



Designing Joyful Learning Experiences for Strengthening Learning Independence in Elementary IPAS Education

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Abstract

Learning independence is an essential competency in elementary education, particularly in IPAS learning, which requires students to actively engage in observation, inquiry, discussion, and problem-solving activities. However, many elementary students still demonstrate limited initiative, responsibility, and self-regulation during the learning process. This study aimed to examine how the design and implementation of joyful learning experiences could strengthen students' learning independence in elementary IPAS education. The study employed a Classroom Action Research design based on the Kemmis and McTaggart model, consisting of two action cycles. The research was conducted with 14 fourth-grade students at Madrasah Ibtidaiyah Negeri 4 Bungo during the 2025/2026 academic year. Joyful learning experiences were designed through educational games, collaborative discussions, contextual exploration activities, presentations, and reflective learning tasks. Data were collected through observation and documentation and analyzed using descriptive quantitative and qualitative techniques. Learning independence was assessed through four dimensions: self-confidence, learning discipline, responsibility, and learning initiative. The findings revealed continuous improvement across all dimensions throughout the intervention cycles. The average level of learning independence increased from 43% in the pre-cycle phase to 59.5% in Cycle I and reached 79.5% in Cycle II. The greatest improvement was observed in learning initiative, while responsibility consistently achieved the highest scores. These findings indicate that joyful learning experiences can create meaningful and student-centered learning environments that support the development of learning independence and self-regulated learning in elementary IPAS education.

Keywords: Elementary Education; IPAS Learning; Joyful Learning; Learning Independence; Student-Centered Learning

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INTRODUCTION

The rapid transformation of education in the twenty-first century requires learning environments that extend beyond knowledge transmission and provide students with opportunities to actively construct knowledge, regulate their learning, and gradually develop greater autonomy. This orientation is particularly relevant in elementary education, where students are expected to participate actively in learning, make decisions, solve problems, and assume responsibility for their learning processes. The implementation of the Merdeka Curriculum has further strengthened the emphasis on

student-centered learning by encouraging learning experiences that accommodate students' active participation, meaningful engagement, and development as increasingly independent learners (Hunaepi & Suharta, 2024; Purnamasari et al., 2026; Wahyu & Kurniawan, 2024; Zulparis, 2025). Student-centered learning is also consistent with the educational principles associated with Ki Hadjar Dewantara, in which learning is expected to provide space for students to develop their potential through active and meaningful participation rather than depending entirely on teacher-directed instruction (Nuritha & Tsurayya, 2021; Prasetyo et al., 2023).

Learning independence is an important dimension of this student-centered orientation because it reflects students' capacity to take responsibility for and regulate their own learning. In elementary education, self-regulated learning involves students' ability to manage learning activities, engage with tasks, monitor their progress, and gradually develop greater control over their learning behaviors. Research on elementary students indicates that self-regulated learning is closely associated with the development of independent learning skills and can be fostered through appropriate instructional strategies and supportive learning environments (De Ruig et al., 2023; Lee et al., 2023; Sukowati et al., 2020). Recent research further indicates that self-regulated learning remains an important area of development among elementary school students, with instructional strategies and learning conditions playing an important role in shaping students' capacity to regulate their learning (Muntasiroh et al., 2026; Syarifah et al., 2026). Thus, learning independence should not be regarded solely as an individual student characteristic but also as a competency that can be intentionally developed through appropriately designed learning experiences.

In the context of Ilmu Pengetahuan Alam dan Sosial (IPAS), the development of learning independence is particularly relevant because learning activities require students to engage with phenomena, exchange ideas, investigate problems, and connect classroom knowledge with their surrounding environment. Such learning demands active participation and opportunities for students to construct and communicate understanding rather than merely receive information from teachers. From a student-centered perspective, these characteristics are consistent with the broader transformation promoted by the Merdeka Curriculum, which emphasizes meaningful learning experiences and greater student involvement in the learning process (Hunaepi & Suharta, 2024; Purnamasari et al., 2026). Accordingly, IPAS learning can provide a meaningful context for cultivating students' autonomy, responsibility, initiative, and participation in learning.

Despite this emphasis, developing learning independence among elementary school students remains challenging. Students may still rely substantially on teachers when completing learning tasks, making decisions, solving problems, and initiating learning activities. Such dependence suggests that students need structured pedagogical support and repeated opportunities to practice self-regulated learning behaviors. High-quality interactions and supportive teacher–student relationships can provide important conditions for the development of self-regulated learning, particularly during the elementary school years (De Ruig et al., 2023). Moreover, evidence concerning self-regulated learning interventions indicates that learning strategies need to be appropriately structured and connected to students' learning contexts to facilitate the development of independent learning behaviors (Lee et al., 2023). Therefore, the development of learning independence requires instructional environments that deliberately provide students with opportunities to participate, make decisions, take responsibility, and reflect on their learning.

In this study, learning independence is conceptualized through four interrelated dimensions: self-confidence, learning discipline, responsibility, and learning initiative. These dimensions represent observable aspects of students' capacity to participate actively, manage learning tasks, assume responsibility, and initiate learning activities with decreasing dependence on teacher direction. Such dimensions are consistent with the broader concept of self-regulated learning, which emphasizes students' active management of their learning processes and the development of increasingly autonomous learning behaviors (Sukowati et al., 2020; Syarifah et al., 2026). The emphasis on these dimensions is also compatible with student-centered educational reform, in which students are positioned as active participants who gradually develop ownership of their learning (Prasetyo et al., 2023; Wahyu & Kurniawan, 2024).

One instructional approach that may support the development of learning independence is Joyful Learning. Joyful Learning emphasizes engaging, meaningful, and enjoyable learning experiences in which students actively participate in classroom activities. Rather than equating enjoyment with entertainment alone, this approach can create learning conditions that encourage participation, interaction, exploration, and positive engagement with learning tasks. Recent literature has connected meaningful, mindful, and joyful learning with approaches to learning that emphasize deeper engagement and meaningful experiences (Feriyanto et al., 2024; Ramadhan, 2025). Empirical studies have also reported the relevance of Joyful Learning for strengthening students' motivation and engagement, suggesting that enjoyable learning environments can encourage more active participation in the learning process (Khairunnisa et al., 2026; Rahmawati et al., 2024). More recent work on experiential and AI-supported joyful learning further highlights the potential of engaging learning experiences to promote student engagement and broader developmental outcomes (Rajyagor & Vora, 2026).

From a learning-design perspective, Joyful Learning can be understood as an instructional approach that intentionally organizes learning experiences around active participation, interaction, exploration, communication, and reflection. Activities such as educational games, collaborative discussions, group work, presentations, contextual problem-solving, and reflective tasks can provide students with opportunities to construct understanding while simultaneously practicing responsibility and autonomy. Such an orientation is consistent with constructivist perspectives, which view learning as an active process through which learners construct knowledge through experience, interaction, and engagement with their environment (Brau, 2020; Chand, 2023; Handoyo & Ani, 2025). Social constructivist perspectives similarly emphasize the importance of interaction and collaborative activity in supporting students' construction of meaning, thereby providing a theoretical basis for instructional environments that encourage students to learn through participation rather than passive reception (Mishra, 2023). Effective learning environments grounded in constructivist principles therefore provide opportunities for learners to actively engage with content, peers, and authentic learning situations (Zajda, 2021).

The relationship between Joyful Learning and learning independence can consequently be understood through the intersection of constructivist learning and self-regulated learning perspectives. Constructivism emphasizes students' active construction of knowledge through meaningful experiences and social interaction, whereas self-regulated learning emphasizes students' increasing capacity to manage, direct, and take responsibility for their learning. When these perspectives are integrated into instructional design, joyful learning activities may provide students with opportunities to exercise initiative, communicate ideas, collaborate with peers, solve problems, and reflect on their learning. These experiences can create conditions in which students gradually move from teacher dependence toward more active participation and greater ownership of learning. The importance of carefully structured interactions and learning experiences in fostering self-regulation is particularly relevant for elementary students, whose independent learning behaviors are still developing (De Ruig et al., 2023; Lee et al., 2023).

The selected IPAS topic in this study was Chapter 5, Topic C, "Masyarakat di Daerahku" (Communities in My Region), taught to Grade IV students at Madrasah Ibtidaiyah. The topic addresses community life, economic activities, social interactions, and cultural diversity within students' local environments. Its close connection to students' everyday experiences provides an appropriate context for implementing meaningful and contextual learning activities involving observation, discussion, collaboration, communication, and independent exploration. Such contextualization is consistent with student-centered learning principles, which emphasize connecting learning experiences with students' experiences and providing opportunities for active participation and meaning-making (Purnamasari et al., 2026; Prasetyo et al., 2023). Within this context, joyful learning activities can be designed to encourage students not only to understand the content but also to express ideas, cooperate with peers, complete learning responsibilities, and initiate learning activities.

However, preliminary classroom observations conducted before the intervention indicated that learning activities remained predominantly teacher-centered. Students tended to participate passively and relied heavily on teacher guidance when completing learning tasks. Opportunities for independent exploration, initiative, decision-making, and responsibility were consequently limited. This condition indicates a discrepancy between the broader student-centered orientation of current educational reform and the learning experiences encountered in the classroom. The development of independent learners requires more than curriculum-level policy change; it also requires teachers to translate student-centered principles into concrete instructional practices and learning environments (Hunaepi & Suharta, 2024; Wahyu & Kurniawan, 2024). Therefore, there is a need to examine instructional approaches that can practically create more active and supportive learning experiences for elementary students.

Previous studies have established the relevance of Joyful Learning to student motivation, engagement, and positive learning experiences (Khairunnisa et al., 2026; Rahmawati et al., 2024). Research on meaningful, mindful, and joyful learning has also positioned joyful learning as an important component of contemporary approaches that seek to create deeper and more meaningful learning experiences (Feriyanto et al., 2024; Ramadhan, 2025). At the same time, research on self-regulated learning has demonstrated the importance of instructional interventions, supportive interactions, and appropriate learning strategies in fostering independent learning among elementary students (De Ruig et al., 2023; Lee et al., 2023; Sukowati et al., 2020; Syarifah et al., 2026). However, the intersection between Joyful Learning as an instructional design approach and the development of learning independence among elementary students, particularly within IPAS learning in a Madrasah Ibtidaiyah context, remains insufficiently explored. This gap is important because the development of independent learning behaviors requires instructional environments that simultaneously promote meaningful engagement, active participation, social interaction, and self-regulation.

The theoretical foundation of the present study therefore integrates constructivism, student-centered learning, Joyful Learning, and self-regulated learning. Constructivist theory positions students as active constructors of knowledge through experience and interaction (Brau, 2020; Chand, 2023; Handoyo & Ani, 2025; Mishra, 2023; Zajda, 2021), while self-regulated learning emphasizes students' capacity to increasingly manage and direct their own learning processes (De Ruig et al., 2023; Lee et al., 2023; Syarifah et al., 2026). Student-centered educational reform provides the broader pedagogical context for positioning students as active participants in learning (Prasetyo et al., 2023; Purnamasari et al., 2026; Wahyu & Kurniawan, 2024). Within this framework, Joyful Learning provides an instructional pathway through which these principles can be translated into engaging and meaningful classroom experiences (Feriyanto et al., 2024; Khairunnisa et al., 2026; Rahmawati et al., 2024). The integration of these perspectives suggests that intentionally designed joyful learning experiences may provide structured opportunities for students to practice autonomy, responsibility, initiative, interaction, and self-regulation.

Based on these considerations, this study aims to examine how the design and implementation of joyful learning experiences can strengthen learning independence in elementary IPAS education. Specifically, the study investigates changes in students' self-confidence, learning discipline, responsibility, and learning initiative following the implementation of the Joyful Learning approach in a Grade IV classroom at Madrasah Ibtidaiyah Negeri 4 Bungo. By examining the development of these dimensions across iterative classroom action cycles, the study seeks to contribute empirical evidence concerning how learner-centered instructional design can be used to foster greater learning independence among elementary students. The study is expected to contribute to the development of pedagogical practices that translate the principles of student-centered and meaningful learning into concrete classroom experiences that support students' gradual development as independent learners.

RESEARCH METHODS

This study employed a classroom-based intervention approach to examine how the design and implementation of joyful learning experiences could strengthen students' learning independence in elementary IPAS education. The research focused on creating meaningful, engaging, and student-centered learning experiences through the Joyful Learning approach and evaluating their contribution to the development of students' self-confidence, learning discipline, responsibility, and learning initiative. The study was conducted within the natural classroom setting to ensure that the instructional design could be implemented and evaluated in authentic learning conditions.

Research Design

The study adopted a Classroom Action Research (CAR) design based on the cyclical model developed by Kemmis and McTaggart. This design was selected because it enables the systematic improvement of instructional practices through iterative cycles of planning, action, observation, and reflection. Classroom Action Research is particularly appropriate for investigating instructional innovations intended to enhance the quality of teaching and learning within specific educational contexts (Suyanti, 2021).

The research was conducted in two action cycles. Each cycle represented a process of designing, implementing, evaluating, and refining joyful learning experiences in IPAS learning activities. The cyclical nature of the research allowed continuous adjustments to instructional strategies based on findings obtained from previous learning experiences. Through this process, the study sought not only to improve students' learning independence but also to generate practical insights into the design of effective joyful learning environments in elementary education.

The intervention was implemented in IPAS learning, specifically on Chapter 5 Topic C, "Masyarakat di Daerahku" (Communities in My Region). The topic was selected because it provides rich opportunities for observation, discussion, collaboration, and contextual exploration, which are fundamental characteristics of both Joyful Learning and independent learning development.

Research Subject

The study was conducted at Madrasah Ibtidaiyah Negeri 4 Bungo during the second semester of the 2025/2026 academic year. The participants consisted of 14 fourth-grade students, comprising seven male students and seven female students. The selection of participants was based on preliminary classroom observations indicating relatively low levels of learning independence during IPAS lessons. Students frequently relied on teacher guidance when completing learning tasks, showed limited initiative during classroom activities, and demonstrated insufficient responsibility for managing their own learning processes. These conditions made the class an appropriate setting for implementing and evaluating joyful learning experiences designed to strengthen learning independence. The researcher served as both the instructional designer and classroom practitioner responsible for planning, implementing, observing, and reflecting upon the intervention throughout the research process.

Research Procedure

The research procedure followed the four stages of the Kemmis and McTaggart action research cycle: planning, action, observation, and reflection.

Planning

During the planning stage, instructional activities were designed based on the principles of Joyful Learning and learner-centered education. Learning objectives, teaching modules, learning materials, classroom activities, observation instruments, and supporting learning resources were prepared. Particular attention was given to designing learning experiences that could encourage active participation, collaboration, exploration, and student responsibility.

Action

The action stage involved implementing joyful learning experiences during IPAS instruction. Learning activities included motivational activities, educational games, collaborative group discussions, contextual problem-solving tasks, presentations, question-and-answer sessions, and reflective learning activities. Students were encouraged to actively construct understanding through interaction with peers, learning materials, and real-life contexts related to community life in their local environment.

Observation

Observation was conducted throughout the learning process to document students' behavioral changes related to learning independence. Particular attention was given to indicators such as self-confidence, learning discipline, responsibility, and learning initiative. Classroom interactions, student participation, and engagement in learning activities were systematically recorded to provide evidence regarding the effectiveness of the implemented learning experiences.

Reflection

At the end of each cycle, the collected data were analyzed and reflected upon to identify strengths, limitations, and areas requiring improvement. Findings from each cycle informed the redesign of subsequent learning experiences, enabling the continuous refinement of instructional practices. The reflection process served as an essential mechanism for improving both the quality of the learning environment and students' learning independence.

Instruments and Data Collection Techniques

Data were collected through observation and documentation techniques. Observation served as the primary method for assessing students' learning independence during the implementation of joyful learning experiences. An observation sheet was developed based on four dimensions of learning independence derived from the self-regulated learning perspective: self-confidence, learning discipline, responsibility, and learning initiative (Nuritha & Tsurayya, 2021).

Each dimension was operationalized through observable behavioral indicators. Self-confidence was reflected in students' willingness to express opinions and complete tasks independently. Learning discipline referred to students' adherence to classroom rules and timely completion of assignments. Responsibility was assessed through commitment and persistence in completing learning tasks. Learning initiative was reflected in students' willingness to begin tasks independently, ask questions, and seek additional information beyond teacher instructions.

The observation instrument employed a five-point rating scale ranging from 1 (Very Poor) to 5 (Very Good). The use of behavioral indicators enabled systematic monitoring of changes in students' learning independence throughout the intervention process. Documentation was used as a complementary data source. Documentation included photographs of classroom activities, lesson implementation records, students' learning products, and field notes collected during each research cycle. These materials provided supporting evidence for interpreting changes observed during the learning process. To enhance data credibility, observations were conducted repeatedly across different learning sessions and cycles. Continuous observation enabled the researcher to verify the consistency of students' behavioral changes throughout the implementation of the intervention.

Data Analysis Technique

Data analysis employed both quantitative descriptive and qualitative descriptive approaches.

Quantitative analysis was used to determine the level of achievement for each learning independence indicator. Observation scores obtained during each cycle were converted into percentages using the following formula:

$$P = \left(\frac{f}{N}\right) \times 100\%$$

where:

P = percentage of achievement;

f = total score obtained;

N = maximum possible score.

The resulting percentages were categorized into five levels of achievement: Very Good (81–100%), Good (61–80%), Fair (41–60%), Poor (21–40%), and Very Poor (0–20%). To evaluate the effectiveness of the designed joyful learning experiences, percentage scores obtained during the pre-cycle, Cycle I, and Cycle II were compared. Changes across cycles were used to identify patterns of improvement in students' learning independence.

Qualitative analysis was conducted through data reduction, data organization, interpretation, and conclusion drawing. Observation notes and documentation records were analyzed to identify behavioral changes occurring during classroom learning activities. The qualitative findings were used to explain how specific joyful learning experiences contributed to the development of self-confidence, discipline, responsibility, and learning initiative among students. The intervention was considered successful when the average learning independence score reached at least 75%. This criterion was used as the benchmark for determining the effectiveness of the joyful learning experiences designed and implemented throughout the study.

RESULTS AND DISCUSSION

RESULTS

Development of Learning Independence Through Joyful Learning Experiences

The implementation of joyful learning experiences in elementary IPAS education was carried out through two action cycles designed to provide meaningful, engaging, and student-centered learning activities. The intervention emphasized collaborative discussions, educational games, contextual exploration, presentations, and reflective learning activities that encouraged students to participate actively in the learning process.

To examine changes in students' learning independence, students' learning independence was observed across four dimensions: self-confidence, learning discipline, responsibility, and learning initiative. Data were collected during the pre-cycle phase, Cycle I, and Cycle II.

Learning Independence in the Pre-Cycle Phase

The pre-cycle observation was conducted prior to the implementation of joyful learning experiences. The results indicated that students' learning independence was relatively low across all observed dimensions.

Table 1. Learning independence in the pre-cycle phase

No	Indicator	Percentage
1	Self-confidence	42%
2	Learning discipline	45%
3	Responsibility	50%
4	Learning initiative	35%
	Average	43%

The findings indicate that students were still highly dependent on teacher guidance during learning activities. Learning initiative represented the lowest-performing dimension, while responsibility showed the highest percentage among the four indicators. Overall, the average learning independence score was 43%, categorized as fair.

Learning Independence in Cycle I

During Cycle I, joyful learning experiences were introduced through collaborative learning activities, educational games, guided discussions, and student presentations. Students were encouraged to actively participate and engage with learning materials through meaningful classroom interactions. The observation results obtained during Cycle I are presented in Table 2.

Table 2. Learning independence in cycle I

No	Indicator	Percentage
1	Self-confidence	58%
2	Learning discipline	60%
3	Responsibility	65%
4	Learning initiative	55%
Average		59.5%

Compared with the pre-cycle phase, improvements were observed across all dimensions of learning independence. Responsibility achieved the highest score (65%), while learning initiative remained the lowest dimension despite showing noticeable progress. The overall average increased to 59.5%.

Learning Independence in Cycle II

Based on reflections from Cycle I, the learning experiences implemented in Cycle II were refined to provide greater opportunities for student participation, independent exploration, collaborative interaction, and classroom communication. The results of Cycle II are presented in Table 3.

Table 3. Learning independence in cycle II

No	Indicator	Percentage
1	Self-confidence	78%
2	Learning discipline	80%
3	Responsibility	85%
4	Learning initiative	75%
Average		79.5%

The findings demonstrate further improvements across all dimensions. Responsibility achieved the highest score (85%), followed by learning discipline (80%). Learning initiative increased substantially to 75%, while self-confidence reached 78%. The overall average score increased to 79.5%, exceeding the predetermined success criterion.

Comparative Analysis Across Learning Cycles

To provide a clearer picture of the development of students' learning independence throughout the implementation of joyful learning experiences, the results from all stages were compared.

Table 4. Comparison of learning independence across learning cycles

Indicator	Pre-Cycle	Cycle I	Cycle II	Improvement
Self-confidence	42%	58%	78%	+36%
Learning discipline	45%	60%	80%	+35%
Responsibility	50%	65%	85%	+35%
Learning initiative	35%	55%	75%	+40%

The comparison reveals consistent improvements across all dimensions of learning independence throughout the intervention period. Learning initiative showed the greatest increase, improving by 40 percentage points from the pre-cycle phase to Cycle II. Self-confidence increased by 36 percentage points, while learning discipline and responsibility each improved by 35 percentage points. The results

indicate that the designed joyful learning experiences contributed positively to students' learning independence across multiple dimensions.

Visual Representation of Learning Independence Growth

To illustrate the development of learning independence more clearly, Figure 1 presents the progression of each indicator across the three stages of the study.

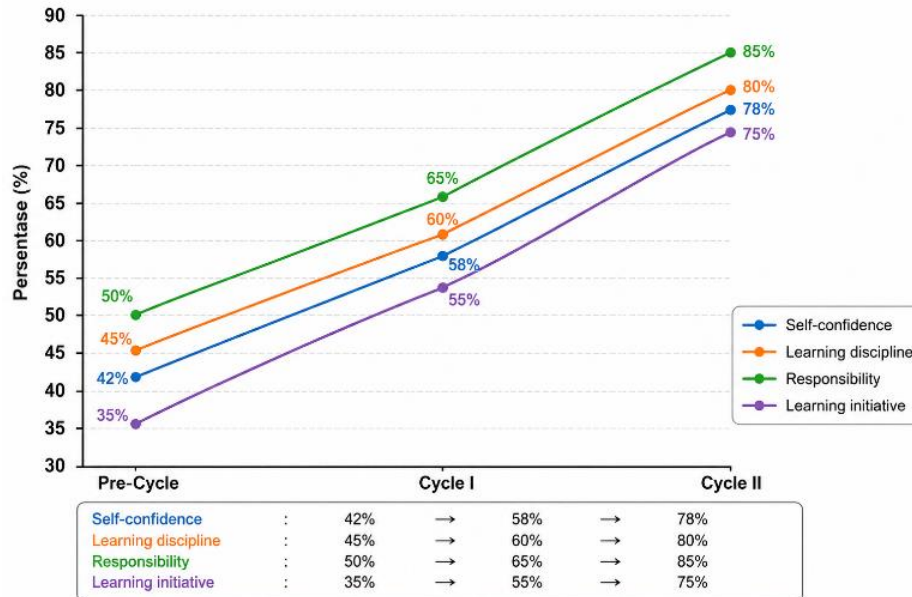


Figure 1. Growth of Learning Independence Across the Implementation of Joyful Learning Experiences

Figure 1 shows a positive upward trend across all dimensions of learning independence throughout the implementation of joyful learning experiences. The most substantial increase occurred in learning initiative, while responsibility consistently achieved the highest scores across the intervention cycles. The overall pattern demonstrates progressive development of students' learning independence as the learning experiences became increasingly refined and student-centered.

DISCUSSION

The findings of this study demonstrate a progressive improvement in students' learning independence following the implementation of joyful learning experiences in elementary IPAS education. Improvements were observed across all four dimensions of learning independence: self-confidence, learning discipline, responsibility, and learning initiative. The overall increase from 43% in the pre-cycle phase to 79.5% in Cycle II indicates that learning experiences emphasizing active participation, collaboration, exploration, interaction, and reflection can provide supportive conditions for students to become more actively involved in managing their learning. This pattern is consistent with the broader emphasis on active and student-centered learning in elementary education, where students are encouraged to participate meaningfully in learning activities rather than depend predominantly on teacher-directed instruction (Nabila & Hindun, 2025; Rahmawati et al., 2025; Selpianti et al., 2025).

The findings further suggest that learning independence should be understood not merely as an individual characteristic but also as a competency that develops through interaction with the learning environment. When students are given opportunities to engage with learning tasks, peers, contextual problems, and classroom activities, they can progressively develop greater responsibility and autonomy in learning. This perspective is consistent with research emphasizing self-regulation as an important component of elementary students' learning independence (Masyithoh et al., 2026;

Puspita et al., 2024). The progressive development observed across the intervention cycles also indicates the importance of sustained learning opportunities. Rather than expecting independent learning behaviors to emerge immediately, instructional practices need to provide repeated opportunities for students to practice participation, responsibility, decision-making, and self-regulation. Such an orientation is consistent with the development of independent learning within contemporary student-centered educational practices.

One notable finding is the role of joyful learning experiences in transforming classroom participation. During the intervention, students participated in educational games, collaborative discussions, presentations, and contextual exploration activities. These activities provided opportunities for students to communicate ideas, interact with peers, and participate more actively in classroom learning. Such characteristics correspond with the principles of joyful learning, which emphasize positive, engaging, and participatory learning experiences. Previous research has demonstrated the relevance of joyful learning for supporting students' motivation and engagement in elementary education (Aseery, 2023; Widyawulandari et al., 2019). Similarly, recent research has highlighted the contribution of interactive activities and supportive classroom environments to the creation of joyful learning experiences among elementary students (Wulandari & Prayitno, 2026). The present findings therefore reinforce the importance of instructional environments that make students active participants in learning rather than passive recipients of information.

The improvement in self-confidence can be interpreted in relation to the interactive and participatory characteristics of the intervention. Students who initially showed hesitation in expressing opinions gradually became more willing to participate in discussions and presentations. The classroom activities created opportunities for students to communicate their understanding, interact with peers, and receive support while engaging with learning tasks. Such experiences may contribute to students' willingness to participate and become more actively involved in classroom learning. This interpretation is consistent with evidence that motivation and engagement can be strengthened when students encounter supportive and meaningful learning experiences (Aseery, 2023; Widyawulandari et al., 2019). In addition, the contextual nature of the IPAS topic "Communities in My Region" provided opportunities for students to connect classroom learning with familiar social and environmental experiences. Contextual learning has been shown to support students' participation and conceptual engagement by connecting learning content with meaningful contexts (Sakina et al., 2026). Thus, the combination of joyful activities and contextual content may have provided a supportive environment for students to participate more confidently in learning.

The findings can also be interpreted through the perspective of self-regulated learning. The four dimensions examined in this study self-confidence, learning discipline, responsibility, and learning initiative represent behavioral manifestations of students' increasing capacity to participate in and manage their learning. The development of self-regulation is particularly important during elementary education because students are still developing the ability to manage learning behaviors and take increasing ownership of learning tasks. Previous research has demonstrated the relationship between self-regulation and learning independence among elementary students, while recent studies have emphasized the importance of instructional and contextual factors in supporting these competencies (Masyithoh et al., 2026; Puspita et al., 2024). The improvements in discipline and responsibility observed in this study therefore suggest that the intervention provided students with opportunities to practice managing learning tasks and assuming greater responsibility for their participation.

The substantial increase in learning initiative, from 35% in the pre-cycle phase to 75% in Cycle II, provides further evidence of the development of students' active participation in learning. The improvement suggests that students increasingly demonstrated willingness to participate, ask questions, and engage with learning activities with less dependence on direct teacher guidance. Such development is consistent with instructional approaches that position students as active learners and provide opportunities for inquiry, problem-solving, and decision-making. Inquiry-oriented learning in elementary science and social studies has been associated with opportunities for students to actively investigate learning content and participate in the learning process (Rahmawati et al., 2025; Selpianti

et al., 2025). Similarly, problem-based learning provides opportunities for students to engage with problems, apply process skills, and become more actively involved in constructing solutions (Nabila & Hindun, 2025). The present findings suggest that similar opportunities for active engagement can also be incorporated into joyful learning experiences to support the development of students' learning initiative.

The role of active participation can also be understood through collaborative learning. The joyful learning activities implemented in this study included collaborative discussions and group activities, allowing students to interact with peers while exploring learning tasks. Collaborative learning is closely related to constructivist practice because knowledge construction can occur through interaction, dialogue, and shared engagement with learning problems. Taggart and Wheeler (2023) emphasize collaborative learning as a constructivist practice in which group work can provide opportunities for students to participate actively in the learning process. Similarly, social constructivist perspectives emphasize that learning environments can facilitate knowledge construction through social interaction and participation (Efgivia et al., 2021; Saleem et al., 2021). In the present study, collaborative discussions and group activities therefore provided an important pedagogical mechanism through which students could articulate ideas, respond to peers, and assume greater responsibility for learning tasks.

The findings are also consistent with constructivist interpretations of learning. Constructivism positions learners as active participants in constructing knowledge through experience, interaction, and engagement with their learning environment. The instructional activities used in this study including educational games, discussions, contextual exploration, presentations, and reflection provided opportunities for students to interact with content, peers, and authentic situations. Such activities are compatible with constructivist learning environments in which students actively construct meaning rather than simply receive information (Efgivia et al., 2021). The collaborative dimension of the intervention also corresponds with social constructivist perspectives, which emphasize interaction and shared meaning-making as important elements of learning (Saleem et al., 2021; Taggart & Wheeler, 2023). Consequently, the observed development of learning independence can be interpreted as occurring within a learning environment that increasingly positioned students as active participants in the construction and communication of knowledge.

The contextual dimension of the intervention provides an additional explanation for the observed improvement. The topic "Communities in My Region" enabled students to engage with content connected to their everyday social environment. This contextual orientation is particularly relevant to IPAS because learning can involve exploration of social, environmental, and community phenomena. Recent studies of contextual teaching and learning in integrated science-social studies have demonstrated the relevance of contextual experiences for promoting conceptual understanding and student participation (Sakina et al., 2026). Environmental-based learning has likewise been associated with joyful learning experiences in elementary education, suggesting that meaningful connections between learning content and students' surrounding environments can contribute to engaging learning conditions (Velomena et al., 2026). In the present study, contextual exploration may therefore have helped students relate classroom tasks to experiences that were familiar and meaningful to them.

The pedagogical implications of these findings extend beyond the use of enjoyable activities. Joyful Learning should not be interpreted simply as an attempt to make classroom instruction entertaining. Rather, its pedagogical value lies in how learning activities are intentionally organized to promote participation, interaction, exploration, communication, and reflection. The combination of joyful learning with active instructional strategies can create opportunities for students to engage more deeply with learning content and gradually assume greater responsibility. This interpretation is compatible with contemporary elementary learning approaches that emphasize inquiry, problem-solving, contextual learning, and active participation (Nabila & Hindun, 2025; Rahmawati et al., 2025; Ramadan et al., 2026; Selpianti et al., 2025). Thus, the findings suggest that joyful learning can function as a broader pedagogical environment within which active learning strategies are implemented.

The relationship between joyful learning and contemporary approaches to learning is also relevant to the current development of deep learning-oriented education. Meaningful, mindful, and joyful learning have been discussed as interconnected dimensions of learning experiences that seek to promote deeper student engagement rather than superficial participation (Feriyanto et al., 2024; Ramadhan, 2025). Problem-based learning with a deep learning orientation similarly emphasizes meaningful engagement with problems and active construction of understanding in elementary science and social studies (Ramadan et al., 2026). Although the present study does not examine deep learning as a separate variable, its emphasis on meaningful, participatory, contextual, and reflective activities is compatible with this broader pedagogical direction.

The findings also have implications for the broader development of technology-responsive pedagogy. Although the intervention examined in this study was centered on joyful learning activities rather than a specific digital technology intervention, contemporary educational environments increasingly require teachers to integrate pedagogical knowledge with appropriate technological knowledge. Research on Indonesian science teachers' technological pedagogical content knowledge highlights the importance of understanding the relationship between technology, pedagogy, and subject matter in designing effective learning environments (Muhaimin et al., 2019). In this sense, the pedagogical principles identified in the present study active participation, collaboration, contextualization, and learner autonomy can provide a pedagogical foundation for future technology-supported joyful learning designs. However, such technology integration would require explicit investigation in future research rather than being inferred from the current intervention.

Another implication concerns the broader educational context in which students develop independence. Learning independence is shaped not only by classroom instruction but also by the wider social and educational environment surrounding students. Research examining parenting styles and self-regulation indicates that students' development of independent learning is influenced by factors beyond classroom instruction (Masyithoh et al., 2026). Similarly, the development of independent learners within the current educational reform agenda requires consistency between curriculum orientation, pedagogical practice, and students' learning environments (Purnamasari et al., 2026; Wahyu & Kurniawan, 2024). Therefore, teachers should view learning independence not simply as an outcome to be measured at the end of instruction but as a competency that needs to be intentionally cultivated through continuous and supportive learning experiences.

The findings indicate that the development of learning independence can be approached as an instructional design objective. The increase across the three stages of the study suggests that students benefited from repeated opportunities to participate actively, interact with peers, explore contextual problems, communicate ideas, and reflect on learning. This perspective is consistent with constructivist pedagogy, student-centered learning, and self-regulated learning, all of which emphasize students' active role in the learning process (Efgivia et al., 2021; Saleem et al., 2021; Puspita et al., 2024). Accordingly, the contribution of this study lies not merely in demonstrating an increase in learning independence but in showing how a sequence of joyful, participatory, collaborative, and contextual learning experiences can be organized within classroom action cycles to progressively support students' independent learning behaviors. This provides a pedagogical basis for further research examining how such learning designs can be expanded, including through technology-supported and context-sensitive instructional environments.

CONCLUSION

This study demonstrates that the design and implementation of joyful learning experiences can effectively strengthen students' learning independence in elementary IPAS education. Through a series of student-centered learning activities involving educational games, collaborative discussions, contextual exploration, presentations, and reflective learning tasks, students showed continuous improvement in self-confidence, learning discipline, responsibility, and learning initiative throughout the intervention cycles.

The findings revealed a substantial increase in overall learning independence, rising from 43% in the pre-cycle phase to 59.5% in Cycle I and reaching 79.5% in Cycle II. These improvements indicate that learning experiences designed to actively engage students in meaningful and enjoyable learning processes can contribute positively to the development of independent learning behaviors. The most notable improvement occurred in learning initiative, suggesting that supportive and participatory learning environments can encourage students to take greater ownership of their learning activities. From a pedagogical perspective, the study highlights the importance of viewing learning independence not merely as an educational outcome but also as a design objective that can be systematically fostered through well-planned learning experiences. The findings further suggest that Joyful Learning serves as an effective instructional approach for creating student-centered learning environments that support active participation, autonomy, and self-regulated learning.

In the context of elementary IPAS education, the integration of meaningful, contextual, and engaging learning experiences provides a promising pathway for strengthening both academic engagement and learner independence. Therefore, designing joyful learning experiences should be considered an important strategy for promoting learner-centered education and supporting the development of lifelong learning competencies among elementary school students. Future studies are encouraged to explore the implementation of joyful learning experiences across different educational levels, subject areas, and learning contexts to generate broader evidence regarding their contribution to learning independence and other essential twenty-first-century learning competencies.

REFERENCES

- Aseery, A. (2023). Enhancing learners' motivation and engagement in religious education classes at elementary levels. *British Journal of Religious Education*, 46, 43–58. <https://doi.org/10.1080/01416200.2023.2256487>
- Brau, B. (2020). Constructivism. In *United Nations peace operations and international relations theory*. SAGE. <https://doi.org/10.4135/9781483375519.n148>
- Chand, S. P. (2023). Constructivism in education: Exploring the contributions of Piaget, Vygotsky, and Bruner. *International Journal of Science and Research*, 12(6). <https://doi.org/10.21275/sr23630021800>
- De Ruig, N. J., De Jong, P. D., & Zee, M. (2023). Stimulating elementary school students' self-regulated learning through high-quality interactions and relationships: A narrative review. *Educational Psychology Review*, 35. <https://doi.org/10.1007/s10648-023-09795-5>
- Efgivia, M. G., Rinanda, R. Y. A., S., Hidayat, A., Maulana, I., & Budiarjo, A. (2021). Analysis of constructivism learning theory. In *Proceedings of the 2nd UMGESHIC International Seminar on Health, Social Science and Humanities*. Atlantis Press. <https://doi.org/10.2991/assehr.k.211020.032>
- Feriyanto, F., Anjariyah, D., & Anjariyah, F. (2024). Deep learning approach through meaningful, mindful, and joyful learning: A library research. *EJESSET*, 5(2). <https://doi.org/10.33122/ejeset.v5i2.321>
- Handoyo, T., & Ani, A. (2025). Teori konstruktivisme. *Jurnal Pendidikan dan Kewarganegaraan Indonesia*, 2(4). <https://doi.org/10.61132/jupenkei.v2i4.884>
- Hunaepi, H., & Suharta, I. (2024). Transforming education in Indonesia: The impact and challenges of the Merdeka Belajar curriculum. *Path of Science*. <https://doi.org/10.22178/pos.105-31>
- Khairunnisa, K., Salmiati, S., & Jalil, N. (2026). Joyful learning and students' motivation in Islamic religious education at SDN 27 Pinrang. *KUTTAB*, 10(1). <https://doi.org/10.30736/ktb.v10i1.2695>
- Lee, M., Lee, S. Y., Kim, J. E., & Lee, H. (2023). Domain-specific self-regulated learning interventions for elementary school students. *Learning and Instruction*. <https://doi.org/10.1016/j.learninstruc.2023.101810>

- Masyithoh, S., Loukam, A. A., Latip, A., Sa'diyah, R., & Musyarrofah, S. (2026). Parenting styles and self-regulation in shaping elementary students' learning independence. *Jurnal Ilmiah Pendidikan Dasar*. <https://doi.org/10.30659/pendas.13.1.132-146>
- Mishra, N. (2023). Constructivist approach to learning: An analysis of pedagogical models of social constructivist learning theory. *Journal of Research and Development*, 6(1). <https://doi.org/10.3126/jrdn.v6i01.55227>
- Muhaimin, M., Habibi, A., Mukminin, A., Saudagar, F., Pratama, R., Wahyuni, S., Sadikin, A., & Indrayana, B. (2019). A sequential explanatory investigation of TPACK: Indonesian science teachers' survey and perspective. *Journal of Technology and Science Education*, 9(3), 269. <https://doi.org/10.3926/jotse.662>
- Mukminin, A., Habibi, A., Prasajo, L. D., & Yuliana, L. I. A. (2019). *Manajemen sumber daya manusia dalam pendidikan*. Kampus UNY Karangmalang Yogyakarta.
- Muntasiroh, M., Marisa, R., & Jaya, I. (2026). Analysis of differences in self-regulated learning among elementary school students. *SOSIOEDUKASI*, 15(2). <https://doi.org/10.36526/sosioedukasi.v15i2.8210>
- Nabila, W. A., & Hindun, I. (2025). Improving elementary students' HOTS and learning activeness through process skills-based problem-based learning. *Jurnal Pendidikan Profesi Guru*, 6(3). <https://doi.org/10.22219/jppg.v6i3.43575>
- Nuritha, C., & Tsurayya, A. (2021). Pengembangan video pembelajaran berbantuan Geogebra untuk meningkatkan kemandirian belajar siswa. *Jurnal Cendekia : Jurnal Pendidikan Matematika*, 5(1), 48–64. <https://doi.org/10.31004/cendekia.v5i1.430>
- Prasetyo, H. R., & S. (2023). Student-centered learning based on the principles of Ki Hajar Dewantara in the implementation of the Merdeka Curriculum: A case study of elementary schools in Indonesia. *Journal of World Englishes and Educational Policy*, 5(3). <https://doi.org/10.32996/jweep.2023.5.3.10>
- Purnamasari, N. D., Zahira, K. H., Sumardjoko, B., & Narimo, S. (2026). Analysis of the implementation of the Merdeka Curriculum in supporting student-centered learning in elementary schools. *Lembaran Ilmu Kependidikan*, 55(1). <https://doi.org/10.15294/lik.v55i1.48725>
- Puspita, J. A., Puspitasari, A. D., Febriyanto, P. T., & Azzahra, F. (2024). Analysis of Pancasila Learner Profile sub-element of self-regulation of Phase B elementary school students. *BASICA*, 4(2). <https://doi.org/10.37680/basic.v4i2.6353>
- Rahmawati, I. Y., Wulansari, B. Y., Rusdiana, N. I., Pujiati, A., & Bariyah, S. K. (2024). Joyful learning approach in increasing motivation to learn English in middle school students of San Fabian, Philippines. *Elite*, 11(1). <https://doi.org/10.24252/elite.v11i1.46175>
- Rahmawati, R., Surahman, S., Rizal, R., Pahriadi, P., & Lapasere, S. (2025). Improving student learning outcomes in Natural and Social Science subjects through inquiry learning models in Grade V of elementary school. *Journal of Instructional Research, Pedagogy and Educational Research*, 4(3). <https://doi.org/10.56916/jirpe.v4i3.1459>
- Ramadan, R., Rizal, R., Pahriadi, P., Nashrullah, N., Kamil, M. N. A., & Wilade, S. (2026). Problem-based learning with a deep learning orientation in elementary science and social studies. *Journal of Instructional Research, Pedagogy and Educational Research*, 5(2). <https://doi.org/10.56916/jirpe.v5i2.3624>
- Ramadhan, A. (2025). Pengaruh meaningful, joyful, dan mindful learning sebagai pilar deep learning terhadap hasil belajar: Literature review. *JPT*, 6(2). <https://doi.org/10.62159/jpt.v6i2.1736>
- Sakina, D., Nashrullah, N., Ar, M. A. M., Gagaramusu, Y., Mas'adi, M., & Wilade, S. (2026). Enhancing conceptual understanding and participation in integrated science–social studies through contextual teaching and learning. *Journal of Instructional Research, Pedagogy and Educational Research*, 5(2). <https://doi.org/10.56916/jirpe.v5i2.3623>
- Saleem, A., Kausar, H., & Deebea, F. (2021). Social constructivism: A new paradigm in teaching and learning environment. *Perennial Journal of History*, 2(2). <https://doi.org/10.52700/pjh.v2i2.86>

- Selpianti, S., Zulnuraini, Z., Khairunnisa, K., Aras, N. F., & Wilade, S. (2025). Enhancing students' learning outcomes in science and social studies through the inquiry-based learning model in Grade V elementary school. *Journal of Instructional Research, Pedagogy and Educational Research*, 4(4). <https://doi.org/10.56916/jirpe.v4i4.2566>
- Solihah, P. A., Kaniawati, I., Samsudin, A., & Riandi, R. (2023). Prototype of greenhouse effect for improving problem-solving skills in STEM-ESD: Literature review, bibliometric, and experiment. *Indonesian Journal of Science and Technology*, 9(1), 163–190. <https://doi.org/10.17509/ijost.v9i1.66773>
- Sugrah, N. U. (2019). Implementasi teori belajar konstruktivisme dalam pembelajaran sains. *Humanika*, 19(2), 121–138.
- Sufiani, S., & Marzuki, M. (2021). Joyful learning: Strategi alternatif menuju pembelajaran menyenangkan. *Zawiyah: Jurnal Pemikiran Islam*, 7(1).
- Sukowati, S., Sartono, E., & Pradewi, G. I. (2020). The effect of self-regulated learning strategies on the primary school students' independent learning skill. *Psychology, Evaluation, and Technology in Educational Research*, 2(2). <https://doi.org/10.33292/petier.v2i2.44>
- Suyanti, S. (2021). Pembelajaran e-learning sebagai upaya meningkatkan kemandirian belajar mahasiswa PGSD. *Jurnal Bidang Pendidikan Dasar*, 5(2), 135–144. <https://doi.org/10.21067/jbpd.v5i2.5623>
- Syarifah, M., Suarmika, P. E., Hidayat, N., Muslihah, M., & Faizah, S. (2026). Self-regulated learning in elementary school students: Trends, strategies, and impact on learning outcomes. *Journal of General Education and Humanities*, 5(3). <https://doi.org/10.58421/gehu.v5i3.1608>
- Syahrial, S., Asrial, A., Maison, M., Mukminin, A., & Kurniawan, D. A. (2020). Ethnoconstructivism analysis: Study of pedagogic mathematics competence of primary school teachers. *International Journal of Evaluation and Research in Education*, 9(3), 614–621. <https://doi.org/10.11591/ijere.v9i3.20256>
- Taggart, J., & Wheeler, L. (2023). Collaborative learning as constructivist practice: An exploratory qualitative descriptive study of faculty approaches to student group work. *Active Learning in Higher Education*, 26, 59–76. <https://doi.org/10.1177/14697874231193938>
- Us, K. A. (2018). Membangun pendidikan karakter di era digital. *INNOVATIO*, 18(2), 183–198.
- Velomena, A., Lefaan, S., Widodo, D. P., & Selly, O. A. (2026). Environmental-based learning and joyful learning experiences in elementary education. *Journal of Counseling, Education and Society*. <https://doi.org/10.29210/08jces684300>
- Wahyu, G., & Kurniawan, A. (2024). Fostering independent learners: Kurikulum Merdeka, Merdeka Belajar, the student-centred learning approach and pedagogical reform. *Journal of Language, Literature, and Social Communication Studies*, 1(3). <https://doi.org/10.58881/jllscs.v1i3.100>
- Wibowo, N. (2016). Upaya peningkatan keaktifan siswa melalui pembelajaran berdasarkan gaya belajar di SMK Negeri 1 Saptosari. *Elinvo (Electronics, Informatics, and Vocational Education)*, 1(2), 128–139.
- Widyawulandari, R., S., & Indriayu, M. (2019). Implementation of joyful learning approach in providing learning motivation for elementary school student. In *Proceedings of the 2nd International Conference on Teacher Training and Education (STEACH 2018)*. Atlantis Press. <https://doi.org/10.2991/steach-18.2019.12>
- Wulandari, M. R., & Prayitno, H. (2026). The role of teachers in creating a joyful learning atmosphere through interactive activities in Grade 2 of Muhammadiyah 1 Elementary School, Surakarta. *SOSIOEDUKASI*, 15(1). <https://doi.org/10.36526/sosioedukasi.v15i1.7397>
- Yoyoh, Y., Hidayat, A., & others. (2022). [Reference details as previously supplied].
- Zajda, J. (2021). Constructivist learning theory and creating effective learning environments. In *Globalisation, comparative education and policy research*. Springer. https://doi.org/10.1007/978-3-030-71575-5_3
- Zulparis, Z. (2025). Persepsi guru terhadap implementasi Kurikulum Merdeka di sekolah dasar. *Elementary*, 5(4). <https://doi.org/10.51878/elementary.v5i4.7740>