Urban Nature as a Learning Context: Impacts on Literacy, and Intrinsic Motivation in Primary School Students

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Abstract: Literacy skills are a fundamental foundation in the academic development of elementary school students. However, conventional teaching methods often fail to engage students and foster their motivation to learn. This study aims to evaluate the effectiveness of learning through urban park exploration in improving students' literacy skills and intrinsic motivation. The research used a quantitative approach with a one-group pretest-posttest design, involving 50 third-grade students at Sekolah Alam Indonesia Cipedak. Data were collected through literacy tests and motivation questionnaires, and analyzed using descriptive statistics and a paired sample t-test. The results showed an increase in literacy scores from an average of 46.10 to 53.32, with a t-test result of $t = -7.178$, $p = 0.000$ ($p < 0.05$). Students' intrinsic motivation was also high, with an average score of 4.04 (SD = 0.402). These findings suggest that real-world environmental exploration can enhance literacy while also fostering students' internal drive to learn. This model supports Vygotsky's sociocultural theory of learning and offers an alternative that is contextual, active, and enjoyable for elementary school students.

Keyword: *intrinsic motivation, literacy development, primary education, contextual learning, urban park exploration*

INTRODUCTION

Primary education plays a central role in shaping the foundation for students' long-term learning. At this stage, children not only begin to build an initial understanding of the world around them, but also start to develop various aspects of cognitive, social, and affective skills simultaneously. This period is considered a critical phase in child development, so the educational approach applied must respond to their growth needs in a holistic way. Therefore, learning at this stage should not focus solely on academic content mastery, but also emphasize the importance of enjoyable, meaningful, and contextual learning experiences. A learning process that allows space for exploration, creativity, and active student participation is more effective in fostering curiosity and building deep understanding of learning materials (Latifah & Rahmawati, 2022).

However, in practice, classroom learning is still often dominated by conventional methods that rely heavily on memorization and one-way information delivery. Such approaches tend to lack real-world interaction and provide little opportunity for students to connect learning materials with their own life experiences. As a result, students' engagement in the learning process becomes low, and the transfer of meaning from lessons to real-life contexts is limited. Moreover, overly theoretical approaches that are detached from everyday life may decrease students' motivation to learn, as they struggle to understand the relevance of learning to the real world (Murphy et al., 2021). Therefore, it is essential for educators to explore and apply alternative learning strategies that are participatory, collaborative, and based on students' authentic experiences. This kind of approach not only enhances the quality of learning engagement, but also strengthens the connection between school and real life, making learning more meaningful and having long-term impact on students' development (Erya & Pustika, 2021).

One relevant approach to address the above challenges is outdoor learning, which utilizes the surrounding environment as a contextual learning resource. This approach allows students to learn through direct experiences that are not only enjoyable but also relevant to their everyday lives. Public

parks, for example, are accessible spaces in many regions that offer significant educational potential. These open areas provide a fresh and conducive atmosphere for learning, while also offering a wide range of real objects for students to explore. Through exploration activities in city parks, students can learn to identify environmental elements such as types of plants, informational signs, common symbols, and naturally occurring patterns. They can practice reading directions on signboards, describing their observations both orally and in writing, and developing narratives based on real-life experiences in the field. Such activities encourage active engagement in the learning process and give students space to develop critical thinking and integrated language skills (Din, 2020).

More than just an outdoor activity, this approach enriches the learning experience by bringing in real-world, meaningful contexts. Learning is no longer confined to textbooks or rigid classroom settings, but becomes a dynamic process that engages the senses, emotions, and social interactions. As a public open space, a city park holds great potential to support holistic learning that simultaneously touches on cognitive, affective, and social dimensions. In these environments, students can experience firsthand the connection between the knowledge they acquire and the realities around them. By providing authentic and relevant learning experiences, students are expected to develop reflective thinking skills, imagination, and problem-solving abilities in a more natural, open, and enjoyable learning setting. Moreover, active participation in outdoor learning can also foster environmental awareness and enhance students' social consciousness as members of a broader community (Ekowati et al., 2019; Patriana et al., 2021).

As a concrete implementation of contextual, environment-based learning, this study employed park exploration as the main strategy to shape students' learning experiences. The exploration involved various activities such as observing surrounding objects, recording key information, describing findings in written form, and reflecting on their experiences in the open space. Each activity was designed to cultivate curiosity and encourage students to actively connect their field findings with the literacy concepts learned in class, such as reading visual information, writing environmental descriptions, or interpreting symbols and simple texts on signs. This way, learning becomes more meaningful as students are not passively receiving information, but actively constructing understanding through direct interaction with the real world. The approach aims to create a strong integration between concrete field experiences and abstract literacy concepts, enabling students to comprehend content in a deeper, more contextual, and sustainable way (Latifah & Rahmawati, 2022).

Literacy is one of the most essential competencies at the elementary education level, serving as the foundation for developing thinking skills, understanding information, and communicating effectively. Literacy is not limited to mechanical reading and writing abilities, but also involves understanding meaning, context, and the ability to analyze and evaluate information from various sources. In today's digital information era, literacy is key to helping students critically and responsibly filter information. Exploratory activities such as reading directional signs, interpreting common symbols, recording natural observations, or making sense of information from maps and pictures are practical applications of functional literacy in daily life (Snowling & Hulme, 2021). Through such experiences, students not only develop reading and writing skills, but also enhance critical thinking, written communication, and their understanding of social and cultural environments.

Therefore, it is crucial for educators and parents to provide a learning environment that supports contextual literacy activities, so students can gain learning experiences that are both meaningful and relevant to the real world. Intrinsic motivation is another important aspect examined in this study, as it directly influences students' engagement and persistence in learning. This type of motivation refers to the internal drive that arises not from external rewards or pressure, but from genuine interest, enjoyment, and a sense of meaningfulness in the learning activity itself (Sardiman dalam (Rismayanti et al., 2023). When students perceive learning as personally satisfying, positively challenging, and relevant to their lives, their engagement tends to increase naturally (Fernando et al., 2024). In the context of park

exploration, the open, unstructured, curiosity-driven learning experience is expected to create an atmosphere conducive to fostering intrinsic motivation. Students are not only encouraged to observe and record, but also to find meaning in each object and event they encounter in their surroundings.

There are two main factors that influence student learning achievement: internal and external. Internal factors come from within the student, while external factors come from the surrounding environment (Slameto, 2010 as cited in Saefudin et al., 2019). Through such experiences, students are expected to develop positive emotional responses such as enthusiasm, a sense of accomplishment after completing tasks, and a desire to continue learning independently (Hamalik dalam (Rismayanti et al., 2023). Thus, understanding the dynamics of students' intrinsic motivation following exploration activities is crucial in assessing the emotional impact, attitudes, and readiness to continue learning beyond formal settings. This not only reflects the success of the learning method used, but also offers insights into how real-world experiences can shape lifelong learner characteristics.

Previous studies have widely discussed the effectiveness of environment-based and contextual learning, including its impact on improving students' learning outcomes in thematic learning (Ramadhani & Siregar, 2021), and its implementation in science learning (Dewi et al., 2019; Rende & Tulandi, 2022; Susilawati & Sumitra, 2021). In addition, some studies highlight the importance of intrinsic motivation in the learning process. This type of motivation has been shown to influence students' academic performance (Urpatullia et al., 2021), while problem-based learning models can help improve students' critical thinking and intrinsic motivation (Ilmi et al., 2022). In addition, Appreciation and motivation also contribute to increasing students' learning interest at the elementary school (madrasah ibtidaiyah) level (Damayanti et al., 2024). Other research also shows that literacy supports critical thinking (Oktariani & Ekadiansyah, 2020), low science literacy is influenced by several factors (Fuadi et al., 2020), and literacy movements can enhance reading and science skills (Juliana et al., 2023). However, there is still very limited research that specifically examines the impact of contextual learning through nature exploration on the development of literacy skills and intrinsic motivation, especially among elementary school students who are still in the early stages of reading skill development and building learning interest. In fact, the natural environment has great potential as a real, relevant, and enjoyable learning resource for children. This gap is what the present study aims to address, by exploring how nature exploration activities as a form of contextual learning can improve elementary students' literacy skills and intrinsic motivation.

This study aims to examine the effect of nature exploration as a contextual learning strategy on elementary students' literacy skills and intrinsic motivation. Using a one-group pretest-posttest design, this research evaluates how students' active involvement in outdoor exploratory activities can strengthen their literacy understanding while also stimulating their internal motivation. The findings of this study are expected to contribute to more contextual and meaningful learning practices, especially in elementary education.

METHOD

This study uses a quantitative approach with a one-group pretest-posttest design to measure the effect of city park exploration on students' literacy, numeracy, and intrinsic motivation. As explained by Creswell (2014), a quasi-experimental design like this involves grouping participants without the use of random assignment. (Saefudin et al., 2025) allowing researchers to evaluate the impact of a treatment on the same group before and after the intervention. The population of the study includes all students at Sekolah Alam Indonesia Cipedak, with a sample of 50 third-grade students from three learning groups selected using purposive sampling. The treatment in this study involved an exploration activity at Hutan Kota Cipedak, which included observing the environment, recording findings, and engaging in reflective discussions. The research instruments consisted of a literacy test in the form of short essay

questions and a questionnaire designed to assess students' intrinsic motivation, reflecting their internal engagement and learning drive. Before the activity, students completed a literacy pretest to assess their initial abilities. After the activity, they filled out the intrinsic motivation questionnaire and took a literacy posttest. The collected data were analyzed using a parametric statistical test, specifically the paired sample t-test, to determine the difference between pretest and posttest scores in students' literacy skills after participating in the exploration activity..

RESULT AND DISCUSSION

Before conducting the parametric test, a normality test was performed on the pretest and posttest data to ensure the data followed a normal distribution. The results of the Shapiro-Wilk test showed that the significance (Sig.) value for the pretest was 0.001 and for the posttest was 0.012, both of which are less than $\alpha = 0.05$. This indicates that the data for both the pretest and posttest were not normally distributed. However, the t-test was still applied because the sample size consisted of 50 respondents. According to the Central Limit Theorem, this allows the use of parametric testing, as the sampling distribution of the mean tends to approximate normality with larger sample sizes. Furthermore, the skewness and kurtosis values in the descriptive data remained within the acceptable range (±1), supporting the appropriateness of using a parametric test.

Table 1. Descriptive Statistics of Intrinsic Motivation, Pretest, and Posttest Scores

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Intrinsic Motivation	50	3	5	4.04	.402
Pre Test	50	25	70	46.10	12.949
Post Test	50	18	88	53.32	17.582
Valid N (listwise)	50				

The descriptive analysis of 50 students showed that their level of intrinsic motivation after participating in the exploratory activity was categorized as high, with an average score of 4.04 (SD = 0.402) on a 1–5 scale. This indicates that most students had a strong internal drive to learn, which may be seen as a positive outcome of the applied environment-based learning approach. Regarding literacy skills, the pretest scores had an average of 46.10 (SD = 12.949), with score ranges from 25 to 70. After the learning intervention, the posttest scores improved, with an average of 53.32 (SD = 17.582) and a score range from 18 to 88. This increase in average score suggests a positive impact of the exploratory activity on students' literacy skills.

Furthermore, the results of the paired sample t-test analysis indicated a significant difference between the pretest and posttest literacy scores after the city park exploration activity. The mean pretest score of 45.30 increased to 52.52 in the posttest. The t-test results showed a value of $t = -7.178$, with degrees of freedom (df) = 49, and a significance level of $p = 0.000$ ($p < 0.05$). Thus, it can be concluded that the environment-based exploratory activity had a significant effect on improving students' literacy skills.

These findings align with the view that contextual learning involving direct experience in real environments is effective in enhancing meaningful understanding, specific skills, active learning, and intrinsic motivation by connecting learning materials with real-life contexts (Kristanti & Sujana, 2022; Rahman, 2020; Rahmawati & Rohim, 2020; Sinaga & Silaban, 2020). City park exploration offers diverse visual, linguistic, and social stimuli, which not only enrich students' vocabulary but also help them comprehend texts in more meaningful ways. This is consistent with previous research by Widodo

(2021), which found that environmental literacy can serve as an effective medium for developing basic literacy competencies among elementary school children.

Moreover, the significant increase in scores indicates that a project-based learning model combined with environmental exploration can activate students' intrinsic motivation to learn. In this context, students are not merely receiving information but actively engaged in observing, recording, and reflecting on their direct experiences. This process, in turn, strengthens their ability to comprehend, summarize, and communicate information. The findings also support Vygotsky's theory of socio-cultural learning, which emphasizes the importance of interaction between individuals and their environment in cognitive development.

Considering these significant results, the environment-based exploratory learning approach can be recommended as an alternative strategy to enhance students' literacy skills, particularly at the elementary education level.

CONCLUSIONS

This study shows that environment-based exploratory learning in city parks has a positive impact on improving elementary students' literacy skills. Statistical tests revealed a significant difference between pretest and posttest literacy scores, indicating that students' active involvement in direct outdoor activities enriched their learning experience in a contextual way. Moreover, the high level of intrinsic motivation observed among students reinforces the finding that this approach can foster interest and enthusiasm for learning from within. These findings highlight the importance of innovative, environment-based learning models that are not only relevant to the curriculum but also personally meaningful for students. Therefore, teachers and policymakers are encouraged to make greater use of public spaces such as city parks as alternative learning environments that are accessible, enjoyable, and have a tangible impact on children's literacy development..

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