PAEDAGOGIA
Jurnal Penelitian Pendidikan
http://jurnal.uns.ac.id/paedagogia

DOI : 10.20961/Paedagogia.v29i3.125783
Vol. 29, No. 3, 2026, pp. 416-433
p-ISSN 0126-4109
e-ISSN 2549-6670

The Effectiveness of a Wayang Thengul-Contextualized Multiliteracies Learning Design: Addressing Students' Attitudes toward Consumptive Peer Pressure

Arya Mahendra, Ganes Gunansyah*, Maretha Dellarosa, Ari Metalin Ika Puspita, Putri Rachmadyanti
Master of Elementary Education, Faculty of Education, Universitas Negeri Surabaya, Surabaya, Indonesia.

Keywords: *Local Wisdom; Multiliteracies Pedagogy; Peer Pressure; Sustainable Consumption; Wayang Thengul*

Article history
Received: 13 August 2026
Revised: 2 October 2026
Accepted: 20 October 2026
Published: 31 October 2026

*Corresponding Author Email:
ganesgunansyah@unesa.ac.id

DOI: 10.20961/paedagogia.v29i3.125783

© 2026 The Authors. This open-access article is distributed under a CC BY-SA 4.0 DEED License

Abstract: Consumptive peer pressure can lead elementary school students to follow consumption trends to gain social acceptance, even when purchased items are not necessary or useful. This challenge becomes more complex as social media and global popular culture shape students' preferences and perceptions of desirability. This study aims to examine the implementation and effectiveness of a Wayang Thengul-contextualized multiliteracies learning design in addressing students' attitudes toward consumptive peer pressure. This study used a pre-experimental one-group pretest-posttest design involving 12 fifth-grade elementary school students. The intervention took place in two face-to-face lessons, using four stages of multiliteracies: situated practice, overt instruction, critical framing, and transformed practice. Activities included the creation of My Consumption Journal, a mind map on needs, wants, utility, and the consequences of consumption, a mini-debate on the decrease in interest in Wayang Thengul in the context of global popular culture, and a transformed practice activity in which participants designed Wayang Thengul-themed tote bags using AI-assisted ideation. The results showed improvements in measured attitudes, as evidenced by increased resistance to peer influence, greater independence in making consumption choices, and greater respect for local cultural products after the intervention. The uniqueness of the study lies in the combination of multiliteracies pedagogy and Wayang Thengul as a local cultural practice. From the theoretical perspective, the study expands the application of multiliteracies pedagogy to culture-based sustainability and consumption education. From the empirical perspective, it shows how economic, digital, and cultural literacies can be connected through contextual, reflective, critical, and creative learning.

How to cite: Mahendra, A., Gunansyah, G., Dellarosa, M., Puspita, A. M. I. & Rachmadayanti, P. (2026). The Effectiveness of a Wayang Thengul-Contextualized Multiliteracies Learning Design: Addressing Students' Attitudes toward Consumptive Peer Pressure. *PAEDAGOGIA, 29*(3), 416-433. DOI: 10.20961/paedagogia.v29i3.125783

INTRODUCTION

One of the sustainability competency issues that is currently on the global agenda is sustainable consumption. These competencies are listed in the 12th Sustainable Development Goals (SDGs), which emphasize the importance of every individual having an attitude and practicing responsible consumption and production behavior (Muhyidin et al., 2024; United Nations, 2026). This agenda aims to encourage individuals to use resources wisely, meet needs proportionally, consider the social, economic, and environmental impacts of each consumption activity (Gunawan et al., 2024). The sustainable consumption agenda is an important part of realizing sustainable development because it is closely related to the sustainability of the lives of present and future generations. However, efforts to achieve this goal still face various sociocultural phenomena that influence people's consumption behavior.

In addition, one of the sociocultural factors that makes sustainable consumption difficult is peer pressure. Peer pressure can make an individual adopt certain patterns of consumption which are not necessarily need-based but are driven by the desire for social recognition among the peer group. Such factors are among those that create irresponsible patterns of consumption. In this case, peer pressure is a social factor that influences consumption patterns out of the desire for social acceptance (Ragelienė &

Grønhøj, 2020). Consumption behavior influenced by peer pressure not only occurs in adult social groups but is also beginning to appear among elementary school students (Radetić-Paić et al., 2022; Pitaloka et al., 2026). In this developmental phase, students begin to build a social identity through peer circles, making them more vulnerable to the influence of their social environment. Students' consumption preferences tend to be determined by the norms that develop within their friendship groups. This phenomenon is in line with the Social Identity Theory put forward by Tajfel & Turner (1986), which explains that individuals tend to identify themselves based on membership in certain social groups. In this process, individuals attempt to adapt their behavior to group norms to gain acceptance and build a positive social identity.

In line with this phenomenon, a preliminary study conducted in the fifth-grade class at the participating elementary school revealed that peer pressure exerts a dominant influence on students' attitudes and consumption decisions. These findings were derived from observations and interviews with 12 students in the class. The observations showed that the students formed peer circles that encouraged members to amass identical product collections, such as souvenirs or toys, based on current popularity. Such items included K-Pop idol tote bags, key chains, and toys which were popular on social media sites, for example, Labubu. Some of the students even had several of these items, although they had no particular use for them. The above situation suggests that decisions about consumption are increasingly based on the symbolic meaning of a particular product. On the other hand, the researcher did not notice any trend of collecting local products among the students.

Moreover, it was found out through interviews that all of the students in these peer groups bought trending products in order to be socially accepted, to get recognition from peers, and to not be excluded by them because of being unable to follow trends. It is worth noting that four of the twelve students admitted they did not like some of the items they had bought. However, they still purchased them to complete their peer group's collection and be socially accepted. It was also found that these students did not buy local products because these products were considered to be less popular, less appealing, and lacking attractive merchandise. These findings indicate that social acceptance plays a more significant role in consumption decisions than the students' personal preferences.

Beyond direct peer influence, digitalization has expanded students' access to social media content, online social interactions, and global consumer trends. Through digital channels, pre-teens can be exposed to various products, lifestyles, brands, and pop culture symbols, which can affect how they perceive and communicate with other people and determine their understanding of socially desirable and attractive objects. Literature on pre-teens as consumers indicates that social media are not just sources of education and socializing but also of identity development, and that social inclusion and fear of missing out have become important aspects of pre-teens' digital activities (Lichy et al., 2023). Thus, students' consumption decisions are shaped not only by face-to-face peer interactions but also by digitally mediated social and commercial influences.

At the same time, easy access to foreign cultures and global popular culture through digital media may also affect the cultural orientation of students, in addition to the consumption habits of the latter. The results of the research carried out among the elementary school students showed the effect of the use of social networks on the identity perception and local culture perception by the students, emphasizing the significance of including digital literacy in the process of learning as an important factor in developing cultural identity (Hasmawati et al., 2025). In addition, the influx of foreign culture via social networks may have an impact on students' interest in local culture, suggesting the necessity of creating learning opportunities that will help to build up cultural literacy by engaging with local cultural products (Sukajaya & Lestari, 2025). Therefore, digital literacy and cultural literacy are important for helping students critically engage with digital and cultural influences while recognizing, appreciating, and preserving local cultural heritage.

Taken together, these insights suggest that consumption choices by students might be impacted by socially, digitally, and culturally connected factors. The peer pressure factor might motivate students to adapt their consumption to prevailing consumption trends to obtain social acceptance, which might also stimulate impulsive behavior in consumption without taking into account needs, usefulness, and economic considerations (Grohmann & Sakha, 2019; Thürmer et al., 2020). On the other hand, the content

mediated through digital channels can expand the students' knowledge of popular products, ways of life, and cultural symbols, while the unattractiveness of local products might point to the necessity to educate students about the value of local culture in the context of global cultural exposure. These conditions highlight the need for an educational approach that enables students to critically evaluate social and digital influences, reflect on their consumption decisions, and appreciate local cultural values.

Obviously, an educational strategy to help students critically address peer pressure is through instruction based on multiliteracies pedagogy. This approach fosters the development of perspectives, reflective capabilities, and critical attitudes by engaging students in diverse contexts and relevant learning experiences (Misaa et al., 2022; Rahman et al., 2022). In this regard, The New London Group (1996) emphasizes that multiliteracies pedagogy connects learning experiences with the social and cultural realities students encounter. Research by Ramdani (2026) demonstrates that multiliteracies-based instruction enhances the critical thinking skills of elementary school students. Similar findings were reported by Mahendra et al. (2026), showing that integrating multiliteracies into instruction encourages students to understand issues more reflectively by examining contextual phenomena. Thus, multiliteracies pedagogy holds potential as a relevant approach to helping students both understand and address the challenges they face in their daily lives.

In the context of consumptive peer pressure, the types of literacy that can be integrated include economic literacy, digital literacy, and cultural literacy. Through economic literacy, students reflect on the relationships between needs, wants, utility, and the impacts of consumption activities, enabling them to evaluate consumption decisions rationally (Budiwati et al., 2020; Kustiandi et al., 2024). Through digital literacy, students utilize technology to explore information, document findings, and communicate ideas creatively (Mahendra et al., 2026). Meanwhile, through cultural literacy, students explore cultural values and products rooted in local wisdom as elements of identity that should be preserved and appreciated. Integrating these three forms of literacy provides a learning experience that encourages students to make consumption decisions more critically, reflectively, and independently, based on the social, economic, and cultural realities of their environment.

In fact, Wayang Thengul is a form of local wisdom unique to Bojonegoro Regency that is also widely known in Tuban Regency and surrounding areas (Nurdiyana, 2019). As a local heritage, Wayang Thengul embodies cultural values, creative industry elements, and moral messages that can serve as contextual learning resources. These characteristics align with the principle of "situated practice" in multiliteracies pedagogy, which emphasizes meaning-making through authentic and contextual learning experiences (The New London Group, 1996; Yap & Gurney, 2023). Utilizing Wayang Thengul as a learning context also allows students to connect local cultural values with various life issues, including understanding and reflecting on consumption decisions amidst the influence of peer pressure.

However, a review of previous studies indicates that the implementation of multiliteracies pedagogy at the primary school level has not yet focused significantly on equipping students to address the phenomenon of peer pressure. Research by Hermawati et al. (2021) focused on applying a multiliteracy learning model to develop the critical thinking skills and curiosity of elementary school students. Similarly, Wibowo et al. (2026) focused on implementing a RADEC-based multiliteracy approach to develop the logical and reflective thinking skills of elementary school students. Misa's (2023) research examined the application of situated practice within multiliteracies pedagogy to develop critical reading skills through learning experiences that take into account the students' social and cultural contexts. The focus of these studies indicates that the implementation of multiliteracies pedagogy at the elementary school level remains oriented toward developing students' literacy competencies and thinking skills. Meanwhile, the use of multiliteracies pedagogy as an approach to equip students to address peer pressure related to sustainable consumption within a local wisdom context has not yet been extensively studied.

Addressing this gap, this study proposes a learning design based on multiliteracies for Wayang Thengul context that incorporates economic literacy, digital literacy, and cultural literacy to assist students in dealing with peer pressure in terms of consumption behavior. In this regard, multiliteracies pedagogy is conceptualized as the pedagogical approach to support the learning design and Wayang Thengul as the local culture that connects issues of sustainable consumption with students' socio-cultural reality. This study provides an alternative design of learning that primary school teachers can use to foster

critical, reflective, and responsible attitudes in consumption decision-making. Accordingly, this study examines the implementation and effectiveness of the Wayang Thengul-contextualized multiliteracies learning design in addressing students' attitudes toward consumptive peer pressure. Specifically, the study addresses the following research questions: RQ1. How is the Wayang Thengul-contextualized multiliteracies learning design implemented through the four stages of multiliteracies pedagogy in the two face-to-face learning sessions? RQ2. Is there a difference in students' attitudes toward consumptive peer pressure before and after the implementation of the Wayang Thengul-contextualized multiliteracies learning design?

METHOD

Research Design

This study employed a quantitative pre-experimental approach using a one-group pretest–posttest design. In this design, the same group of participants was measured using the attitude questionnaire before (pretest) and after (posttest) the intervention, and no control or comparison group was included. The pretest–posttest sequence therefore represents the measurement procedure within the one-group pre-experimental design, while the intervention consisted of implementing the Wayang Thengul-contextualized multiliteracies learning design. The research model scheme used in this research is as presented in Figure 1.



Figure 1. One Group Pretest-Posttest Research Design

Description:
O_1 = Administration of the pre-questionnaire before the intervention.
X = Intervention using the Wayang Thengul-contextualized multiliteracies learning design.
O_2 = Administration of the post-questionnaire following the intervention.

The one-group pretest–posttest pre-experimental design was selected because this study aimed to examine changes in students' attitudes before and after implementing the Wayang Thengul-contextualized multiliteracies learning design. The use of the same subjects for the pretest and posttest measurements provided an opportunity to compare the group-level changes in relation to the intervention in the two-session learning process. But, since the design did not make use of a control or comparison group, the change in the scores recorded between the pretest and the posttest is not solely attributed to the intervention, as there could have been other variables that affected the change during the research process. Thus, the results are seen as evidence of changes in the attitudes of students after implementing the learning design rather than as definitive causal evidence of its effects.

Participants and Setting

The subjects involved in this study were 12 fifth-grade students from the participating elementary school in Tuban Regency, East Java. The subjects were selected using a total sampling technique, in which the entire population was included as the study sample. The research site was selected because the phenomenon of consumptive peer pressure among students is prevalent in the school, while Wayang Thengul is a well-known local cultural tradition that is deeply rooted in the cultural life of the surrounding community. These conditions make the school a relevant setting for examining consumptive peer pressure among students while incorporating the local cultural context of Wayang Thengul.

This research was carried out at the involved elementary school following research permission through permit number A/1708002/UN38.1/PP.11.01/2026 on June 7, 2026. Prior to conducting the research procedure, the researcher had obtained permission and informed the participants about the purpose of the research, the procedures involved, participation in the research, the voluntary nature of

participation, the use of the data for academic purposes, and the anonymity of the participants ' identities. The participants were also informed that they could choose not to take part in the research or even withdraw from the research without suffering any academic consequence. As the participants were elementary school children, permission had also been obtained from the school, as well as the parents or guardians of the participants. All participant identities were anonymized to ensure confidentiality in the research process and reporting.

Intervention Procedure

The intervention was implemented in two sessions of 70 minutes each through the application of the multiliteracies pedagogy stages identified by The New London Group (1996), namely situated practice, overt instruction, critical framing, and transformed practice. In the first session, the process began with the two processes of situated practice and overt instruction. In this regard, the students were made to analyze case study excerpts related to consumptive peer pressure within the context of friendship circles and social media sites, fill in a My Consumption Journal, watch videos related to needs, utility values, and consumption outcomes, and create mind maps. The second session was mainly related to the processes of critical framing and transformed practice. For example, in the process of critical framing, the students took part in a mini-debate on the lack of interest among the young generation on Wayang Thengul in the context of popular culture globally. From the discussion on cultural and consumption issues raised in the process of critical framing, students then developed Wayang Thengul-themed tote bag designs with teacher guidance. Artificial Intelligence (AI) was used as a digital ideation tool to explore alternative visual concepts, while students selected, discussed, and refined the ideas in accordance with their understanding of Wayang Thengul and the messages they intended to communicate.

Throughout the intervention, the teacher guided the learning activities and provided support during discussion, reflection, and design development, while students actively participated in reflection, discussion, analysis, and product design. Wayang Thengul was integrated as the local cultural context, particularly in the critical framing and transformed practice stages, to connect issues of consumption and global cultural influence with appreciation of local cultural heritage. The sequence and main activities of the intervention are presented in Figure 2.

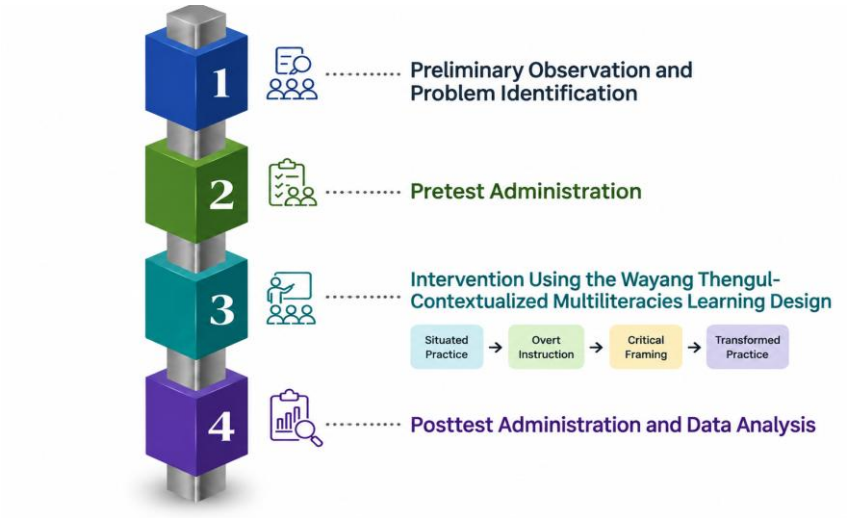


Figure 2. Research Implementation Scheme

Instruments and Data Collection

The quantitative data in this research consisted of primary data gathered from the students through pre- and post-questionnaire surveys. The questionnaires involved 15 items that had been positively keyed and were measured on a 5-point Likert Scale where the responses ranged between 1 and 5. 75 was the highest score achievable on the instrument. This was to measure the students' resistance to peer conformity; independence from the pressure of social acceptance; independent consumption decision; consumption decision autonomy, and appreciation of local products and culture. The higher total

score indicated a stronger attitude characterized by resistance to consumptive peer pressure, autonomous consumption decisions, and appreciation of local cultural products. The questionnaire indicators were adapted from previous research, as shown in Table 1.

Table 1. Indicators of Attitudes Toward Consumptive Peer Pressure

Indicator	Statement
Resistance to peer conformity	I can choose items that are different from those of my friends.
	I can choose not to follow viral trends in my group/circle of friends.
	I do not feel the need to buy an item simply because my friends have it.
Independence from social acceptance pressure	I feel confident even when I do not have the same items as my group/circle of friends.
	I am not worried about being seen as uncool when I do not follow popular trends among my friends.
	I do not need to buy popular items to feel accepted by my friends.
Independent consumption decisions	I prefer to buy things I need even though they are different from my friends.
	I feel that I do not always have to follow trends that are being talked about a lot in my friend group.
	I can refuse a friend's invitation to buy something I do not need.
Autonomy in consumption decision-making	I consider the benefits of an item before buying it.
	I buy things out of necessity, not because they are popular in my circle of friends.
	I think about the use of an item before deciding to own it.
Appreciation for local products and culture	Regional cultural products are worth being proud of.
	Locally made products can be of good quality even when they are not trending.
	I am interested in using products inspired by regional culture.

Source: Authors' contextual adaptation based on Laursen & Veenstra (2021), Mishra & Maity (2021), Zhang et al. (2022), Li et al. (2023), Almeshal & Almawash (2023), and Sabina del Castillo et al. (2024).

Instruments Development and Content Validation

The questionnaire was developed to measure students' attitudes toward consumptive peer pressure using five indicators: resistance to peer conformity, independence from social acceptance pressure, independent consumption behavior, autonomy in making consumption decisions, and appreciation of local products and culture. Three positive keyed items were written for each of these indicators. The first four indicators have been primarily based on the literature in the areas of peer influence and consumer socialization, while the fifth indicator is based on literature in local/global consumer identity, place identity, and attitudes towards local products. The context-specific adaptation of these items was done for the Grade V students and the Wayang Thengul/local product context. These indicators and their adaptations are explained in Table 2.

Table 2. Theoretical and Empirical Basis of the Questionnaire Indicators

Indicator/ Items	Theoretical basis	Empirical sources	Item adaptation
Resistance to peer conformity / Items 1–3	Peer influence and normative conformity; peer groups can shape attitudes and behavior through conformity processes.	Laursen & Veenstra (2021); Li et al. (2023)	Wording was adapted to familiar Grade V situations involving choosing differently from friends, resisting viral trends, and not

			buying an item merely because friends own it.
Independence from social acceptance pressure / Items 4–6	Peer-group influence and social acceptance/belonging; resistance is reflected in reduced dependence on peer approval in consumption choices.	Laursen & Veenstra (2021); Mishra & Maity (2021)	Wording was adapted to confidence without matching friends' possessions, reduced concern about peer approval, and reduced dependence on popular purchases for social acceptance.
Independent consumption decisions / Items 7–9	Consumer socialization and peer influence in purchase/consumption decision-making.	Li et al. (2023); Almeshal & Almawash (2023)	Wording was adapted into age-appropriate statements about choosing needs over peer trends and refusing unnecessary purchases.
Autonomy in consumption decision-making / Items 10–12	Autonomous consumer choice based on personal need/utility rather than conformity.	Mishra & Maity (2021); Almeshal & Almawash (2023)	Wording was adapted to evaluate benefits, purchasing from necessity rather than popularity, and considering use before ownership.
Appreciation for local products and culture / Items 13–15	Local/global consumer identity and place identity related to attitudes toward local products and their cultural/identity meanings.	Zhang et al. (2022); Sabina del Castillo et al. (2024)	The domain was contextually extended to include regional cultural products relevant to the local school setting; the items were not transferred verbatim from the source studies.

For content validation, three experts with complementary expertise independently reviewed the 15 questionnaire items: a construct/subject-matter expert, an educational measurement/instrument expert, and a language and primary-education expert. Item relevance was rated on a four-point scale (1 = not relevant, 2 = partly relevant, 3 = relevant, and 4 = highly relevant). Additional criteria addressed conceptual accuracy, clarity, single-focus wording, Grade V suitability, and readability. Only the common relevance rating was used to calculate item-level Aiken's V. Aiken's V was calculated using the formula $V = \Sigma(r - l_o)/[n(c - 1)]$, where $l_o = 1$, $n = 3$ experts, and $c = 4$ rating categories (Aiken, 1985). Using Aiken's exact right-tail probability criterion at $\alpha = .05$, the critical value was $V = .92$. The first-round review identified Items 5, 6, and 14 for wording refinement based on the experts' comments. Item 5 was simplified to shorten the trend-related clause and improve child-friendly wording; Item 6 was revised to replace the abstract expression of "sense of success" with a clearer reference to social acceptance; and Item 14 was rephrased to remove awkward comparative wording and express local-product quality more clearly. The revised items were subsequently re-evaluated by the experts. The final content-validation results are presented in Table 3.

Table 3. Content Validation Results and Aiken's V Values

Items	Ratings (V1/V2/V3)	Aiken's V	Decision
1–3	4 / 4 / 4	1.000	Meets criterion
4-6	4 / 4 / 4	1.000	Meets criterion
7-9	4 / 4 / 4	1.000	Meets criterion
10-12	4 / 4 / 4	1.000	Meets criterion
13-15	4 / 4 / 4	1.000	Meets criterion

The first-round expert review resulted in wording refinements for Items 5, 6, and 14. Following revision and re-evaluation, all 15 items obtained Aiken's V = 1.000, exceeding the critical value of .92 at α = .05. The revised items retained their original indicators and positive scoring direction while improving clarity and suitability for Grade V students. The questionnaire was therefore considered to have adequate content validity for the subsequent data collection and analysis.

Data Analysis

The data analysis was conducted in three stages. First, normalized gain (N-Gain) was calculated to determine the relative improvement in students' attitudes toward consumptive peer pressure following the implementation of the Wayang Thengul-contextualized multiliteracies learning design (Sukarelawa, M.I. et al., 2024). N-Gain was calculated using the formula $g = (Xpost - Xpre)/(Xmax - Xpre)$, where $Xmax$ was 75. The resulting N-Gain values were interpreted as high increase $(g > 0.70)$, moderate increase $(0.30 \leq g \leq 0.70)$, low increase $(0 < g < 0.30)$, and no increase $(g \leq 0)$ (Sukarelawa, M.I. et al., 2024).

Second, the Shapiro–Wilk test was used to assess the normality of the pre- and post-questionnaire scores before conducting the parametric comparison. The null hypothesis (H_0) stated that the data were normally distributed, whereas the alternative hypothesis (H_1) stated that the data were not normally distributed. A significance level of α = 0.05 was applied, with $(p > .05)$ indicating that H_0 was not rejected and the data were considered to meet the normality assumption.

Third, a paired samples t-test was conducted to determine whether there was a statistically significant difference between students' pre- and post-questionnaire scores. Paired sample t-test was applied since the same 12 participants had been measured twice – once before the intervention of the learning design and then after the intervention, producing paired observations. The null hypothesis (H_0) stated that there was no statistically significant difference between the pre- and post-questionnaire scores, whereas the alternative hypothesis (H_1) stated that a statistically significant difference existed. The decision criterion was α = 0.05, with $(p < .05)$ indicating rejection of H_0. Since all questions on the questionnaire were positively keyed, high total scores reflected high resistance to consumptive peer pressure, independence in consumption decision-making, and appreciation of local cultural products. All analyses were performed using IBM SPSS Statistics.

RESULT

The findings from this research can be divided into two: the implementation of the Wayang Thengul-based Multiliteracies Learning Design and the evaluation of the effectiveness of the implemented learning design through pre-post questionnaire analysis using normalized gain (N-Gain), the Shapiro-Wilk test for normality, and a paired samples t-test. These two aspects are presented in sequence to demonstrate the process of implementation and attitude change of the students after the implementation of the learning design.

Part 1: Implementation of the Wayang Thengul-Contextualized Multiliteracies Learning Design

To address RQ1, the Wayang Thengul-contextualized multiliteracies learning design was implemented over two face-to-face sessions within IPAS (natural and social sciences) learning for fifth-grade students, focusing on economic activities that are a source of pride for their region. The implementation was based on the four stages of multiliteracies pedagogy developed by The New London Group (1996): situated practice, overt instruction, critical framing, and transformed practice. The first session focused on situated practice and overt instruction, while the second session focused on critical

framing and transformed practice. The learning activities connected students' everyday consumption experiences with economic, digital, and cultural literacy through reflection, information evaluation, critical discussion, and creative production using Wayang Thengul as the local cultural context.

Situated Practice Stage

The situated practice stage focused on building students' initial awareness of the phenomenon of consumptive peer pressure in their immediate surroundings. The lesson began by presenting instances of consumptive peer pressure, prevalent in friendship circles and on social media, through excerpts from case study articles. The students then completed a *My Consumption Journal* worksheet by recording items they intended to purchase, their reasons for wanting the items, the extent to which the items were needed, and whether their interest was influenced by social media trends or friends. The activity was followed by a short reflection in which students reconsidered which items were most needed and how they could make more thoughtful consumption decisions. An example of the *My Consumption Journal* completed by a student is presented in Figure 3. The implementation results indicate that the activity enabled students to connect the issue of consumptive peer pressure with their own consumption experiences and recognize the influence of their social environment on consumption decisions.

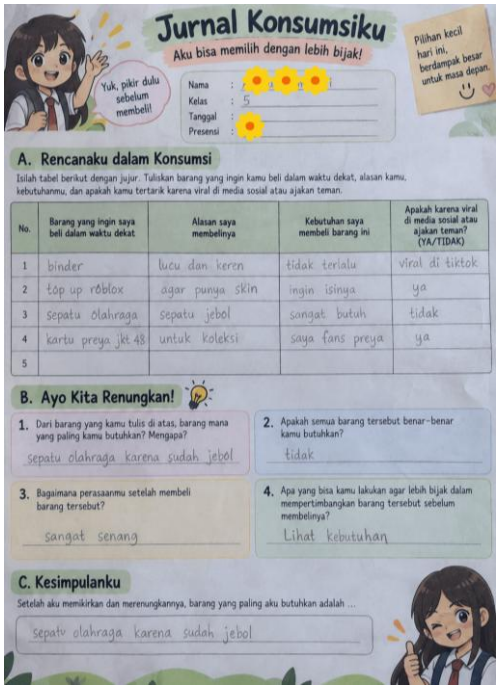


Figure 3. Example of a Student's Completed *My Consumption Journal*

Overt Instruction Stage

The overt instruction phase involved the reinforcement of the comprehension of the sustainable consumption attitude by the students. In this phase, the students learned about the factors in question via educational videos that provided information about needs, utility value, and the effects of consumption decisions. Afterward, they demonstrated their comprehension of the lesson by coming up with mind maps showing the connection among needs, wants, the utility value of goods, the effect of purchasing decisions, and considerations before buying. An example of a student's mind map is presented in Figure 4. The implementation results show that this activity helped students organize their understanding of the factors that should be considered when making wise consumption decisions.

Critical Framing Stage

The critical framing stage aimed to foster reflective thinking as students examined the factors underlying the declining interest of the younger generation in Wayang Thengul amid the influence of global popular culture. In a 35-minute mini-debate, the 12 students were divided into two groups of six. The debate began with an introduction involving the lack of popularity of Wayang Thengul as compared to

popular world cultures like Korean dance. The topic for debate was “Is Wayang Thengul able to become a trend among the younger generation?” While one side debated the possibility of Wayang Thengul becoming more popular, the other side deliberated on the reasons behind the lack of appeal of Wayang Thengul to young people. The students were asked to think about cultural appeal, social and media influences, marketing, and cultural merchandise when forming their arguments. The teacher acted as a moderator and facilitator to maintain a respectful, focused, and constructive discussion. At the end of the debate, both groups discussed possible solutions and reached a shared understanding that Wayang Thengul needed to be presented through more attractive forms of promotion and creative products. The implementation results demonstrate that this activity helped students re-evaluate the reasons behind cultural and consumption preferences and provided a basis for developing alternative solutions in the transformed practice stage.

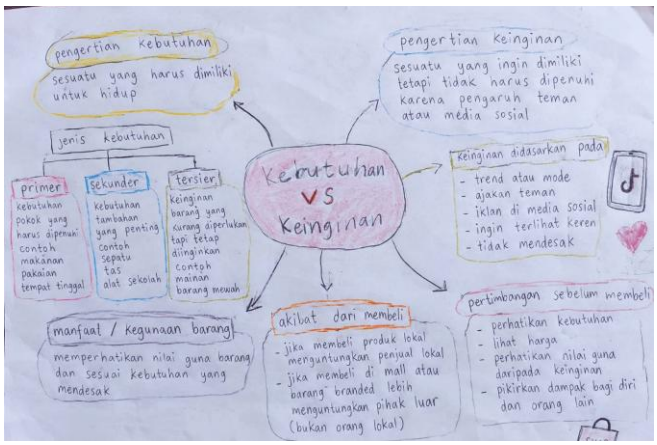


Figure 4. Example of a Student’s Mind Map on Needs and Wants

Transformed Practice Stage

The transformed practice stage provided an opportunity for students to apply the understanding developed during the critical framing stage through the development of Wayang Thengul-themed merchandise. Under the teacher’s guidance, students used Artificial Intelligence (AI) as a digital ideation tool to explore alternative visual concepts for their tote bag designs. The AI output was not considered a ready-made cultural product. On the contrary, the outputs served as a basis for discussion and selection from the standpoint of the cultural value of Wayang Thengul and the consumption-related ideas created in the previous phase, as depicted in Figure 5 below. In this way, the AI was made part of a digital literacy practice as a tool to aid students' interpretation, selection, and decision-making when creating the product. Moreover, students were acquainted with the concept of using modern technology to represent and develop local culture without losing its cultural value. Thus, the synergy between local wisdom and technological development was shown to create cultural products appealing to the younger generation.



Figure 5. Development of Wayang Thengul-Themed Tote Bag Designs

The teacher served as a facilitator throughout the entire process from creating and perfecting the design of the Wayang Thengul tote bag to printing the end product. Each group exhibited their product by explaining the meanings behind the design, visuals, and cultural values associated with the product. This exercise offered the students an opportunity to reflect on their learnings about consumption, peer pressure, and respect for the local culture through an actual product design task. In other words, the products are a reflection of the students' involvement in the transformed practice phase and the application of learning from the previous phases, and not as a direct reflection of change in attitudes.

Part 2: Changes in Students' Attitudes toward Consumptive Peer Pressure

To address RQ2, changes in students' attitudes toward consumptive peer pressure were examined by comparing their pre- and post-questionnaire scores. The mean total questionnaire score increased from 45.42 (pre-questionnaire) to 70.08 (post-questionnaire). Because higher total scores represented stronger resistance to consumptive peer pressure, greater autonomy in consumption decision-making, and stronger appreciation for local cultural products, the increase indicates improvement in the measured attitudes following the implementation of the learning design. The N-Gain value was 0.834, which falls within the high-increase category. The N-Gain analysis results are presented in Table 4.

Table 4. N-Gain Analysis Results

N-Gain				
N	Pre-questionnaire M ± SD	Post-questionnaire M ± SD	N-Gain	Interpretation
12	$\bar{x}$	$\bar{x}$	$\bar{x}$	High increase
	45.42 ± 2.78	70.08 ± 2.50	0.834	

The N-Gain value of 0.834 indicates a high increase in students' measured attitudes following the implementation of the learning design. Next, a normality test was carried out using Shapiro–Wilk as a prerequisite for parametric analysis because the number of research subjects was less than 50 students. The test results showed a significance value of 0.981 on the pre-questionnaire and 0.878 on the post-questionnaire. Both values were greater than 0.05, so the data were normally distributed and met the assumptions for testing using the paired sample t-test. The results of the normality test are presented in Table 5.

Table 5. Results of the Shapiro–Wilk Normality Test

Data Normality			
Data	Statistics	df	Sig.
Pre-questionnaire	0.979	12	0.981
Post-questionnaire	0.967	12	0.878

The hypothesis testing using a paired-sample t-test showed a significance value of 0.000 ($p < 0.05$). These results indicated a statistically significant difference between the pre-questionnaire and post-questionnaire scores following the implementation of the learning design. The results of the paired-sample t-test are presented in Table 6.

Table 6. Results of the Paired-Sample t-Test

Paired Sample t-Test			
Pair	t	df	Sig.(2-tailed)
Pre-Post	-74.000	11	0.000

Overall, the analysis results indicated an improvement in the students' measured attitudes following the implementation of the Wayang Thengul-contextualized multiliteracies learning design. The increase in the total questionnaire score, the high N-Gain value, and the statistically significant difference

between the pre- and post-questionnaire scores consistently indicate that the measured attitudes were higher after the intervention.

DISCUSSION

The discussion in the current study involved two major areas. The first area explains the processes by which the Wayang Thengul-based multiliteracies learning approach might have led to positive changes in the attitudes of students towards consumptive peer pressure. The second area looks into the role played by Wayang Thengul, which is a learning context that is based on indigenous knowledge, in facilitating responsible consumer behavior among elementary school students.

Part 1: The Mechanism of Addressing Students' Attitudes toward Consumptive Peer Pressure through the Wayang Thengul-Contextualized Multiliteracies Learning Design

The research results indicated that the implementation of the Wayang Thengul-contextualized multiliteracies learning design was associated with an improvement in students' measured attitudes toward consumptive peer pressure. This improvement was reflected in the increase in the mean total questionnaire score from 45.42 (pre-questionnaire) to 70.08 (post-questionnaire). Because higher questionnaire scores represented stronger attitudes characterized by resistance to consumptive peer pressure, greater autonomy in consumption decision-making, and appreciation for local cultural products, the increase indicates improvement in the measured attitudes following the implementation of the learning design. The comparison of the mean pre- and post-questionnaire scores is presented in Figure 6.

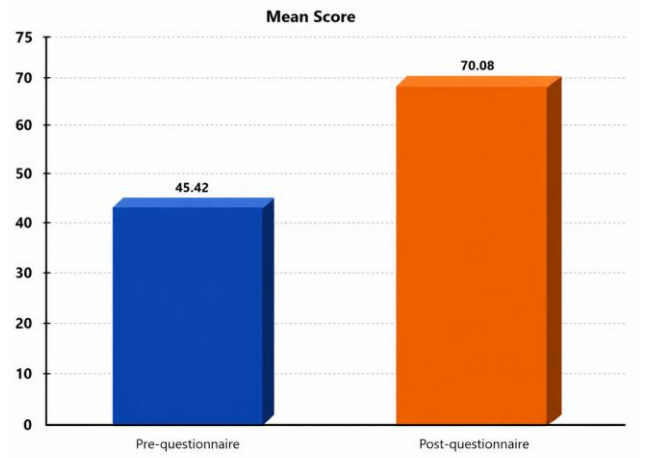


Figure 6. Comparison of Mean Pre-questionnaire and Post-questionnaire Scores

The improvement observed in the questionnaire scores may have been supported by the learning design's use of students' own consumption experiences as the starting point of the learning process, thereby connecting the learning activities to the realities they face. These findings are supported by Lestariningsih et al. (2026), who explain that meaningful learning rooted in students' real-life experiences enhances engagement and helps students construct a deeper understanding. The study results showed that the *My Consumption Journal* activity enabled students to identify consumption experiences influenced by their peer environment before acquiring concepts related to sustainable consumption. This process helped the students realize that purchasing decisions are not always based on need but are often driven by a desire for social acceptance within their peer group. This interpretation is reinforced by Cheng et al. (2020), who demonstrate that experience-based learning involves processes of reflection, analysis, and re-evaluation of experiences, thereby helping students build self-awareness and internalize the values derived from the learning experience. The students' ability to recognize the factors influencing consumption decisions served as a foundation for developing critical awareness before constructing a new understanding of responsible consumption. This aligns with the perspective of The New London Group (1996), which positions situated practice as the basis for knowledge construction through a process of contextual meaning-making. This mechanism aligns with Kolb's (1984) Experiential Learning Theory, which posits that learning unfolds through a cycle of concrete experience, reflection,

conceptualization, and application in new situations. In this study, the cycle was evident as the students began the learning process by reflecting on their consumption experiences via their *My Consumption Journals*, developing an understanding of consumptive peer pressure, and subsequently using that understanding as a basis for the ensuing stages of learning. The study's findings therefore suggest that the improvement observed in the questionnaire scores was preceded by students' recognition of their own consumption experiences as objects of critical reflection. Personal awareness, cultivated through authentic experience and systematic reflection, provided an important learning foundation for supporting the measured improvement in students' attitudes toward consumptive peer pressure.

The observed improvement in the students' total questionnaire scores was accompanied by learning activities that integrated economic, digital, and cultural literacy. The mean total questionnaire score increased from 45.42 before the intervention to 70.08 after the intervention, with an N-Gain score of 0.834. At the activity level, the *My Consumption Journal* required students to identify whether their consumption experiences were driven by actual needs or by social influence, providing an initial basis for reflecting on peer pressure. The mind-mapping task also enabled students to organize their ideas concerning the concepts of needs, utility, and the implications of consumption decisions. In the critical framing phase, the mini-debate on Wayang Thengul and global popular culture offered students a chance to reflect on the factors that determine consumption preferences and the importance of local cultural products. This study demonstrates how economic literacy was taught by discussing needs, utility, and consumption implications; digital literacy by using and evaluating information from digital media and AI-assisted design tasks; and cultural literacy by working with Wayang Thengul and valuing local cultural products. This interpretation is consistent with Mertala (2021), who describes multiliteracies pedagogy as a transversal approach that connects learning across different fields of knowledge. The learning activities also provided opportunities for students to question product popularity, consider information in context, and relate consumption choices to their personal values. These learning processes are consistent with the critical evaluation of information described by Haider & Sundin (2022), who confirmed that critical evaluation involves not only assessing source credibility but also understanding information within a broader context to derive deeper meaning.

Part 2: The Role of Wayang Thengul as a Context for Local Wisdom-Based Learning in Fostering Sustainable Consumption Attitudes

The implementation results showed that the students produced Wayang Thengul-themed tote bags as the output of the transformed practice stage. The designs involved features of Wayang Thengul from the reflections by the students on consumption, peer influence, and appreciation of culture through the previous learning experiences. The outputs of the project are illustrated in Figure 7.



Figure 7. Results of the Wayang Thengul-Themed Tote Bag Product

Utilizing Wayang Thengul as a learning context provided a more meaningful educational experience. The students did not merely study the concept of sustainable consumption but also

constructed their understanding and attitudes through a cultural element close to their daily lives. This finding is supported by Rosyidah et al. (2025), who explained that local wisdom-based learning enhances the meaning and relevance of education through pertinent contexts. Findings from the experiment indicated that Wayang Thengul not only acted as a medium for learning but also became a source of values through which the students were able to reconsider the connection between the act of consuming, being socially responsible, and maintaining local culture. This can be seen in the way the students incorporated Wayang Thengul characters, responsible consumption messages, and visual creativity in designing tote bags. This interpretation is reinforced by Wulanda et al. (2024), who confirmed that student involvement in creating local culture-based products strengthens value internalization, as the knowledge acquired is applied through authentic and meaningful activities. The student-produced items demonstrated how the learning activities provided opportunities to connect knowledge, cultural values, and creativity with more responsible consumption perspectives. This aligns with Gay's (2010) theory of Culturally Responsive Pedagogy, which posited that learning experiences become more effective when students' cultural identities serve as the foundation for constructing new knowledge. The findings of this study indicated that Wayang Thengul served not only as a learning medium but also as a pedagogical context that bridged the relationship between cultural identity, learning experiences, and the formation of sustainable consumption attitudes. This role demonstrates that local culture can function as a source of value development within the learning process, rather than merely serving as material for cultural introduction.

Furthermore, the role of Wayang Thengul in the design of the learning activities has far-reaching significance for primary school teachers, curriculum development, sustainability education, and the incorporation of local cultural heritage in multiliteracies learning. This finding is corroborated by Dlouhá et al. (2022), who explained that sustainability education takes on greater meaning when learners connect global issues with their local context and experience. In this study, this idea was evident in the way Wayang Thengul was used as a cultural context for discussing consumption, peer pressure, and responsible consumption. The integration of Wayang Thengul provided a context through which students could relate the concept of sustainable consumption to cultural elements within their learning environment. This interpretation is reinforced by N. Rahman et al. (2025), who found that integrating local wisdom into project-based learning can create culturally relevant learning experiences and support student engagement through the application of local values. For primary school teachers, these findings suggest that sustainability-related issues can be addressed through contextual learning activities that connect students' everyday experiences with reflection, discussion, information evaluation, and creative production. For curriculum development, the learning design provides an example of how responsible consumption can be integrated across learning activities by connecting economic, digital, and cultural literacy, rather than being treated as an isolated topic. In sustainability education, the findings are consistent with UNESCO (2017) and Ho (2021), who emphasized the integration of knowledge, skills, values, and action in addressing real-life sustainability issues. The utilization of Wayang Thengul can be said to provide an appropriate cultural context in which sustainability education can be integrated with cultural heritage without violating the principles of multiliteracies learning. Such implications can be considered in future practice where teachers and curriculum designers can adopt the inclusion of local cultural contexts within learning processes addressing current social and sustainability issues. This may lead to culturally relevant sustainability education. Nonetheless, such implications must be understood as considerations from the process of learning in this particular study and the change in scores in the questionnaire, and not necessarily as generalizable evidence of the learning design to other schools and students populations without further investigation.

Research Limitations

This study has several limitations that should be considered when interpreting the findings. First, the study used a one-group pretest-posttest pre-experimental design without a control or comparison group. Thus, the increase in questionnaire scores after the implementation of the learning design cannot be associated with it exclusively, as there are certain other variables that occurred during the course of the study that cannot be excluded. Second, the research included just 12 fifth-grade elementary school students who participated from one of the schools. As a result, the research findings lack transferability

and generalizability to students with other characteristics, at other grade levels, or from other schools. Third, the intervention has been implemented over two face-to-face learning sessions; thus, the research does not provide any information on the sustainability of the observed changes or on the possibility of similar effects from the learning experiences with further implementation. Finally, the quantitative evidence has been collected through the means of a self-report attitude questionnaire, while the qualitative evidence has been collected through learning experiences and students' work. These data provide useful evidence of students' responses and learning processes, but they may not fully capture students' actual consumption behavior outside the classroom. Accordingly, the findings should be interpreted as evidence of changes in the measured attitudes following the implementation of the learning design within the study context, rather than as definitive evidence of long-term behavioral change or broad population-level generalization.

Research Recommendations

Based on these limitations and findings, several recommendations can be proposed for future research and educational practice. Future studies should utilize a quasi-experimental or experimental design that involves a comparison group. This will make it possible to present stronger evidence on the impact of the learning design. The researchers will have to use larger and more diverse samples from other schools and different grades, as well as other sociocultural contexts to investigate the applicability of the learning design. Longitudinal investigation will help find out how long the changes in students' attitudes remain the same and whether they appear in actual consumption practices of the students. Further investigation can use not only questionnaires, but also other types of evidence such as classroom observation, interviews, reports from students or parents, and other behavioral data. In practical education, teachers can adapt the design to their cultural context by incorporating responsible consumption issues into relevant educational activities while maintaining all four stages of multiliteracies pedagogy. Such implementation should be accompanied by appropriate adaptation to students' developmental characteristics, available learning time, and school conditions.

CONCLUSION

Regarding RQ1, the Wayang Thengul-contextualized multiliteracies learning design was implemented through the four stages of multiliteracies pedagogy—situated practice, overt instruction, critical framing, and transformed practice—across two face-to-face learning sessions. The activities connected students' consumption experiences with reflection, discussion, information evaluation, and creative production using Wayang Thengul as a local cultural context.

Regarding RQ2, students' measured attitudes toward consumptive peer pressure improved following the implementation of the learning design. The mean questionnaire score increased from 45.42 to 70.08, with an N-Gain of 0.834 (high category) and a statistically significant difference between the pre- and post-questionnaire scores. Because higher scores represented stronger resistance to consumptive peer pressure, greater autonomy in consumption decision-making, and appreciation for local cultural products, the increase indicates improvement in the measured attitudes. However, without a control or comparison group, these findings should be interpreted as evidence of change following implementation rather than definitive causal evidence.

Theoretically, this study provides a practical illustration of implementing multiliteracies pedagogies locally to address the issue of responsible consumption education. On a practical level, this learning approach can provide some information for primary school teachers on how to combine local cultural heritage and sustainability education along with responsible consumption practices. In addition, through this learning experience, the students were exposed to an opportunity to combine the elements of local wisdom and the contemporary technologies of development in order to learn about and express their cultural knowledge in the form of digital media without losing its cultural authenticity.

GENERATIVE AI STATEMENT

The authors used OpenAI's ChatGPT during the preparation of this manuscript to assist with English language refinement, grammar and wording improvement, and clarification of sentence structure.

Generative AI technology was not utilized to draft this entire manuscript, carry out the study, perform statistical analysis, or interpret the results of the research. The authors were entirely responsible for the accuracy of this manuscript, content, analysis, interpretation, and final version of the manuscript.

REFERENCES

Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. Educational and Psychological Measurement, 45(1), 131–142. https://doi.org/10.1177/0013164485451012

Almeshal, S. A., & Almawash, M. M. (2023). Peer and Parent Influence on Consumer Behavior Buying Decision Making: An Empirical Study among Saudi Female Consumers. *British Journal of Management and Marketing Studies*, *6*(1), 1–16. https://doi.org/10.52589/bjmms-nlcb55eq

Budiwati, N., Hilmiatussadiah, K. G., Nuriansyah, F., & Nurhayati, D. (2020). Economic Literacy and Economic Decisions. *Jurnal Pendidikan Ilmu Sosial*, *29*(1), 85–96. https://doi.org/10.17509/jpis.v29i1.21627

Cheng, Y. C., Huang, L. C., Yang, C. H., & Chang, H. C. (2020). Experiential learning program to strengthen self-reflection and critical thinking in freshmen nursing students during covid-19: A quasi-experimental study. *International Journal of Environmental Research and Public Health*, *17*(15), 1–8. https://doi.org/10.3390/ijerph17155442

Dlouhá, J., Caniglia, G., & Kroufek, R. (2022). Ecocritical analysis of ``glocal'' essays on Lived Experiences of Climate Change in higher education. *Frontiers in Sustainability*. https://doi.org/10.3389/frsus.2022.980530

Geneva, G. (2010). *Culturally Responsive Teaching: Theory, Research, and Practice* (2nd ed.). Teachers College Press.

Grohmann, A., & Sakha, S. (2019). The effect of peer observation on consumption choices: evidence from a lab-in-field experiment. *Applied Economics*, *51*(55), 5937–5951. https://doi.org/10.1080/00036846.2019.1638499

Gunawan, A. I., Gaffar, V., Fafa Bansah, P., & Monoarfa, H. (2024). Responsible Consumption Behavior, Crucial Goals for Sustainable Development: A Systematic Review and Future Research Prospects. *International Journal of Applied Business Research*, *2024*(1), 99–120. https://doi.org/10.35313/ijabr.v6i01.387

Haider, J., & Sundin, O. (2022). Information literacy challenges in digital culture: conflicting engagements of trust and doubt. *Information Communication and Society*, *25*(8), 1176–1191. https://doi.org/10.1080/1369118X.2020.1851389

Hasmawati, H., Djumat, I., & Rajaloa, N. I. (2025). The impact of digital cultural transformation on elementary school students' identity in the era of globalization. *Mimbar Sekolah Dasar, 12*(4), 754–772. https://doi.org/10.53400/mimbar-sd.v12i4.91609

Hermawati, E., Sari, M., & Nurhasanah, A. (2021, March 8). The Effect of Multiliteracy Learning Models On Elementary Students' Critical Thinking Skill and Students' Curiosity Attitudes. *Proceedings of the 1st Universitas Kuningan International Conference on Social Science, Environment and Technology, UNiSET 2020*. https://doi.org/10.4108/eai.12-12-2020.2305021

Ho, B. Q. (2021). Effects of learning process and self-efficacy in real-world education for sustainable development. *Sustainability (Switzerland)*, *13*(1), 1–11. https://doi.org/10.3390/su13010403

Kolb, David. A. (1984). *Experiential learning: experience as the source of learning and development*. Prentice Hall. http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf

Kustiandi, J., Sahid, S., & Kaharudin, I. H. (2024). Empowering students: Unleashing the impact of economic literacy and family education on economic decision-making, with a focus on economic rationality. *Multidisciplinary Reviews*, *7*(7). https://doi.org/10.31893/multirev.2024158

Laursen, B., & Veenstra, R. (2021). Toward understanding the functions of peer influence: A summary and synthesis of recent empirical research. In *Journal of Research on Adolescence* (Vol. 31, Number 4, pp. 889–907). John Wiley and Sons Inc. https://doi.org/10.1111/jora.12606

Lestariningsih, N., Nugraha, J., Sajidah, H. B. N., & Ngaisah, N. C. (2026). Implementasi Konsep Meaningful Learning di Kelas 4 SD Kemala Bhayangkari 04 Kota Semarang. *Konstruktivisme*. https://doi.org/10.35457/0r8sp241

Li, Z., Choi, S., & Forrest, J. Y. L. (2023). Understanding peer pressure on joint consumption decisions: the role of social capital during emerging adulthood. *Young Consumers*, *24*(1), 18–39. https://doi.org/10.1108/YC-03-2022-1494

Lichy, J., McLeay, F., Burdfield, C., & Matthias, O. (2023). Understanding pre-teen consumers social media engagement. *International Journal of Consumer Studies, 47*(1), 202–215. https://doi.org/10.1111/ijcs.12821

Mahendra, A., Setyowati, R. R. N., & Rachmadyanti, P. (2026). Pedagogi Multiliterasi Melalui Pembelajaran Berbasis Fenimena: Model untuk Meningkatkan Perilaku Ekonomi Sirkular di Sekolah Dasar. *Jurnal Didaktika Dwija Indria*, *14*(3), 1240–1251. https://doi.org/10.20961/ddi.v14i3.14.3.1240-1251

Mertala, P. (2021). The pedagogy of multiliteracies as a code breaker: A suggestion for a transversal approach to computing education in basic education. *British Journal of Educational Technology*, *52*(6), 2227–2241. https://doi.org/10.1111/bjet.13125

Misa, M. (2023). Multiliteracies Pedagogy: A Case Study of Critical Reading in ELT Classroom By Implementing Situated Practice. *English Review: Journal of English Education*, *11*(2), 489–500. https://doi.org/10.25134/erjee.v11i2.7918

Misaa, M., Purwati, O., & Retnaningdyah, P. (2022). Multiliteracy pedagogical framework in action: Critical reading in ELT classroom by implementing critical framing. *Cypriot Journal of Educational Sciences*, *17*(12), 4311–4323. https://doi.org/10.18844/cjes.v17i12.8547

Mishra, A., & Maity, M. (2021). Influence of parents, peers, and media on adolescents' consumer knowledge, attitudes, and purchase behavior: A meta-analysis. *Journal of Consumer Behaviour, 20*, 1675–1689. https://doi.org/10.1002/cb.1946

Muhyidin, A., Istimal, I., Sutar, S., & Maswanto, M. (2024). Towards sustainable consumption: The role of knowledge, environment, and promotion for the millennial generation. *BISMA (Bisnis Dan Manajemen)*, 144–166. https://doi.org/10.26740/bisma.v16n2.p144-166

Nurdiyana, T. (2019). Wayang Tengul Art Performance: A Study of People's Appreciation of Wayang Tengul Art. *Harmonia: Journal of Arts Research and Education*, *19*(2), 163–171. https://doi.org/10.15294/harmonia.v19i2.23636

Pitaloka, R. A., Elvandari, M., & Sefrina, L. R. (2026). Pengaruh Teman Sebaya dan Media Sosial terhadap Perilaku Konsumsi Jajanan Sehat Anak Sekolah. *Journal of Health Science and Technology*, *7*(1), 39–45. https://doi.org/10.53861/lontarariset.v7i1

Radetić-Paić, M., Kadum, S., & Kopas-Vukašinović, E. (2022). Susceptibility to Peer Pressure – Self-Assessment of Students of Primary School and Preschool Education. *Revista Romaneasca Pentru Educatie Multidimensionala*, *14*(2), 01–18. https://doi.org/10.18662/rrem/14.2/564

Ragelienė, T., & Grønhøj, A. (2020). Preadolescents' healthy eating behavior: Peeping through the social norms approach. *BMC Public Health*, *20*(1). https://doi.org/10.1186/s12889-020-09366-1

Rahman, M. A., Melliyani, M., Handrianto, C., Erma, E., & Rasool, S. (2022). Prospect and Promise in Integrating Multiliteracy Pedagogy in The English Language Classroom in Indonesia. *ETERNAL (English, Teaching, Learning, and Research Journal)*, *8*(1), 34–52. https://doi.org/10.24252/eternal.v81.2022.a3

Rahman, N., Liswijaya, L., Hendratmoko, A. F., Nagy, E. K., & Mashwani, H. U. (2025). Effectiveness of a Project Based Learning Model Integrated With Sasambo Local Wisdom to Enhance Students' Scientific Attitudes. *JIPI*, *9*(1), 78–89. https://doi.org/10.24815/jipi.v9i1.42626

Ramdani, M. Z. (2026). Implementasi Model Pembelajaran Pedagogik Multiliterasi dalam Meningkatkan Berpikir Kritis Siswa di SD Negeri 1 Senyiur. *AS-SABIQUN*, *8*(4), 745–764. https://doi.org/10.36088/assabiqun.v8i4.6392

Rosyidah, F., Susantini, E., Yuliani, Y., & Nisa', K. (2025). Local Wisdom and STEM in Science Education to Support SDG-4: A Systematic Review. *JPII*, *14*(4), 654–666. https://doi.org/10.15294/jpii.v14i4.34450

Sabina Del Castillo, E. J., Díaz Armas, R. J., & Gutiérrez Taño, D. (2024). Ethnocentrism and place identity in the consumption of local products. *Heliyon*, *10*(10), e31602. https://doi.org/10.1016/j.heliyon.2024.e31602

Sukarelawa, M. I., Indratno, T. K., & Ayu, S. M. (2024). *N-Gain vs Stacking Analisis perubahan abilitas peserta didik dalam desain one group pretest-posttest*. D.I. Yogyakarta: Suryacahya.

Sukajaya, I. G. N. A. S. ., & Luh Putu Sri Lestari. (2025). Pop-Up Book of Balinese Folktale I Pengangon Bebek to Enhance Cultural Literacy of Elementary School Students. *Jurnal Ilmiah Sekolah Dasar*, *9*(1), 153–160. https://doi.org/10.23887/jisd.v9i1.91620

Tajfel, H., & Turner, J. C. (1986). *The Social Identity Theory of Intergroup Behavior* (S. Worchel & W. G. Austin, Eds.). Nelson-Hall.

The New London Group. (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*. https://doi.org/10.17763/haer.66.1.17370n67v22j160u

Thürmer, J. L., Bieleke, M., Wieber, F., & Gollwitzer, P. M. (2020). If-then plans help regulate automatic peer influence on impulse buying. *European Journal of Marketing*, *54*(9), 2079–2105. https://doi.org/10.1108/EJM-05-2018-0341

UNESCO. (2017). *Education for Sustainable Development Goals: learning objectives*. UNESCO. https://doi.org/10.54675/CGBA9153

United Nations. (2026). *The Sustainable Development Goals Report 2026*. https://unstats.un.org/sdgs/report/2026/

Wibowo, S., Mudiono, A., Khoiriya, R. M., Faiza, A., Ardhiansyah, I., & Azizah, M. (2026). Effectiveness RADEC based multiliteracies approach on logical and reflective thinking skills of elementary school students. *Jurnal Bidang Pendidikan Dasar*, *10*(1), 100–113. https://doi.org/10.21067/jbpd.v10i1.13068

Wulanda, Pratiwi, R. A., Maulidawati, Furqan, A., & Ahyar, J. (2024). Implementation of Project-Based Learning Model Integrated with Local Wisdom in Language Learning in Elementary School. *Jurnal Ilmiah Indonesia*, *4*(11), 820–828. https://doi.org/10.59141/cerdika.v4i11.2022

Yap, J. R., & Gurney, L. (2023). Exploring practices of multiliteracies pedagogy through digital technologies: a narrative inquiry. *Literacy*, *57*(3), 292–304. https://doi.org/10.1111/lit.12335