade XI can be seen in Table 1.

Table 1. Sample Form of Self-Assessment

No	Living Values	Character to Develop	A	O	S	N
1.	Peace	<ol style="list-style-type: none"> 1. Do not bully other people. 2. Maintain good relationships with other people 3. Avoid enmity with others 4. Peacefully resolve conflicts, not with violence 				
2.	Respect	<ol style="list-style-type: none"> 1. Respect differences of opinion in discussions 2. Respect differences in behaviour, habit, and cultures 3. Respect differences in academic skills 4. Appreciate the accomplishments you or others have achieved 				
3.	Love	<ol style="list-style-type: none"> 1. Willing to help friends who are in trouble 2. Comfort a sad or grieving friend 3. Treat friends with great affection 4. Love other living things 				
4.	Responsibility	<ol style="list-style-type: none"> 1. Do the task seriously and optimally 2. Carry out the mandate given by others 3. Willing to accept the consequences of actions 4. Admit and apologise for the mistake 				

No	Living Values	Character to Develop	A	O	S	N
5.	Happiness	<ol style="list-style-type: none"> 1. Grateful for what God Almighty has granted 2. Do not exaggerate small problems 3. Resolve problems immediately without delay 4. Embrace every situation without fear/worry 5. Use leisure time for recreation 				
6.	Cooperation	<ol style="list-style-type: none"> 1. Seriously work on group assignments to achieve common goals 2. Take a role in doing group assignments according to a mutual agreement 3. Motivate each other among group members to achieve optimal results 4. Work together to solve problems together to find the best solution 				
7.	Honesty	<ol style="list-style-type: none"> 1. Do assignments and take exams on your own 2. Not cheating on exams 3. Do not plagiarise others' work 4. The words spoken align with the actions 				
8.	Humility	<ol style="list-style-type: none"> 1. Not arrogant for your achievements 2. Do not demean the dignity of others 3. Realise that all achievements are a gift from God, not just one's own efforts 4. Willing to accept criticism and suggestions from others 				
9.	Tolerance	<ol style="list-style-type: none"> 1. Respect gender differences 2. Respect differences in ethnic groups, religions, and races. 3. Respect differences in the socio-economic status of parents 4. Respect people who worship according to their religion and belief 				
10.	Modesty	<ol style="list-style-type: none"> 1. Modest in appearance 2. Do not pursue a luxurious lifestyle 3. Modest in everyday attitude and behaviour 4. Choose to save rather than waste money 				
11.	Freedom	<ol style="list-style-type: none"> 1. Assume that everyone has the freedom to make choices 2. Do not force/compel other people to do what we want 3. Free to think, behave, and act while respecting the freedom of others 4. Channel freedom of ideas and actions through positive activities 				

No	Living Values	Character to Develop	A	O	S	N
12.	Unity	1. Prioritise public interests over personal interests 2. Maintain integrity, unity, and harmony 3. Avoid disintegration, hostility, and conflict 4. Maintain unity in diversity in terms of ethnic group, religion and race				

As part of self-assessment, the twelve values of life were translated into statements that reflect sample behaviours students may have potentially experienced in their daily lives. The students were asked to determine the frequency of the implementation of behaviour according to the values of life into 'always (A)', 'often (O)', 'sometimes (S)', and 'never (N)'.

The Effect of the Authentic Assessment Model on Students' Characters

The comparison of the student character before and after implementing the authentic assessment can be seen in Table 4.

Table 2. Students' Character Scores at Pre-Test and Post-Test

No	Characters Developed	Pre-Test (N= 379)				Post-Test (N=379)			
		A (%)	O (%)	S (%)	N (%)	A (%)	O (%)	S (%)	N (%)
1.	Peace	39.7	22.4	25.2	12.6	68.6	22.4	9.0	0.0
2.	Respect	45.7	31.6	20.1	2.6	67.9	27.1	4.8	0.3
3.	Love	40.1	33.5	22.4	4.1	62.0	30.7	7.3	0.0
4.	Responsibility	37.3	32.6	27.0	3.1	60.0	34.8	5.2	0.2
5.	Happiness	40.1	32.8	23.7	3.5	53.3	31.6	15.2	0.0
6.	Cooperation	30.0	38.9	24.8	6.4	58.7	37.3	4.0	0.0
7.	Honesty	25.8	43.6	23.9	6.7	45.7	39.1	13.3	1.9
8.	Humility	40.0	29.8	23.3	7.0	67.2	27.3	7.4	0.2
9.	Tolerance	55.0	34.4	10.1	0.4	87.5	12.4	0.1	0.0
10.	Modesty	39.4	36.4	20.6	3.6	61.1	28.2	10.8	0.0
11.	Freedom	52.4	32.8	13.5	1.4	67.4	29.5	3.1	0.0
12.	Unity	39.3	36.0	20.4	4.3	69.2	25.3	5.5	0.0
	Mean	40.4	33.7	21.3	4.6	64.1	28.8	7.0	0.1

As shown in Table 2, it can be concluded that all of the student characters based on life values have increased after applying the living values-based assessments. The values that importantly rose are the values of tolerance, peace, unity, and humility. The values exhibited low improvements in responsibility and honesty. Therefore, it is deemed necessary to further hone these values through various living values education models.

Prior to performing the hypothesis test, the normality and homogeneity test was carried out at the pre-test and the post-test to gauge the improvement of student character. The results of the normality test by means of the Kolmogorov-Smirnov reveal that the pre-test and the post-test data on student character were normally distributed because the Sig. = 0.060 > $\alpha = 0.05$ and the Sig. = 0.200 > $\alpha = 0.05$, respectively. Through the Shapiro-Wilk test, it is clear that the pre-test and post-test data on student character were normally distributed because the Sig value for each, namely 0.052 and 0.442, is greater than $\alpha = 0.05$.

Based on the variance homogeneity test results, the significance value was 0.211 > 0.05, so it can be said that the data variance was homogeneous. Furthermore, the hypothesis testing was carried out using parametric because the pre-test, post-test and gain data were normal, and the variance was homogeneous. A paired samples t-test was employed to identify the results before and after applying the assessment model. The results of statistical calculations with SPSS 22 software can be seen in Table 3 and Table 4.

Table 3. Score Differences of the Pre-Test and Post-Test

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-test	51.75	379	6.721	.970
	Post-test	82.15	379	6.876	.992

Table 4. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
Pair 1	Pre-test– Post-test	-30.396	9.421	1.360	-33.131	-27.660	-22.353	379	.000

Based on the results of hypothesis testing in Table 3 and Table 4, it is apparent that the Sig. (2-tailed) was $0.000 < \alpha (0.05)$, then H_0 was rejected, signifying that there is a statistical difference in the life value of students at the pre-test and post-test. The hypothesis testing showed a significant increase in the mean of the post-test (82.15) compared to that of the pre-test (51.75).

Discussion

This study discovered that living values-based authentic assessments can be in the form of attitude assessment, self-assessment and peer assessments that incorporate life values, hone higher-order thinking skills, and boost the attainment of competencies according to the curriculum. The application of this model proved effective in enhancing student character, as evidenced in the statistical difference in the student life values in the pre-test and post-test. The research findings can be deliberated as follows.

First, authentic assessment is an innovation from traditional assessments that includes assessing student performance as an authentic learning result. This authentic assessment evaluates student success in achieving educational goals through student performance (Hart, 1994; Litchfield & Dempsey, 2015; Mueller, 2011). In an authentic assessment based on living values, not only is the mastery of knowledge and skills tested through performance tests, but student attitudes and behaviours in learning activities and daily life are assessed through attitude assessment, self-assessment, and peer assessment (Komalasari & Saripudin, 2020).

Second, in authentic assessments, students learn the learning material and then translate it to meaningful and relevant deeds in their life. A key area that calls for deep learning is students' understanding of the meaning of life gleaned from the reflection of living values. Authentic assessments strongly influence metacognition and information processing which is the key to learning (Azim & Khan, 2012) and honing higher-order thinking skills (Koh et al., 2012). Life consists of many choices, problems, situations, and scopes that require critical thinking analysis, problem-solving, and synthesis.

Third, living values-based authentic assessments serve as part of the initiatives to bolster Pancasila and civic education in its vision of nation and character building. Such an initiative is an innovation in civic learning because it seeks to integrate living values and the principles of living values education (Tillman, 2004; Komalasari & Saripudin, 2018; Saripudin & Komalasari, 2015) into authentic assessments. Civic Education is oriented towards attitude assessment and

knowledge and skills assessment. It aims to foster students' skills in performing internal reflection, clarifying values, internalising and implementing the values of life through the rational development of an attitude choice using higher-order thinking skills. Hence, students' behavioural patterns are nurtured through critical-analytical-evaluative-creative thinking about moral knowing, moral feeling, and moral action in everyday life (Lickona, 2013).

Fourth, the underpinning assumption behind living values-based authentic assessments is that knowledge is built when people interact in their real life and surroundings (Vu & Dall'Alba, 2008). Students can learn to remember with isolation, but applying that knowledge requires advanced synthesis at a higher level so that it can be meaningful and relevant to everyday life practices. Using living values-based authentic assessment results in deeper learning because students participating in authentic assignments are more actively involved in learning activities and empower knowledge, skills, and attitudes in an integrated manner. These three important aspects of learning are integrated when students apply what they have learned in real-world activities, especially when working in groups (Fook & Sidhu, 2010; Kearney, 2012; Svinicki, 2004).

Fifth, in the learning process, living values-based authentic assessments through attitude assessment, self-assessment, and peer assessments serve as a valuable source of feedback for students because it provides opportunities for teachers to provide positive feedback by supplying more forms of motivation than passing ordinary numbers on tests (Litchfield et al., 2007; Bourke & Mentis, 2013). Through meaningful activities assessed authentically based on living values, students can determine their weaknesses and improve their attitudes and behaviour. The most important thing in authentic assessment is task fidelity with real conditions that describe and enrich cognitive, affective and psychomotor domains and prepare students for life and career skills now and in the future. When assignments are more intellectually and practically challenging, students are more likely to create higher quality work (Koh & Luke, 2009). Effective assessment cannot be 'stapled' at the end of learning meetings (Burton, 2011).

Conclusion

The living values-based authentic assessment incorporates life values and the principles of living values education in line with the competencies to be achieved in the curriculum. The living values-based assessment model product under investigation was realised in the form of attitude assessment instruments, self-as-

assessment, and peer assessment. The model trials demonstrated that the model had a significant effect on the character development of high school students. Therefore, learning assessment should apply a variety of authentic assessments that measure students' attitudes more comprehensively, in addition to knowledge and skills assessments.

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