The Impact Of the Problem-Based Learning Model by Tri Kaya Parisudha on Primary School Students' Character

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Abstract. The purpose of this study is to assess the effects of integrating the Problem-Based Learning (PBL) model with Tri Kaya Parisudha (TKP) on the development of character traits such as positive thinking, politeness, compassion, and honesty in fifth-grade elementary school students. The research utilized a quasi-experimental design. This study involved fifth-grade students from elementary schools in Cluster VI, Kelurahan Kampung Baru, Buleleng District, spread across 6 elementary schools. Before selecting the sample, an equivalence analysis was conducted using one-way ANOVA, which showed that all the schools were equivalent. Two classes were randomly selected through a lottery as the sample. As a result, 32 students from SDN 5 Kampung Baru were designated as the experimental group, and 25 students from SDN 4 Kampung Baru were designated as the control group. Data collection was conducted via a questionnaire, and the analysis was carried out using both descriptive and inferential statistical methods (MANOVA). The results indicated that: (1) students who were taught using the PBL model combined with TKP exhibited higher levels of positive thinking, politeness, compassion, and honesty compared to those who were taught solely with the PBL model, and (2) there were significant differences in these character traits between the two groups. These findings suggest that the PBL model combined with TKP is more effective in fostering positive thinking, politeness, compassion, and honesty than the PBL model.

Keywords: problem based learning, tri kaya parisudha, character

Introduction

A significant criticism of Indonesia's elementary school curriculum is its ineffectiveness in promoting character development. Despite the curriculum's intention to achieve Indonesia's educational objectives, which include nurturing students' potential to cultivate noble values and positive, productive behavior, it fails to fully accomplish this aim (Ghofur et al., 2023; Gunada et al., 2021; Rahman, 2021; Ronny et al., 2021). A report published by the Indonesian Child Protection Commission between January and April 2019 supports this. According to the research, the most commonly reported difficulties were bullying and physical violence, with the majority of these instances occurring at primary school or an equal level. Of these incidents, 25 cases accounted for 67% of the total. The report highlights that primary school, which should be a critical period for personality development, unfortunately, has the highest incidence of physical violence.

This situation is consistent with the findings from preliminary research conducted on fifth-grade students in Buleleng District, Buleleng Regency. Observations, interviews, and documentation studies at two schools, SDN 5 Kampung Baru and SDN 4 Kampung Baru, uncovered several challenges related to character development in students, particularly in areas such as positive thinking, good manners, compassion, and honesty.

For example, some students still lack confidence and are afraid to attempt or fail when responding to problems posed by the teacher. Furthermore, bullying remains a common issue during learning activities, with students frequently teasing and ridiculing peers who answer questions incorrectly. This environment fosters increased apprehension among students when engaging with questions from the instructor (Darjan et al., 2020; Putra et al., 2023; van Aalst et al., 2021).

Additionally, there was a clear decline in student behavior, as reflected in their interactions, attitudes toward teachers, and the inappropriate language they use. This deterioration in proper conduct among students is attributed to factors such as parental neglect in overseeing social interactions, unsupervised use of social media at home, and a lack of sufficient guidance from teachers on appropriate language use both inside and outside the classroom (Amaruddin et al., 2020; Damayanti, 2023; Jannah, 2023; Rahman, 2021; Wandi, 2022). These behaviors are essentially a manifestation of students' weak character, particularly in terms of their thoughts, words, and actions, which in Hinduism is referred to as Tri Kaya Parisudha.

To address this issue, researchers propose used PBL model that integrates the values of Tri Kaya Parisudha. This approach is theoretically intended to improve students' character by emphasizing three stages of human action: proper thinking (manacika), proper speech (wacika), and proper behavior (kayika). These stages guide students' activities toward positive outcomes. Moreover, the PBL model combines Tri Kaya Parisudha with humanistic constructivist learning principles, emphasizing the importance of personal experience, social interaction, and the construction of meaningful knowledge. This method also highlights the significance of human values and self-development, creating learning experiences that are meaningful, relevant, and supportive of students' personal growth and knowledge acquisition (Chasanah & Ningsih, 2023; Karim, 2021; Kusumawati et al., 2023).

Based on the explanation above, it can be concluded that the PBL model integrated with TKP is designed not only to improve students' academic skills but also to foster positive character traits and human values. This model provides a holistic, student-centered approach to learning that emphasizes character development, particularly in areas such as positive thinking, polite speech, compassion, and honesty. Therefore, further research is needed to evaluate the impact of the PBL model combined with TKP on the character development of fifth-grade primary school students.

Material and Method

This research utilizes an experimental design, where specific treatments are applied to the research subjects. The experimental group received instruction using the PBL model integrated with TKP, and their results were compared to those of a control group that did not receive this intervention. Due to the inability to fully control all variables in the experimental conditions, this study is categorized as quasi-experimental. This study involved fifth-grade students from elementary schools in Cluster VI, Kelurahan Kampung Baru, Buleleng District, spread across 6 elementary schools. Before selecting the sample, an equivalence analysis was conducted using one-way ANOVA, which showed that all the schools were equivalent. Two classes were randomly selected through a lottery as the sample. As a result, 32 students from SDN 5 Kampung Baru were designated as the experimental group, and 25 students from SDN 4 Kampung Baru were designated as the control group. The sample included. Data were collected through questionnaires focusing on traits such as positive thinking, good

manners, compassion, and honesty. The character assessment framework used in this study is described below.

Table 1
The Character Grid of Positive Thinking, Polite Speech, Compassion, And Honesty

No.	Character	Indicator
1.	Positive Thinking	1. Believe that all problems can be solved
		2. Strive to rise and try again
		3. Having strong confidence in one's own abilities
2.	Polite Speech	1. Avoid using harsh words that can hurt others' feelings
		2. Delivering the truth in a good manner
3.	Compassion	Showing affectionate behavior towards others
4.	Honesty	1. Not behaving dishonestly
		2. Daring to admit mistakes

The tools used to measure positive thinking, politeness, compassion, and honesty were tested for validity and reliability. Validity was confirmed through content validation by experts and item validity was assessed using Pearson's product-moment correlation. Reliability was evaluated using Cronbach's Alpha, following Kerlinger's standard that a reliability coefficient should be at least 0.70. Data analysis included descriptive statistics such as mean, standard deviation, and variance, while inferential analysis was conducted using the MANOVA test. Before performing MANOVA, normality was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests, homogeneity of variance was checked with Levene's test, and multicorrelation was evaluated. The F-test was then employed to test the hypothesis within the MANOVA framework.

Results and Discussion
Results

The results of this research indicate significant differences between students who were taught using the PBL model combined with TKP and those who were either not given the PBL model or only used the PBL model. The analysis revealed notable differences in the mean scores for positive thinking, polite speech, compassion, and honesty between the experimental and control groups.

Table 2
Descriptive Analysis of Character Value

Model	Variable	N	Min.	Max.	Mean	Std. Deviation
PBL model with the TKP	Positive Thinking	32	20	36	33,06	2.109
	Polite Speech	32	10	19	15,25	2,229
	Compassion	32	10	20	15,63	2,393
	Honesty	32	8	20	14,44	3,379
Without PBL model with TKP	Positive Thinking	25	13	33	22,16	5,543
	Polite Speech	25	9	19	13,56	3,015
	Compassion	25	5	18	14,56	3,318
	Honesty	25	9	19	13,52	2,740

The following step is to do a MANOVA analysis on the post-test data. Before this, several preliminary tests were performed, including tests for normality, homogeneity, and multicollinearity. The normality tests indicated that all group data were normally distributed, with significance values greater than 0.05 (See Table 3). Levene's Test of Equality was used to conduct the homogeneity test in the next phase, which showed that the data were homogeneous, with each test resulting in significance values above 0.05. Specifically, Levene's Test of Equality yielded significance values of 0.233 for Positive Thinking, 0.098 for Politeness, 0.112 for Compassion, and 0.222 for Honesty. The subsequent multicollinearity test demonstrated that all data had VIF values below 1.000 and tolerance levels over 0.1, confirming that multicollinearity was not an issue.

Table 3
Normality Test Results

One-Sample Kolmogorov-Smirnov Test

	Treatment		Positive Thinking	Polite Speech	Compassion	Honesty
PBL model with the Tri Kaya Parisudha	N		32	32	32	32
	Normal Parameters[a,,b]	Mean	33.06	15.25	15.63	14.44
		Std. Deviation	2.109	2.229	2.393	3.379
	Most Extreme Differences	Absolute	0.144	0.131	0.124	0.116
		Positive	0.117	0.119	0.103	0.096
		Negative	-0.144	-0.131	-0.124	-0.116
	Kolmogorov-Smirnov Z		0.144	0.131	0.124	0.116
	Asymp. Sig. (2-tailed)		0.088[c]	0.174[c]	0.200[c,d]	0.200[c,d]
Without PBL model with the Tri Kaya Parisudha	N		25	25	25	25
	Normal Parameters[a,,b]	Mean	22.16	13.56	14.56	13.52
		Std. Deviation	5.543	3.015	3.318	2.740
	Most Extreme Differences	Absolute	0.152	0.158	0.153	0.130
		Positive	0.152	0.098	0.150	0.110
		Negative	-0.091	-0.158	-0.153	-0.130
	Kolmogorov-Smirnov Z		0.152	0.158	0.153	0.130
	Asymp. Sig. (2-tailed)		0.142[c]	0.108[c]	0.135[c]	0.200[c,d]

Source: Data Analysis

Pillai's trace, Wilks' lambda, Hotelling's trace, and Roy's biggest root all had values below 0.001, according to the F test in the MANOVA study, suggesting a significant influence. This confirms that PBL model combined with TKP significantly impacts elementary students' character development, including positive thinking, politeness, compassion, and honesty. Specific F values include 104.835 for Positive Thinking, 5.924 for Polite Speech, 6.982 for Compassion, and 5.217 for Honesty, all with significance levels below 0.001. These findings confirm that the PBL model with TKP successfully improves character traits and problem-solving abilities.

Table 4
The Multivariate Analysis Outcome

Effect		Value	F	Hypothesis df	Error df	Sig.
Multivariate Tests[a]						
Intercept	Pillai's Trace	0.992	1671.756b	4.000	52.000	0.000
	Wilks' Lambda	0.008	1671.756b	4.000	52.000	0.000
	Hotelling's Trace	128.597	1671.756b	4.000	52.000	0.000
	Roy's Largest Root	128.597	1671.756b	4.000	52.000	0.000
Model	Pillai's Trace	0.706	31.251b	4.000	52.000	0.000
	Wilks' Lambda	0.294	31.251b	4.000	52.000	0.000
	Hotelling's Trace	2.404	31.251b	4.000	52.000	0.000
	Roy's Largest Root	2.404	31.251b	4.000	52.000	0.000

Table 5
Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Positive Thinking	1668.274a	1	1668.274	104.835	0.000
	Polite Speech	40.086b	1	40.086	5.924	0.000
	Compassion	55.919c	1	55.919	6.982	0.000
	Honesty	41.815d	1	41.815	5.217	0.000
Intercept	Positive Thinking	42800.344	1	42800.344	2689.585	0.000
	Polite Speech	11649.349	1	11649.349	1721.609	0.000
	Compassion	12787.849	1	12787.849	1592.473	0.000

	Honesty	10970.131	1	10970.131	1129.639	0.000
Model	Positive Thinking	1668.274	1	1668.274	104.835	0.000
	Polite Speech	40.086	1	40.086	5.924	0.000
	Compassion	55.919	1	55.919	6.982	0.000
	Honesty	41.815	1	41.815	5.217	0.000
Total	Positive Thinking	48132.000	57			
	Polite Speech	12411.000	57			
	Compassion	13554.000	57			
	Honesty	11774.000	57			
Corrected Total	Positive Thinking	2543.509	56			
	Polite Speech	412.246	56			
	Compassion	457.579	56			
	Honesty	545.930	56			

Discussion

The findings of this research suggest that PBL model integrated with successfully enhances character traits such as positive thinking, politeness, compassion, and honesty in fifth-grade elementary school students. Several factors contribute to the enhanced development of these traits in students using the PBL model with Tri Kaya Parisudha compared to those using the standard PBL model. Firstly, Tri Kaya Parisudha includes correct thinking, speaking, and actions (manacika, wacika, kayika), which directly guides students in developing ethics and morals throughout their learning. These values facilitate the cultivation of a positive attitude, politeness, compassion, and honesty during the educational process (Gunada et al., 2021; Lawe et al., 2020; Utami, 2022). Positive thinking (Manacika) encourages students to adopt a constructive and optimistic mindset, which leads them to carefully consider their actions. This helps build a foundation for positive attitudes in their daily interactions, including within the learning environment. Polite speech (Wacika) highlights the significance of honest, respectful, and empathetic communication, guiding students to interact with others in a considerate manner. This fosters a harmonious and respectful atmosphere during the teaching and learning process. Positive actions (Kayika) emphasize integrity, honesty, and compassion, promoting responsible behavior. This approach contributes to a supportive learning environment and enhances overall character development.

Secondly, the integration of Tri Kaya Parisudha with PBL goes beyond addressing academic challenges to encompass overall personal development. This approach encourages students to think comprehensively, considering the impact of their thoughts, words, and actions, which fosters their positive character. In PBL, students tackle real-world problems that require critical and creative thinking. When combined with Tri Kaya Parisudha, students not only seek academic solutions but also assess the ethical implications of their solutions, incorporating good thinking (manacika) into their problem-solving. Additionally, the Tri Kaya Parisudha-based PBL promotes the development of personal qualities such as integrity, responsibility, and empathy. Through active learning, students enhance their communication skills

(wacika) in team settings and engage in positive actions that benefit society (kayika). As a result, this learning model ensures that education nurtures not only academic intelligence but also ethical, compassionate, and responsible individuals.

Thirdly, the PBL model combined with Tri Kaya Parisudha highlights social and emotional development, enabling students to foster empathy, compassion, and respect for honesty and politeness in their interactions with others. This emphasis on emotional and social aspects helps to explain why students taught using the PBL model with Tri Kaya Parisudha show greater levels of positive thinking, politeness, compassion, and honesty compared to those taught with the standard PBL model.

The findings from these studies show significant differences in positive thinking, politeness, compassion, and honesty between students taught the PBL model with TKP and those taught with only the PBL model. The enhanced PBL model, which emphasizes collaborative learning and positive peer relationships, has proven highly effective in developing students' positive thinking. This positive thinking, in turn, fosters respectful communication (polite speech) and positive actions (compassion and honesty). The principle is that thoughts influence words and actions; thus, by managing their thoughts, students can better control their speech and behavior. Integrating Tri Kaya Parisudha into the PBL model places manacika (thoughts) at the center of wacika (words) and kayika (deeds), creating a foundation for moral ethics during the educational process.

The research's conclusions are consistent with several earlier studies that show incorporating local cultural knowledge into instruction can enhance students' learning outcomes and character. Sumiati (2021) research demonstrated that there were significant differences in mathematics learning outcomes between groups of students who were taught using the CTL (Contextual Teaching and Learning) model oriented around Tri Kaya Parisudha and those who were not, in third-grade elementary students in Gugus III, during the second semester in Banjar District, Buleleng Regency, in the 2017/2018 academic year. Furthermore, implementing Tri Kaya Parisudha in learning can effectively support character education, as it encourages positive thinking, patience, polite speech, and self-control throughout the learning process. These findings align with research by Nugraha, et al. (2020:41), which indicates a significant impact of the Tri Kaya Parisudha-based Open-Ended learning model on the mathematics outcomes of fifth-grade students at Gugus VI Elementary School, Sukasada District, Buleleng Regency, during the 2019/2020 academic year. The mathematics learning outcomes of students taught using the Tri Kaya Parisudha-based Open-Ended learning model were higher than the average scores of those who were not taught using this model. Apart from these two studies, several other studies also show that integration of local cultural wisdom, especially Tri Kaya Parisudha in learning, can enhance students' character and academic performance. (Marjaya et al., 2023; Nata & Sujana, 2020; Nirmayani & Dewi, 2021; Rahayu, 2023; Selpi Wahyuni, 2022).

Conclusion

The PBL model integrated with Tri Kaya Parisudha significantly enhances fifth-grade students' character, improving traits such as positive thinking, politeness, compassion, and honesty. The average scores for positive thinking, polite speech, compassion, and honesty were higher in the experimental group tested using the PBL integrated with Tri Kaya Parisudha than in the control group which uses the PBL model. This model emphasizes key stages of action, thinking, speaking, and behaving, which support moral growth. It is recommended as an innovative teaching strategy for elementary schools. Additionally, research indicates that teachers' behavior has an

impact on pupils' character development, with effective thought, word, and action control being particularly important. Thus, principals and policymakers should support and implement this model to promote character development both in and out of the classroom.

Acknowledgments

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