Value-based Blended Learning Model for Strengthening Students' Character

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In the era of the Fourth Industrial Revolution, blended learning must focus on strengthening students' character, in addition to building their knowledge and skills. To achieve this goal, it is essential to develop a blended learning model that is based on values. This study aims to describe the value-based blended learning model and its effect on strengthening student character. We used Borg and Gall's Research and Development method for our research, which involved a total of 265 university students enrolled in Pancasila and Civic Education courses at Universitas Pendidikan Indonesia, Universitas Sebelas Maret, dan Universitas Negeri Padang. Data were collected using interviews, questionnaires, and attitude scales and analyzed using qualitative interactive, quantitative descriptive and correlation-regression analysis. The results revealed that (1) the value-based blended learning model for character strengthening was carried out by integrating characters at all combinations, all stages of learning, and on all components of learning, habituation, role models, rules, rewards and punishment systems; 2) most students perceive very well the implementation of value-based blended learning in Pancasila and civics education courses; and 3) most of the students showed very good character. The dominant characteristics developed in value-based blended learning were critical thinking, creative and innovative thinking, independence, collaboration, hard work, digital literacy, democracy, religiosity, peace, responsibility, and tolerance. (3) The application of value-based blended learning has an effect of 50.8% on strengthening student character. Therefore, value-based blended learning should be implemented to strengthen student character.

Keywords: value-blended learning, character, students, Pancasila and civic education

INTRODUCTION

The Fourth Industrial Revolution is characterized by the integration of cyber-physical systems that bridge the gap between industry and the virtual world. This connectivity,

which involves humans, machines, and data, is often referred to as the Internet of Things (Kearney, 2016). This digital era has revolutionized the way people live and work, increasing the speed and dynamics of knowledge circulation (Shepherd, 2011). As a result, it has impacted all areas of life, including education (Barbour & Reeves, 2009; Peng & Li-Wei, 2009).

The digital era not only has an impact on knowledge circulation but also brings challenges to the character strengthening of young citizens because they are faced with 1) the shift from conventional to online services; 2) the openness of personal cooperation with fellow internet users without any national boundaries; 3) the shift of social ethics in community interactions, including phubbing (Phone Snubbing); and 4) the erosion of values, morals and norms of Pancasila (the Five Principles) in the lives of Indonesian citizens, including the increasing prevalence of fake news, provocation, hate speech, cyberbullying and cybercrime, as well as in the academic, there are rampant acts of copyright infringement in the form of plagiarism of other people's work from internet sources (Komalasari et al., 2021).

Character education is an essential means to build the character of young citizens, especially through formal education in schools at all levels of education, including higher education. Character education has been the focus of education for thousands of years, both formally and informally (DeRoche & Williams, 2001; Edmonson et al., 2009; Lickona, 2009; Saripudin et al., 2021). The digital era with the increasing availability of information technology and the internet challenges how character education is organized and delivered and creates a new learning environment where isolated learners are now connected with educators from around the world for learning not only cognitive and psychomotor aspects but also affective aspects (students' character) (Barbour & Reeves, 2009; Peng & Li-Wei, 2009; Komalasari & Rahmat, 2019).

Learning as a core activity of education in schools and educators as developers and implementers of learning should integrate character education in learning activities (Komalasari & Saripudin, 2018). Character education as "a deliberate effort to help people understand, care about, and act upon core ethical values….when we think about the kind of character we want for our children, it is clear that we want them to be able to judge what is right, care deeply about what is right, and then do what they believe to be right –even in the face of pressure from without and temptation from within" (Lickona, 2009). The presence of technology has made character education methods undergo drastic changes. The digital era has a large impact on behavior. Thus, character education also needs adjustments. The era of freedom and the rapid dissemination of information has made many people worried about the future character of the nation's young generation. Educational institutions, as the community of character, need to strengthen character education through various formats, one of which is through learning or lectures as a core activity (Komalasari & Masyitoh, 2022; Saripudin et al., 2021).

For this reason, learning innovations that meet the demands of the digital era and the regulations of the Indonesian government in the era of COVID-19 are needed. Innovations are likewise needed during the COVID-19 epidemic and must integrate

character education to strengthen student character. One of the innovations is through applying blended learning. It is such learning that combines face-to-face learning and internet-based learning. Blended learning combines aspects of web/internet-based learning, video streaming, and synchronous and asynchronous audio communication with traditional 'face-to-face' learning (Kaczynski & Wood, 2005; Anderson, 2008; Garner & Oke, 2015).

Previous research has shown that blended learning has a positive impact on problem-solving abilities (Hamzah et al., 2022) and can improve students' independent learning skills when integrated with innovative learning strategies (Bahri et al., 2021). To implement blended learning effectively, it is important to develop a curriculum that is supported by a learning management system in each educational institution (Razali, et al., 2022). While these studies suggest that blended learning can improve students' abilities, there is still a need for research on how blended learning can be used to strengthen attitudes, values, and character.

What kind of blended learning practice integrates character education in it? The process of strengthening student character influences all components of learning, especially learning strategies. Therefore, it is necessary to conduct research and development to develop a value-based blended learning model for strengthening student character in Pancasila and citizenship courses in teacher training colleges. This course has a vision of "nation and character building" for students.

The general objective of this research is to describe the value-based blended learning model and its impact on strengthening student character in the Pancasila and Citizenship Education course. Specifically, this study aims to:

1) Develop a conceptual model of value-based blended learning to strengthen student s' character.

2) Analyze students' perceptions of the value-based blended learning model.

3) Analyze the character of students developed through value-based blended learning.

4) Describe the effectiveness of the value-based blended learning model in strengthening students' character.

This research is vital for recovering blended learning practices that can help strengthen students' character, which is crucial in facing challenges and opportunities in the digital era.

Review of Literature

Value-based Blended Learning

Blended learning is a learning environment designed to combine face-to-face learning (F2F) with online learning that aims to improve student learning outcomes (Garner & Oke, 2015). Blended learning is a learning approach that integrates traditional face-to-face learning and distance learning that uses online learning resources (especially web-

based resources) and a variety of communication options that can be used by teachers and students (Kaczynski and Wood, 2005).

Blended learning makes learning more meaningful because of the variety of learning resources that may be obtained. There are four concepts of blended learning: a) blended learning is learning that combines or combines various web-based technologies to achieve educational goals; b) blended learning is a combination of various learning approaches (such as behaviorism, constructivism, cognitivism) to produce optimal learning achievement with or without learning technology; and c) blended learning is also a combination of many learning technology formats, such as video tape, CD-ROM, web-based training, and films, with face-to-face learning. d) Blended learning combines learning technology with actual work assignments to create a good influence on learning and assignments (Driscoll, 2002).

There are five keys to success in developing blended learning to improve the quality of learning (Carman, 2005; Komalasari, et al., 2021):
(1) Live Event synchronizes face-to-face and virtual learning in a well-designed live classroom or virtual classroom to achieve learning objectives;
(2) Self-Paced Learning combines face-to-face and multimedia-based learning in the form of text-based or multimedia-based resources (video, animation, simulation, image, audio, or a combination of these media) that can be accessed either online (via web or mobile applications: streaming audio, streaming video, e-book), by students anytime and anywhere, or offline in the form of CDs, and prints;
(3) Collaboration builds good communication between lecturers and students through tools such as chatrooms, discussion forums, emails, websites/blogs, mobile phones, or messaging applications for deliberating materials, problem-solving, or project assignments;
(4) Assessment combines various types of assessments, including tests/non-tests, authentic assessments, and projects, or products that can be carried out both internally and externally, whether online or offline, making the assessment more flexible;
(5) Performance Support Materials provide digital learning tools, including offline models (CDs, MP3s, DVDs) and online resources (websites) and all learning tools have been properly installed

Value-based learning is learning that helps students master a set of competencies by prioritizing and referring to values. There are five value-based learning approaches, namely, (1) an inculcation approach, (2) a cognitive moral development approach, (3) a value analysis approach, (4) a value clarification approach, and (5) an action learning approach (Superka, et al. 1976). Value-based blended learning is a pedagogical approach that integrates value-based education into blended learning. This means that in a combination of face-to-face and online learning, instructors utilize various value-based learning methods and techniques from Superka et al. (1976) to develop students' character. One example is the value clarification approach, which can be implemented using techniques such as value analysis of pictures, songs, and fictional stories, as well as through lists, games, and role-playing activities (Khairunisa, 2017).

Character Education

Character is defined as "an individual's pattern of behavior... his moral constitution" (Bohlin, et al., 2001: l). Character is personality evaluated (Allport, 1961). Character is a collection of values that lead to a system that underlies the thoughts, attitudes, and behaviors that are displayed (Philips, 2008). Character is closer to "akhlaq" (morality), namely, human spontaneity in attitude or actions that have been integrated into humans so that when they appear, there is no need to think again (Al-Ghazali, 2000). Peterson & Seligman (2004), who directly associate 'character strength' with virtue. Character strength is seen as psychological elements that build virtues (virtues). One of the main criteria of 'character strength' is that the character contributes greatly in fully realizing a person's potential and ideals in building a good life, which is beneficial for himself and for others. Thus, it can be concluded that character is related to moral strength, connoting 'positive', not neutral. Therefore, 'people of character' are people who have positive (certain) moral qualities. Thus, character building education means building traits or behavior patterns that are based on or related to positive or good moral dimensions, not negative or bad ones.

Character education is defined as a deliberate effort to help individuals understand, care about, and act upon core ethical values (Lickona, 2009). It encompasses not only the aspect of moral knowing or 'knowing the good,' but also moral feeling or 'desiring the good' and moral action or 'acting the good.' In schools, character education is implemented through various activities including learning activities in class, daily activities to develop the education unit culture, co-curricular and extra-curricular activities, and daily activities at home and in the community, which are developed through the School Committee or Student Parents Association (Saripudin & Komalasari, 2015)

METHOD

This research was conducted using Borg and Gall's (2003) Research and Development, in which the process is used to develop a certain product and test the effectiveness of the product. In this research, the design was utilized to produce a value-based blended learning model in Pancasila and civics education courses.

Procedures

Borg and Gall's (2003) research and development framework was utilized, which consists of ten steps. In the context of this study, only steps one to five were used, namely, research and information collection, planning, developing a preliminary form of product, preliminary field testing, and main product revision. Descriptions of activities at each step of the research can be seen in table 1.

Table 1
Descriptions of research activities

No	Research Steps	Description of Activities
1.	Research and information collecting	Literature studies related to the issues studied, and preparation for formulating the research framework.
2.	Planning	Formulate skills and expertise related to the making of value-based blended learning model to determine the objectives to be achieved at each stage, and to conduct feasibility studies in a limited way.
3.	Developing preliminary form of product	Develop the initial form of the product to be generated the initial product of value-based blended learning model. Included in this step is the preparation of supporting components, preparing guidelines and manuals, and evaluating the feasibility of supporting tools
4.	Preliminary field testing	Request input from experts and practitioners, and conduct initial product piloting of value-based blended learning model on a limited scale
5.	Main product revision	Make improvements to the initial products of value-based digital storytelling that have been produced.

Participants

The subjects of this study were the students of the 2020 and 2021 batches who used value-based blended learning in the odd and even semesters of the 2021/2022 year in the Pancasila and Civic Education course at Universitas Pendidikan Indonesia, Universitas Sebelas Maret, and Universitas Negeri Padang. To ensure a representative sample, this study utilized proportional random sampling, as recommended by Krejcie and Morgan (1970), and calculated the minimum sample size using the Slovin formula (Tejada & Punzalan, 2012). Based on a population of 817, the minimum sample size required for this study was determined to be 265 participants. The sample consisted of 80 students from Universitas Pendidikan Indonesia, 65 from Universitas Sebelas Maret, and 120 from Universitas Negeri Padang.

Data Collection

The data in this study were collected using questionnaires and self-evaluations (attitude scales) equipped with interview guidelines and focus group discussion (Gay, 1991). Due to the COVID-19 pandemic, the questionnaires were sent via the Google Form application and e-mail. Questionnaires were used to collect quantitative data that delve into the student perceptions of the implementation of a value-based blended learning model for strengthening student character. Attitude scales were used to assess the students' characteristics formed in value-based blended learning. The instrument specifications can be seen in Table 2.

Table 2
Instrument specifications

No	Variables	Indicators
A.	Value-Blended Learning Model (X)	1. Understanding the concept of value-based blended learning
		2. Facts about the implementation of value-based blended learning
		3. Implementation components of value-based blended learning
		4. Learning models in value-based blended learning
		5. Integration of character strengthening in value-based blended learning
		6. Strategies of character strengthening in value-based blended learning
		7. Character development in Value-based blended learning
B.	Students' Characters (Y)	
1	Religiosity	Praying before and after daily activities, and carrying out the teachings of the religion he adheres to
2	Discipline	Obeying rules and managing time well
3	Honesty	Speaking the truth manifested in actions, not cheating during exams, and not plagiarizing other people's work
4	Independence	Believing in their own abilities, and not completely relying on others in completing tasks
5	Hard Work	Performing the tasks seriously, and having high motives to achieve optimal results
6	Critical Thinking	Being able to identify, analyze, solve problems, and argue rationally supported by facts, data, and theory
7	Empathy	Feeling what other people feel, and helping others according to their needs
8	Responsibility	Performing the tasks seriously, and accepting the consequences of the actions that have been done
9	Creative and Innovative Thinking	Thinking creatively, flexibly, and originally, and producing the best ideas, products, and works that are different
10	Collaboration	Taking the role of group tasks according to an agreement, and motivating each other to achieve optimal results
11	Democracy	Having the freedom to express opinions both orally and in written form, and act responsibly
12	Spirit of Nationality	Being proud to be Indonesian, behaving according to the nation's personality, loving Indonesian products and culture
13	Tolerance	Appreciating differences in physical, thought, behavior patterns, ethnicity, religion, culture, and others as a unit in the harmony of the life.
14	Peace	Living in harmony, friendship, avoiding hostility, managing conflict appropriately, and prioritizing peace in conflict resolution
15	Digital Literacy	Being able to access, find, process, present, and share useful and responsible information for audiences through internet devices in the digital world

The results of the instrument trial on 75 students to test the validity and reliability of the questionnaire and the attitude scale showed the following: 1) all questions were valid because based on the product moment formula, it was found that the value of r count > r table = 0.232; 2) all research variables are reliable because Cronbach's alpha on variable X (value-based blended learning) is 0.840 > 0.60 and that on variable Y (student character) is 0.678 > 0.60 (Mehrens & Lehmann, 1991).

Data Analysis

The interactive qualitative analysis was employed to analyze the data from interviews and focus group discussion with lecturers related to the development of value-based blended learning models for character strengthening (Fraenkel & Wallen, 2006). The analysis involved several steps: First, data reduction was conducted by summarizing field reports and noting the main points relevant to the research focus on value-based blended learning models. Second, the data was systematically arranged based on certain categories and classifications of value-based blended learning models and student characters. Third, the data was displayed in tables and figures to clarify the relationship between the data. Fourth, cross-site analysis was conducted by comparing and analyzing the data in-depth. Finally, the findings were presented, conclusions were drawn in the form of general trends and implications for their application, and recommendations were made for developing value-based blended learning models.

To analyze the data obtained from questionnaires about student responses to value-based blended learning and attitude scales about student character, a quantitative descriptive analysis was used through percentages. This method was used to identify trends in the frequency of respondents' answers and phenomena. Additionally, to examine the effect of value-based blended learning models on character strengthening, The Pearson product-moment correlation was used, as recommended by Creswell (2012).

FINDINGS

Conceptual value-based blended learning model for strengthening student character

Based on the results of interviews and focus group discussions with experts and practitioners (Lecturers of Pancasila and Citizenship Education) to clarify and elaborate on the results of the interviews related to the value-based blended learning model in character strengthening, conclusions are obtained, as shown in Table 3.

Table 3
The design of value-based blended learning

Input Aspects	Input Contents
1.Blended Learning Model	a. There is a need to balance online, face-to-face, and independent learning by emphasizing student-centered learning and paying attention to the needs/characteristics of the courses, whether they should be given offline or online.
	b. The learning management should be done by making a clear schedule for face-to-face and online lectures and a balanced independent learning experience.
	c. Character strengthening is more effective through face-to-face learning and habituation.
	d. It is necessary to expand online learning facilities, and provide additional quotas for students so that they can take advantage of online facilities without burdening them.
	e. To make the implementation of effective blended learning more effective, it is necessary to prepare lecturers' abilities in digital learning, analyze the conditions and learning methods of students, prepare teaching materials, as well as variations of interactive and effective online and face-to-face learning methods.
2.Character Integration in Blended Learning	a. In every opening and closing of lecture meetings, it is necessary to apply religious values, such as praying before and after studying.
	b. It is necessary to give motivation at the beginning of learning in a variety of ways, such as using motivational videos, delivering words of wisdom, sharing experiences, or storytelling
	c. The making of rules in blended learning should be equipped with a reward and punishment system
	d. There should be an automatic presence detection in e-learning so that it can strengthen the character of student discipline.
	e. There is a need to provide fun and value-rich learning through games (e.g., guessing the secret of the boxes displayed in the PowerPoint during online learning).
	f. It is necessary to conduct value analysis learning through films, in which students can find positive and negative values and the proposed solutions.
	g. Project-based learning needs to be promoted, for instance, a character learning project where students analyze character problems and solutions, as well as action plans. Through this project, the characters of collaboration, mutual respect, critical thinking, creative and innovative thinking are strengthened.
	h. Problem-based learning needs to be promoted, including controversial issues and debates.
	i. There is a need to provide special materials on certain values/characters of moral values in each lecture, open interactive discussions with students, share inspirational experiences so that they can motivate students.
	j. Character strengthening begins with the self/personality of each student through internal reflection.
	k. It is necessary to give awards to outstanding students who always carry out their responsibilities as students/academics.
	l. There is a need to provide feedback on assignments/concepts found by students from various sources, and provide clarifications & conclusions on appropriate concepts/materials
	m. Providing good role models from lecturers and students, as well as other academics, is necessary.
	n. It is necessary to get used to the application of character values in the whole learning process

Based on the results of the focus group discussion, the design of a value-based blended learning model for character strengthening was formulated as follows.
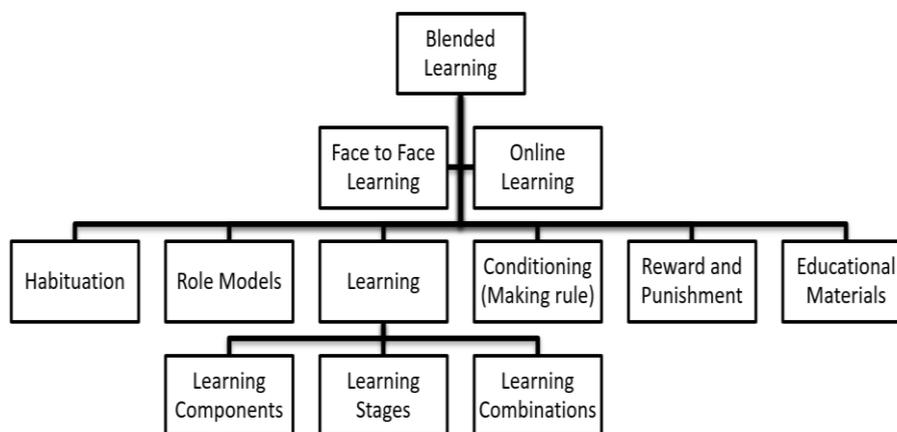
Figure 1
The model of value-based blended learning strategies for strengthening student character

The Model above can be described as follows.

a. Learning is designed using blended learning, combining aspects of online learning (learning management systems available in each university with a variety of platforms, web/internet, video streaming, synchronous and asynchronous audio communication) with face-to-face learning (Garner & Oke, 2015; Kaczynski & Wood, 2005; Anderson, 2008)

b. Character strengthening in blended learning is carried out on all components of learning (Sanjaya, 2013), including the following:

   1) objectives reflecting the achievement of aspects of spiritual attitudes and social attitudes;

   2) lecture materials that contain aspects of attitudes from everyday life;

   3) the lecture method that combines problem-based learning, project-based learning, values-based learning, and fun game-based learning;

   4) learning media using multimedia that is rich in value and applicable;

   5) reading and nonreading learning resources that are diverse, digital-based and contextual experience-based;

   6) attitude-based authentic assessment, including self-assessment (self-evaluation, attitude assessment, peer-to-peer assessment, observation, and daily journals).

c. Character strengthening in blended learning is carried out in all stages of learning that include the following:

   1) Introduction: character class contracts, motivation, goal orientation, apperception, and internal reflection;

2) Core activities: variations of values-based learning, problem-based learning, project-based learning, discovery-inquiry learning, service learning, and games-based learning for students' creations;

3) Closing: conclusions, feedback, internal reflection, follow-up actions through assignments and suggestions for applying subject matter and values in life.

d. Character strengthening is not only integrated into learning but also through special materials for character education, habituation, and conditioning (rules) followed by a reward and punishment system and role models.

e. Characters integrated in blended learning include religiosity, discipline, honesty, independence, hard work, critical thinking, empathy, responsibility, creative and innovative thinking, collaboration, democracy, spirit of nationality, tolerance, peace, and digital literacy.

Student perceptions of value-based blended learning

Students' perceptions of the implementation of value-based blended learning can be described in the table as follows:

Table 4
Student perceptions of value-based blended learning

Aspects of Value-based Blended Learning	Evaluation (N=265)			
	Very Good (%)	Good (%)	pretty good (%)	not good (%)
1. Understanding the concept of value-based blended learning	59	11	9	0
2. Facts about the implementation of value-based blended learning	62	19	16	4
3. Implementation components of value-based blended learning	55	24	15	6
4. Learning models in value-based blended learning	60	29	9	2
5. Integration of character strengthening in value-based blended learning	66	25	8	0
6. Strategies of character strengthening in value-based blended learning	60	22	10	8
7. Character development in Value-based blended learning	70	24	4	2
	61.71	22.0	9.85	3.14

Based on Table 4, it can be explained that most students have very good (61.71%) and good (22.0%) perceptions, and very few perceptions are sufficient (9.85%) and less (3.14%) toward the implementation of value-based blended learning. Aspects that are considered to be underdeveloped are the components of the implementation of blended learning and character strengthening strategies in blended learning.

The Student Character Formed in Value-based Blended Learning

The results of the student attitude scale toward the character they have can be seen in Table 5.

Table 5
The Students' characteristics

	Character	Evaluation (N= 265)			
		Always (%)	Frequently (%)	Rarely (%)	Never (%)
1.	Religiosity	57	38	4	0
2.	Discipline	34	54	12	0
3.	Honesty	33	63	5	0
4.	Independence	70	29	0	0
5.	Hard Work	60	37	2	0
6.	Critical Thinking	78	22	0	0
7.	Empathy	45	52	2	0
8.	Responsibility	51	45	5	0
9.	Creative and Innovative Thinking	74	25	1	0
10.	Collaboration	65	32	2	0
11.	Democracy	60	40	1	0
12.	Spirit of Nationality	46	49	4	1
13.	Tolerance	50	48	3	0
14.	Peace	55	40	5	0
15.	Digital Literacy	60	38	2	0
		55.87	40.80	3.26	0.07

As shown in Table 5, more than half of the students always applied the characters as expected. There was only a small number of students who rarely applied or even never applied the expected characters. However, there were still characters that were not optimally applied, including honesty and discipline. Meanwhile, the characteristics of critical thinking, creative and innovative thinking, independence, collaboration, hard work, digital literacy, democracy, religiosity, peace, responsibility, and tolerance were already considered good in their implementation.

The effectiveness of the value-based blended learning model for strengthening student character

The effect of the application of the value-based blended learning model on student character development was assessed through correlation and regression tests using SPSS 25. Based on the test results, the correlation between the variables of the application of value-based blended learning model (X) in Pancasila and Civic Education Courses with student character strengthening (Y), Pearson Product Moment Correlation yielded 0.713 and P value (Sig.) is 0.001. Because the P value is smaller than $\alpha = 0.01$, it can be stated that there is a significant linear relationship of 0.713 between the application of value-based blended learning in Pancasila and civics education courses and student character strengthening. If interpreted using Guilford's Empirical Rule (Guilford & Frucher, 1978), then the closeness of the relationship belongs to the high category.

Table 6
Correlation

		X	Y
X	Pearson Correlation	1	.713**
	Sig. (2-tailed)		.000
	N	265	265
Y	Pearson Correlation	.713**	1
	Sig. (2-tailed)	.000	
	N	265	265

**. Correlation is significant at the 0.01 level (2-tailed).

Below is the result of the regression test:

Table 7
Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713ᵃ	.508	.412	6.983

a. Predictors: (Constant), X

The R2 (R Square) value of the Summary Model Table above shows that 50.8% (0.508 x 100%) of the "Y variable" variance can be explained by changes in the variable 'X'. Thus, there is a significant positive effect on the application of the value-based blended learning model in Pancasila and civics education courses on the strengthening of student character. The magnitude of influence is 50.8%; the remaining 39.2% is affected by other factors beyond the scope of this study.

Empirically, the results of this study suggest that the application of a value-based blended learning model in the courses under examination exhibits a positive and significant effect on the development of student character. The magnitude of the effect of the application of value-based blended learning to strengthen student character is 50.8%.

DISCUSSION

The results of the study were analyzed in the following points.

First, this study shows that most students understand the concept of blended learning as learning that combines online learning, face-to-face learning, and independent learning that must be applied in lectures. In the COVID-19 endemic atmosphere, blended learning can be applied proportionally by paying attention to the availability of infrastructure, material characteristics, and students. Blended learning combines aspects of online learning (web/internet, video streaming, synchronous and asynchronous audio communication) with face-to-face learning (Kaczynski & Wood, 2005; Anderson, 2008; Garner, & Oke, 2015). The value-based blended learning model integrated value learning as an important part of blended learning, in addition to discovery-inquiry learning, problem-based learning, project-based learning, and even game-based learning. The models apply the scientific approach (Dyer & Reeves, 1995), contextual approach (Johnson, 2002;), authentic learning, and authentic assessment (Wiggins & Mc. Tighe, 2011; Komalasari & Masyitoh, 2022) within the framework of developing 21st-century competencies that include life and career skills, learning and innovation skills, and information, media, and technology skills (Trilling & Fadel, 2009).

Second, students have a very good perception of the implementation of value-based blended learning. Character strengthening is carried out in value-based blended learning, either directly or indirectly. The dominant character strengthening conducted in vaue-based blended learning in lectures is the provision of special materials on moral values, character habituation in learning, value learning methods, and role models. It is strengthened by a commitment to implementing class rules with a reward and punishment system. It is in line with the principle of value learning based on living values education that character is developed through habituation that includes internalization and institutionalization. Habituation is an effort to understand, cultivate, and apply characters that grow and develop in the context of community life to the individual members of that culture. In this regard, it is done through the provision of special materials on values-moral norms, methods of learning values, and role models. Institutionalization is an emphasis on the character that is mutually agreed upon by individuals in a social context, controlling and directing behavior to achieve specific goals. This is done through the making of class rules followed by a commitment to implement them with a reward and punishment system (Saripudin & Komalasari, 2015: Saripudin et al., 2021).

Third, the dominant characteristics developed in blended learning in the Pancasila and civics education courses in the even semester of 2021/2022 are critical thinking, creative and innovative thinking, independence, collaboration, hard work, digital literacy, democracy, religiosity, peace, responsibility, and tolerance. These characteristics can support the demands of 21st century skills, including 1) life and career skills; 2) learning innovation skills (critical thinking, collaboration, communication, and creativity); and 3) information, media, and technology skills. Life and career skills still need to be optimized in blended learning among the three skills. Life and career skills are the ability to behave adaptively and positively, which allows a person to be able to face various demands and challenges in his life and work effectively (Trilling & Fadel, 2009). Life and career skills are important for a person to deal with life and life problems naturally without feeling pressured and then proactively and creatively find solutions (Binkley et al., 2010). Life and career skills are key skills that students need to live and work in diverse and complex environments (Ball et al., 2016).

Fourth, value-based blended learning strengthens student character by 50.8% (high category). Blended learning with a technological pedagogical content knowledge (TPACK) approach (Mishra & Koehler, 2009) can be combined with value learning through value-based blended learning so that it not only teaches students about technological literacy and cognitive materials but also utilizes technology for the character development of students for community welfare, in line with Society 5.0, which is a concept that defines that technology and humans will coexist to improve the quality of human life in a sustainable manner (Hayashi, 2017). Aside from online facilities, the lecturers' ability to conduct blended learning requires further attention. In preparing for blended learning, they must consider three aspects: content, student-lecturer interaction (communication), and creating the right mindset to map students' positions in the class (construction) (Kerres & De Witt, 2003). There are five keys to success in developing blended learning to enhance the quality of learning: live events,

self-paced learning, collaboration, assessment, and performance support materials (Carman, 2005; Komalasari et al., 2021).

CONCLUSION

Students understand the concept of value-based blended learning as the combination of value in online learning, face-to-face learning, and independent learning that must be applied in lectures. Value-based learning must be applied in addition to problem-based learning models, and discovery-inquiry learning, project-based learning, and game-based learning are integrated into blended learning. Character strengthening is carried out in value-based blended learning through the provision of special materials, habituation, learning values, and rule-making. The application of value-based blended learning has an effect on strengthening student character. Therefore, a value-based blended learning model must be applied for character strengthening in all stages and components of learning, emphasizing role models and providing rewards and punishments. Character strengthening in value-based blended learning models that should be developed is 1) implementing online, face-to-face, and independent learning with portions according to the characteristics of the course; 2) making a clear schedule; 3) fulfilling online learning facilities; and 4) preparing lecturers' abilities in digital learning, including the characteristics of students, teaching materials, variations in learning methods, and evaluation. The implementation of value-based blended learning was found to have a high effect of 50.8% on strengthening student character, making it a promising alternative learning model for character development in the digital era.

AUTHORS' CONTRIBUTION

The first author was responsible for compiling the concept and design, acquiring the data, analyzing and interpreting the data, and preparing the manuscript. The second author performed editing and reviewing, supervised the work, provided critical revisions to the manuscript, and gave final approval. The third author contributed to the statistical analysis, data interpretation, and provided technical or material support.

LIMITATIONS

This study has some limitations. The effectiveness of the value-based blended learning model was tested on a limited scale using product moment correlation, therefore, further research is needed to test the model on a larger scale, preferably through experimental research designs.

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