

Flipped-VCT and Motivation as Determinants of Pancasila Learning Achievement: Comparing Islamic Boarding School and General Students

Pengaruh Flipped-VCT dan Motivasi terhadap Hasil Belajar Pancasila: Studi Komparatif antara Siswa Pesantren dan Siswa Sekolah Umum

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Abstract: *The integration of technology in value education at religious-based institutions faces unique challenges related to students' learning independence and structurally restricted digital environments. This study aims to evaluate the implementation of the Flipped-VCT learning model an intervention combining independent digital pre-class learning with face-to-face value clarification on Pancasila Education learning outcomes. To understand how environmental and psychological factors interact with this model, the study compared students in Islamic boarding schools (pesantren) with general students. Employing a quantitative quasi-experimental approach with a 2x2 factorial design based on residential background (pesantren vs. general) and learning motivation levels (high vs. low), the study involved 140 Madrasah Aliyah students. The sample was proportionally divided between the pesantren group (n=70) and the general group (n=70). Instruments included a highly valid teaching module (95.74%), a motivation questionnaire, and a reliable learning outcome test. Statistical analysis using Two-Way ANOVA revealed no significant difference in learning outcomes between pesantren and general students ($p=0.952$), with very close average scores of 79.50 and 79.53, respectively. Similarly, the motivation variable showed no significant impact on learning outcomes ($p=0.783$), and no interaction was found between residential background and motivation levels ($p=0.858$). These findings indicate that the Flipped-VCT model yields comparable and consistent learning outcomes across different residential backgrounds and initial motivation levels. Thus, this structured instructional design can serve as an inclusive and viable educational technology adaptation for religious-based boarding institutions without widening academic disparities.*

Keywords: *Flipped, VCT, Pancasila Education, Islamic Boarding School, Motivation*

Abstrak: *Integrasi teknologi dalam pendidikan nilai di institusi berbasis agama menghadapi tantangan unik terkait kemandirian belajar siswa dan lingkungan digital yang dibatasi secara struktural. Penelitian ini bertujuan untuk mengevaluasi implementasi model pembelajaran Flipped-VCT sebuah intervensi yang menggabungkan belajar mandiri pra-kelas secara digital dengan eksplorasi tatap muka berbasis value clarification terhadap hasil belajar Pendidikan Pancasila. Untuk menguji bagaimana faktor lingkungan dan psikologis berinteraksi dengan model ini, penelitian ini membandingkan siswa di lingkungan pondok pesantren dengan siswa umum. Menggunakan pendekatan kuantitatif kuasi-eksperimental dengan desain faktorial 2x2 berdasarkan latar belakang domisili (pesantren vs. umum) dan tingkat motivasi belajar (tinggi*

vs. rendah), penelitian ini melibatkan 140 siswa Madrasah Aliyah. Sampel terbagi secara proporsional antara kelompok pesantren ($n=70$) dan kelompok umum ($n=70$). Instrumen penelitian meliputi modul ajar yang divalidasi sangat layak (95,74%), angket motivasi, dan tes hasil belajar yang reliabel. Analisis statistik menggunakan Two-Way ANOVA menunjukkan tidak terdapat perbedaan signifikan dalam capaian hasil belajar antara siswa pesantren dan umum ($p=0,952$), dengan nilai rata-rata yang sangat berdekatan (79,50 dan 79,53). Demikian pula, variabel motivasi tidak menunjukkan pengaruh signifikan terhadap hasil belajar ($p=0,783$), dan tidak ditemukan interaksi antara latar belakang domisili dan tingkat motivasi ($p=0,858$). Temuan ini mengindikasikan bahwa model Flipped-VCT menghasilkan capaian belajar yang setara dan konsisten di berbagai latar belakang domisili dan tingkat motivasi awal. Dengan demikian, desain instruksional yang terstruktur ini dapat menjadi alternatif adaptasi teknologi pendidikan yang inklusif dan layak bagi institusi asrama berbasis agama tanpa memperlebar kesenjangan akademik.

Kata Kunci: *Flipped, VCT, Pendidikan Pancasila, Pesantren, Motivasi*

Introduction

In the 21st century, the educational paradigm has shifted where learners and educators are required to have the ability to manage their educational processes independently. This aligns with the view that learning independence is a major predictor of academic success in complex learning environments (Panadero, 2017). The core competencies of the 21st century, which include digital literacy, character, and critical thinking skills, serve as the foundation for students to filter information in the era of data overflow (Bredow et al., 2021; Yang et al., 2025).

The advancement of digital technology not only changes the social landscape but also penetrates the religious and educational systems in Indonesia (Rohid et al., 2025). The integration of technology in religious-based educational institutions (Madrasah) creates challenges as well as opportunities in aligning traditional values with global needs (Zainuddin & Halili, 2016). Therefore, contextual and adaptive learning in madrasahs is crucial to develop students' potential to remain relevant to the needs of modern industry and society (Alfiyanto et al., 2024).

Civic education, particularly Pancasila Education in Indonesia, faces challenges of moral degradation and identity crisis amid the currents of globalisation. In the Madrasah environment, the internalisation of Pancasila values becomes crucial for shaping students' moderate and nationalist character. However, conventional methods often fail to trigger active student engagement, necessitating a pedagogical transformation that integrates technology and value clarification. The subject of Pancasila Education holds a strategic position in shaping students' national attitudes, legal awareness, and social responsibility.

However, in reality, this subject is often considered rigid, normative, and less engaging for students. This is certainly based on a learning model that is still one-way and lacks context. However, the potential of Pancasila education is very large to be developed through participatory and reflective methods by placing students as the subjects of learning. Abdurahman et al. (2025) emphasise that learning will be meaningful if students are given space to actively construct meaning from the material they study (Habibi et al., 2025).

One of the strategies that can provide meaning in the learning process for students is the application of the Value Clarification Technique (VCT) model. The VCT model is a value education method in which students are trained to discover, choose, analyse, and help them find and decide on the life values they personally strive for. Essentially inductive in nature, it focuses on group experiences and general ideas about knowledge and self-awareness. Octia et al (2024)

mention that VCT is considered superior in the learning process because it can instill moral values effectively, provide learning experiences from various aspects of life, and train students to evaluate, accept, and make decisions on an issue (Octia et al., 2024). VCT is viewed as an alternative to traditional discursive approaches (lectures/moralization) that have been considered less effective in moral education in Romania. This technique is designed to encourage students to engage in introspection and self-analysis (Lisieviči & Andronie, 2016). However, the implementation of VCT also has challenges such as the need for a long time, thorough planning in the learning process, and intensive guidance. Therefore, a model is needed that can streamline that process.

One solution to reduce time requirements is the use of the Flipped Learning model. The flipped classroom aims to allocate more class time to active learning approaches and leverage accessibility to advanced technology to support blended learning approaches. The common flipped classroom approach provides students with access to online video lectures before face-to-face sessions, so that students are ready to participate in more interactive and tiered activities such as problem-solving, discussions, and debates. Explains that the definition of the flipped classroom offered in the opening sentence of the introduction is not controversial but not very informative. The assumption is that listening to the teacher's lecture is an important part of class time, which can be flipped with pre-recorded videos (Samaila et al., 2025).

The Flipped Learning model has been proven to significantly enhance learning independence by moving the delivery of material outside the classroom through digital media (Akçayır & Akçayır, 2018; Hew & Lo, 2018). This model also allows for high cognitive engagement as students actively find meaning through problem-solving and discussion. This process facilitates deeper information elaboration, resulting in long-term knowledge retention. Research by Akçayır and Akçayır (2018) shows that students who learn with the flipped classroom approach achieve higher academic scores compared to conventional methods (Akçayır & Akçayır, 2018).

When this model is combined with a clarification approach, the learning experience becomes more contextual and meaningful. Therefore, it is not surprising that students' learning outcomes have significantly improved. Although the effectiveness of Flipped Learning has been extensively researched, there is a gap in the literature regarding its implementation among groups of students with different levels of access to technology, such as students living in Islamic boarding schools (*pondok pesantren*) and general students (not living in Islamic boarding schools). Students in Islamic boarding school environments often face challenges in using digital devices, which theoretically can hinder the effectiveness of the flipped model. Therefore, the integration of the flipped classroom and Value Clarification Technique (VCT) becomes a complementary strategic solution.

This combined model is known as Flipped-VCT, which integrates pre-class independent learning with active exploration during face-to-face learning. The combination of technology-based and discovery-based models is believed to effectively enhance the quality of students' learning experiences. This learning model is considered capable of addressing the challenges of contemporary education. In the context of value education, the combination of Flipped Learning with Value Clarification Technique (VCT) offers a blend of approaches in the learning process. The combination of these approaches allows students to learn independently beforehand before class begins.

Moreover, psychological factors such as learning motivation play a crucial moderating role in determining the success of learning outcomes in an independent learning environment (Hattie & Donoghue, 2016; Rohid et al., 2023; Ryan & Deci, 2020). This phenomenon shows that the effectiveness of the learning model is influenced by the motivational condition of the students,

not just by the learning strategy itself. The meta-analysis study by outcomes Hew & Lo, (2018) shows that the flipped classroom is not always superior; moderator factors such as student motivation affect learning outcomes (Hew & Lo, 2018). Motivation plays a very important role in the context of education, as it can influence students' success in completing school assignments (Asadpour et al., 2025). On the other hand, motivation is also one of the main factors contributing to students' engagement in completing those tasks.

Students in pesantren environments often face structural barriers related to access to digital devices, which theoretically limits the effectiveness of technology-based learning models. This phenomenon aligns with the findings which assert that the disparity in digital infrastructure in boarding-based institutions remains a primary predictor of students' low technology literacy (An & Fuentes, 2023). In addition to external factors, psychological variables such as learning motivation are believed to serve as crucial moderators in determining academic success in self-directed learning environments. Recent research by Zhou & Zhang (2023) shows that in educational ecosystems with limited access, intrinsic motivation acts as a compensatory mechanism that allows students to still achieve optimal learning outcomes (Zhou & Zhang, 2023).

However, the extent to which the interaction between the living environment (pesantren vs. general) and the level of motivation affects learning outcomes in the Flipped-Value Clarification Technique (VCT) model has rarely been explored in the international literature. Therefore, this study aims to analyse the differences in Pancasila Education learning outcomes between pesantren students and general students through the Flipped-VCT approach. Through this study, it is hoped that patterns of inclusive educational technology adaptation for religious-based institutions will be identified. This research aims to analyse the differences in learning outcomes between students residing in Islamic boarding schools (pesantren) and general students (those not residing in pesantren) using the Flipped-Value Clarification Technique (VCT) model. The uniqueness of this study lies in the comparison between students residing in pesantren and general students (those not residing in pesantren) in Madrasahs. Madrasahs remain an area that is still rarely explored in international educational literature. Through this approach, it is hoped that inclusive patterns of educational technology adaptation for religious-based institutions will be discovered.

In addition to learning strategies, psychological variables such as learning motivation play a crucial moderating role in determining academic success in a self-directed learning environment. Motivation has an important role as it can influence students' success and engagement in completing school assignments. On the other hand, the educational ecosystem presents varying external challenges. Students in Islamic boarding school (pesantren) environments often face structural barriers related to restrictions on the duration of digital device usage and limited internet infrastructure, which theoretically can be the main predictors of low technological literacy and limit the effectiveness of digital-based learning models. Although the effectiveness of Flipped Learning has generally been extensively researched, the extent of its interaction with motivation levels and its implementation among groups with contrasting technology access characteristics (such as boarding school students compared to general students) remains a literature gap that is rarely explored in international publications.

Therefore, this study aims to analyse the influence of the Flipped-VCT model and learning motivation on Pancasila Education learning outcomes by comparing students in pesantren environments and general students. The novelty of this study lies in the integration of the Flipped-VCT model, which is comparatively evaluated in Madrasah environments with asymmetric digital infrastructure. Unlike previous studies that generally examine Flipped Learning or VCT separately, this study combines digital pre-class independent learning with

face-to-face value clarification exploration to reduce the weakness of long time requirements in conventional VCT. The comparison between pesantren students and general students becomes crucial to answer a critical phenomenon: whether modern instructional interventions can remain effective and inclusive amidst the structural constraints of religious-based institutions. Through this comparison, the contribution of the research is expected to prove that structured instructional design can mitigate the technological access gap, while simultaneously formulating an inclusive pattern of educational technology adaptation for boarding-based institutions.

Methods

This research uses a quantitative approach with a quasi-experimental method through a 2x2 factorial design. The quasi-experimental design was chosen because the main grouping of subjects is based on naturally formed residential backgrounds (intact groups), namely the group of students residing in Islamic boarding schools (pesantren) and the group of general students not residing in Islamic boarding schools. This condition makes pure random assignment of subjects impossible to conduct. In its implementation, both groups (pesantren students and general students) received the same intervention treatment, namely the application of the Flipped-VCT model. The main objective is to test and compare the effectiveness of the same instructional design on two groups with different technology access characteristics.

The sampling was conducted using purposive sampling techniques to obtain representative subjects, resulting in a total of 140 students proportionally divided into the Islamic boarding school (pesantren) group (n=70) and the general group (n=70). The intervention procedure was conducted for 4 weeks/8 meetings. The Flipped-VCT learning stages are designed to integrate independent learning with active exploration. In the pre-class phase (Flipped), students are given access to learn independently using the Flipped-VCT teaching modules that have been validated with a very feasible category of 95.74%. Furthermore, during the face-to-face session (VCT), the learning process is focused on cognitive and interactive engagement where students collaborate, discuss, and conduct value clarification to solve problems in order to internalise Pancasila values.

Research data were collected using two main instruments that were validated by two Pancasila education experts, namely, (1) Teaching modules used in the learning process, (2) Learning Motivation Questionnaire, using a Likert scale model questionnaire to measure students' high and low motivation in participating in the learning process, and (3) Pancasila Learning Outcomes Test, which involved construct validation with 55 students consisting of 20 multiple-choice questions and 5 structured essay questions that measure students' cognitive aspects related to the understanding and application of Pancasila values.

Before the Flipped-VCT model intervention was applied, all groups were given an initial test in the form of a Learning Motivation Questionnaire based on a Likert scale. This initial measurement was used to determine the students' level of motivation before they engaged in the learning activities. Based on the total scores from the questionnaire, students in each group were then reclassified into high and low learning motivation categories to meet the needs of the factorial analysis design. This categorization was determined using the mean split or median limit of the total class scores; students with scores above the average were grouped into high motivation, while students with scores below it were placed into low motivation.

The collected data were analysed using the latest statistics. Prerequisite tests were conducted before hypothesis testing, including normality tests (Kolmogorov-Smirnov) and homogeneity tests (Levene's Test). Hypothesis testing used Two-Way ANOVA to examine the influence of models, motivation, and learning outcomes to differentiate achievements between

students residing in Islamic boarding schools and general students/non-residing students in Islamic boarding schools. The entire statistical calculation process was assisted by the latest version of SPSS software.

This research was conducted guided by strict ethical considerations. Prior to data collection, all students were provided with informed consent explaining the research objectives. Student participation was voluntary, and the researchers guaranteed the confidentiality of the students' identities and learning outcome data. The Flipped-VCT intervention process was also ensured not to interfere with the students' regular learning rights or violate the rules regarding technology use applicable in the Islamic boarding school (pesantren) environment.

Results and Discussion

Results

Before the research was conducted, all research instruments were first validated by experts in Pancasila education and learning evaluation. The instruments that were validated included the Flipped-VCT teaching module, the learning motivation questionnaire, and the Pancasila education learning outcomes test instrument.

Instrument Validation

Flipped-VCT Teaching Module Instrument

The teaching module is a learning design that will be used later in learning activities using Flipped-VCT. The teaching module is validated by subject matter and language experts. The results of the percentage scores for the validation of the teaching module are presented as follows.

$$PSV = \frac{180}{188} \times 100\% = 95,74\%$$

The teaching module is a learning design used in learning activities using the Flipped-VCT model. Before being used, this teaching module was validated by subject matter and language experts to ensure its feasibility. The validation instrument for this teaching module consists of 47 assessment indicators measured using a Likert scale of 1–4. Thus, the maximum ideal score for all 47 items is 188 (obtained from 47 items × a maximum score of 4).

Based on the assessment results, the total score obtained from the validators was 180. The validation score percentage (PSV) is calculated by dividing the score obtained from the validators by the ideal score, then multiplying it by 100%. The expert validation results for this teaching module assessment instrument fall into the very feasible category. Therefore, the teaching module can be used in research activities after undergoing minor revisions.

Motivation Questionnaire Instrument

This instrument contains 12 indicators used to measure student motivation, which consists of 8 forms or dimensions, including task discipline, perseverance in facing difficulties, interest in various problems, ability to work independently, dissatisfaction with mechanical routine tasks, ability to maintain opinions, confidence in what is being done, and enthusiasm in seeking and solving problems. The instrument underwent content validity by experts who have the capacity to evaluate assessment instruments.

$$PSV = \frac{52}{56} \times 100\% = 92,86\%$$

The validation instrument for the motivation instrument consists of 12 assessment indicators with a Likert scale of 1 – 4. The ideal score for the 12 items is 56. The total score obtained from the validators was 52, divided by the ideal score and multiplied by 100%, resulting in a score of 92.86%. The expert validation results for the motivation instrument assessment fall into the very feasible category. The motivation instrument can be used to measure students' motivation.

Pancasila Learning Outcome Test Instrument

The learning outcome test instrument uses multiple-choice and essay test instruments. The multiple-choice test instrument consists of 20 questions, and the essay test consists of 5 questions, all of which cover the material to be achieved in the learning process. Construct validity was conducted on 55 students with the following presentation.

Table 1. Results of the Validity of Multiple-Choice Questions

No.	r-calculated	r-table	Remarks
1	0,293	0.265	Valid
2	0,328	0.265	Valid
3	0,334	0.265	Valid
4	0,562	0.265	Valid
5	0,445	0.265	Valid
6	0,577	0.265	Valid
7	0,378	0.265	Valid
8	0,393	0.265	Valid
9	0,547	0.265	Valid
10	0,318	0.265	Valid
11	0,525	0.265	Valid
12	0,445	0.265	Valid
13	0,481	0.265	Valid
14	0,273	0.265	Valid
15	0,713	0.265	Valid
16	0,601	0.265	Valid
17	0,273	0.265	Valid
18	0,440	0.265	Valid
19	0,537	0.265	Valid
20	0,518	0.265	Valid

Table 2. Results of the Validity of Essay Question Items

No.	r-calculated	r-table	Remarks
1	0,664	0.265	Valid
2	0,645	0.265	Valid
3	0,726	0.265	Valid
4	0,726	0.265	Valid
5	0,683	0.265	Valid

The construct validity test is also conducted on the items using the Pearson product-moment correlation test to determine whether the items are valid or not. Each item is tested for correlation with the total score. The results of the correlation coefficient calculations were compared with the table correlation coefficient values. The total N=55 with the calculation $df=N-2$, resulting in a table r-value of 0.265 with a two-tailed significance level. The validity test of the multiple-choice and essay questions as a whole obtained an r-value > 0.265 , so all items are valid and can be used in the research.

Table 3. Item Reliability Results

Form of Questions	Cronbach's Alpha	N of Items
<i>Multiple choice</i>	0.722	20
<i>Essay</i>	0.720	5

The reliability test of the items used the Cronbach's Alpha test. The reliability test results for the 20 multiple-choice items obtained a reliability score of 0.722. The reliability test results for the 5 essay items obtained a reliability score of 0.720. In research, an instrument is considered reliable if the Cronbach's Alpha value is above 0.6, which is the minimum threshold commonly used in educational research. Based on the reliability test results, both the multiple-choice and essay items are reliable.

Prerequisite Test

Before hypothesis testing is conducted, the collected data undergoes prerequisite tests to determine the normality and homogeneity of the obtained data.

Motivation

Before conducting the learning activities using Flipped-VCT, both the experimental and control groups underwent a pre-test. This pre-test aims to determine the initial motivation of the students before they engage in the learning activities.

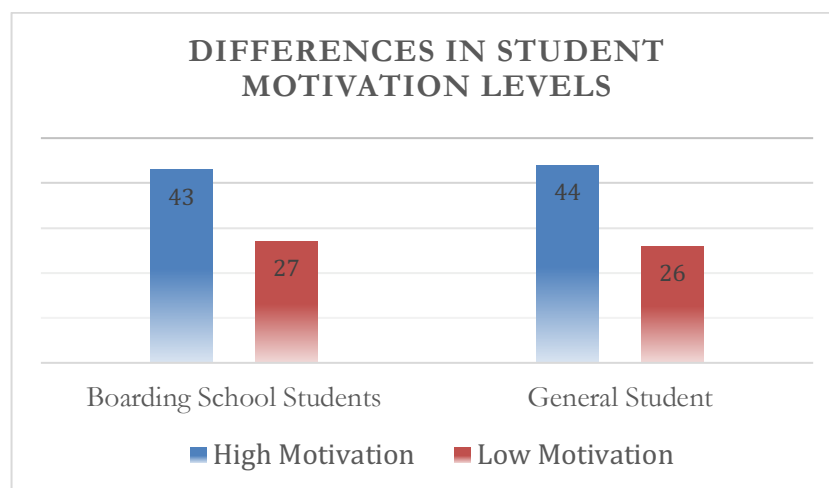


Figure 1. Differences in Motivation Levels

Based on the data in Figure 1, it can be seen that in the boarding school student group, 43 students have high motivation and 27 students have low motivation. Meanwhile, in the general student group, there are 44 students with high motivation and 26 students with low motivation. This relatively equal distribution of motivation indicates that both classes have comparable characteristics.

Learning Outcomes

Before conducting further data analysis, prerequisite tests must be performed to ensure that the appropriate analysis techniques can be applied. The prerequisite tests conducted include the normality test and the homogeneity test. The normality test is performed to determine whether the obtained data is normally distributed or not, while the homogeneity test is conducted to determine whether the variance of the data between groups is homogeneous. The

results of the normality test of the pretest learning outcomes data using the Kolmogorov-Smirnov technique are presented below.

Table 4. Tests of Normality

Kelas		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hasil Belajar	Pretes Kelas SP	.086	70	.200*	.976	70	.189
	Pretes Kelas SU	.082	70	.200*	.975	70	.179
	Postest Kelas SP	.080	70	.200*	.987	70	.673
	Postest Kelas SU	.091	70	.200*	.985	70	.548

a. Lilliefors Significance Correction
*. This is a lower bound of the true significance.

After the normality test shows that the data is normally distributed, the next step is to conduct a homogeneity test to ensure that the variance of the data between groups is homogeneous. This homogeneity test is important to determine whether parametric statistical analysis techniques can be used. The results of the homogeneity test of the learning outcomes data using the Levene's test are presented below.

Table 5. Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Hasil Belajar	Based on Mean	2.498	3	276	.060
	Based on Median	2.277	3	276	.080
	Based on Median and with adjusted df	2.277	3	265.101	.080
	Based on trimmed mean	2.512	3	276	.059

The results of the homogeneity test in the table above show a significance value based on the mean of 0.060. Because the significance value is greater than 0.05 (sig. > 0.05), it can be concluded that the variance of the learning outcomes data in both groups is homogeneous. With the fulfilment of the normality and homogeneity assumptions on the pretest and posttest data of learning independence, the analysis can proceed using parametric statistical techniques.

Hypothesis Testing

After the data underwent prerequisite tests to determine normality and homogeneity, the data was then subjected to hypothesis testing.

Table 6. Descriptive Statistics

Group	Motivation	Mean	Std. Deviation	N
Boarding School Students	High	79.42	12.576	43
	Low	79.63	12.382	27
	Total	79.50	12.412	70
General Student	High	79.16	12.460	44
	Low	80.15	12.880	26
	Total	79.53	12.534	70
Total	High	79.29	12.445	87
	Low	79.89	12.509	53
	Total	79.51	12.428	140

The results of the descriptive statistical analysis show very close average learning outcomes, where the pesantren students scored 79.50 and the general students scored 79.53.

Table 7. Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16.939 ^a	3	5.646	.036	.991
Intercept	834313.868	1	834313.868	5289.321	.001
Group	.577	1	.577	.004	.952
Motivation	11.968	1	11.968	.076	.783
Group * Motivation	5.056	1	5.056	.032	.858
Error	21452.032	136	157.736		
Total	906622.000	140			
Corrected Total	21468.971	139			

a. R Squared = .001 (Adjusted R Squared = -.021)

Based on Table 7, the analysis shows that there is no significant difference in learning outcomes between the group of Islamic boarding school (pesantren) students and the general students, with a significance value of 0.952 ($p > 0.05$). Similarly, for the variable of learning motivation, the test results show no significant effect on learning outcomes ($p = 0.783$), and no significant interaction was found between the residential group category and the level of motivation on students' learning outcomes ($p = 0.858$). It should be noted that the very low R Squared value of 0.001 (0.1%) indicates that the factors of residential background and initial motivation provide a very minimal contribution in explaining the variance in student learning outcomes. This indicates that the vast majority of the variation in students' academic achievement (99.9%) is influenced by other factors outside the variables measured in this study.

Discussion

The results of this study show that the application of the Flipped-VCT model yields equivalent learning outcomes between students in Islamic boarding school (pesantren) environments and general students. Statistically, the group significance value of 0.952 ($p > 0.05$) confirms that residential background is not the sole determinant of academic success in the subject of Pancasila Education when the Flipped-VCT intervention is applied. These empirical findings indicate that the Flipped-VCT model has a high level of inclusivity, capable of bridging the technological access constraints that have theoretically been a concern for hindering students in pesantren environments.

Besides residence, this study concretely found that the learning motivation variable does not have a significant influence on learning outcomes ($p = 0.783$), and no interaction was found between residence and motivation ($p = 0.858$). The absence of a significant influence from this initial motivation level implies that the teaching modules validated with a very feasible category (95.74%) are capable of stabilising student performance. This finding aligns with the study by Zhao et al. (2025) which revealed that well-structured flipped instruction can serve as cognitive scaffolding that compensates for fluctuations in students' initial motivation. This is also supported by the studies of Daniel et al. (2024) and Inegbedion (2024), which state that the quality of instructional design can neutralise variations in psychological characteristics within a self-directed learning ecosystem.

Unlike conventional Flipped Learning, which often heavily relies on high digital literacy, the integration of the Value Clarification Technique (VCT) provides a systematic framework for students to independently internalise moral values before face-to-face sessions. The fact that this model is successfully implemented in a boarding school environment strengthens the argument of Konstantinidou & Nisiforou (2022) and Merchant et al. (2013) that the effectiveness of educational technology is not solely determined by hardware access, but is significantly moderated by the quality of instructional design, including the clarity of objectives and adequate pre-class materials.

Although the learning outcomes of both groups proved to be statistically equivalent, the explanation regarding the specific mechanism behind this phenomenon needs to be distinguished between empirical evidence and theoretical interpretation. The assumption that pesantren students benefit from "minimal digital distractions" or that general students are vulnerable to "information overload" is a logical theoretical explanation, but not a direct finding from this study, considering that variables such as distraction levels, specific time allocation, and technology access were not directly measured. Based on the parameters measured in this study, the empirical equivalence of learning outcomes is more accurately attributed to the effectiveness of the Flipped-VCT model intervention itself—supported by the highly feasible teaching modules which is proven capable of becoming a resilient and inclusive digital pedagogical adaptation pattern across various institutional conditions.

Conclusion

This study concludes that the application of the Flipped-VCT learning model (a combination of Flipped Learning and Value Clarification Technique) has a high level of inclusivity and is effective in consistently improving the learning outcomes of Pancasila Education. The results of the statistical analysis through the Two-Way ANOVA test prove that there is no significant difference in learning outcomes between students residing in Islamic boarding schools and general students, with very close average scores of 79.50 and 79.53 respectively ($p=0.952$). These findings confirm that the structured instructional design in this model is capable of mitigating the gap in technology access and the differences in students' residential backgrounds.

Furthermore, the variable of learning motivation ($p=0.783$) and the interaction between group categories and motivation levels ($p=0.858$) were proven not to have a significant impact on learning outcomes. This confirms that the Flipped-VCT model provides a stable impact for all subjects, unaffected by initial psychological conditions or structural constraints in religious-based institutions. This success is supported by the use of research instruments, such as teaching modules with a validity of 95.74% and reliable learning outcome tests, which function as cognitive scaffolding in neutralising digital barriers in the pesantren environment. These findings provide practical implications that the digitalisation of education in pesantren can proceed optimally through a learning model that emphasises independence and directed value clarification.

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