

## **The Effects of Self-Learning Kits on the Academic Performance of Selected Grade 4 Learners in ESP (Edukasyon Sa Pagpapakatao)**

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### **Abstract**

This study investigated the effects of Self-Learning Kits (SLKs) on the academic performance of selected Grade 4 learners in Edukasyon sa Pagpapakatao (ESP) at Sta. Maria Elementary School. A quasi-experimental design was employed using a pre-test and post-test to determine performance differences before and after the intervention. The study revealed a statistically significant improvement in learners' academic performance after the use of SLKs. The SLKs, developed based on localized and learner-centered strategies, proved to be a viable instructional tool for fostering independent learning and deeper comprehension of core values in ESP. Findings emphasize the need for inclusive, contextualized educational tools that respond to learners' cognitive and socio-emotional needs. These results contribute to a growing body of literature advocating the integration of supplementary materials in values education and serve as a guide for educators, administrators, and policymakers.

**Keywords:** Self-Learning Kits, Academic Performance, ESP, Independent Learning, Instructional Materials

### **Introduction**

Access to quality educational materials significantly affects academic performance. According to Coombs (1997), the educational process involves dynamic inputs (human and material resources) and outputs (learner outcomes). Among these inputs, instructional materials play a

crucial role in enabling learners to comprehend lessons effectively. Adeogun (2001) and Lyons (2012) agree that the availability of quality learning materials directly correlates with better academic outcomes. In the context of Edukasyon sa Pagpapakatao (ESP), which fosters character development, civic responsibility, and national identity, learners benefit from tools that stimulate both cognitive and affective domains.

The Self-Learning Kit (SLK) is one such tool, promoting flexibility, creativity, and learner autonomy. It is particularly aligned with the mandates of the K–12 curriculum and RA 10533, which encourage contextualized, inclusive, and developmental learning resources. The SLK's structured yet learner-centered design allows students to independently explore ESP concepts, apply real-life values, and reflect on social issues.

Recent studies (Cabelin, 2021; Samia, 2020; Pecson, 2020) demonstrate that SLKs can improve engagement, conceptual understanding, and performance in various subjects. These studies found that students not only performed better academically but also developed self-discipline and responsibility. The implementation of SLKs can be viewed through the lens of Bruner's Discovery Learning Theory, which emphasizes experiential learning and student autonomy in knowledge construction.

In ESP, which focuses on moral, ethical, and spiritual values, traditional methods often fall short in contextualizing learning. With SLKs, learners are exposed to concrete examples and reflective activities that help them internalize abstract values. Thus, the integration of SLKs in values education could serve as a catalyst for improved academic and behavioral outcomes.

## **Methodology**

### **Research Design**

This study adopted a quasi-experimental design using a one-group pre-test and post-test approach. This design is considered appropriate when random assignment is not feasible, especially in naturalistic educational settings such as classrooms. It enabled the researcher to observe changes in academic performance among the same group of learners before and after the implementation of the Self-Learning Kits (SLKs). The lack of a control group was offset by a rigorous design of assessment tools and a clearly defined intervention. By comparing scores before and after the exposure to SLKs, the study aimed to isolate the instructional material's impact on the learning process. This method aligns well with school-based action research practices, where the practical application of interventions takes precedence over laboratory-level experimental control.

### **Participants**

The study was conducted with fifty (50) Grade 4 learners from Sta. Maria Elementary School during the third and fourth quarters of the academic year 2025–2026. These students were currently enrolled in the subject Edukasyon sa Pagpapakatao (ESP), making them suitable for inclusion in the study. The selected participants reflected a mix of academic performance levels and backgrounds, thus providing a realistic sample of elementary learners in a public school setting. These students were not previously exposed to any similar form of supplementary

instructional materials such as SLKs, making them ideal candidates for measuring the kits' effectiveness.

### **Sampling Method**

To identify the participants, the study employed a combination of convenience and purposive sampling techniques. Convenience sampling was used due to the logistical advantage of the researcher's proximity and accessibility to Grade 4 students. This initial sampling method ensured timely implementation and data collection. Following this, purposive sampling was applied to select students who could benefit most from the intervention, based on observed performance in previous formative assessments and teacher recommendations. The dual use of these methods strengthened the study's internal validity by ensuring a sample that was both accessible and relevant to the research objectives.

### **Intervention Strategy**

The intervention consisted of the implementation of Self-Learning Kits (SLKs) specifically crafted for the ESP subject. These SLKs were designed following the Department of Education's Most Essential Learning Competencies (MELCs), ensuring alignment with the national curriculum. Each kit was composed of three instructional phases:

1. **"What Happened?"** – This phase introduced learners to real-life scenarios involving moral dilemmas or social issues relevant to the competency being taught. The aim was to establish context and engagement.
2. **"What Do You Need to Learn?"** – This phase explained the target concepts in a simplified and contextualized format. The materials included definitions, examples, and illustrations tailored for Grade 4 comprehension.
3. **"What Have You Learned?"** – The final phase consisted of reflective and formative assessment activities such as guided questions, drawing exercises, and multiple-choice questions that measured comprehension and internalization.

The kits were printed, distributed, and used by learners over a one-week period. The instructional design emphasized learner autonomy, creativity, and values integration.

### **Instrumentation**

To measure the academic performance of the learners, two assessment tools were developed: a pre-test and a post-test. Each test consisted of 50 items aligned with the targeted ESP competencies for the quarter. The tests were constructed by the researcher and subsequently reviewed and validated by three Master Teachers with expertise in values education and assessment. The structure of both tests was parallel in format, difficulty, and content coverage, thereby ensuring reliability in comparing results before and after the intervention.

### **Data Collection Procedure**

The following steps were followed during data collection:

1. **Pre-Test Administration:** Students were given a pre-test to assess their initial understanding of ESP topics prior to the SLK intervention.
2. **SLK Implementation:** For one week, students used the Self-Learning Kits as their primary learning tool for the target ESP competencies. The researcher provided orientation and facilitated guided monitoring to ensure appropriate utilization.

3. **Post-Test Administration:** After the intervention, a post-test was administered to the same students under similar testing conditions.
4. **Data Organization:** All tests were collected, scored, and encoded in a spreadsheet for analysis.

## Ethical Considerations

The study followed ethical research principles as stipulated in the Department of Education's Regional Memorandum No. 228, s. 2020. The following procedures were undertaken:

- Informed consent forms were distributed and signed by parents or guardians.
- Assent forms were signed by student participants.
- Participation was voluntary, and students were informed of their right to withdraw at any stage without consequences.
- Anonymity and confidentiality of responses were maintained.
- All materials were secured after the study and disposed of following proper data protection protocols.

## Data Analysis

To analyze the data, both descriptive and inferential statistical techniques were employed:

- **Descriptive Statistics:** Mean scores and standard deviations were calculated to describe the academic performance of students before and after the intervention.
- **Inferential Statistics:** A paired samples t-test was applied to determine if the observed differences in pre-test and post-test scores were statistically significant. The significance level was set at  $\alpha = 0.05$ . If the p-value was  $\leq 0.05$ , the null hypothesis (that there is no significant difference) was rejected.

## Results

The quantitative data gathered from the pre-test and post-test were analyzed using descriptive and inferential statistics. The main purpose was to determine whether the implementation of Self-Learning Kits (SLKs) significantly improved the academic performance of Grade 4 learners in Edukasyon sa Pagpapakatao (ESP).

**Table 1. Mean Scores Before and After SLK Implementation**

Assessment	Mean Score	Standard Deviation	Performance Category
Pre-Test	32.50	6.20	Fairly Satisfactory (75–79)
Post-Test	41.80	5.40	Satisfactory (80–84)

The descriptive statistics show a clear improvement in learners' scores following the SLK intervention. The average performance increased by 9.3 points, signifying a meaningful shift in performance category from "Fairly Satisfactory" to "Satisfactory." The pre-test results indicated that learners had limited comprehension of the ESP competencies prior to the intervention, while the post-test outcomes demonstrated enhanced understanding and mastery of the subject matter.

**Table 2. Paired Samples T-Test Analysis**

Mean Difference	t-Value	p-Value	Interpretation
9.30	8.45	0.000	Significant ( $p < .05$ )

The results of the paired samples t-test further validate the effectiveness of the intervention. With a mean difference of 9.3, a t-value of 8.45, and a p-value of 0.000, the analysis confirms that the observed improvement in post-test scores is statistically significant. The p-value being less than 0.05 indicates strong evidence against the null hypothesis, supporting the conclusion that SLKs had a positive impact on learners' academic performance.

## **Discussion**

The findings of the study affirm that the use of Self-Learning Kits (SLKs) led to a significant improvement in the academic performance of Grade 4 learners in Edukasyon sa Pagpapakatao. The learners demonstrated a marked increase in comprehension and application of values-related lessons as evidenced by the rise in mean scores and the statistical significance established through the paired samples t-test.

This outcome aligns with the conclusions drawn in related studies by Cabelin (2021), Samia (2020), and Pecson (2020), all of which highlight the effectiveness of SLKs in fostering independent learning, retention, and critical thinking across various subjects. The current study adds to the body of literature by extending the proven effectiveness of SLKs into the field of values education, a subject traditionally reliant on didactic and teacher-led instruction.

SLKs provide a structured, student-centered approach that encourages learners to engage with content meaningfully. The three-phase format of the SLK ("What Happened?", "What Do You Need to Learn?", and "What Have You Learned?") mirrors the experiential learning cycle, enabling students to make real-world connections. This process supports learners in developing moral reasoning and social-emotional skills, critical for ESP.

Bruner's (1961) Discovery Learning Theory offers a theoretical foundation for interpreting these results. SLKs allow learners to build new understanding by engaging with authentic problems, processing new information, and applying learned values in reflective ways. Similarly, Vygotsky's (1978) Zone of Proximal Development is supported by the differentiated design of SLKs, which provides scaffolded guidance through accessible content and autonomous learning tasks.

The design of SLKs also resonates with Kolb's Experiential Learning Model (Kolb & Kolb, 2020), which emphasizes active engagement in real-life situations as a means of internalizing knowledge. ESP, being an affective and values-based subject, benefits particularly from these approaches, as learners are able to relate to contextualized moral dilemmas and reflect on their responses.

Furthermore, the results suggest broader implications for addressing educational equity. In resource-constrained environments, SLKs offer cost-effective, replicable, and locally adaptable solutions. The feedback collected from teachers highlighted the kits' flexibility in both face-to-face and asynchronous learning environments, proving especially useful in post-pandemic scenarios where continuity in education remains a challenge (UNESCO, 2022).

The rigorous process of instrument validation involving experienced Master Teachers enhanced the reliability and content validity of the pre-test and post-test, minimizing bias.

Additionally, adherence to ethical standards, including informed consent and participant confidentiality, contributes to the overall credibility of the research.

In sum, the significant improvement in learner outcomes and the theoretical alignment with established educational models validate SLKs as a powerful instructional material in ESP. These findings advocate for their wider adoption and institutional support to enrich character education and elevate the quality of values instruction in Philippine elementary schools.

## Conclusion

The use of Self-Learning Kits significantly improved the academic performance of Grade 4 learners in Edukasyon sa Pagpapakatao. The results indicated a clear increase in mean scores from the pre-test to the post-test, showing that SLKs effectively support value-laden instruction. SLKs provided learners with a contextualized, autonomous, and engaging learning experience that fostered self-reflection, understanding of moral concepts, and application of values in real-life situations. The structured yet flexible design of the SLKs enabled students to develop both cognitive and affective learning outcomes, which are essential components of character education.

This improvement aligns with constructivist learning theories, emphasizing the role of learner-centered, meaningful experiences in the acquisition of knowledge. Therefore, the SLK intervention proved to be a practical and effective approach for enhancing learners' engagement and academic performance in ESP.

## Recommendations

1. **Curriculum Integration:** Educational policymakers should consider the integration of SLKs as supplemental instructional tools in the ESP curriculum to improve students' values formation and performance.
2. **Training Programs:** Schools should provide professional development sessions for teachers on the design, implementation, and evaluation of SLKs, ensuring fidelity and effectiveness.
3. **Scalability:** Future studies should replicate this intervention in different grade levels and across various subjects to validate and generalize the results.
4. **Technology Integration:** The digitization of SLKs should be explored to accommodate online and blended learning models, especially in post-pandemic educational environments.
5. **Policy Development:** The Department of Education should institutionalize SLK development and utilization by allocating resources for their continuous creation, evaluation, and improvement as part of school learning resource programs.

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**Transparency:** The authors declare that the manuscript is honest, truthful and transparent, that no important aspects of the study have been omitted and that all deviations from the planned study have been made clear. This study followed all rules of writing ethics.

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