

# Enhancing Pancasila Education Outcomes: The Role of Blended Learning Models and Internet Self-Efficacy in Elementary Schools

Mujtahidin<sup>1</sup>, Moh. Wardi<sup>2</sup>

<sup>1</sup> Universitas Trunojoyo Madura, Indonesia; [mujtahidin@trunojoyo.ac.id](mailto:mujtahidin@trunojoyo.ac.id)

<sup>2</sup> Universitas Al-Amien Prenduan Sumenep, Indonesia; [mohwardi@unia.ac.id](mailto:mohwardi@unia.ac.id)

---

## ARTICLE INFO

### Keywords:

blended learning;  
internet self-efficacy;  
Pancasila education;  
learning outcomes;  
elementary schools

### Article history:

Received 2024-12-31

Revised 2025-02-13

Accepted 2025-06-17

## ABSTRACT

This study examines the influence of blended learning models and internet self-efficacy on student learning outcomes in Pancasila Education, motivated by persistently low achievement linked to the limited use of innovative instructional approaches. A quasi-experimental design was employed, involving 288 fourth-grade students from public and private elementary schools in Bangkalan, East Java. Participants were exposed to either blended learning or direct instruction. Data were analyzed using descriptive statistics and two-way ANOVA to assess the effects of the instructional model and internet self-efficacy on learning outcomes. The findings indicate that both instructional models significantly affected learning outcomes ( $F = 4.949, p = 0.027$ ). Students with higher internet self-efficacy demonstrated significantly better performance ( $F = 8.815, p = 0.003$ ). However, there was no significant interaction between the type of learning model and internet self-efficacy ( $F = 0.079, p = 0.779$ ), suggesting that self-efficacy independently contributes to academic success regardless of instructional method. These results highlight the importance of internet self-efficacy in enhancing student learning outcomes. Although blended learning proved effective, its benefits did not vary based on self-efficacy levels. Blended learning can improve engagement and achievement in Pancasila Education. Educators are encouraged to adopt blended approaches and tailor instruction to student self-efficacy levels. Future research should explore these variables across other subjects and contexts.

This is an open access article under the [CC BY-NC-SA](https://creativecommons.org/licenses/by-nc-sa/4.0/) license.



## Corresponding Author:

Mujtahidin

Universitas Trunojoyo Madura; [mujtahidin@trunojoyo.ac.id](mailto:mujtahidin@trunojoyo.ac.id)

---

## 1. INTRODUCTION

One of the fundamental issues or root problems that deserve attention in the teaching of Pancasila Education at the primary education level is that teachers have not implemented innovative and flexible teaching models that can facilitate students in learning from various relevant learning sources (Chairiyah et al., 2021). This impacts the low student learning outcomes, as the selection of an appropriate teaching model can influence student learning outcomes (Kunandar, 2014). This issue is considered one of the fundamental problems affecting the learning outcomes of Pancasila Education. In a national context, the low learning outcomes of students are a major issue that needs to be prioritized

in efforts to improve the quality of learning at all levels of formal education, especially at the primary education level (Anggraena et al., 2022; OECD, 2019). The low outcomes in Pancasila Education are greatly influenced by the teachers' ability to choose and implement the appropriate teaching models, in accordance with the objectives and characteristics of student learning. There is significant evidence that teachers' teaching practice capabilities rank first as a factor affecting student learning outcomes (Al-Agili et al., 2012; Ayebale et al., 2020).

Based on observational findings from a preliminary study, one of the reasons for low learning outcomes in Pancasila Education at elementary schools is that teaching has not provided students with ample opportunities to extensively explore and discover new knowledge through various learning sources. The use of diverse learning resources through various digital learning platforms for internet-based online learning is still seldom practiced by teachers in Pancasila Education. To address this issue, there is a critical need to prioritize pedagogical-substance improvements in Pancasila Education at elementary schools through the implementation of appropriate teaching models to enhance both learning outcomes (Winataputra & Budimansyah, 2012; Dewi, 2021). This is crucial because choosing the right teaching model to present relevant learning sources for students is one of the key factors determining their learning outcomes and citizenship attitudes (Nasution et al., 2019).

Based on a literature review conducted by researchers, several experts recommend that the blended learning model can be an essential solution for the present and highly prospective for the future in improving education at the primary level (Kazakoff et al., 2018; Ossiannilsson, 2017). The blended learning model is considered effective in enhancing learning outcomes because it offers several advantages, including increasing students' independent learning abilities and enhancing learning transfer by providing innovative and flexible content/material (Berga et al., 2021; Lalima & Dangwal, 2017; Maddison, 2013; Sihabudin, 2016; Akgunduz & Akinoglu, 2016; Li et al., 2019; Demirer & Sahin, 2013; Lin et al., 2017; Dziuban et al., 2004; Lusa et al., 2021).

Theoretically, the blended learning model is supported by the constructivist learning theory, which posits that in education, students must actively engage in constructing their own knowledge through real-world, everyday experiences (Slavin, 2019). Based on psychological constructivism theory, blended learning is highly relevant to current educational needs with the rapid development of technology and the increasingly competitive demands of the times (Al-Huneidi & Schreurs, 2012). The blended learning model is presumed to be effective in improving Pancasila Education learning outcomes as it offers several advantages, including enhancing learning transfer by providing innovative and flexible content/materials through the management of learning and task organization controlled independently by students, thereby making learning more effective and efficient. Relevant research findings are such as, Miskiah et al (2020), who conducted a quasi-experimental study with fifth-grade students from three public elementary schools in Bantul, Indonesia. The results showed that blended learning was more effective than conventional learning in enhancing students' creativity and activeness. Assylzhanova et al. (2022) performed a quasi-experiment to test the effects of blended learning and conventional learning on student achievement in English language education in fourth grade. The findings indicated that students' English language achievement was higher through blended learning compared to conventional learning. Seage & Türegün (2020) conducted a quasi-experimental study with 129 students in grades III, IV, and V, considering the socio-economic background of students from low-income families in South Florida, USA. The study found that blended learning significantly influenced the STEM learning outcomes of elementary students in South Florida. Alshawish et al. (2021) performed a quasi-experimental study with 102 nursing students in Palestine, showing that there was no significant difference in students' learning outcomes between blended and conventional learning. However, student assignment results in blended learning were significantly higher than those in conventional learning.

One characteristic of students that can influence learning outcomes in internet-based learning is internet self-efficacy (Chiu & Tsai, 2014; Efendi & Yulastri, 2019; Kim & Glassman, 2013a) This characteristic relates to students' beliefs in their abilities to interact with the internet as a learning

resource (Hsiao et al., 2017). This is because learning using the internet requires specific skills in searching for and finding useful and relevant information (Kim & Glassman, 2013a; Park et al., 2019). Internet self-efficacy has a significant influence on students' capabilities and success in using the internet as a learning resource. Research by Chiu & Tsai (2014) shows that internet self-efficacy affects students' ability to find accurate and useful information from reliable sources. Similarly, Chuang et al. (2015) explain that students with high internet self-efficacy are more likely to succeed in learning compared to those with low internet self-efficacy.

Based on Bandura's (1978) self-efficacy theory, the differences in student characteristics related to internet self-efficacy can be a direct or indirect factor in students' willingness and ability to use technology according to their potential. Therefore, internet self-efficacy is strongly suspected to be one of the behavioral control factors that can have a direct or indirect impact on learning outcomes of students in internet-based learning (S. C. Chuang et al., 2015; Hsiao et al., 2017; C. Tsai et al., 2011). This indicates a research gap, as the influence of blended learning on learning outcomes of students considering internet self-efficacy (high and low) has not yet been explored, specifically in the subject of Pancasila Education at the elementary level.

There is already a substantial amount of research and studies on blended learning and self-efficacy in the literature, both nationally and internationally. However, in the researcher's review of current relevant research, no studies have tested the influence of blended learning considering students' internet self-efficacy (high and low) on learning outcomes at the elementary education level in Indonesia, particularly in the subject of Pancasila Education. This research is necessary to test the influence of the blended learning model, considering internet self-efficacy (high and low) as a moderator variable that is strongly suspected to affect the learning outcomes of Pancasila Education in elementary schools. To control the effectiveness of the blended learning model, this study uses the direct instruction model because it is still frequently and commonly used in elementary schools. Both the blended learning model and the direct instruction model are suitable for students with different levels of internet self-efficacy (high and low), depending on how effectively the two learning models are implemented. Therefore, this study is important to obtain a clearer (valid) picture of the influence of the blended learning model and internet self-efficacy on the learning outcomes of Pancasila Education in elementary schools.

Based on the background, the research problem for this study is formulated to explore whether there are differences in Pancasila Education learning outcomes among elementary school students subjected to different teaching methodologies and varying levels of internet self-efficacy. The study aims to investigate the effectiveness of the blended learning model compared to direct instruction, and assess how students' internet self-efficacy levels—high or low—affect their learning outcomes in Pancasila Education. Additionally, the research will examine the interaction between the blended learning model and internet self-efficacy in influencing these learning outcomes.

## 2. METHODS

The aim of this study is to examine the effect of independent variables on the dependent variable. The independent variables in this study are the blended learning model, observed through high and low levels of internet self-efficacy. The dependent variable is the learning outcomes of Pancasila education. This research employs a quasi-experiment design because the experiment involves intact groups of subjects already formed in classes and cannot control all existing variables.

### 2.1 Research Design

The research design utilized is a factorialized version of the non-equivalent control group design (Tuckman & Harper, 2012). The treatment units are arranged in a 2x2 factorial format. This factorial design provides the opportunity to investigate the simultaneous influence of independent variables, known as factors, on the sample groups being studied. The first factor is the blended learning model, which has two values: learning with the blended learning model and the direct instruction model. The

Table 1. second factor is internet self-efficacy, which also has two values: high internet self-efficacy and low internet self-efficacy. The dependent variable is the learning outcome of Pancasila education. The 2x2 factorial design is illustrated in Table 1.

**Table 1.** 2x2 Factorial Research Design

Internet self-efficacy	Learning model	
	Blended Learning ( $X_1$ )	Direct Instruction ( $X_2$ )
Internet self-efficacy High ( $Y_1$ )	$X_1 Y_1$	$X_2 Y_1$
Internet self-efficacy Low ( $Y_2$ )	$X_1 Y_2$	$X_2 Y_2$

Note:

- $X_1 Y_1$  : Pancasila Education learning outcomes for groups of students with high internet self-efficacy who were treated with a blended learning model
- $X_1 Y_2$  : Pancasila Education learning outcomes for a group of students with low internet self-efficacy who were treated with a blended learning model
- $X_2 Y_1$  : Pancasila Education learning outcomes for groups of students with high internet self-efficacy who were treated with the direct instruction model
- $X_2 Y_2$  : Pancasila Education learning outcomes for groups of students with low internet self-efficacy who were treated with the direct instruction model

## 2.2 Participant

The study's population consists of elementary school students in Bangkalan District, Bangkalan Regency, East Java Province. The subjects in this study are drawn from the research population, specifically fourth-grade elementary students in the second semester of the 2023/2024 academic year. The research sample was determined using cluster random sampling (Sugiyono, 2016), considering representation from both public and private elementary schools. Three public and three private schools were selected, and a total of 288 students were chosen as the research sample.

## 2.3 Material

Based on the research variables, the blended learning model is measured using an observation sheet instrument to assess the implementation of learning activities. This includes observation sheets for teacher activities and responses to learning. Student internet self-efficacy (high and low) is measured using a questionnaire adapted from the Internet Self-Efficacy Survey (ISS), developed by Chuang et al. (2015), and revalidated. Learning outcomes are assessed using an objective test to measure students' knowledge of civic education (cognitive domain). The research instruments based on the study variables are presented in Table 2.

**Table 2.** Research Instruments Based on Research Variables

No	Research variable	Research Instrument	Instrument Validation Techniques	Data source
1	Learning model (blended learning and direct instruction)	Learning Implementation	Expert Validation	• Subject Matter Expert
		Observation Sheet		• Observation results
2	Internet self-efficacy	Student Response	Expert Validation	• Subject Matter Expert
		Questionnaire		• Observation results
3	Pancasila Education Learning Outcomes	The Internet self-efficacy questionnaire in the form of a Likert scale consists of 40 questions/statements.	• Expert Validation • Validity test • Reliability Test	• Subject Matter Expert • Student
		The Learning Outcomes Test consists of 20 multiple-choice questions.	• Expert Validation • Validity test • Reliability Test of Different Power Test • Difficulty Level Test	• Subject Matter Expert • Student

## 2.4 Procedure

In the preparation stage of the experiment, several activities will be undertaken by the researchers, including: (1) obtaining research permits, (2) coordinating with teachers and school authorities regarding the preparation and technical implementation of the research to ensure the teaching process can be conducted optimally, (3) conducting equivalence tests for class placement and determining the research subjects to be used as experimental and control classes, (4) preparing the necessary teaching materials for the experiment, including Learning Objective Paths, Teaching Modules, online learning materials connected to the internet via Google Classroom and YouTube platforms, and student worksheets, (5) developing and testing instruments, and (6) preparing field personnel to carry out the data collection process and administer the data collection results.

The implementation stage of the experiment is the data collection phase conducted after the validation, revision, and testing of instruments are completed. The experiment implementation is carried out with the following steps: (1) measuring students' internet self-efficacy, (2) conducting a pre-test at the initial meeting of the learning session, (3) implementing the teaching model treatment and observing the implementation of the learning process, (4) measuring responses to the teaching, and (5) conducting a post-test to measure the learning outcomes of Pancasila Education at the final stage of the experiment. The data collection techniques are adjusted to the type of data required according to the research variables. After the experiment, involving the implementation of blended learning and direct instruction models, both the experimental and control groups of students are given an evaluation test (post-test) in the form of a Pancasila Education learning outcomes test to determine the students' learning outcomes after the teaching process.

## 2.5 Data Analysis

This study employed descriptive and inferential statistics to analyze the data. Descriptive statistics were used to summarize key variables, including student responses, internet self-efficacy, and Pancasila Education learning outcomes. Inferential statistics were applied to examine the effects of blended learning and internet self-efficacy on learning outcomes using two-way ANOVA, which assessed the main effects of each independent variable and their interaction. Prior to analysis, assumption tests were conducted to ensure the appropriateness of statistical methods. The Kolmogorov-Smirnov test was used to assess normality, ensuring that residuals followed a normal distribution. Levene's Test was applied to evaluate variance homogeneity between groups. The analysis was performed using SPSS 25 for MacOS to ensure statistical accuracy. For hypothesis testing, two-way MANOVA was utilized, specifically through Univariate Test of Between-Subjects Effects, which examined the interaction between independent variables and the moderator variable, as well as their influence on the dependent variable (Hair et al., 2010). The significance test results determined whether to accept or reject the research hypotheses, providing insights into the combined effects of blended learning and internet self-efficacy on learning outcomes.

## 3. FINDINGS AND DISCUSSION

Six classes were selected as research samples, taking into account the representation of public and private elementary schools. This selection was based on the consideration that differences in learning environments and facilities between public and private schools could influence the implementation of the blended learning model and students' varying levels of internet self-efficacy. Therefore, this sample is expected to represent the characteristics of different schools. The selection of subjects in fourth-grade classes was based on the consideration that the year 2024 marks the implementation of the independent curriculum in fourth-grade elementary schools. Thus, learning materials and the school curriculum can be standardized through the same learning content according to the independent curriculum and by using the same textbooks. Moreover, the current fourth-grade students (in 2024) belong to Generation Alpha, who entered first grade in 2020 and are now 10 or 11 years old, making them accustomed to

interacting with the internet in their daily lives. Students aged 10 or 11 represent an ideal starting point to promote them as active citizens through technology usage, thereby helping them utilize technology wisely (Hoskins et.al, 2012). These schools have been open to granting permission for research activities aimed at educational innovation to improve students' learning outcomes.

### 3.1 Prerequisite Test Results

The prerequisite tests in this study were conducted to assess the normality and homogeneity of data distribution. In parametric statistics, it is assumed that the data for each research variable to be analyzed follows a normal distribution.

#### 3.1.1 Normality test

The Kolmogorov-Smirnov test was used to evaluate the normality of the data distribution, aimed at identifying any errors in instrumentation or data collection. The results of the data distribution normality analysis for each variable are as follows Table 3.

**Table 3.** Normality Test Data Based on Model

Ability	Model	Kolmogorov-Smirnov		Interpretation
		df	Sig.	
Posttest Learning Outcome	Direct Instruction	143	0.072	Normal
	Blended Learning	145	0.200	Normal

In this study, the normality prerequisite analysis is an essential step in validating the use of advanced statistical techniques. The Kolmogorov-Smirnov test was applied to the learning outcomes of two different teaching models, direct instruction and blended learning. The test results indicated that the data from all four groups were normally distributed. The significance value for the posttest learning outcomes using the direct instruction model was 0,072, and for the blended learning model, it was 0,200. These findings confirm that the data distribution in all groups met the normality assumption, enabling further analysis using parametric statistical techniques. Normal data ensure that advanced analysis can be performed to compare the effectiveness of the two teaching models in enhancing students' learning outcomes.

**Table 4.** Normality Test Data Based on Internet Self-Efficacy

Ability	Internet Self-Efficacy	Kolmogorov-Smirnov		Interpretation
		df	Sig.	
Posttest Learning Outcome	Low	127	0.063	Normal
	High	161	0.053	Normal

The results of this normality test showed that both posttest learning outcomes for students with low and high internet self-efficacy were normally distributed. Specifically, for the low internet self-efficacy group, the obtained significance value was 0,063. Meanwhile, the high internet self-efficacy group had a significance value of 0,053. All these significance values are greater than 0,05, indicating that the data distribution is normal. With these results, the study can proceed using parametric statistical analysis techniques to further examine the influence of internet self-efficacy on learning outcomes.

#### 3.1.2 Homogeneity Test

In this study, the Levene statistic was used to assess data distribution homogeneity. The homogeneity test aims to ensure the uniformity of research variable variances. The results of the data distribution homogeneity analysis for each variable are as follows Table 5.

**Table 5.** Homogeneity Test Results Based on Model (Based on mean)

Variable	Levene's Test	Sig	Interpretation
Posttest Learning Outcome	0.432	0.512	Homogeneous

In this study, the homogeneity test was conducted to confirm the uniformity of variances across different groups, which is crucial for the validity of statistical analyses. The Levene test used to determine homogeneity revealed that the variances of both variables, learning outcomes, are homogeneous. For the posttest learning outcome variable, the Levene test yielded a very low value, with a significance level well above the 0.05 threshold. This indicates that the variance differences among the groups are minimal, thus variances are considered homogeneous. This implies that the differences in learning outcome scores between groups do not differ significantly, allowing further analysis to proceed without concerns about distortions caused by dissimilar variances.

**Table 6.** Homogeneity Test Results Based on Internet Self-Efficacy (Based on Mean)

Variable	Levene's Test	Sig	Interpretation
Posttest Learning Outcome	0,381	0.538	Homogeneous

The homogeneity test results for posttest learning outcomes show a Levene test value of 0.381 with a significance level of 0.538, indicating that the variances between groups are homogeneous and consistent. This shows no significant variance differences between high and low Internet Self-Efficacy groups in terms of their learning outcomes, allowing fair and objective comparisons across groups. Therefore, the test results confirm that the data from the compared groups have similar variability, enabling further analysis to proceed without bias from non-homogeneous variances. This variance homogeneity provides a strong foundation for further comparative analysis and statistical inference in this study.

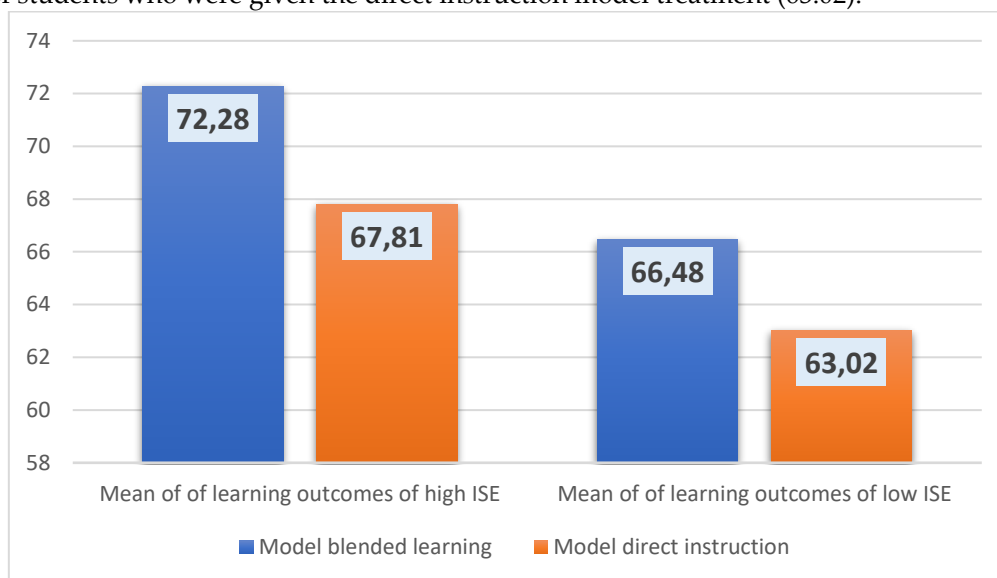
In this study, the homogeneity test was conducted to confirm the uniformity of variances across different groups, which is crucial for the validity of statistical analyses. The Levene test used to determine homogeneity revealed that the variances of both variables, learning outcomes, are homogeneous. For the posttest learning outcome variable, the Levene test yielded a very low value, with a significance level well above the 0.05 threshold. This indicates that the variance differences among the groups are minimal; thus, variances are considered homogeneous. This implies that the differences in learning outcome scores between groups do not differ significantly, allowing further analysis to proceed without concerns about distortions caused by dissimilar variances.

The homogeneity test results for posttest learning outcomes show a Levene test value of 0.381 with a significance level of 0.538, indicating that the variances between groups are homogeneous and consistent. This shows no significant variance differences between high and low Internet Self-Efficacy groups in terms of their learning outcomes, allowing fair and objective comparisons across groups. Therefore, the test results confirm that the data from the compared groups have similar variability, enabling further analysis to proceed without bias from non-homogeneous variances. This variance homogeneity provides a strong foundation for further comparative analysis and statistical inference in this study. The homogeneity test results for posttest learning outcomes show a Levene test value of 0.381 with a significance level of 0.538, indicating that the variances between groups are homogeneous and consistent. This shows no significant variance differences between high and low Internet Self-Efficacy groups in terms of their learning outcomes, allowing fair and objective comparisons across groups. Therefore, the test results confirm that the data from the compared groups have similar variability, enabling further analysis to proceed without bias from non-homogeneous variances. This variance homogeneity provides a strong foundation for further comparative analysis and statistical inference in this study.

**Table 7.** Summary of Results of Analysis of Mean Differences in Treatment Groups

Variables	Learning model	Internet Self Efficacy	Mean	Std. Deviation	N
Posttest Pancasila Education Learning Outcomes	Blended learning model	High	72.28	17.195	81
		Low	66.48	12.745	64
		Total	69.72	15.610	145
	Direct instruction model	High	67.81	13.093	80
		Low	63.02	16.450	63
		Total	65.70	14.806	143
TOTAL		High	70.06	15.411	161
		Low	64.76	14.745	127

Based on the data presented in Table 7, it can be seen that overall, the group of students who were given the blended learning model treatment had a higher average value of Pancasila Education learning outcomes compared to the group of students who were given the direct instruction model treatment. In more detail, the group of students who were given the blended learning model treatment with high internet self-efficacy had a higher average value of Pancasila Education learning outcomes (72.28) compared to the group of students who were given the direct instruction model treatment (67.81). The group of students who were given the blended learning model treatment with low internet self-efficacy also had a higher average value of Pancasila Education learning outcomes (66.48) compared to the group of students who were given the direct instruction model treatment (63.02).



**Figure 1.** Comparison of Average Student Scores with the Two Learning Models

Based on Graph 1, students with high Internet Self-Efficacy (ISE) showed better learning outcomes than students with low ISE. In the Blended Learning model, the average value of learning outcomes of high ISE students was 72.28 higher than the Direct Instruction model, which was 67.81. This shows that students with higher self-confidence in using the internet get greater benefits from blended learning compared to direct instruction. Furthermore, for students with low internet self-efficacy, the same pattern is seen, where the Blended Learning model still produces a higher average value compared to Direct Instruction. The average value of students with low ISE in Blended Learning was 67.81, while in Direct Instruction the average value of students was 63.02. This difference shows that although blended learning remains superior in improving learning outcomes, its impact is more significant for students with high ISE compared to students with low internet self-efficacy. Students with high internet self-efficacy achieve more optimal results in blended learning-based learning, indicating that the ability and confidence in using the internet affect the effectiveness of technology-based learning models.

Meanwhile, students with low internet self-efficacy still benefit from blended learning, but with a smaller increase compared to students with high internet self-efficacy.

**Table 8.** Comparison Tests (Tests of Between-Subjects Effects)

Source	Dependent Variable	F	Sig.	Interpretation
Model	Learning outcomes	4.949	0.027	There is a difference
ISE	Learning outcomes	8.815	0.003	There is a difference
Model * ISE	Learning outcomes	0.079	0.779	No Interaction

Based on statistical analysis, the Pancasila Education learning outcomes for students who received the blended learning model had a mean score of 69,72 with a standard deviation of 15,610, while students who received the direct instruction model had a mean score of 65,70 with a standard deviation of 14,806 (Table 7). Based on the results of hypotheses (1), the Tests of Between-Subjects Effects indicated an F-value of 4,949 with a significance level (Sig.) of 0,027, which is below the significance threshold of 0.05. Since the significance level is less than 0,05 (Sig. < 0,05), this result suggests a significant difference in Pancasila Education learning outcomes between students taught using the blended learning model and those taught using direct instruction. These findings indicate that students who received blended learning demonstrated better learning outcomes compared to those who received direct instruction.

Similarly, statistical analysis revealed that students with high internet self-efficacy had a mean Pancasila Education learning outcome of 70,06 with a standard deviation of 15,411, whereas students with low internet self-efficacy had a mean score of 64,76 with a standard deviation of 14,746 (Table 7). Based on the results of hypotheses (2), the Tests of Between-Subjects Effects yielded an F-value of 8,815 with a significance level (Sig.) of 0,003, which is also below the 0,05 threshold. Since Sig. < 0,05, these results indicate a significant difference in Pancasila Education learning outcomes between students with high and low internet self-efficacy. In other words, students with higher internet self-efficacy exhibited better learning outcomes than those with lower internet self-efficacy.

Furthermore, based on the results of hypotheses (3), the Tests of Between-Subjects Effects demonstrated that the interaction effect between the blended learning model and internet self-efficacy on Pancasila Education learning outcomes was not significant, with an F-value of 0,079 and a significance level (Sig.) of 0,779. Since the significance level exceeds 0,05 (Sig. > 0,05), this result suggests no interaction effect between the blended learning model and internet self-efficacy on learning outcomes. Thus, each factor, both the blended learning model and internet self-efficacy level, independently influences Pancasila Education learning outcomes. In other words, the effect of the blended learning model on learning outcomes is not dependent on students' levels of internet self-efficacy, and vice versa. Therefore, it can be concluded that there is no significant interaction between the blended learning model and internet self-efficacy in influencing Pancasila Education learning outcomes.

Based on the results of hypotheses (1), (2), and (3), several conclusions can be drawn. First, there is a significant effect on Pancasila education learning outcomes between the blended learning and direct instruction models, with an F value of 4,949 and a significance level (Sig) of less than 0,05, specifically 0,027. This means that the blended learning model has a significantly positive influence on Pancasila education learning outcomes compared to the direct instruction model. Secondly, there is a significant effect on the learning outcomes in Pancasila education between groups with high and low internet self-efficacy. This is shown by an F value of 8,815 and a significance level (Sig) of less than 0,05, specifically 0,003. This indicates that students' varying levels of internet self-efficacy have a significant impact on their Pancasila education learning outcomes. Finally, there is no interaction between the blended learning model and internet self-efficacy in influencing Pancasila education learning outcomes. With an F value of 0,079 and a significance level (Sig) greater than 0,05, specifically 0,779, it is clear that there is no significant interaction between the blended learning model and varying levels of internet self-efficacy in affecting Pancasila education learning outcomes.

### 3.2 Discussion

#### The Impact of Blended Learning Models on Pancasila Education Learning Outcomes

A comparison of Pancasila education learning outcomes using blended learning and direct instruction models revealed mean scores of 69.72 and 65.70, respectively, with an F value of 4.949 and a significance level (Sig) of less than 0.05, specifically 0.027. This indicates that the average learning outcomes of students taught using the blended learning model are higher than those taught using the direct instruction model. The results demonstrate a significant difference in Pancasila education learning outcomes between students who learned using the blended learning model and those who learned using the direct instruction model. Thus, it can be concluded that the acquisition of Pancasila education learning outcomes is influenced by whether students are taught using blended learning or direct instruction. This research finding shows that Pancasila education learning outcomes are affected by the use of different teaching models: blended learning and direct instruction. In this context, the implementation of the blended learning model combines face-to-face learning with online learning, allowing students to engage in face-to-face sessions with teachers or peers while using various online learning resources like instructional videos and digital learning platforms (e.g., YouTube, Google) as study aids. Thus, the blended learning model leverages the flexibility and accessibility of digital technology to enhance the student learning experience.

These research findings support previous studies. Miskiah et al (2020), in a quasi-experimental study involving fifth-grade students across three public elementary schools in Bantul Regency, Indonesia, found that blended learning is more effective than conventional teaching methods in enhancing students' creativity and active learning. Specifically, in the PPKn (Civics) subject, this study aligns with Chairiyah et al. (2021), who conducted a qualitative study on the implementation of blended learning in PPKn with first-grade students at SD Bonorowo in Kebumen, Indonesia. Their findings showed that the blended learning model can enhance students' learning activities. Similarly, Lusa et al., (2021), through a meta-analysis of studies on the effectiveness of blended learning over the past five years, reported that its impact on students' learning outcomes at the primary level is considered "high." Moreover, studies on the effects of blended learning on primary education outcomes across various countries yielded consistent results. Demirer & Sahin (2013) and Lin et al. (2017) demonstrated that the blended learning model can improve academic achievement and students' learning transfer while positively affecting learning outcomes. Akgunduz & Akinoglu (2016) and Li et al. (2019), highlighted that the blended learning model can enhance self-directed learning and academic achievement. Previous research revealing the impact of blended learning on improving student outcomes indicates that this model can significantly improve learning outcomes (Alvarez et al., 2017; Lalima & Dangwal, 2017; Margulieux et al., n.d.; Mccutcheon et al., 2015; Ossiannilsson, 2017; Sharma & Barrett, n.d.; Verkuyl et al., 2017).

The findings of this study also support Piaget's cognitive learning theory, which explains that teaching children at the concrete operational stage (elementary school age) should involve real-world situations and daily experiences. Today's students are accustomed to interacting with various digital devices in their daily lives. In blended learning, collaborative learning activities can help children develop concrete mental operations that allow them to directly interact with educational content, much like they manipulate objects in real life. Blended learning, using online learning resources like multimedia or interactive media that align with students' comprehension levels and learning speeds, aligns with Piaget's principles emphasizing the importance of understanding cognitive development stages. Integrating technology in education is highly relevant to the needs of today's generation in enriching students' learning experiences. Utilizing technology in learning is crucial because it can enhance and enrich the quality of education and students' learning experiences (Shahmir et al., 2011).

The utilization of the internet in teaching Pancasila can enrich students' learning experiences (Jones & Shao, 2011) by providing access to relevant information from various learning resources and facilitating students' independent study (Castro, 2019). Educational content can be presented more innovatively and flexibly, thereby aiding students' learning outcomes (Berga et al., 2021; Lalima &

Dangwal, 2017; Maddison, 2013). The implementation of blended learning is expected to enhance the pedagogical substance of Pancasila education through the adoption of effective teaching models to improve student learning outcomes.

Based on the findings of this study, it is crucial to consider the selection of specific teaching models to improve students' learning outcomes. Choosing an appropriate teaching model that aligns with the course objectives and students' learning characteristics can significantly influence learning outcomes (Kunandar, 2014). If the selected teaching model does not support understanding of the subject's competencies, optimal learning outcomes cannot be achieved. The chosen teaching model must facilitate students' learning needs and ensure equal opportunities to gain learning experiences from various relevant sources (Ayebele et al., 2020; Bethell, 2016). Therefore, teachers' ability to select and implement Pancasila education models should be adapted to learning objectives and the characteristics of students growing amidst rapid technological advancements and increasingly complex challenges.

The study's findings underscore that teachers' choice of a teaching model, in this context, the blended learning model, significantly impacts students' Pancasila learning outcomes in elementary schools. The research supports the effectiveness of the blended learning model in helping students understand and master the material, thereby enhancing their academic achievements. Hence, blended learning can serve as an essential and prospective solution to improve Pancasila education and boost students' learning outcomes in elementary schools.

### **The Impact of Internet Self-Efficacy on Learning Outcomes in Pancasila Education**

This study reveals a significant difference between students with high internet self-efficacy and those with low internet self-efficacy in their Pancasila learning outcomes. Students with high internet self-efficacy scored a mean of 72.28, while those with low internet self-efficacy scored a mean of 66.48, with an F-value of 8.856 and a significance level (Sig) less than 0.05 at 0.003. This indicates that, on average, students with high internet self-efficacy significantly outperform those with low internet self-efficacy. Thus, it can be concluded that internet self-efficacy significantly influences learning outcomes in Pancasila education. Internet self-efficacy is one of the student characteristics that can affect internet-based learning outcomes (Chiu & Tsai, 2014; Efendi & Yulastri, 2019; Kim & Glassman, 2013a). This characteristic is linked to students' confidence in their ability to interact with the internet as a learning resource (Hsiao et al., 2017). Internet-based learning requires specific skills to find useful and relevant information (Kim & Glassman, 2013a; Park et al., 2019). Internet self-efficacy significantly impacts students' success in using the internet for learning purposes. Chiu & Tsai (2014) found that internet self-efficacy affects students' ability to find accurate and useful information from reliable sources. Similarly, Chuang et al. (2015) explained that students with high internet self-efficacy are more likely to succeed in learning than those with low internet self-efficacy. Therefore, teachers should consider students' experience and psychological states when using the internet and selecting teaching models that utilize it as a learning resource (Chuang et al., 2015).

Based on the results of this study, which align with Bandura's self-efficacy theory (1982) explaining that individuals' beliefs in their abilities influence their behavior in achieving goals, it is evident that these beliefs can shape self-awareness for success, particularly in internet-based learning environments. According to Bandura's theory, internet self-efficacy can act as a behavioral control factor with a significant direct impact on students' ability to use the internet for learning (Hsu & Chiu, 2004; Kim & Glassman, 2013a). The findings of this study are supported by relevant prior research. Thompson et al. (2002), in an experimental study with university students enrolled in online courses, reported a positive correlation between the level of internet self-efficacy and the number of accurate search results in online learning activities. Students with higher levels of internet self-efficacy demonstrated better online performance compared to those with lower levels (Thompson et al., 2002). Tsai & Tsai (2003) research on university students engaged in web-based online learning also revealed that students with high internet self-efficacy showed more productive learning performance in accessing information, finding study strategies to achieve learning outcomes, and learning faster than students with low internet self-efficacy.

## The Interaction Between Blended Learning Models and Internet Self-Efficacy on Learning Outcomes in Pancasila Education

Interaction is the collaboration between two or more variables in influencing a dependent variable. More precisely, it means that the effect of one independent variable on the dependent variable depends on the state of another independent variable. This concept aligns with what Kerlinger, *et al.* (2000) and Ghozali (2009) described, noting that interaction represents the joint effect of two or more independent variables on a dependent variable. Interaction may not occur if two or more independent variables bring separate significant effects. The separate effects of independent variables are referred to as the main effect Kerlinger, *et al.* (2000). This study aims to examine the relationship between blended learning models and internet self-efficacy on learning outcomes in Pancasila education. The hypothesis test results regarding the interaction between the learning model and internet self-efficacy on Pancasila education learning outcomes, analyzed through a MANOVA (multivariate analysis), using Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root, all indicated significant results ( $\text{sig} = 0.000$ , which is less than 0.05). However, through a two-way ANOVA analysis (test of between-subjects effects), the F value was 0.079, and the significance level ( $\text{sig}$ ) was greater than 0.05, at 0.779. Since the obtained value was greater than the 0.05 significance level, it can be concluded that there is no significant interaction between the blended learning model and the level of internet self-efficacy in influencing the learning outcomes of Pancasila education. Thus, the hypothesis asserting an interaction between the learning model and internet self-efficacy on Pancasila education learning outcomes is rejected.

The findings of this study indicate that the learning model and internet self-efficacy, which are the independent and moderating variables, do not directly influence the learning outcomes of Pancasila education, the dependent variable. In other words, the learning model and internet self-efficacy do not directly lead to changes in the learning outcomes of Pancasila education. The learning model refers to specific approaches used by teachers in Pancasila education. Implementing particular models involves using specialized teaching techniques, materials, or technology to facilitate learning. Meanwhile, internet self-efficacy is a psychological construct that reflects an individual's belief in their ability to succeed in internet-based learning. This belief can significantly impact students' ability to complete their learning successfully. The results show that individuals with high internet self-efficacy tend to be more confident in using the internet as a learning resource. They are more capable of independently managing information, selecting relevant learning resources, and overcoming technical barriers that might arise during the online learning process. This increases students' learning autonomy as they leverage accessible information in the digital world (digital learning resources). However, differing levels of internet self-efficacy can independently affect students' learning outcomes. Although internet self-efficacy significantly influences learning outcomes in online learning contexts, using specific learning models does not interact with the level of internet self-efficacy students possess. In this study, despite internet self-efficacy's significant impact on Pancasila education learning outcomes, other factors also affect these outcomes. For instance, social factors such as group learning support (collaboration) and intrinsic student motivation in learning may impact their academic achievement.

According to Bandura (1978) theory of self-efficacy, differences in students' characteristics related to internet self-efficacy can be direct or indirect factors influencing their willingness and ability to utilize technology in alignment with their potential. Internet self-efficacy can serve as a behavioral control factor that directly or indirectly impacts student learning outcomes in internet-based education (S. C. Chuang *et al.*, 2015; Hsiao *et al.*, 2017; C. Tsai *et al.*, 2011). Consequently, internet self-efficacy should be regarded as one of the many contributing factors to students' learning outcomes. The research finding that "there is no significant interaction between blended learning models and internet self-efficacy levels in affecting learning outcomes in Pancasila education" can be elucidated through Vygotsky's constructivist learning theory regarding the Zone of Proximal Development (ZPD). From the perspective of constructivist learning theory, learning is an active process where students build their understanding through reflection, dialogue, and direct experiences with the subject matter. In the

context of Pancasila education, the group receiving treatment through the blended learning model had the opportunity to learn independently via online learning resources while also engaging in direct interactions with teachers and peers in face-to-face learning modes. On the other hand, the group receiving treatment through the direct instruction model could also align with constructivist theory if implemented effectively. Although direct instruction emphasizes the teacher's role in delivering knowledge, teachers can foster environments that support students' understanding through structured practice, reflection, discussion, and independent assignments.

These findings align with (Zimmerman, 2013) research, which explains that educators can employ various strategies to support the development of students' self-efficacy. These strategies include providing appropriate levels of challenge and support, offering timely feedback, and helping learners identify and overcome personal barriers. By utilizing the concept of the Zone of Proximal Development (ZPD), instruction can be designed to offer effective and relevant learning experiences for the current generation. This approach involves acknowledging individual levels of understanding and leveraging learning potential through social interaction and support from others.

Although blended learning significantly improved learning outcomes in Pancasila Education, its interaction with internet self-efficacy was not significant. This may be due to moderating factors such as cognitive load, limited digital literacy, or poor instructional design. Research shows that internet self-efficacy alone does not guarantee academic success, especially when students struggle with managing online content (Sun & Rueda, 2012; Zimmerman & Kulikowich, 2016). In Pancasila Education, students may depend more on teacher guidance and social interaction than independent digital learning, which limits the impact of internet self-efficacy.

Contextual factors, including infrastructure quality and instructional design, also influence the effectiveness of blended learning (Akgunduz & Akinoglu, 2016; Lin et al., 2017). Without reliable access to technology or clear guidance, students with high self-efficacy may still face learning challenges. Hsiao et al. (2017) emphasized that internet self-efficacy enhances learning only when paired with strong digital literacy and effective learning design. Bandura's (1986) Social Learning Theory also highlights the importance of modeling and interaction. Even confident students may struggle if learning lacks social and instructional support (Demirer & Sahin, 2013). Thus, the success of blended learning depends more on design quality than on students' confidence in technology.

To improve outcomes, blended learning in Pancasila Education should follow a phased model: teacher guidance, online content, collaborative tasks, independent work, and reflection. Integrating gamification, social-based projects, and digital literacy training can boost motivation and self-efficacy. Teachers should create activities that foster both confidence and responsible tech use.

Future research should explore how digital literacy, access to technology, and social interaction influence blended learning. Investigating parental involvement and comparing urban and rural schools can provide further insights. Studies should also examine the long-term effects on students' digital skills and civic values.

This study has several limitations. First, student group placement was not random, which may introduce bias. Second, the sample involved only six schools and 288 students, limiting generalizability. Third, the intervention was brief, covering just four sessions. Despite these limitations, the findings contribute to digital education by highlighting the need for foundational digital skills before applying technology-based models. Future studies should involve more schools, longer timeframes, and random group assignments to ensure stronger, more generalizable results.

#### 4. CONCLUSION

The results of this study indicate that the blended learning model has a significant effect on Pancasila Education learning outcomes compared to the direct instruction model. Students with high internet self-efficacy also have better learning outcomes. However, the interaction between blended learning and internet self-efficacy was not significant, indicating that the learning model does not

directly strengthen or weaken the impact of internet self-efficacy on learning outcomes. Other contextual factors, such as social support and teaching strategies, may play a role in the effectiveness of digital-based learning. These findings have implications for educational theory, practice, and policy. From a theoretical perspective, this study supports the effectiveness of blended learning in improving students' conceptual understanding and enriching constructivism theory and social learning theory in a digital context. Practically, teachers are advised to optimize blended learning strategies with a more adaptive approach, such as the integration of gamification and digital-based collaborative learning. Education policies need to strengthen infrastructure and teacher training to improve the implementation of technology-based learning in elementary schools. This study has several limitations, including the selection of experimental and control classes that were not carried out randomly, the limited number of samples, and the relatively short duration of the study. Therefore, further research is recommended to explore the impact of blended learning in the long term, expand the scope of the sample, and consider other moderating factors that may affect the effectiveness of digital learning.

**Acknowledgements:** The authors would like to thank all parties who have supported this research, including participating schools, teachers, and students who were willing to be respondents and parties who helped collect and analyze research data.

**Conflicts of Interest:** The authors declare no conflict of interest in this research.

## REFERENCES

- Al-Agili, M. Z. G., Mamat, M. bin, Abdullah, L., & Maad, H. A. (2012). The Factors Influence Students' Achievement in Mathematics: A Case for Libyan's Students. *World Applied Sciences Journal*, 17(9), 1224–1230.
- Al-Huneidi, A. M., & Schreurs, J. (2012). Constructivism Based Blended Learning in Higher Education. *International Journal of Emerging Technologies in Learning (IJET)*, 7(1), 4–9. <https://doi.org/10.3991/IJET.V7I1.1792>
- Allen, I. E., Seaman, J., Straut, T. T., & Poulin, R. (2016). *Online Report C Ard*. 1–62. <http://onlinelearningsurvey.com/reports/online-report-card.pdf>
- Alshawish, E., El-Banna, M. M., & Alrimawi, I. (2021). Comparison of blended versus traditional classrooms among undergraduate nursing students: A quasi-experimental study. *Nurse Education Today*, 106. <https://doi.org/10.1016/J.NEDT.2021.105049>
- Anggraena, Y., Felicia, N., Ginanto, D. E., Pratiwi, I., Utama, U., Alhapip, L., & Widiaswati, D. (2022). *Kurikulum untuk Pemulihan Pembelajaran* (Vol. 1).
- Arends, R. I. (2012). *Learning to Teach* (9th ed.). McGraw-Hill.
- Assylzhanova, D., Seisenbek, N., Uzakbaeva, S., & Kapalbek, B. (2022). The Effect of ICT-Enhanced Blended Learning on Elementary School Students' Achievement in English and Attitudes towards English Lesson. *International Journal of Education in Mathematics, Science and Technology*, 10(3), 632–649. <https://doi.org/10.46328/IJEMST.2463>
- Ayebale, L., Habaasa, G., & Tweheyo, S. (2020). Factors affecting students' achievement in mathematics in secondary schools in developing countries: A rapid systematic review. *Statistical Journal of the IAOS*, 36(S1), 73–76. <https://doi.org/10.3233/SJI-200713>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Advances in Behaviour Research and Therapy*. [https://doi.org/10.1016/0146-6402\(78\)90002-4](https://doi.org/10.1016/0146-6402(78)90002-4)
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*. [https://doi.org/10.1207/s15326985ep2802\\_3](https://doi.org/10.1207/s15326985ep2802_3)

- Bandura, A. (1999). Social cognitive theory: An agentic perspective. In *Asian Journal of Social Psychology*. <https://doi.org/10.1111/1467-839X.00024>
- Batubara, H. S., Riyanda, A. R., Rahmawati, R., Ambiyar, A., & Samala, A. D. (2022). Implementasi Model Pembelajaran Blended Learning di Masa Pandemi Covid-19: Meta-Analisis. *Jurnal Basicedu*, 6(3), 4629–4637. <https://doi.org/10.31004/BASICEDU.V6I3.2816>
- Berga, K. A., Vadnais, E., Nelson, J., Johnston, S., Buro, K., Hu, R., & Olaiya, B. (2021). Blended learning versus face-to-face learning in an undergraduate nursing health assessment course: A quasi-experimental study. *Nurse Education Today*, 96. <https://doi.org/10.1016/J.NEDT.2020.104622>
- Carman, J. M. (2005). *Blended Learning Design: Five Key Ingredients*.
- Castro, R. (2019). Blended learning in higher education: Trends and capabilities. *Education and Information Technologies*, 24(4), 2523–2546. <https://doi.org/10.1007/S10639-019-09886-3>
- Chai, C. S., Deng, F., Tsai, P. S., Koh, J. H. L., & Tsai, C. C. (2015). Assessing multidimensional students' perceptions of twenty-first-century learning practices. *Asia Pacific Education Review*, 16(3), 389–398. <https://doi.org/10.1007/S12564-015-9379-4>
- Chiu, Y. L., & Tsai, C. C. (2014). The roles of social factor and internet self-efficacy in nurses' web-based continuing learning. *Nurse Education Today*, 34(3), 446–450. <https://doi.org/10.1016/J.NEDT.2013.04.013>
- Christensen, C., Horn, M., & Staker, H. (2013). *Is K-12 Blended Learning Disruptive? An introduction of the theory of hybrids*. Clayton Christensen Institute.
- Chuang, S. (2021). The Applications of Constructivist Learning Theory and Social Learning Theory on Adult Continuous Development. *Performance Improvement*, 60(3), 6–14. <https://doi.org/10.1002/PFI.21963>
- Chuang, S. C., Lin, F. M., & Tsai, C. C. (2015). An exploration of the relationship between Internet self-efficacy and sources of Internet self-efficacy among Taiwanese university students. *Computers in Human Behavior*, 48, 147–155. <https://doi.org/10.1016/J.CHB.2015.01.044>
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research Methods in Education* (Sixth edition). Routledge.
- Dwiyogo, W. D. (2019). *Pembelajaran Berbasis Blended Learnin*. Rajawali Pers, RajaGrafindo Persada.
- Dziuban, C. D., Hartman, J. L., & Moskal, P. D. (2004). *Blended Learning*. [www.educause.edu/ecar/](http://www.educause.edu/ecar/)
- Eastin, M. S., & LaRose, R. (2000). Internet Self-Efficacy and the Psychology of the Digital Divide. *Journal of Computer-Mediated Communication*, 6(1), 0–0. <https://doi.org/10.1111/J.1083-6101.2000.TB00110.X>
- Efendi, R., & Yulastri, A. (2019). *Effectiveness of Collaborative Problem Based Learning Model of Learning Computer Network Courses*. <https://doi.org/10.2991/ICTVET-18.2019.70>
- Febrianty, D., & Cendana, W. (2021). Exemplary Teachers in Instilling Discipline for Elementary School Students through Online Learning. *Musamus Journal of Primary Education*, April, 81–89. <https://doi.org/10.35724/musjpe.v3i2.3302>
- Finlay, M. J., Tinnion, D. J., & Simpson, T. (2022). A virtual versus blended learning approach to higher education during the COVID-19 pandemic: The experiences of a sport and exercise science student cohort. *Journal of Hospitality, Leisure, Sport and Tourism Education*, 30. <https://doi.org/10.1016/J.JHLSTE.2021.100363>
- Graham, C. R., & Dziuban, C. (2007). *Blended Learning Environments*. [https://www.researchgate.net/publication/267774009\\_Blended\\_Learning\\_Environments](https://www.researchgate.net/publication/267774009_Blended_Learning_Environments)
- Hsiao, B., Zhu, Y.-Q., & Chen, L.-Y. (2017). *Untangling the relationship between Internet anxiety and Internet identification in students: the role of Internet self-efficacy*. Information Research. <http://informationr.net/ir/22-2/paper753.html>
- Hsu, M. H., & Chiu, C. M. (2004). Internet self-efficacy and electronic service acceptance. *Decision Support Systems*, 38(3), 369–381. <https://doi.org/10.1016/J.DSS.2003.08.001>
- Huang. (2002). Toward constructivism for adult learners in online learning environments. *British Journal of Educational Technology*, 33(1), 27–37. <https://doi.org/10.1111/1467-8535.00236>

- Iswanda, M. L., & Dewi, D. A. (2021). Peran Pendidikan Kewarganegaraan di Era Globalisasi. *Jurnal Pendidikan Tambusai*, 5(1). <https://jptam.org/index.php/jptam/article/view/1126/1008>
- Jonassen, D. H. (2000). Transforming Learning with Technology: Beyond Modernism and Post-Modernism or Whoever Controls the Technology Creates the Reality. *Technology*, 40(2), 21–25.
- Jones, C., & Shao, B. (2011). The net generation and digital natives: implications for higher education. *Undefined*.
- Joyce, B., & Weil, M. (2003). *Model of Teaching* (Fifth Edition). Prentice Hall of India.
- Karam, E. A., Clymer, S. R., Elias, C., & Calahan, C. (2014). Together Face-to-Face or Alone at Your Own Pace: Comparing Traditional vs. Blended Learning Formats in Couple & Family Relationship Coursework. *Journal of Instructional Psychology*, 41(1–4), 85–93.
- Kazakoff, E. R., Macaruso, P., & Hook, P. (2018). Efficacy of a blended learning approach to elementary school reading instruction for students who are English Learners. *Educational Technology Research and Development*, 66(2), 429–449. <https://doi.org/10.1007/S11423-017-9565-7>
- Kim, Y., & Glassman, M. (2013). Beyond search and communication: Development and validation of the Internet Self-efficacy Scale (ISS). *Computers in Human Behavior*, 29(4), 1421–1429. <https://doi.org/10.1016/J.CHB.2013.01.018>
- Kunandar. (2014). *Penilaian Autentik: Penilaian Hasil Belajar Peserta Didik Berdasarkan Kurikulum 2013*. Raja Grafindo. Persada.
- Lalima, & Dangwal, K. L. (2017). Blended Learning: An Innovative Approach. *Universal Journal of Educational Research*, 5(1), 129–136. <https://doi.org/10.13189/UJER.2017.050116>
- Lewin, C., & Mcnicol, S. (n.d.). *Supporting the Development of 21 st Century Skills through ICT*.
- Lusa, H. (2021). Effect of Blended Learning on Students' Learning Outcomes: A Meta-Analysis. *Jurnal Pendidikan Progresif*, 11(2), 309–325. <https://doi.org/10.23960/jpp.v11.i2.202113>
- Lusa, H., Adnan, A., & Yurniwati, Y. (2021). Effect of Blended Learning on Students' Learning Outcomes: A Meta-Analysis. *Jurnal Pendidikan Progresif*, 11(2), 309–325. <https://doi.org/10.23960/JPP.V11.I2.202113>
- Maddison, T. (2013). Learn Where You Live: Delivering Information Literacy Instruction in a Distributed Learning Environment. <http://Dx.Doi.Org/10.1080/1533290X.2013.806276>, 7(3), 264–277. <https://doi.org/10.1080/1533290X.2013.806276>
- Monk, E. F., Guidry, K. R., Pusecker, K. L., & Ilvento, T. W. (2020). Blended learning in computing education: It's here but does it work? *Education and Information Technologies* 2019 25:1, 25(1), 83–104. <https://doi.org/10.1007/S10639-019-09920-4>
- Nasution, N., Julinus, N., & Syahril. (2019). *Model Blended Learning*. Unilak Press.
- OECD. (2019). *PISA 2018 Assessment and Analytical Framework*.
- Ossiannilsson, E. (2017). Blended Learning State of the Nation. *International Council for Open and Distance Education - ICDE*.
- Park, S. D., Kim, E. J., & Kim, K. C. (2019). A meta-analysis on the effects of learning with robots in early childhood education in Korea. *International Journal of Mobile and Blended Learning*, 11(3), 55–63. <https://doi.org/10.4018/IJMBL.2019070104>
- Permendikbudristek. (2022). *Peraturan Menteri Pendidikan, Kebudayaan, Riset, Dan Teknologi Republik Indonesia Nomor 5 Tahun 2022 Tentang Standar Kompetensi Lulusan Pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, Dan Jenjang Pendidikan Menengah*.
- Rombot, O., Boeriswati, E., & Suparman, M. (2020, May 28). *Blended Learning Approach to Second Language Learning in Elementary School*. <https://doi.org/10.4108/eai.9-11-2019.2295072>
- Saifuddin. (2018). *Pengaruh blended learning dan self efficacy terhadap hasil belajar pemecahan masalah*. Universitas Negeri Malang; Program Studi Teknologi Pembelajaran.
- Schunk, D. H. (2012). *Learning Theories An Educational Perspective* (Sixth Edition). Pearson Education.
- Shahmir, S., Hamidi, F., Bagherzadeh, Z., & Salimi, L. (2011). Role of ICT in the curriculum educational system. *Procedia Computer Science*, 3, 623–626. <https://doi.org/10.1016/J.PROCS.2010.12.104>
- Slavin, R. E. (2019). *Educational Psychology: Theory and Practice* (13th Edition). Pearson Education, Inc.

- Staker, H., & Horn, M. B. (2012). *Classifying K–12 Blended Learning*.
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Thompson, L. F., Meriac, J. P., Cope, J. G., Boyd, J., Franklin, S., Furr, C., Heinrichs, R., Herson, D., Hicks, E., Miller, A., Murillo, A., & Settle, M. V. (2002). Motivating Online Performance The Influences of Goal Setting and Internet Self-Efficacy. *MOTIVATING ONLINE PERFORMANCE Southeastern Psychological Association, 20*(2), 149–160.
- Topping, K. J., & Trickey, S. (2014). The role of dialog in philosophy for children. *International Journal of Educational Research, 63*, 69–78. <https://doi.org/10.1016/J.IJER.2013.01.002>
- Tsai, C., Chuang, S., Liang, J. C., & Tsai, M. J. (2011). Self-efficacy in Internet-based Learning Environments: A Literature Review. *Educational Technology & Society, 14*(4), 1176–3647.
- Tsai, M. J., & Tsai, C. C. (2003). Information searching strategies in Web-based science learning: The role of Internet self-efficacy. *Innovations in Education and Teaching International, 40*(1), 43–50. <https://doi.org/10.1080/1355800032000038822>
- Tuckman, B. W., & Harper, B. E. (2012). *Conducting Educational Research* (Sixth Edition). Rowman & Littlefield Publishers, Inc.
- Well, C. M. X., & White, J. (2017). *Blended (r)evolution: How 5 teachers are modifying Station Rotation*. Christensen Institute. <https://www.christenseninstitute.org/publications/stationrotation/>
- White, J., & Maxwell, C. (2017). *Blended (r)evolution: How 5 teachers are modifying Station Rotation*. Christensen Institute.
- Winataputra, U. S., & Budimansyah, D. (2012). *Pendidikan Kewarganegaraan Dalam Perspektif Internasional (Konteks, Teori, dan Profil Pembelajaran)*. Dwitama Asrimedia.
- Yuliyana, M., Rochmiyati, R., & Maulina, D. (2021). Blended Learning Assessment Instrument For Elementary School. *Edunesia : Jurnal Ilmiah Pendidikan, 2*(3). <https://doi.org/10.51276/edu.v2i3.189>