THE EFFECTIVENESS OF *WINDOW SHOPPING* COOPERATIVE LEARNING IN ENHANCING CREATIVITY AND UNDERSTANDING OF EARTH STRUCTURE CONCEPTS

Dhiana Wahyu Kusuma Wardhani [1], Agung Mulyo Setiawan [2]*, Wahyu Hadi Susilo [3]

[1] PPG Prajabatan Sekolah Pascasarjana Universitas Negeri Malang,
[2] FMIPA Universitas Negeri Malang,
Jl. Semarang No. 5 Malang, Jawa Timur, Indonesia
[3] SMP Negeri 24 Malang
Jl. Simpang LA Sucipto, Gang Makam, Pandanwangi, Kota Malang, Jawa Timur, Indonesia
*Corresponding author, email: agung.mulyo.fmipa@um.ac.id

doi: 10.17977/um084v4i12026p15-21

Keywords
window shopping,
cooperative learning,
student creativity,
conceptual understanding,
Science education

Article History
Submitted: 24 June 2025
Revised: 15 July 2025
Accepted: 24 August 2025
Published: 3 September 2025

Abstract
This study aimed to examine the effectiveness of the *window shopping cooperative learning* model in enhancing grade 8 students' creativity and conceptual understanding of earth structure in science learning. The model was introduced as an alternative to address issues of low engagement and uneven participation in classroom activities. The research employed a classroom action research (CAR) design with three meetings representing the planning, action, and reflection stages. The participants were 29 students of class VIII F at SMPN 24 Malang. Data collection techniques included classroom observations, field notes, and a post-test. Qualitative data were analyzed thematically to capture participation, motivation, and creativity, while quantitative data were analyzed descriptively to assess students' mastery levels. The findings revealed that students actively participated in planning and producing creative outputs, including posters, flipbooks, and three-dimensional models of earth structure. During the reflection stage, the gallery walk activity encouraged peer tutoring, enabling students to explain and exchange knowledge more confidently with classmates. Post-test results confirmed significant improvements, with over 79 percent of students achieving mastery, ranging from sufficient to very satisfactory levels. The study concludes that the *window shopping cooperative learning* model is effective in fostering creativity, collaboration, and conceptual understanding in science education. Its implementation aligns with student-centered principles and holds potential for broader application across subjects and grade levels.

Introduction

Education is a deliberate effort to meet students' learning needs. Through teaching and training, education enables changes in attitudes and behaviors toward maturity (Suardi, 2018). By providing structured knowledge and skills, formal education enhances the quality of human resources (Hadiawati et al., 2023). Within this framework, curriculum plays a vital role as a structured plan designed to facilitate teaching and learning under the guidance of schools and educators (Hikmah, 2020). In Indonesia, the current *Merdeka Curriculum* emphasizes contextual learning that goes beyond theoretical mastery, allowing students to engage in more meaningful, relevant, and applied experiences (Riyanto, 2019).

Despite these curriculum reforms, many students still experience boredom and disengagement in classroom learning. Teachers are therefore required to adopt creative methods and models that address students' diverse characteristics, ensuring that learning remains both effective and engaging (Karunia & Ekayanti, 2021). Learning strategies, defined as systematic approaches to deliver subject matter to achieve specific goals (Suparman, 2004), must align with students' needs to optimize participation and comprehension (Qoriah, 2023; Werdiningsih, 2022). Student participation, reflected in activities such as analyzing, discussing, and expressing opinions, is a key indicator of successful learning outcomes (Galugu & Baharudin, 2017; Batubara, 2020).

One effective approach to strengthen participation is cooperative learning, which organizes students into small groups to work collaboratively under teacher guidance (Tadesse et al., 2024 and Gardeli & Vosinakis, 2025). However, challenges often arise as not all students contribute equally, with some remaining passive or disengaged. To overcome this, the *window shopping cooperative learning* model offers an alternative. This model engages students in rotating group activities where they observe, analyze, and learn from the work of peers, thereby strengthening memory and understanding (Ratnaningsih et al., 2022). Prior studies highlight its potential to foster creativity (Mustopa, 2020) and to improve creative thinking skills compared to conventional methods (Chen, 2018).

Empirical research has further supported its effectiveness across different subjects and contexts. Prasetyo (2021) reported that *window shopping* significantly improved student learning outcomes. Similarly, Negara (2020) found that it increased university students' learning motivation in economics courses. Faradilla et al. (2025) demonstrated its success in enhancing learning outcomes on ecosystem topics among high school students, while Silalahi et al. (2024) showed that it promoted active participation in history learning. These findings suggest that the model not only enhances learning achievement but also fosters motivation, creativity, and engagement across educational levels and disciplines.

Building on this evidence, the present study investigates the implementation of the *window shopping cooperative learning* model in grade 8 science, focusing on the topic of earth structure and its development. Unlike previous studies that emphasized outcomes such as motivation, engagement, or subject-specific gains, this research specifically explores how the model can simultaneously enhance students' creativity and conceptual understanding of a fundamental science topic.

Method

This study employed classroom action research (CAR), which focuses on addressing problems that occur within the classroom setting. Following Rosdiani et al. (2022), each CAR cycle consists of planning, action, observation/evaluation, and reflection. In this study, the research was conducted across three meetings, each representing one stage of the cycle.

The participants were 29 students of class VIII F at SMPN 24 Malang. The study combined both qualitative and quantitative data sources. Qualitative data were collected through classroom observations and field notes to capture students' motivation, participation, and creativity. Quantitative data were obtained from a post-test administered at the end of the learning cycle to measure students' conceptual understanding.

The procedure involved the implementation of the *window shopping* cooperative learning model, which was adapted to the classroom context. The stages included (1) introducing learning objectives and motivating students, (2) presenting the main topic, (3) forming student groups, (4) guiding group work, (5) organizing a gallery walk (window shopping), and (6) conducting evaluation, reflection, and reinforcement.

Table 1. Research Procedures, Activities, and Data Collected

Stage	Teacher Activities	Student Activities	Data Collected
Planning	Present learning objectives, motivate students, explain material outline	Listen, respond, prepare for group formation	Observation notes on engagement
Action (Group Work)	Form groups, distribute tasks, guide discussions	Collaborate in groups, prepare creative outputs (posters, 3D models, flipbooks)	Observation notes, field notes
Gallery Walk (Window Shopping)	Facilitate movement between groups, monitor interactions	Act as "shopkeepers" and "visitors," present and discuss group work	Field notes on participation, peer interactions
Evaluation & Reflection	Provide feedback, conduct post-test, lead reflection	Share reflections, complete post-test, self-assess learning	Post-test scores, reflection notes

Data analysis was carried out by categorizing qualitative findings thematically and interpreting them in relation to students' engagement and creativity. Quantitative data were analyzed descriptively by calculating levels of mastery based on post-test results.

Results

The classroom action research was implemented over three meetings, each corresponding to a phase of the CAR cycle.

Meeting I (Planning): At this stage, students were introduced to the learning objectives and received motivation from the teacher. They were then divided into six groups, with each group assigned to plan a project related to the concept of earth structure. The planning session fostered collaboration as students discussed potential outputs such as posters, flipbooks, and three-dimensional models. Observations revealed that students showed high enthusiasm and active participation during group formation and brainstorming. This initial engagement suggests that the cooperative and creative nature of the *window shopping* model effectively encouraged students to take ownership of their learning from the outset.

Meeting II (Action): During the action phase, groups began producing their planned projects. Outputs varied, including colorful posters, interactive flipbooks, and detailed 3D models of earth's layers crafted from clay and other materials. The process of creating these works promoted teamwork, creativity, and problem-solving, as students negotiated ideas and divided tasks among group members. Once completed, the projects were displayed around the classroom, transforming the learning environment into a gallery of student-generated knowledge. This phase highlighted not only the students' creativity but also their ability to integrate conceptual understanding into tangible products. The overall classroom atmosphere was vibrant and interactive, indicating that the method succeeded in sustaining student engagement and minimizing boredom.

Meeting III (Reflection): The reflection phase involved a *window shopping* session where students rotated between group displays. In this setup, some students acted as "shopkeepers," explaining their group's project, while others became "visitors," observing, taking notes, and asking questions. This peer-tutoring mechanism allowed for knowledge exchange in a non-intimidating environment. Students reported feeling more comfortable engaging with classmates than with the teacher, which facilitated freer discussion and deeper understanding. The session was not only enjoyable but also pedagogically effective, as students actively constructed knowledge through dialogue and interaction. The reflection concluded with a written test and group discussion, further reinforcing conceptual mastery.

Collectively, the three meetings demonstrated that the *window shopping cooperative learning* model enhanced creativity, promoted active participation, and supported deeper conceptual understanding. The varied learning products and active peer interactions are evidence of the model's effectiveness in fostering both cognitive and affective learning outcomes.

Table 2. Students' Post-Test Results by Mastery Level

Category	Description	Number of Students	Percentage (%)
TT (Not Achieved)	Did not reach minimum mastery criteria	6	20.7%
TC (Achieved – Sufficient)	Achieved minimum criteria with sufficient performance	15	51.7%
TM (Achieved – Satisfactory)	Achieved criteria with satisfactory performance	5	17.2%
TSM (Achieved – Very Satisfactory)	Achieved criteria with very strong mastery	3	10.4%
Total		29	100%

Interpretation: The results indicate that more than 79% of students (23 out of 29) successfully reached mastery, ranging from sufficient to very satisfactory levels. This suggests that the *window shopping cooperative learning* model was effective in enhancing students' understanding of the earth structure topic. Although 6 students (20.7%) did not achieve mastery, the majority showed improved performance, demonstrating the potential of this method to support both conceptual learning and creativity.

Discussions

The findings of this study demonstrate that the *window shopping cooperative learning* model effectively enhanced both students' creativity and their conceptual understanding of earth structure. Students engaged actively in every stage of the learning cycle—from planning and designing projects to presenting and reflecting on their work. This active participation not only fostered motivation and collaboration but also encouraged students to take responsibility for their own learning.

The interactive and visual nature of the projects—such as posters, flipbooks, and 3D models—provided students with opportunities to represent knowledge in multiple forms. This multimodal approach is consistent with constructivist principles, which emphasize the importance of active participation, contextualized learning, and social interaction in building understanding (Werdiningsih, 2022). By engaging with content through both creative production and peer interaction, students demonstrated deeper conceptual grasp and greater enthusiasm toward science learning.

Furthermore, the peer tutoring dimension of the *window shopping* activity was a key factor in enhancing student engagement. Students who acted as "shopkeepers" developed confidence in articulating their ideas, while "visitors" benefited from exposure to different perspectives and strategies. This reciprocal learning environment resonates with findings from Yuliana et al. (2015) and Syaparuddin et al. (2020), who highlight the effectiveness of participatory strategies in increasing student involvement and confidence in expressing ideas. The study further supports Mustopa's (2020) conclusion that interactive learning methods stimulate creativity, and Chen's (2018) evidence that such approaches significantly improve creative thinking compared to conventional instruction.

Another important implication is the model's capacity to address the persistent challenge of unequal participation in cooperative learning settings (Tadesse et al., 2024 and Gardeli & Vosinakis, 2025). By assigning dual roles—presenters and visitors—*window shopping* ensures that all students are actively involved, thereby reducing passivity and disengagement. This supports the view of Prasetyo (2021) and Negara (2020), who reported that the method increases both learning outcomes and motivation across different educational contexts. Similarly, recent studies (Faradilla et al., 2025; Silalahi et al., 2024) confirm that *window shopping* not only strengthens conceptual mastery but also improves classroom dynamics by fostering a sense of shared responsibility and inclusivity.

Beyond improving student outcomes, the implementation of this model also has pedagogical significance. It provides science teachers with a structured yet flexible framework to design innovative and student-centered learning experiences that align with the principles of the *Merdeka Curriculum*. By integrating creativity, collaboration, and reflection, the *window shopping* model contributes to both cognitive development and the cultivation of 21st-century skills, including communication, critical thinking, and teamwork.

In sum, the results of this study affirm that the *window shopping cooperative learning* model offers a promising solution to common challenges in classroom instruction, such as student disengagement and uneven participation. The findings extend previous research by demonstrating the model's effectiveness in middle school science, particularly on the topic of earth structure, and highlight its broader applicability across subjects and educational levels.

Practical Implications

The findings of this study carry several practical implications for science education and classroom practice. First, the *window shopping cooperative learning* model provides teachers with an alternative instructional strategy to make abstract scientific concepts, such as earth structure, more engaging and accessible through creative projects and peer-to-peer interaction. The dual roles of students as both presenters and visitors ensure active involvement from all learners, thereby addressing the challenge of uneven participation that often occurs in group-based activities. Moreover, the model is consistent with the principles of the *Merdeka Curriculum*, which emphasizes contextual, collaborative, and student-centered learning, and thus can serve as an effective tool for fostering creativity, problem-solving, and teamwork. From a professional development perspective, the model encourages teachers to design innovative and flexible lesson plans, strengthening their pedagogical competence and confidence in implementing dynamic classroom practices. Although applied here in the context of science education, the approach is highly adaptable and may be implemented across other subjects such as mathematics, social studies, or language learning, making it a versatile framework for enhancing both student engagement and learning outcomes.

Conclusion

This study concludes that the *window shopping cooperative learning* model is an effective instructional strategy for enhancing grade 8 students' creativity and conceptual understanding of earth structure. The majority of students reached mastery levels, and classroom activities became more dynamic, collaborative, and enjoyable. By encouraging peer-to-peer interaction, creative expression, and knowledge exchange, the model successfully addressed issues of student passivity and disengagement often found in conventional learning approaches.

The findings carry important implications for science teachers. First, the model can be adopted as an alternative to traditional lecture-based methods to foster active participation, creativity, and deeper conceptual comprehension. Second, it strengthens teachers' pedagogical competence in designing innovative and student-centered learning environments that align with the goals of the *Merdeka Curriculum*. Third, it highlights the importance of integrating cooperative structures with interactive learning experiences to promote both cognitive and affective learning outcomes.

Nevertheless, this study was limited to a single class and a short implementation period, which may restrict the generalizability of its findings. Future research should expand to different grade levels, subjects, and school contexts to validate and extend the applicability of the model. In addition, exploring the integration of digital media, simulations, and hybrid classroom settings with the *window shopping* approach could further enrich students' learning experiences. Longitudinal studies are also recommended to investigate the sustained impact of this model on creativity, critical thinking, and academic achievement.

In summary, the *window shopping cooperative learning* model not only improves students' creativity and conceptual understanding but also contributes to building a more engaging and inclusive classroom culture. Its implementation represents a promising step toward more innovative, participatory, and future-oriented science education.

References

Cahyani, K. D. (2021). Motivasi belajar siswa kelas V dalam pembelajaran model *windows shopping* di SD Negeri Nirmala. *Mindset: Jurnal Pemikiran Pendidikan dan Pembelajaran, 1*(1), 23–29.

Chen, S. (2018). Enhancing creativity through interactive learning: A case study of the window shopping method. *Journal of Educational Technology, 20*(2), 45–58.

Faradilla, M. A., Maharani, L., & Fatimah, F. (2025). Pembelajaran Model Kooperatif Tipe Window Shopping Untuk Meningkatkan Hasil Belajar Siswa Pada Materi Ekosistem Kelas X MA At-Taqwa Suren. *Jurnal Ilmiah Profesi Pendidikan*, *10*(3), 2554–2560. https://doi.org/10.29303/jipp.v10i3.3531

Gardeli, A., & Vosinakis, S. (2025). Group dynamics in collaborative learning: Impact of emergent and scripted roles in tangible mobile augmented reality games. *Computers & Education: X Reality*, *7*, 100102. https://doi.org/10.1016/j.cexr.2025.100102

Hadiawati, N. M., Munandar, K., & Prasetyo, W. G. (2023). Penerapan metode role playing berbasis masalah untuk meningkatkan hasil belajar biologi. *Education Journal: Journal of Educational Research and Development, 7*(2), 202–208.

Hikmah, M. (2020). Makna kurikulum dalam perspektif pendidikan. *Al-Ihda': Jurnal Pendidikan dan Pemikiran, 15*(1), 458–463.

Karunia, R. F., & Ekayanti, A. (2021). Hubungan model pembelajaran Cooperative Integrated Reading and Composition (CIRC) terhadap motivasi belajar dan kemampuan pemecahan masalah. *Jurnal EDUPEDIA Jurmas: Jurnal Mahasiswa Universitas Muhammadiyah Ponorogo, 2*(5).

Mustopa, M. Z. (2020). Peningkatan prestasi belajar peserta didik melalui pendekatan saintifik model pembelajaran *window shopping* (kunjungan galeri) pada materi sistem pencernaan manusia kelas VIII. *JISIP (Jurnal Ilmu Sosial dan Pendidikan), 4*(2), http://dx.doi.org/10.58258/jisip.v4i2.1075

Negara, I. S. K. (2020). Peningkatan Minat Belajar Mahasiswa Dengan Menggunakan Metode Pembelajaran Kooperatif Window Shopping Pada Mata Kuliah Ekonomi Pembangunan. *Jurnal Ilmiah Hospitality*, *9*(1), 105-110. https://doi.org/10.47492/jih.v9i1.36

Prasetyo, A. (2021). Pemanfaatan model belajar window shopping dalam upaya peningkatan hasil belajar. *Pedagogika*, 184-193. https://doi.org/10.37411/pedagogika.v12i2.782

Qoriah, S., Tamyis, T., & Hasan, M. (2023). Efektivitas model pembelajaran contextual teaching and learning (CTL) terhadap peningkatan kemampuan berpikir kritis siswa pada mata pelajaran fiqih di Madrasah Aliyah

Hidayatul Mubtadiin Jati Agung Lampung Selatan. *Journal on Education, 5*(2), https://doi.org/10.31004/joe.v5i4.2086

Riyanto, Y. (2019). Kurikulum Merdeka: Tantangan dan peluang membangun pendidikan di era digital. *Prosiding Seminar Nasional Pendidikan, 2*(1), 30–36.

Rosdiani, R., Nasir, M., & Nurfathurrahmah, N. (2022). Penerapan model pembelajaran talking stick untuk meningkatkan aktivitas bertanya siswa kelas VIII SMPN 2 Donggo tahun pelajaran 2021/2022. *JUPEIS: Jurnal Pendidikan dan Ilmu Sosial, 1*(1), 8–11.

Silalahi, S. K., Ahmal, A., & Asril, A. (2024). Penerapan Model Pembelajaran Kooperatif Tipe Window Shopping untuk Meningkatkan Keaktifan Belajar dalam Pembelajaran Sejarah Kelas XI IPS di SMAN 6 Pekanbaru. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *7*(11), 13009-13016. https://doi.org/10.54371/jiip.v7i11.6214

Suardi, M. (2018). *Belajar & pembelajaran*. Deepublish.

Tadesse, T., Ware, H., Asmare, A., & Gillies, R. M. (2024). Enhancing student engagement and outcomes: The effects of cooperative learning in an Ethiopian University's classrooms. *Education Sciences*, *14*(9), 975. https://doi.org/10.3390/educsci14090975

Wahyuni, R. (2017). Pengaruh penggunaan model kooperatif *windows shopping* terhadap partisipasi bimbingan konseling klasikal. *Jurnal Penelitian Pendidikan Indonesia, 2*(2), https://i-rpp.com/index.php/jpp/article/view/761

Werdiningsih, D. (2022). Pembelajaran kolaboratif dan kooperatif sebagai pembelajaran konstruktivisme dan pembelajaran aktif. *Pembelajaran aktif dengan case method*, *71*. CV Literasi Nusantara Abadi