International Journal of Educational Evaluation and Policy Analysis

E-ISSN: 3048-0841
P-ISSN: 3048-0833

Research Article

Implementing the Round Robin Cooperative Model to Improve Motivation and Creativity in IPAS Learning

Haya Uni Aldi[1*], Hartini[2], Saripuddin[3]

[1] Universitas Patompo; Indonesia; e-mail : aldihaya783@gmail.com
[2] Universitas Patompo; Indonesia; e-mail : antyhartini@gmail.com
[3] Universitas Patompo; Indonesia; e-mail: saripuddin@gmail.com
* Corresponding Author : **Haya Uni Aldi**

Abstract: This classroom action research investigates the effectiveness of the Round Robin cooperative learning model in improving the motivation and creativity of learning science among Grade IV students at UPT SDN Unjuruiya No. 45, Selayar Islands. The study was conducted to address students' low engagement, limited participation, and insufficient creative expression during IPAS lessons. The research involved 12 students (6 male and 6 female) and was implemented in two cycles, each consisting of three meetings—two for instructional activities and one for assessing learning creativity. Data were collected through observation, learning motivation assessments, and creativity evaluations. Findings indicate a significant improvement in student learning outcomes following the implementation of the Round Robin model. In Cycle I, only 5 students (42%) achieved the creative category, while 7 students (58%) remained in the non-creative category. However, after refinement and continued application in Cycle II, the number of students achieving the creative category increased substantially to 11 students (92%), leaving only 1 student (8%) in the non-creative category. These results demonstrate that the Round Robin model effectively enhances student motivation, encourages active participation, and supports the development of creativity in science learning. Overall, the study concludes that cooperative learning through Round Robin provides a meaningful and engaging instructional alternative capable of improving both motivational and creative learning aspects in elementary science classrooms.

Keywords: Creativity; Cooperative Learning; IPAS; Motivation; Round Robin.

1. Introduction

Education is globally recognized as a strategic foundation for preparing future generations to navigate an increasingly complex and competitive world. Beyond transmitting knowledge, education is expected to cultivate character, critical thinking, creativity, and twenty-first-century competencies essential for students' long-term academic and social development [1]. At the primary level, learning activities serve as a crucial groundwork that shapes children's attitudes, motivation, and learning dispositions, which subsequently influence their performance at higher stages of schooling. Consequently, instructional processes in elementary education must adopt approaches that actively involve students, stimulate intrinsic motivation, and foster creativity in ways that align with the dynamic demands of modern learning environments [2].

In the Indonesian context, the need for effective learning models is particularly urgent given persistent challenges in activating student engagement in elementary classrooms. Preliminary observations conducted at UPT SDN Unjuruiya No. 45 in June 2025 revealed that Grade IV students demonstrated low levels of learning motivation and creativity in the IPAS subject. Students tended to remain passive, showed limited enthusiasm during group tasks, and displayed minimal initiative in exploring learning materials. Teachers reported that the classroom interaction remained predominantly teacher-centered, with students positioned merely as recipients of information. Such patterns hinder the development of active learning characteristics that are essential for contemporary learners. The issue was not isolated to a few individuals; interview results indicated that almost all students in the class experienced

Received: October 16, 2025;
Revised: November 30, 2025;
Accepted: December 15, 2025;
Available Online: December 18, 2025;
Curr. Ver.: December 18, 2025;

similar disengagement due to insufficient variation in instructional methods and the absence of learning activities that encouraged collaboration, inquiry, and expression.

Motivation plays a pivotal role in driving students' persistence, intensity, and direction in learning activities. Suprijono underscores its centrality as a psychological driver that shapes effort and engagement, while Zubaidah notes that students with strong motivation demonstrate enthusiasm, curiosity, and resilience when facing learning challenges[3], [4]. Creativity represents another essential dimension in elementary learning, enabling students to think flexibly, generate original ideas, and offer innovative solutions [5]. In the IPAS context, creativity manifests through students' ability to articulate scientific ideas, design simple projects, and present observational results meaningfully. However, documentation from teachers showed that only 42% of the class demonstrated adequate creativity, while the rest remained dependent on peer answers and avoided developing their own ideas. This problem was compounded by the lack of meaningful social interaction due to a teacher-centered instructional approach.

Scholars such as Sagala argue that cooperative learning offers a promising avenue to enhance social interaction, collaboration, and shared responsibility within groups. Such an approach gives students structured opportunities to support one another and practice expressing their ideas logically [6]. Among the cooperative learning models available, the Round Robin technique has been identified as particularly suitable for elementary classrooms. Honan explains that Round Robin encourages every student to contribute ideas sequentially, ensuring equal participation and preventing the dominance of certain group members. This inclusive structure stimulates students' sense of responsibility, enhances their confidence, and creates an environment where motivation and creativity can flourish. The model's emphasis on active student contributions aligns strongly with the principles of the Kurikulum Merdeka, which promotes student-centered learning, meaningful engagement, and knowledge construction through collaborative experiences[7], [8].

Empirical studies have further validated the effectiveness of Round Robin in enhancing engagement and creativity. Handayani reported that its implementation in a fifth-grade classroom in Sidoarjo significantly increased students' participation, the emergence of creative ideas, and overall learning outcomes [9]. Similarly, Anwar demonstrated that Round Robin strengthened intrinsic motivation among students learning IPAS in Makassar by fostering a sense of collective accountability and peer support [10]. These findings suggest that Round Robin is not only theoretically sound but also practically beneficial across diverse learning contexts. In schools situated in under-resourced island regions such as UPT SDN Unjuruiya No. 45, adopting such models becomes even more relevant as it helps mitigate limitations related to access and learning resources by leveraging peer collaboration as a learning asset.

From a theoretical standpoint, this study is grounded in constructivist perspectives that emphasize the importance of active participation and social interaction in knowledge building. Cooperative learning, particularly Round Robin, aligns with Vygotsky's concept of the zone of proximal development (ZPD), wherein cognitive and social development is accelerated when students engage in structured collaboration with peers. Practically, the study offers valuable insights for teachers seeking innovative, feasible, and engaging strategies to improve motivation and creativity in elementary IPAS learning. It also provides schools with evidence-based recommendations for designing more interactive, varied, and student-oriented instructional practices, especially in remote island contexts where instructional challenges often persist.

Despite the growing body of research on cooperative learning, gaps remain concerning its implementation in geographically isolated elementary schools with limited resources. Existing studies have focused predominantly on urban or resource-rich settings, leaving a gap in understanding how Round Robin functions within island-based primary schools that face unique geographical and infrastructural constraints. Additionally, limited empirical evidence addresses how Round Robin simultaneously enhances both motivation and creativity—two interrelated yet distinct constructs essential for effective IPAS learning. This lack of context-specific and multidimensional analysis underscores the need for further investigation to extend theoretical and practical insights.

Given these theoretical, empirical, and contextual considerations, this research aims to examine the effectiveness of the Round Robin cooperative learning model in improving Grade IV students' motivation and creativity in IPAS at UPT SDN Unjuruiya No. 45, Kepulauan Selayar. The study seeks to determine whether the model significantly enhances these learning outcomes and to analyze how the implementation process unfolds in the classroom. The findings are expected to contribute to the enrichment of cooperative learning literature, strengthen the practical use of Round Robin in elementary education, and offer a pedagogical

alternative capable of addressing the motivational and creative challenges prevalent in island-based learning environments.

2. Literature Review

This section must contain a state-of-the-art explanation. It can be explained in several ways. First, you can discuss several related papers, both about objects, methods, and their results. From there, you can explain and emphasize gaps or differences between your research and previous research. The second way is to combine theory with related literature and explain each theory in one sub-chapter.

Conceptual of Learning Motivation

Learning motivation is a psychological construct that serves as the primary driver of students' learning behavior. Various scholars emphasize that motivation not only initiates learning activities but also sustains effort, directs goals, and determines the persistence of student engagement. Wibowo (2020), Suryani (2021), Fitriana (2022), Nurhalimah (2022), Dewi (2023), and Prasetya (2023) consistently assert that motivation comprises internal and external dimensions that influence readiness, perseverance, enthusiasm, and interest in leaning [11], [12], [13], [14], [15]. These perspectives highlight that learning motivation emerges from the interaction between individual factors and the learning environment, particularly the teacher's role in creating enjoyable learning conditions, using varied methods, and building positive interpersonal relationships.

The theoretical literature shows that learning motivation is influenced by students' goals, interests, psychological conditions, social environment, and the teacher's teaching style . Motivation functions as a behavioral driver, goal director, determinant of perseverance, regulator of learning intensity and duration, and builder of learning responsibility [16]. Its indicators include persistence, readiness, enthusiasm, interest, and the drive to achieve. These insights indicate that motivation operates across cognitive, affective, and conative domains—foundations essential for active learning models such as Round Robin. Efforts to enhance motivation involve creating positive classroom environments, applying varied teaching methods, offering positive reinforcement, connecting content to real life, engaging students actively, and providing constructive feedback [17].

Concept of Learning Creativity and Influencing Factors

Learning creativity is defined as the ability to generate new ideas, view problems from different perspectives, and develop original solutions in learning contexts [4], [5]. Creativity involves divergent, flexible, elaborative, and application-oriented thinking [3], [6]. Factors influencing creativity include intrinsic motivation, supportive learning environments, teachers who encourage exploration, active strategies, and freedom of thought [4]. Efforts to enhance creativity involve meaningful learning challenges, problem- and project-based learning, appreciation of ideas, open classroom environments, and expressive activities. This theoretical synthesis demonstrates that creativity thrives in collaborative, participatory learning settings—hallmarks of the Round Robin model.

IPAS Learning in Elementary Schools

IPAS (Integrated Science and Social Studies) is defined as an integrated instructional approach that helps students understand natural and social phenomena holistically [18], [19], [20], [21], [22]. Its goals include developing scientific skills, environmental awareness, conceptual integration with real-life contexts, scientific-social character, and science–social literacy. IPAS functions encompass educational, scientific, social, and environmental dimensions. These theoretical perspectives indicate that effective IPAS learning requires interactive and collaborative instructional approaches, given its emphasis on exploration, observation, communication, and problem-solving—skills strengthened through cooperative models such as Round Robin.

Cooperative Learning and Its Relevance to Motivation and Creativity

Cooperative learning emphasizes small-group collaboration among heterogeneous students to achieve shared academic and social goals [23], [24], [25], [26], [27]. It improves academic achievement, communication skills, individual responsibility, tolerance, and social

skills. Key characteristics include shared goals, evaluation based on group and individual effort, heterogeneous grouping, and active, student-centered learning. Theoretical synthesis shows that cooperative learning enhances student motivation by promoting participation and increases creativity through interaction that supports divergent thinking.

Round Robin Learning Model

The Round Robin model is a cooperative technique involving turn-taking discussions within small groups, where each student expresses ideas in a structured sequence [23], [24], [26], [28], [29], [30]. Its primary aim is to improve speaking ability, critical thinking, social interaction, and equitable participation. Implementation steps include explaining objectives, presenting open problems, forming heterogeneous groups, conducting turn-taking discussions, recording outcomes, presenting group results, and teacher reflection. Benefits include equal participation, improved oral communication, enhanced critical and creative thinking, and strengthened responsibility. Limitations include time constraints, ineffectiveness when students are unprepared, inefficiency in large classes, and the need for tight supervision.

3. Proposed Method

This study employed a Classroom Action Research (CAR) design to enhance Grade IV students' motivation and creativity in IPAS learning through the Round Robin cooperative model. Conducted at UPT SDN Unjuruiya No. 45, Selayar Islands during July–October 2025, the research followed Arikunto's (2020) cyclical framework of planning, action, observation, and reflection. The participants consisted of twelve students (six boys and six girls), representing a total population sample. Two CAR cycles were implemented, beginning with instructional planning, instrument preparation (observation sheets, interview guides, and documentation formats), and coordination with the classroom teacher. The action phase applied Round Robin procedures through structured introductory, core, and closing learning stages, followed by systematic observation of student engagement and group dynamics. Cycle II was adjusted based on the reflection findings from Cycle I, with further cycles prepared if success indicators were not met.

Data were collected through classroom observation, student and teacher interviews, learning assessments, and documentation to ensure methodological triangulation. Qualitative data were analyzed descriptively to capture changes in participation, interaction patterns, and behavioral indicators across cycles, while quantitative analysis used Suhartono's (2021) scoring criteria to categorize creativity performance. Validity was strengthened through multimethod data sources, and ethical considerations were ensured through institutional permissions and participant confidentiality. Success indicators were defined as improved motivation and creativity between cycles and achievement of the school's minimum IPAS mastery standard of 70 with at least 80% classical completeness, indicating the effectiveness of the Round Robin model in the classroom.

4. Results and Discussion

Research Results

This classroom action research was conducted in two cycles to improve the motivation and creativity of IPAS learning among fourth-grade students at UPT SDN Unjuruiya No. 45 in the Selayar Islands through the application of the Round Robin cooperative learning model. Data from Cycle I showed that the results did not meet the criteria for success, while Cycle II showed a significant increase in both motivation and creativity in learning. The following presents the results of the analysis of learning motivation, learning creativity, and learning completeness based on a comparison of the two cycles.

Students' Motivation in IPAS Learning

Students' motivation in IPAS learning was examined across five indicators: engagement, interest, intrinsic motivation, initiative, and confidence. A comparison between Cycle I and Cycle II shows a consistent improvement across all indicators, as summarized in Table 1.

Table 1. Motivation in IPAS Learning in Cycle I and Cycle II.

No	Observed Aspect	Indicator	Cycle I (%)	Cycle II (%)
1	Engagement	Students actively ask questions and participate in IPAS learning.	63	88
2	Interest	Students show interest and enthusiasm in classroom activities.	71	88
3	Intrinsic Motivation	Students work diligently to understand IPAS concepts.	58	83
4	Initiative	Students provide ideas or solutions without being prompted.	71	83
5	Confidence	Students dare to answer questions without fear of being wrong.	79	96

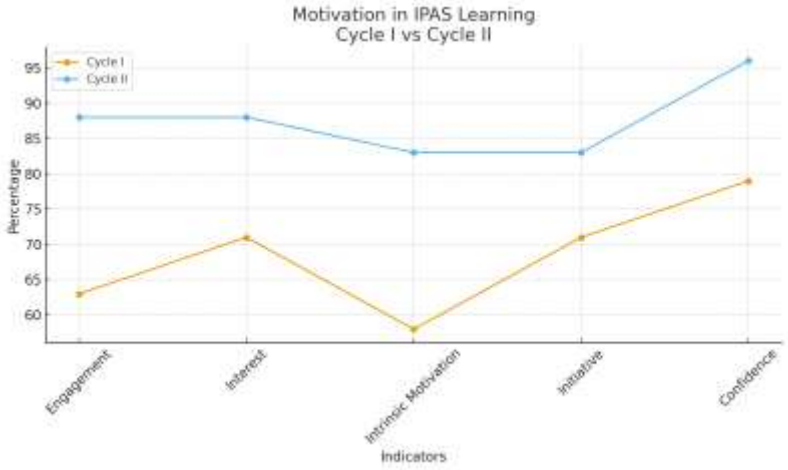

Figure 1. Motivation Comparison Between Cycle I and Cycle II.

The comparison reveals substantial growth in all motivational dimensions. Engagement rose from 63% to 88%, demonstrating stronger participation during learning activities. Interest increased from 71% to 88%, indicating that students found the lessons more enjoyable and meaningful. Intrinsic motivation showed a notable improvement from 58% to 83%, suggesting that students became more self-driven in understanding IPAS concepts. Initiative increased from 71% to 83%, reflecting a greater willingness to contribute ideas. Confidence demonstrated the highest improvement, rising from 79% to 96%, showing that nearly all students became comfortable responding to questions independently. Together, these developments confirm that the Round Robin model created a more participatory and supportive learning environment.

Students' Creativity in IPAS Learning

Students' creativity was evaluated using five categorical levels. Table 2 summarizes the distribution of creativity scores in Cycle I and Cycle II based on predefined scoring criteria.

Table 2. Comparison of IPAS Learning Creativity in Cycle I and Cycle II.

No	Category	Score Range	Cycle I (%)	Cycle II (%)
1	Passive	< 40	0	0
2	Imitative	40–54	0	0
3	Variative	55–69	58	8
4	Innovative	70–84	42	25
5	Creative	85–100	0	67

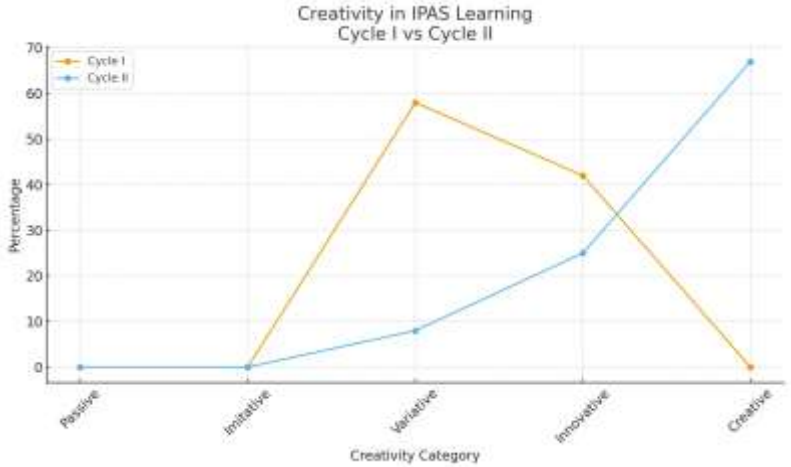

Figure 2. Creativity Comparison Between Cycle I and Cycle II.

The creativity distributions indicate substantial progress following the implementation of the Round Robin cooperative learning model. In Cycle I, the majority of students (58%) were still in the "Variative" category, and none reached the "Creative" level. However, Cycle II results exhibit a remarkable shift: only 8% remained in the Variative category, while 67% reached the Creative level. The increase in the Innovative category (from 42% to 25%) reflects a transition, where students moved from moderate creativity into the highest "Creative" category. These findings suggest that the structured turn-taking, idea-sharing, and collaborative learning embedded in the Round Robin strategy significantly enhanced students' creative thinking and problem-solving abilities.

Discussion

The findings of this classroom action research demonstrate that the Round Robin cooperative learning model effectively enhanced students' motivation and creativity in IPAS learning. Improvements across both dimensions were consistently observed from Cycle I to Cycle II, indicating that the structured collaborative nature of the Round Robin strategy successfully addressed the initial learning challenges encountered by Grade IV students at UPT SDN Unjuruiya No. 45 Selayar Islands.

Improvement in Learning Motivation

The motivational indicators—engagement, interest, intrinsic motivation, initiative, and confidence—showed meaningful increases following the implementation of the Round Robin model. As displayed in Table 1 and Figure 1, students' engagement rose from 63% to 88%, indicating that more students were actively contributing to discussions and participating in classroom activities. Similar improvements occurred in intrinsic motivation (58% to 83%) and initiative (71% to 83%), reflecting students' increasing willingness to think independently, propose ideas, and persist in understanding new concepts. The sharp rise in confidence (79% to 96%) signifies that the model effectively encouraged students to express their thoughts without fear of making mistakes.

These findings align with Hidayat, who highlights that cooperative structures such as Round Robin ensure equal participation and reduce student passivity[31]. The turn-taking mechanism ensures that each student contributes, fostering a sense of responsibility and belonging within the group. Students become more engaged because they must prepare responses and listen to peers, promoting collaborative learning dynamics. The consistent improvement across motivational indicators demonstrates that the model successfully shifted the learning environment from teacher-centered to student-centered, enhancing students' overall enthusiasm for learning.

Enhancement of Creativity in IPAS Learning

A substantial improvement was also observed in students' creativity levels, as shown in Table 2 and Figure 2. During Cycle I, most students (58%) remained in the "Variative" category, indicating limited originality or creative elaboration. However, in Cycle II, only 8% remained in this category, while 67% reached the "Creative" category—an impressive transformation. This upward trend suggests that structured opportunities to express ideas, compare

perspectives, and construct group conclusions stimulated higher-order thinking among students.

This finding is supported by Sari, who explains that the Round Robin model promotes divergent thinking because each student must propose an idea distinct from peers [9]. The process pushes students to think beyond conventional responses and develop unique solutions. In the context of IPAS, which integrates scientific reasoning and social understanding, such cognitive stimulation is essential. Students not only demonstrated better comprehension of the learning material but also generated more creative interpretations and problem-solving approaches.

Impact of the Round Robin Model

The combined improvements in motivation and creativity reflect the broader pedagogical value of the Round Robin strategy. By ensuring equal participation, encouraging idea-sharing, and reducing communication anxiety, the model creates a learning atmosphere that is interactive, supportive, and cognitively stimulating. This is particularly impactful in the elementary school context, where students benefit from hands-on, collaborative, and socially engaging learning experiences. The sharp increase in the "Creative" category from 0% to 67% also illustrates that when students are provided with structured opportunities to express and refine ideas, their creative abilities develop significantly. The alignment between motivational improvement and creativity enhancement further suggests that students who feel motivated and confident are more willing to engage in creative thinking.

These results emphasize the importance of integrating cooperative learning strategies into IPAS instruction. Teachers can use the Round Robin model to promote active participation, develop communication skills, enhance confidence, and stimulate creativity. Moreover, the model is adaptable and can be applied to various IPAS topics and learning contexts. The improvements observed in this study indicate that sustained use of the Round Robin approach can contribute to developing students who are collaborative, reflective, and capable of engaging in higher-order thinking.

5. Conclusions

The findings of this study demonstrate that the application of the Round Robin cooperative learning model significantly improved students' motivation and creativity in IPAS learning. Across two action research cycles, students exhibited notable progress in active participation, enthusiasm, confidence, and initiative. Creativity also increased substantially, shifting from a predominance of non-creative classifications in Cycle I to a large majority categorized as creative in Cycle II. These outcomes confirm that the Round Robin strategy effectively addresses learning challenges by fostering equal participation, structured collaboration, and deeper cognitive engagement among elementary school students.

Theoretically, this study reinforces the premise that cooperative learning structures can enhance both motivational and creative domains by emphasizing interaction, shared responsibility, and dialogic knowledge construction. The findings contribute empirical support to the broader body of literature suggesting that structured turn-taking procedures promote divergent thinking and intrinsic learning motivation. From a practical standpoint, the results offer actionable insights for teachers, particularly in primary education settings, to integrate Round Robin systematically as a pedagogical approach that nurtures students' engagement, communication skills, and creative expression. Sustained implementation, combined with interactive media or reflective activities, can further strengthen classroom dynamics and learning outcomes.

Despite the positive results, this study is limited by its small sample size, single-school setting, and dependence on classroom action research cycles, which may restrict generalizability. Future research would benefit from larger and more diverse participant groups, comparative studies involving different cooperative learning models, or mixed-method designs to capture deeper cognitive and affective changes. Longitudinal studies may also be valuable in examining the long-term effects of Round Robin on students' learning dispositions. Such extensions will provide a richer and more comprehensive understanding of how cooperative learning strategies influence motivation and creativity across varied educational contexts.

References

[1] Suarlin, H. Sukawati, S. Hardiyanti Arhas, and N. MY, "Respon Guru terhadap Platform Merdeka Mengajar dalam Digitalisasi Pendidikan di Kabupaten Gowa," *J. Pengabdi. Masy. dan Ris. Pendidik.*, vol. 3, no. 4, pp. 3306–3315, 2025, doi: 10.31004/jerkin.v3i4.928.

[2] N. MY, "Junior Leadership Program: Empowering Elementary Students to Develop 4C Skills (Critical Thinking, Creativity, Communication, Collaboration)," *Adv. Community Serv. Res.*, vol. 2, no. 2, pp. 74–86, 2024, doi: 10.60079/acsr.v2i2.333.

[3] A. Suprijono, *Cooperative learning: Teori dan aplikasi PAIKEM*. Yogyakarta: Pustaka Pelajar, 2020.

[4] S. Zubaidah, *Strategi meningkatkan kreativitas dan kemampuan berpikir tingkat tinggi siswa*. Malang: Universitas Negeri Malang Press, 2021.

[5] U. Munandar, *Pengembangan kreativitas anak*. Jakarta: Rajawali Pers, 2022.

[6] S. Sagala, *Konsep dan makna pembelajaran*. Bandung: Alfabeta, 2021.

[7] M. Siregar, A. Anggara, M. Faraiddin, and N. Syafridah, "Pelatihan Mandiri Kurikulum Merdeka Belajar dengan Pemanfaatan Platform Merdeka Mengajar di Satuan Pendidikan," *J. Penelitian, Pendidik. dan Pengajaran JPPP*, vol. 4, no. 1, pp. 1–4, 2023, doi: 10.30596/jppp.v4i1.13392.

[8] Suarlin, N. MY, and M. N. F. Arsyad, "Analisis Program Pengembangan Kompetensi Guru dalam Penerapan Kurikulum Merdeka," *EDUKATIF J. Penelit. dan Pembelajaran*, vol. 01, no. 03, pp. 85–94, 2025.

[9] T. Handayani, *Penerapan Round Robin dan peningkatan kreativitas murid*. Sidoarjo: Universitas Negeri Surabaya, 2023.

[10] A. Anwar, *Penerapan model Round Robin dalam pembelajaran IPAS*. Makassar: Universitas Negeri Makassar, 2022.

[11] K. Suryani, *Inovasi Pembelajaran di Era Digital*. Jakarta: PT. Grasindo, 2021.

[12] N. F. Harahap, D. Anjani, and N. Sabrina, "Analisis Artikel Metode Motivasi dan Fungsi Motivasi Belajar Siswa," *Indones. J. Intellect. Publ.*, vol. 1, no. 3, pp. 198–203, 2021, doi: 10.51577/ijipublication.v1i3.121.

[13] R. Nurhalimah, *Inovasi pembelajaran untuk guru abad 21*. Jakarta: Prenada Media, 2022.

[14] L. Dewi, "The Implementation of Understanding by Design Approach in Mathematics Learning on Elementary School," *J. Innov. Math. Learn.*, vol. 6, no. 2, pp. 124–131, 2023, doi: 10.22460/jiml.v6i2.16304.

[15] M. Yunus, H. Hastuti, and E. Elpisah, "Pembelajaran Klasikal Dan Motivasi Terhadap Prestasi Belajar Siswa," *Jambura Econ. Educ. J.*, vol. 4, no. 2, pp. 127–134, 2022.

[16] T. Suryani, *Dasar-dasar psikologi pendidikan*. Surabaya: Pustaka Ilmu, 2021.

[17] H. Prasetya, *Strategi meningkatkan prestasi belajar murid sekolah dasar*. Yogyakarta: Deepublish, 2023.

[18] R. Sulastri, *Pembelajaran tematik dan implementasi IPAS di sekolah dasar*. Jakarta: Bumi Aksara, 2021.

[19] E. Sudarmiani, *Integrasi ilmu alam dan sosial dalam Kurikulum Merdeka*. Jakarta: Rajagrafindo Persada, 2022.

[20] D. Heryanto, *Konsep pembelajaran interdisipliner di sekolah dasar*. Yogyakarta: Pustaka Pelajar, 2020.

[21] R. Prayogo, *Strategi pembelajaran ilmu terpadu di sekolah dasar*. Surabaya: Media Edukasi, 2021.

[22] D. Yuliani, *Pembelajaran kontekstual berbasis IPAS*. Malang: Literasi Nusantara, 2022.

[23] Isjoni, *Pembelajaran kooperatif: Meningkatkan kecerdasan sosial anak*. Yogyakarta: Pustaka Pelajar, 2020.

[24] M. Suparman, *Model pembelajaran dan implementasinya dalam Kurikulum Merdeka*. Surabaya: Graha Ilmu, 2021.

[25] R. A. Sani, *Pembelajaran kolaboratif di sekolah dasar*. Medan: Edukatif Press, 2022.

[26] S. Hidayati, *Strategi pembelajaran inovatif di sekolah dasar*. Bandung: Remaja Rosdakarya, 2023.

[27] M. A. Nugroho, "Konsep pendidikan lingkungan hidup: Upaya penenaman kesadaran lingkungan," *Ibtidaiyyah J. Pendidik. Guru Madrasah Ibtidaiyah*, vol. 1, no. 2, pp. 93–108, 2022.

[28] R. A. Sani, *Model pembelajaran inovatif*. Jakarta: Bumi Aksara, 2020.

[29] A. Nugroho, *Model-model pembelajaran aktif dan kreatif di era digital*. Jakarta: Bumi Aksara, 2020.

[30] D. Rahmawati, *Motivasi belajar siswa melalui model pembelajaran kooperatif*. Yogyakarta: Deepublish, 2024.

[31] A. N. Amanah, "Penerapan Model Round Robin Brainstorming dalam Meningkatkan Kerjasama Tim," *J. Ilm. Res. Student*, vol. 2, no. 2, pp. 950–960, 2025.