

Developing a Tri-N Integrated Project-Based Learning Module to Enhance Primary Students' Creativity in Indonesian Language Learning

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ABSTRACT

Developing students' creativity in primary education is essential for preparing them to face 21st-century challenges. However, Indonesian language instruction in elementary schools often lacks teaching materials that effectively foster creative thinking. This study aims to develop and evaluate a Tri-N integrated project-based learning (PjBL) module—rooted in the Javanese educational philosophy of *Niteni* (observe), *Nirokke* (imitate), and *Nambahi* (develop)—to enhance creativity in Indonesian language learning. The study employed a research and development (R&D) approach using the ADDIE model. The module was developed through needs analysis, expert validation, and implementation in two elementary schools. Data were collected via observations, questionnaires, interviews, and documentation. A pretest-posttest design was used to assess the effectiveness of the module, with creativity measured using observation rubrics and N-Gain analysis. The module received high feasibility ratings from experts (100% for teaching materials, 95.71% for content, and 98.97% from practitioners). Creativity scores significantly increased in both trials: from 40.00% to 82.29% (N-Gain = 0.711) in the limited trial and from 40.60% to 83.10% (N-Gain = 0.722) in the wider trial. Teachers and students reported positive experiences with the module's structure, visual appeal, and engagement level. The findings support the Tri-N integrated PjBL module as an effective and culturally grounded innovation for fostering student creativity in language learning. Further research is recommended to explore its scalability across subjects and contexts.

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1. INTRODUCTION

Effective teaching techniques must be grounded in pertinent cultural contexts, even when contemporary educational models place a strong emphasis on global competency. The educational theory of Tri-N (Niteni, Nirokake, Nambahi), a crucial Javanese pedagogical framework developed by Ki Hadjar Dewantara, the founder of Indonesian national education, is adopted in this study. Dewantara promoted Tri-N as a comprehensive strategy for cultural preservation and self-improvement within the context of scientific research, not just as a teaching method. Prihatni (2014) defines "niteni" as paying close attention to an object or event using all five senses. This opinion is consistent with Widyawati et al. (2022), who define "niteni" as the intensive activities of paying attention, observing, and listening. In practice, the "niteni" method requires pupils to thoroughly see, read, listen, touch, and experience the learning object, engaging all of their senses. The "Nirokake" stage occurs when pupils replicate what they have learned, whether through the teacher's models, examples, role models, or other learning tools. This process entails not just cognitive aspects but also a balanced engagement of emotions and conscience. Furthermore, the "nambahake" stage reflects the evolution of learning outcomes, in which students can add, subtract, or change previously acquired information and skills to broaden creativity and enrich ideas, utilizing a variety of available learning materials.

Although the value of encouraging creativity in education is well-established (Beghetto, 2017), and project-based learning (PBL) is widely acknowledged for its efficacy in fostering critical thinking, teamwork, and problem-solving abilities (Thomas, 2000), there is a significant research gap in the field. In particular, there aren't many studies that specifically incorporate and assess the Tri-N pedagogical framework in the planning and execution of project-based modules, especially when it comes to Indonesian education. The Indonesian language serves not only as a medium of communication but also as a tool for improving pupils' critical, imaginative, and creative thinking abilities. Learning Indonesian in elementary school seeks to develop comprehensive language abilities such as hearing, speaking, reading, and writing (Al Farizi, 2019; Sukma et al., 2023). Effective Indonesian language learning should focus on meaningful experiences that not only assist students in understanding the curriculum but also allow them to be creative and explore new ideas, which supports the development of student creativity. As a result, innovation in teaching materials is required, one of which is the development of learning modules capable of optimally stimulating student creativity. Research shows that learning modules have an important role in innovative learning strategies to improve the creativity of elementary school students (Silaen et al., 2024).

The ideal Indonesian language learning module takes an active, project-based, student-centered approach. This module involves creative activities like writing stories, poetry, role-playing, and working on other creative projects. Furthermore, the module's teaching materials must be relevant to students' daily lives, have a variety of languages, and include appealing visual and digital media elements. A differential approach is also used to ensure that the module meets the demands of students with varying levels of aptitude. An ideal module has the following properties: self-instructional, self-contained, stand-alone, adaptive, and user-friendly. The steps for compiling a good learning module include (1) determining the module design, (2) analyzing the curriculum, (3) providing an appropriate title, and (4) writing the module according to learning needs (Safitri, Sarwanto, & Harjunowibowo, 2023).

Creativity is one of the competencies or talents required to confront the challenges of modern life, particularly in elementary schools, and it is a notion that includes elements of freedom to think, act, and create work (Beghetto, 2021; Utami & Rochmiyati, 2024). Learning Indonesian has the potential to boost student creativity. Language is not merely a medium of communication; it also has the potential to foster student creativity when approached correctly, such as through creative writing, open conversations, and collaborative projects (Sugianto et al., 2018). Students can learn to think creatively and express themselves through various activities, one of which is the employment of learning modules (Veronika et al., 2023).

The quick advancements of the period necessitate people who are not only academically outstanding but also possess a high level of creativity. Creativity is currently one of the talents required for learning 21st-century demands, and it is included in all courses, including Indonesian. The Indonesian language topic serves not only as a communication tool but also as a significant means of developing critical, imaginative, and creative students beginning in primary school. Lestari (2019) emphasizes the need of maximizing students' inventiveness to meet contemporary difficulties and demands.

Students' inventiveness develops from an early age, with one example being Indonesian language study in primary school. Learning should not just focus on cognitive aspects but also allow pupils to convey ideas and concepts in their own unique ways. However, field observations indicate that creative pupils in Indonesian language learning are still characterized as low. This is supported by findings from the Global Creativity Index (2015), which ranks Indonesia 115th out of 139 countries in terms of creativity. Similar findings have been reported in investigations conducted by one researcher against 25 Independent Curriculum user teachers using a distribution questionnaire.

The majority of teachers responded that, while competency-based learning in the twenty-first century has been implemented, increasing creativity and participation in education remains the primary problem. Based on the results of the analysis, some major professors stated that student creativity while learning is still not optimal. According to data, the majority of respondents, 52%, said that creative students were classed as little or very little. Analysis results suggest that many students struggle to generate new ideas, tend to imitate patterns provided by the teacher, and produce less creative work. Students are accustomed to the memorization-based learning style and frequently copy or paste answers from numerous sources without independent thought.

Interviews with participating teachers provide additional support for the case. The teacher stated that constraints on innovative teaching resources are one of the primary issues impeding the growth of pupils' creativity. Most educational resources are still conventional and incapable of fostering autonomous research and idea growth. As a result, kids grow docile, unaccustomed to critical thinking, and are more likely to replicate solutions rather than combine concepts in an original way. Furthermore, data from respondent replies revealed that 44% of instructors believe the availability of Indonesian language teaching materials that promote creativity is still very restricted.

Leaving aside the problem mentioned, it is necessary to have innovation in the development of teaching materials that are relevant to the demands of the curriculum, but also capable of optimally stimulating student creativity. One alternate method is a development module based on an integrated project and Tri-N courses. The project-based learning (PjBL) model is thought to be appropriate for addressing 21st-century learning because it encourages participants to actively educate, explore, collaborate, and solve real-world problems in innovative ways (Du & Chaaban, 2020; Hiasa, Agustina, & Tawandorloh, 2022; Suryani et al., 2024). This model emphasizes learning through activity projects that make it possible for students to think critically, creatively, and reflectively in real-world situations (Aziziy et al., 2024).

In line with this, Natalia (2023) claims in his research that a project-based module has been shown to be successful in promoting student creativity in their studies. The module created for this study is also interwoven with Tri-N's teachings from Tamansiswa. Modules integrate three stages: *niteni* (observing), *nirokake* (imitating), and *nambahake* (developing) to promote active learning and higher-level thinking. Initial Tri-N plays a significant role in promoting 21st-century abilities at the primary school level, particularly in the development of creativity. This is supported by the remark of Nisa et al. (2019), who explain that at this point, pupils are given the freedom to express new ideas as a type of actualized creativity. When the three stages are implemented ideally, pupils' ability to develop creativity is maximized. The module learning is based on a collaboration with Tri-N. This is projected to become an effective teaching material for increasing students' creativity, particularly in the context of Indonesian language instruction at the school level.

2. METHODS

The research and development (R&D) approach was used in this investigation. The ADDIE development paradigm was employed, which has five major stages: needs analysis, design, product development, product implementation, and assessment (Dick, Carrey, & Carrey, 2015). Trials in the research. Purposive sampling was used in the study, and two elementary schools (SDN Wonosuko and SDN Rowobayem, Kemiri, Kediri, Purworejo) were specifically chosen because of their dissimilar profiles that were pertinent to the study's objectives: SDN Rowobayem was chosen because it was still in the early stages of implementing inquiry-based scientific curricula, which allowed for a comparative study of scaffolding strategies across various instructional maturity levels. SDN Wonosuko was chosen because of its proven track record in doing so. This was executed in two stages: trial-limited and trial-wide.

A short experiment was undertaken at Wonosuko State Elementary School, with 12 children from class V serving as research subjects. During the experiment, which took place in Rowobayem State Elementary School in Kemiri District, Kediri Regency, Purworejo, the number of students in class V reached 25. Written informed consent was given by all participants (teachers and students), and approval was acquired for minors. Pseudonyms and private data processing were used to ensure voluntary participation and anonymity.

The study's instruments include a questionnaire, interviews, and observation sheets. Thorough validation was performed on the study tools, which included structured classroom observation rubrics to evaluate the quality of the scaffolding and pre/post-intervention questionnaires to measure conceptual knowledge. After undergoing expert assessment by three seasoned scientific instructors, the surveys demonstrated good internal consistency, reliability, and content validity. Piloting and refining the observation tools ensured inter-rater reliability. The questionnaire was used at several stages, including the analysis of the need to dig for problems in the field using teachers' opinions as respondents; the feasibility test stage by experts (which included expert teaching materials, expert materials, and practitioner education); and the implementation of module learning based on the Tri-N integrated project-based approach to determine teacher response to the module's quality and effectiveness.

Four basic procedures were used to collect data: questionnaires, observations, interviews, and documentation. The questionnaire includes quantifiable data that represent respondents' perceptions of the module's validity and practicality. Observation is used to watch students' direct behavior and responses during the learning process. Interviews are used to collect qualitative data from teachers and specialists, such as opinions, ideas, and assessments, in order to enrich the development module. At the same time, that evidence is used as a supplement in the form of images, comment fields, and other pertinent documents to aid the research process.

The study's data analysis procedures incorporate both qualitative and quantitative approaches. Quantitative analysis processes numerical data from questionnaires, whereas qualitative analysis interprets results from interviews, observations, and documentation to determine the validity and effectiveness of product module learning based on project development. The N-gain number can be used to calculate the increase in inventiveness throughout the learning module effectiveness test. First, the score is translated to a 0–100 scale, and then the normalized average gain is calculated to assess the rise in students' creative dimensions before and after treatment. Normalized gain data is calculated by subtracting the average values before and after treatment from the average value after treatment. Because it takes into account students' differing starting knowledge levels and offers a more precise and consistent indicator of the actual learning attained than simple raw score differences, the N-Gain calculation was justified as the main metric for assessing instructional effectiveness. It is also robust for comparing gains across a variety of student populations.

3. FINDINGS AND DISCUSSION

3.1 Analysis

According to interviews and observation data from the learning process at the school that has implemented the Independent Curriculum, students' inventiveness is still rated as low, particularly in Indonesian language acquisition. A survey of 25 grade V teachers in Purworejo's Regency area supports these findings. The majority of them believe that students' inventiveness in Indonesian language learning is still not optimal. Of the 25 teachers polled, 4% said kids' creativity is very lacking, 48% said it is still missing, 20% said it is enough, 24% said it is good, and only 4% said it is extremely good. The data show that more than half of the teachers rate the students' creativity. Not yet developed well. This information is shown in Figure 1 below.



Figure 1. Creativity Level Diagram Student

According to the figure above, up to 52% of respondents believe that students' levels of originality in Indonesian language study are "less" or "very less." An interview with a Class V teacher supports these findings, revealing that kids frequently duplicate work from the friend bench, particularly for chores and inquiries. Students tend to produce uniform work since they often copy from books or board writing or collaborate with their peers. Almost all of the collected assignments have similar content and form.

This circumstance demonstrates that there is still a gap between hope and reality in terms of the growth of creative pupils in the subject. If this condition persists, it will have a negative influence on student readiness to meet 21st-century difficulties. Creativity is an important skill that should be nurtured at a young age. For preparing participants to be inventive and critical thinkers in the middle of the times. This is consistent with the view expressed in several publications that creativity in the study role is vital since it offers participants education in the face of real-world employment obstacles. Developing creative thinking skills might enhance adaptability and problem-solving abilities for future challenges (Natalia et al., 2023). To maximize the incorporation of character values into conventional game activities, educators must create innovative and pertinent teaching methodologies (Utami, Zulfiati, & Khosiyono, 2025).

Researchers are conducting additional research to determine the cause of kids' lack of inventiveness. Based on the results of questionnaires and interviews, some large teachers attempted to employ various learning methods and models, but the results were not optimal. One aspect that continues to be a restraint is a lack of instructional materials capable of encouraging students' curiosity and creativity. The teacher concludes that the current teaching materials are insufficient to promote the growth of potential creative participants in any way. This is supported by the facts presented in the graphic below.

Bahan ajar yang digunakan mendukung kreativitas siswa.
25 jawaban

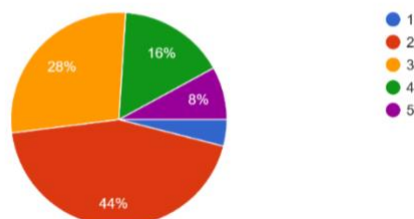


Figure 2. Availability of Supporting Teaching Materials Creativity

Based on Figure 2. Results of teacher responses related to the availability of supporting teaching materials and the development of student creativity show enough diverse variation. As many as 44% of respondents state that available teaching materials do not provide enough support for student creativity. While that, 28% stated enough, 8% rated it as already good, and 4% others stated very lacking. Results of observations and interviews show that general teaching materials are still used in the form of student worksheets with an appearance not interesting enough, content monotonous, and minimal variation. This makes students tend to be passive, only copying or copying without developing their ideas, so that not enough support for growth and creativity is needed in learning in the 21st century. In fact, as is known, material teaching is one of the important factors that can influence the development of competent students, in particular in the aspect of creativity. This result is contradictory to the literature, which states that good teaching materials are capable of stimulating creativity and improving student participation. Susi et al. (2021) emphasized that innovative and contextual teaching materials create an atmosphere of learning that drives exploration of ideas, the courage to express oneself, and the emergence of original ideas.

3.2 Design

Researchers perform research and development to create a module for Indonesian language learning that integrates Tri-N teachings to enhance student creativity in primary school. This module is designed to take into account the characteristics of good teaching materials, such as being stand-alone, self-instructional, self-contained, adaptive, and user-friendly, so that students can study in a way that is independent, easily understandable, structured, flexible enough to meet participant education needs, and interestingly used in the learning process. This is consistent with Prastowo's (2020) opinion that the ideal learning module should allow participants to study independently, be structured and adaptable to needs, and be capable of promoting diverse learning. The development module is done concerning the syntax of *the project-based learning* model, which encourages students to actively explore problems in real-world projects. Every stage of learning in this module is also integrated with teachings from Tri-N from Tamansiswa, which includes the stages *niteni* (understanding), *nirokke* (imitating), and *nambahi* (developing). This teaching aims to form a deeper learning process that is active, creative, and meaningful, as well as push students to not only copy but also create something new based on their understanding.

Tri-N believed that integration of teachings had the potential to increase student creativity. This is consistent with the opinion of Nisa et al. (2019), who indicated that if third-stage Tri-N is used optimally, pupils will be able to communicate new ideas in a more free-flowing manner, resulting in actualized creativity. During the add phase, students have the opportunity to improve outcomes, learn, and generate work independently. This strategy is also supported by a prior study by Natalia et al. (2023). They noted that "project-based modules have been proven to be effective in increasing students' creativity." Furthermore, the development module is a strategic move towards overcoming restrictions in teaching resources and encouraging students' inventiveness, particularly when learning Indonesian.

It is appropriate that Marini et al. (2025) contribute to the body of literature by showing that website-based learning can greatly enhance students' creative capacities.

3.3 Development

Products developed must, moreover, go through a feasibility test before being implemented in the learning process for students. Eligibility test module learning is done by three parties, namely, the expert material, the expert teaching materials, and the practitioners' education. Validation process teaching materials include several grouped statements in five aspects of assessment, namely *self-instructional*, *self-contained*, *stand-alone*, *adaptive*, and *user-friendly*. The results of the feasibility test by the experts are presented in the description that follows.

Table 1. Feasibility Test Results by Teaching Materials Experts

Aspect	Total Score	Percentage
Self-instructional	35	100%
Self-Contained	15	100%
Stand Alone	15	100%
Adaptive	15	100%
User Friendly	20	100%
Total	100	100%

Based on the results of the validation carried out by experts on teaching materials, the total score obtained from the evaluation eligibility is 100. The score shows that the module learning rate is in the category of *very worthy* for use in the learning process. Evaluation covers various aspects, such as *self-instructional*, *self-contained*, *stand-alone*, *adaptive*, and *user-friendly*.

The module has also been designed to go through a validation process by experts for material review accuracy and depth of content based on competence in the curriculum. The validation purpose is to ensure that compiled material is under the standard curriculum, relevant to participant education, and able to support the achievement of learning objectives effectively. Validation results by experts are presented in the section that follows.

Table 2. Results of Material Expert Validation

Aspect	Total Score	Percentage
Accuracy of Material	19	100%
Linguistics	14	93.33%
Presentation of Material	19	100%
Relevance	15	100%

Validators' expert material concludes that the module on Indonesian language learning based on integrated project-based learning with Tri-N teachings is worthy of use with several revisions. Assessment results show a percentage eligibility of 95.71%, which places the module in a very worthy category for implementation in learning. Next, validation is done by three practitioner educators to evaluate the applicability module in the field. Test results from the third expert practitioner are presented in the section that follows.

Table 3. The Feasibility Test Result by Practitioner

Aspect	Practitioner 1	Practitioner 2	Practitioner 3
Clarity	15	15	15
Interest	20	20	20
Updates	20	20	20
Technical Quality	20	19	19
Percentage	65 (100%)	64 (98.46%)	64 (98.46%)

Based on the validation result carried out by practitioners of the module Indonesian language learning based on an integrated project with Tri-N teachings, an average percentage eligibility of 98.97% in the Very Eligible category. Thus, the validators provide some suggestions for improvements that need to be made before the module is used directly in the field. Therefore, the results show that the Module Indonesia language integrated project-based with Tri-N teachings can be implemented for primary school students (Desrinelti & Miaz, 2022).

3.4 Implementation

The module that has been revised is then implemented in the learning process through two stages, namely trial and error. Each stage is done during four meetings. A limited trial was held at Wonosuko State Elementary School with subject students in Class V. Trial results are limited in the form of observation data on the ability and creativity of students before and after using the Indonesian language learning module based on an integrated project with the Tri-N approach. Observation posts use modules done during the learning process from the first to the fourth meeting. While the observation data was obtained before use, the module was obtained through a pre-test, and data after module use was collected through a post-test.

Besides the trial, limited research. This also includes the trials area implemented at Rowobayem State Primary School involving 25 students in class V as the subject. The trial process is widely done for the test effectiveness module on a larger scale, with a bigger and more learning-diverse learning group. Observation at the stage. This was done with the same method, namely, comparing the level of creativity of students before and after learning to use the module. The results of the wide-ranging trial give a better comprehensive picture of the success of the implementation module in increasing student creativity. This result is appropriate, as Samsudin, Murniningsih & Mustadi (2021) in their research show that using the Problem-Based Learning (PBL) model in primary school classrooms has been shown to positively impact students' learning outcomes. Krajcik et al. (2023) add that PBL features and three-dimensional learning, which help students understand phenomena and create artifacts that answer the main issue, enhance students' scientific understanding as well as their social and emotional development.

Table 3. Observation Results of Creativity Students on a Limited Trial

Element	Indicator	Pretest		Posttest	
		Average Score	Percent bag	Average Score	Percent Bag
1. Produce Original Idea	Ar Having different, new, and meaningful ideas, thoughts, or suggestions.	1.33	33.33%	3.17	79.17%
	Show courage in conveying ideas or original ideas in front of friends or his group.	1, 25	31.25%	3.00	75.00%
	Appreciate and respect ideas conveyed by others.	2.00	50.00%	3.58	89.58%
2. Producing Original Works and Actions	Produce work that is honest, original, and not manipulative.	1.58	39.58%	3.58	89.58%
	Make work with unique and different details from the usual ones, according to interest.	1.50	37.50%	3.42	85.42%
	Take the initiative to develop work with a new and innovative approach.	1.50	37.50%	3.25	81.25%
	Give appreciation to other people's work.	2.00	50%	3.33	83.33%

3.	Have the Flexibility of Thinking to Look for Alternative Solutions to Problems	Triggering many answers, ideas, opinions, and suggestions for settling various problems.	1.50	37.50%	3.00	75.00%
		Show initiative in starting and executing tasks in a fast and precise manner.	1.75	43.75%	3.42	85.42%
		Respond to the question in an active and excited way to finish tasks.	1.58	39.58%	3.17	79.86%
Average			1.59	40.00%	3.28	82.29%

More carry-on after trial implementation is widely done; researchers collect observation data to evaluate the development of creative students in a comprehensive way. This data becomes the basis for evaluating the effectiveness of the module moment applied on a larger scale and for a large and diverse group. To give a detailed picture of the results implementation mentioned, the following serves as a results observation at the trial stage, along with the results as follows.

Table 4. Observation Result of Creativity Students in the Wide Trial

Element	Indicator	Pretest		Posttest	
		Average Score	Percent bag	Average Score	Percent Bag
1. Produce Original Idea	Ar Having different, new, and meaningful ideas, thoughts, or suggestions.	1.52	38.00%	3.20	79.17%
	Show courage in conveying ideas or original ideas in front of friends or his group.	1, 56	39.00%	3.28	75.00%
	Appreciate and respect ideas conveyed by others.	2.00	50.00%	3.48	89.58%
2. Producing Original Works and Actions	Produce work that is honest, original, and not manipulative.	1.72	43.00%	3.56	89.58%
	Make work with unique and different details from the usual ones, according to interest.	1.68	42.00%	3.16	85.42%
	Take initiative. For developing work with a new and innovative approach.	1.56	39.00%	3.12	81.25%
	Give appreciation to other people's work.	1.61	40.22%	3.56	83.33%
3. Have the flexibility of thinking to think of alternative solutions to problems.	Triggering many answers, ideas, opinions, and suggestions for settling various problems.	1.40	35.00%	3.16	75.00%
	Show initiative in starting and executing tasks in a fast and precise manner.	1.72	43.00%	3.44	85.42%
	Respond to the questions in an active and excited way to finish tasks.	1.60	40.00%	3.28	79.86%
Average		1.60	40.60%	3.28	83.10%

The PjBL framework and the Tri-N educational principles operate in concert to produce the observed increase in student creativity, which is not just a coincidence. PjBL fundamentally encourages creativity by involving students in real-world, challenging tasks rather than rote memorization (Gedik & Ilgaz, 2021). Students were given open-ended Indonesian language assignments for this module that

required creative problem-solving, innovative thought, and divergent thinking. In order to create a public service announcement in Indonesian or a narrative based on a local legend, for example, students had to come up with original language terms, plotlines, or creative visual and aural aspects. Beghetto (2017) asserts that the lack of a single "correct" response lowered the affective filter linked to creative risk-taking by promoting experimentation and exploration.

The study's findings about the improvements in creativity among elementary school pupils are consistent with global studies on the efficacy of project-based learning. PjBL's ability to promote higher-order thinking abilities beyond simple content acquisition has been shown in numerous studies conducted worldwide. For example, studies conducted in Indonesia by Sari et al. (2023) and Ulfa (2022), as well as worldwide studies by Alqahtani et al. (2020) and Chen et al. (2020), consistently demonstrate the beneficial effects of PjBL on critical thinking, problem-solving, teamwork, and even creativity.

Global research specifically shows that PjBL environments—which are defined by authenticity, choice, and iteration opportunities—are especially supportive to the growth of creativity. Research conducted across cultural contexts has demonstrated that PjBL participants are more likely to think creatively, come up with original solutions, and be prepared to take chances (e.g., Alqahtani et al., 2020; Chen et al., 2020; Ulfa, 2022). With our results demonstrating increases in creativity and adaptability in learning Indonesian, we add to the increasing amount of data supporting PjBL as a powerful teaching strategy for fostering creative abilities in elementary education around the world.

3.5 Evaluation

Stage evaluation in the study aims to know the effectiveness of the module in Indonesian language learning integrated with problem-based learning with Tri-N to increase creativity in primary school students. Evaluation is done through two stages, namely, limited trials and trial area. Data collection was carried out through observation of creative students before (pre-test) and after (post-test) using modules, as well as through a questionnaire and interview. In the limited trial, which was implemented at a primary school, the observation results show significant improvement across the board in the indicator of students' creativity. The average pre-test score of 1.60 (40.00%) increased to 3.28 (82.29%) in the post-test. The N-Gain value obtained is 0.711, which is included in the category tall.

After the module was revised, a trial was implemented at a primary school. The results also showed similar improvement, where the average pre-test score of 1.60 (40.60%) increased to 3.28 (83.10%) in the post-test. The N-Gain value of 0.7224 is classified as high, which indicates that this module is effective in increasing creativity in students. As for the effectiveness data module, it can be seen in the diagram as follows.

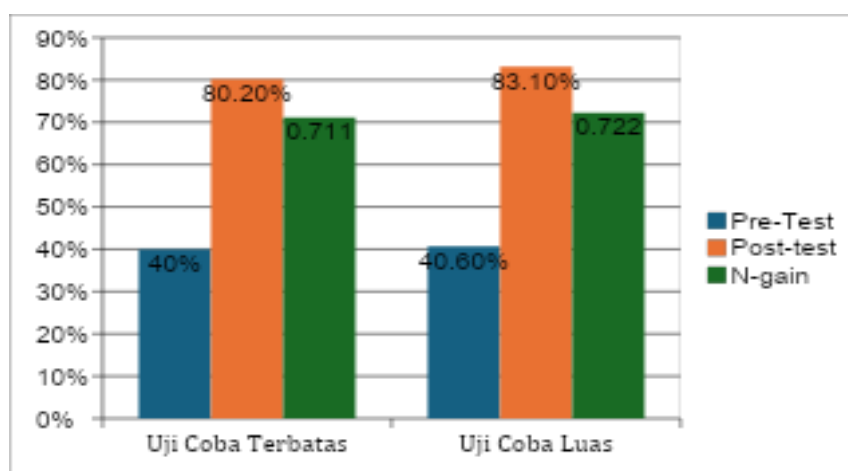


Figure 3. Data on the effectiveness of the module in the Indonesian language

Quantitative data from observation reinforced with results from a questionnaire and teacher response show very positive results. The average score obtained of 4.91, with a percentage of 98.33%, is classified as in the very positive category. The teacher assessed that module. This helps facilitate active, fun, and appropriate learning with independent curriculum characteristics.

The results are supported by interviews with the teacher, who stated, "I see a real improvement in creative students. They become more innovative in making work, believe in conveying ideas, and are able to work the same with friends to create something of value." Creative students not only look at the results of the product project but also look for the courage to convey their opinion, the selection of appropriate ideas with context, and participation in a discussion group.

Positive response also comes from the student's good performance on the trial, both limited and wide. They stated that they use the module because the appearance is interesting, and the existence of activity games, project groups, and presentation material is easy to understand. Students feel more challenged and motivated in follow-up learning, which shows that the module is not only informative but also fun and encouraging, involving active learning. Moreover, all series evaluations show that module learning integrated project-based learning with Tri-N, is worthy of use and proven effective in increasing creativity at the primary school. Tsybulsky (2019) motivates teachers to use a project-based, student-centered approach in team teaching as a component of their practicum as student teachers.

These results confirm that the module developed for learning has proven effective in increasing creativity in students. An approach based on the project gives an opportunity for students to be involved in an active, independent, and capable way to explore ideas in a creative way in the learning process. These results are in harmony with research conducted by Natalia et al. (2023), which stated that a module based on a project is capable of stimulating activity and studying creativity because students are involved in the planning process, implementation, and evaluation of contextual and meaningful projects. Modules such as this not only give room for exploration but also encourage the development of ability, thinking level, height, and originality in solving settlement problems.

These strengthening results are also supported by the research by Utami and Rochmiyati (2024), which shows that the implementation of an integrated project-based learning model with Tri-N teachings in general significantly increases creativity in students in Indonesian language learning. Integration of stages *niteni* (observe), *nirokke* (imitate), and *nambahi* (develop) in the learning process has proven effective in pushing students to think critically as well as produce more innovative and diverse work. Ardiyanti, Praheto, & Al Masjid (2024) also show in their research that the Tri N-Based Pop-Up Book media satisfies the requirements and is workable for use in fifth-grade elementary school learning.

4. CONCLUSION

This study demonstrates the need for a development module for Indonesian language learning based on an integrated project with the Tri-N teachings (*niteni*, *nirokke*, *nambahi*) to address the low level of student creativity and the limited availability of teaching materials that support creative learning. The research produced a project-based Indonesian language learning module for primary school students designed according to the ADDIE development model and incorporating Integrated Project-Based Learning (PjBL) principles with characteristics of effective modules, including stand-alone, self-instructional, and user-friendly features. Validation results from teaching material experts, material experts, and education practitioners showed very high feasibility (100%, 95.71%, and an average of 98.97%), indicating that the module is highly appropriate for classroom use. The module also proved effective in improving student creativity, as evidenced by significant increases in creativity scores in both limited trials (from 40.00% to 82.29%, N-gain = 0.711) and wider trials (from 40.60% to 83.10%, N-gain = 0.722), both categorized as high improvement. Positive teacher responses (98.33%) and student feedback further confirmed that the module supports active, engaging, and meaningful learning. However, this research is limited by its focus on primary school Indonesian language learning and

relatively short-term implementation within specific classroom contexts. Therefore, future research should explore the digital development of the Tri-N integrated project-based module, examine its long-term impact on creativity and critical thinking, and test its applicability across different subjects, educational levels, and broader learning environments to strengthen its pedagogical generalizability.

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