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Integration Of Ethnopedagogical Values In Strengthening School Health Programs And Clean And Healthy Living Behavior In Elementary Schools

Erwan Hermana
Universitas Majalengka, Indonesia
Diding Bajuri
Universitas Majalengka, Indonesia
Yuyun Dwi Haryanti
Universitas Majalengka, Indonesia

Corresponding Author: *Erwan.hermana@gmail.com*

Abstract

This study aims to analyze the integration of ethnopedagogical values into the School Health Program (UKS) and Clean and Healthy Living Behavior (PHBS) in elementary school students. The study was conducted at SDN Majalengka Kulon 2, Majalengka Regency, West Java Province, with 43 fifth-grade students as research subjects. The research method used a quantitative approach with a quasi-experimental design of one group pretest-posttest type. Data collection techniques used observation, questionnaires, interviews, and documentation. Data analysis was carried out using normality tests, homogeneity tests, paired sample t-tests, and N-Gain calculations. The results indicated that the integration of ethnopedagogical values based on local Sundanese culture was able to increase the effectiveness of the UKS program and students' clean and healthy living behavior. The average pretest score of 63.14 increased to 85.72 in the posttest with an N-Gain value of 0.61 in the moderate to high category.

Keywords: Ethnopedagogy; School Health Efforts; Clean and Healthy Living Behavior; Character Education; Culture-Based Learning.

INTRODUCTION

The formation of healthy lifestyle behaviors in elementary school-aged children is a critical issue of global concern (Maulidah, 2023; Moussi et al., 2024). The WHO emphasizes that schools

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have a strategic role in health promotion (Turunen et al., 2017) because they are effective settings for establishing clean and healthy lifestyle habits from an early age (Rosário & Dadaczynski, 2025). Through school-based health programs, children are expected to not only understand health concepts but also internalize them in their daily lives (Bentsen et al., 2022; Lai et al., 2022). However, in various countries, the effectiveness of school health programs still faces challenges (Jakasania et al., 2023; Ogasawara et al., 2022), particularly regarding the sustainability of healthy behaviors and the lack of a contextual approach to students' local cultures.

In Indonesia, the government has implemented the UKS and PHBS (Ashar, 2022) as a systematic effort to improve student health (Widiyanto, 2025). This program covers various aspects, such as personal hygiene, the school environment (Alafiyah et al., 2025), and behavior-based disease prevention (Oktiarina, 2022). However, various studies indicate that the implementation of PHBS in elementary schools is still suboptimal (Agustina et al., 2022; Basri et al., 2023). Many students understand health concepts cognitively, but have not yet made them into habits that are inherent in their daily lives (David et al., 2024; Ekman et al., 2022; Smith et al., 2023). This indicates that the process of internalizing health values still needs to be strengthened through a more meaningful and contextual approach. At the local level, health education in elementary schools is often formal and lacks a connection to cultural values relevant to students' lives. As a result, there is a gap between the knowledge gained in school and real-life practices. This situation highlights the need to develop learning approaches that bridge scientific knowledge and local cultural values to make them easier for students to understand and apply.

One approach that has the potential to address these challenges is ethnopedagogy, a learning approach that integrates local wisdom values into the educational process (Sakti et al., 2024; Uswatun et al., 2026). Ethnopedagogy emphasizes that learning will be more meaningful when linked to a cultural context familiar to students (Gumartifa et al., 2025; Hashim et al., 2026). Various studies have shown that local culture-based learning can improve students' understanding (Darong, 2022), motivation (Reyes & Vega, 2023), and character development (Cahyaningsih et al., 2025; Hajeni et al., 2026). However, the application of ethnopedagogical values in strengthening school health programs, particularly PHBS in elementary schools, has not been studied in depth.

Based on these issues, there is an urgent need to integrate ethnopedagogical values into school health programs as an effort to strengthen PHBS in elementary schools. This integration is expected to increase understanding and foster stronger and more sustainable clean and healthy living habits in students. Therefore, this study aims to analyze the integration of ethnopedagogical

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values in strengthening school health programs and clean and healthy living behaviors in elementary schools.

METHOD

This study used a quantitative approach with a quasi-experimental one-group pretest-posttest design. This design was used to determine the effect of integrating ethnopedagogical values into the UKS program on improving PHBS practices in elementary school students. In this design, measurements were taken twice: before treatment (pretest) and after treatment (posttest), allowing for more objective assessment of changes in student behavior.

The research was conducted at SDN Majalengka Kulon 2, Majalengka Regency, West Java Province in the 2025/2026 academic year. The location selection was based on the consideration that the school had implemented the UKS program, but still needed reinforcement through a local cultural value-based approach or ethnopedagogy so that PHBS habits were more optimal and sustainable. The population in this study were all fifth-grade students of SDN Majalengka Kulon 2. The sampling technique used total sampling, so that the entire population was used as a research sample with a total of 43 students consisting of two classes.

Table 1. Research Subjects

Class	Number	Male	Female
VA	21	9	12
VB	22	10	12
Total	43	19	24

Data collection was conducted through questionnaires. A questionnaire was used to measure students' PHBS levels before and after treatment using a Likert scale. The research instrument was a PHBS questionnaire compiled based on eight main indicators, namely handwashing habits, classroom cleanliness, waste management, the habit of bringing healthy lunches, participation in UKS activities, exercise habits, use of healthy toilets, and concern for the school environment. The validity test of the knowledge questionnaire showed that each item had a correlation coefficient (r-count) higher than the r-table value (0.361), which indicated the validity of each item. A Cronbach's Alpha value of 0.936, indicating very high reliability, was obtained during reliability testing (Ramadhani et al., 2026; Wibowo, 2024). Each indicator was measured using a 1–5 Likert scale, ranging from very never to always. Before being used in the study, the instrument was tested for validity using Pearson Product Moment correlation, while reliability was

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tested using Cronbach's Alpha to ensure instrument consistency.

Table 2. PHBS Instrument Indicators

No	PHBS Indicators	Brief Description
1	Handwashing	Habit of washing hands with soap
2	Classroom Cleanliness	Maintaining classroom cleanliness
3	Waste Management	Properly disposing of and sorting waste
4	Healthy Lunches	Bringing healthy food from home
5	School Health Unit Participation	Involvement in school health activities
6	Exercise	Habit of physical activity
7	Healthy Toilets	Proper use of the toilet
8	Caring for the Environment	Maintaining a clean school environment

Source: (Ramadhani et al., 2026; Wibowo, 2024)

The data obtained were analyzed using several statistical techniques. First, a normality test was conducted to determine data distribution. Second, a homogeneity test was used to assess the similarity of data variances. Third, a paired sample t-test was used to determine significant differences between pretest and posttest results. Fourth, an N-Gain test was used to measure the effectiveness of improving students' PHBS. Furthermore, descriptive percentage analysis was used to describe the overall level of PHBS achievement of students. Figure 1 shows the research flow diagram. The treatment in this study involved integrating ethnopedagogical values into the UKS activities, namely by linking PHBS material with local wisdom values, fostering a culture of cleanliness in the Sundanese community, and strengthening the spirit of mutual cooperation in maintaining a clean school environment. This approach is expected to enhance the internalization of PHBS values more meaningfully, not only in terms of knowledge but also in the formation of students' daily habits.

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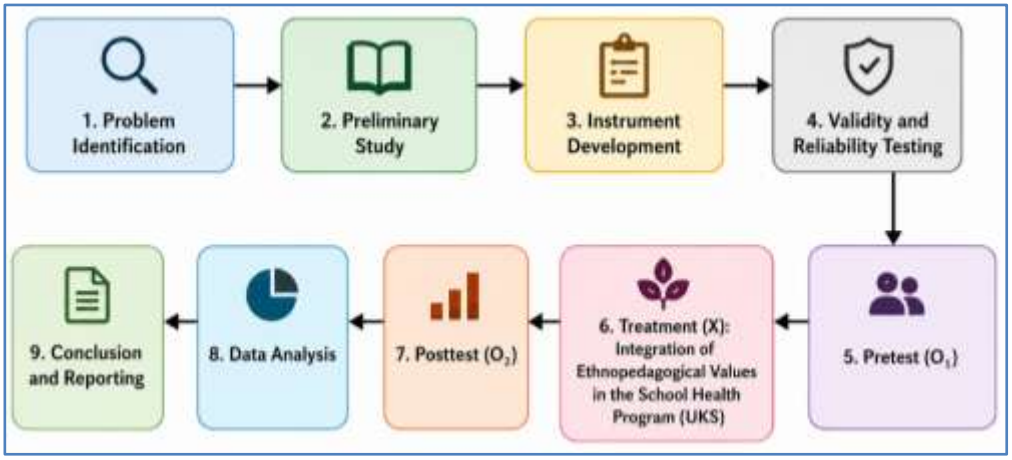


Figure 1. Research flow diagram

RESULTS

The initial (pretest) and final (posttest) measurements showed an increase in PHBS scores for all respondents after treatment. The results showed an average increase of 22.58 points, indicating a significant change in students' PHBS behavior after treatment. Table 3 shows the PHBS pretest and posttest scores.

Table 3. PHBS Pretest and Posttest Score Statistics

Statistics	Pretest	Posttest
Number of Samples (N)	43	43
Minimum Value	60	81
Maximum Value	67	91
Mean (Average)	63,14	85,72
Median	63	86
Standard Deviation	2,05	2,73
Range	7	10

The results show that t count (70.34) > t table (2.018) and a significance value of 0.000 < 0.05, so H_o is rejected and H_1 is accepted. This means that there is a significant influence of the integration of ethnopedagogy values in the UKS program on improving students' PHBS. This test is used to determine the effect of treatment on improving students' PHBS. Table 4 shows the results of the paired sample t-test.

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Table 4. Paired Sample t-Test Results

Variable	t_{count}	t_{table}	Sig. (2-tailed)	Description
Pretest–Posttest	70,34	2,018	0,000	Significant

N-Gain analysis was used to measure the effectiveness of the improvement. An N-Gain value of 0.61 indicates that the treatment's effectiveness is moderate. The indicator with the highest improvement was health school participation (31%), while the lowest improvement was in exercise habits (22%).

Table 5. Improvement of PHBS Indicators

Indicators	Before (%)	After (%)	Increase (%)
Handwashing	62	89	27
Classroom cleanliness	64	91	27
Waste management	58	88	30
Healthy lunch box	61	85	24
School health program participation	59	90	31
Exercise habits	65	87	22
Healthy toilets	68	92	24
Environmental care	60	89	29

DISCUSSION

The results of this study indicate that the integration of ethnopedagogical values into the School Health Program (UKS) significantly impacted the improvement of Clean and Healthy Living Behaviors (PHBS) among elementary school students. This finding is evidenced by an increase in the average pretest score from 63.14 to 85.72 in the posttest, as well as a t-test showing a significance value of 0.000 < 0.05. Statistically, these results indicate that a local culture-based approach is effective in significantly improving students' health behaviors (Cipta et al., 2024). This finding aligns with ethnopedagogical theory, which states that learning will be more meaningful when linked to local cultural values that are close to students' lives (Elsayed, 2024; Zalli, 2024). The integration of the values of silih asah (sharpening), silih asih (compassionate caring), and silih asuh (nurturing) into UKS activities has been shown to create contextual learning, enabling students not only to cognitively understand the PHBS concept but also to internalize it in their daily habits. This strengthens the view that culture-based education can improve the formation of students' character and social behavior more effectively.

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Furthermore, improvements in all PHBS indicators, such as handwashing, classroom cleanliness, waste management, and school health unit participation, demonstrate that consistent habituation through a local cultural approach has a direct impact on student behavior. The indicator with the highest increase, UKS participation (31%), demonstrates that students' active involvement in school community-based activities is strongly influenced by a collaborative approach based on socio-cultural values. The results of this study also support the behaviorism learning theory, which states that behavior can be shaped through habituation and reinforcement. In the context of this study, habituation such as Clean Friday, traditional game-based education, and the use of local languages in PHBS learning serve as forms of positive reinforcement that strengthen sustainable changes in student behavior.

The N-Gain value of 0.61, which is in the moderate to high category, indicates that the intervention provided has a fairly strong effectiveness in improving students' PHBS. This indicates that the ethnopedagogical approach not only improves understanding but also contributes to real behavioral changes. Thus, the integration of local cultural values in health education can be an effective pedagogical strategy in the elementary school context. When compared with previous research, these results are consistent with studies showing that local wisdom-based learning can increase student motivation, engagement, and positive character development (Astuti & Apriliani, 2025; Firmansyah et al., 2025). However, this study provides an additional contribution by integrating ethnopedagogy specifically into the UKS program, which has previously focused more on conventional health approaches without considering local cultural aspects.

The results of this study indicate that schools have a strategic role in integrating local cultural values into school health programs. Teachers serve not only as information providers but also as facilitators, able to connect cultural values with students' daily healthy living practices. Thus, learning about PHBS becomes more meaningful, enjoyable, and easily internalized. This study confirms that integrating ethnopedagogical values into the UKS program is an effective approach to improving PHBS in elementary school students. This approach not only impacts knowledge but also the formation of sustainable clean and healthy living habits and character.

CONCLUSION

The results of this study indicate that the integration of ethnopedagogical values into the UKS is significantly effective in improving PHBS among elementary school students. This is evidenced by an increase in average pretest and posttest scores, a significant t-test result ($p < 0.05$), and an N-Gain value in the moderate to high category. Therefore, a local wisdom-based

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approach, such as the values of silih asah (grooming), silih asih (compassion), and silih asuh (caregiving), can strengthen students' internalization of healthy behaviors in a more contextual and sustainable manner. The implications of this study suggest that schools can optimize the UKS program by integrating local cultural values as a more meaningful and easily accepted health learning strategy for students.

However, this study has several limitations. These include the lack of a control group, which limits the generalizability of the results to a one-group pretest-posttest design. The relatively short intervention duration, which cannot yet describe the long-term impact of implementing ethnopedagogy in developing PHBS, is also significant. Therefore, further research is recommended to use a more robust experimental design, such as a true experimental design with a control group, extend the duration of the intervention, and incorporate other supporting variables such as the role of family and community environment. Furthermore, the development of ethnopedagogy-based learning models in UKS also needs to be tested in different school and cultural contexts to obtain more comprehensive results that can be more broadly generalized.

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