

PARTICIPATORY COMMUNICATION IN BUILDING UNDERSTANDING OF TOLERANCE IN HIGH SCHOOL STUDENTS

**Asima Oktavia Sitanggang¹, Djuara P. Lubis², Pudji Muljono³,
Firdanianty Pramono⁴**

^{1,2,3} Faculty of Human Ecology, IPB University

⁴ Faculty of Communication, Pakuan University

Corresponding author, E-mail: sitanggang.asima@apps.ipb.ac.id

Abstract

Project-Based Learning (PBL) is an educational approach that prioritizes the active involvement of students in the learning process through relevant real projects. Part of PBL is a group discussion that becomes a space for students to work together to analyze real problems and formulate solutions. This research focuses on the role of participatory communication in building an understanding of tolerance among high school students. This study aims to analyze how participatory communication, through project-based learning, can empower students by giving them the space to voice opinions and share stories. With a qualitative approach, data is collected through in-depth interviews, observations, and analysis of documents related to learning activities. The results of the study show that project-based learning builds student engagement by sharing experiences and perspectives. Project-based learning also creates an inclusive classroom climate, where students feel valued and heard so that students experience an increase in self-esteem and social awareness, especially an understanding of tolerance. Therefore, the application of this communication method in the educational environment is very important to build a more tolerant and respectful society. This study provides recommendations for integrating participatory communication in the school curriculum.

Keywords: *high school students, participatory communication, project based-learning, tolerance*

INTRODUCTION

In the 21st-century educational landscape, conventional teaching methods that rely on passive learning are increasingly being replaced by more engaging, student-focused strategies. Among these, Project-Based Learning (PBL) has gained prominence as it prioritizes active student participation and hands-on learning. PBL revolves around tackling complex, real-world projects, serving as the primary avenue for students to gain knowledge and skills. This approach encourages teamwork, critical thinking, and problem-solving, allowing students to apply theoretical concepts in practical contexts (Barron & Darling-Hammond, 2008). In contrast to traditional methods that often emphasize rote memorization and solitary work, PBL fosters

collaboration through teamwork, research, and presentations, leading to a more profound understanding of the subject matter.

Within PBL, participatory communication is vital for enhancing collaboration and ensuring diverse voices are included in the problem-solving process. Rooted in democratic values, participatory communication promotes interaction where participants contribute actively to discussions, share experiences, and engage in collective decision-making (Biesta, 2015). In educational environments, this approach creates an inclusive atmosphere where students feel empowered to express their thoughts and viewpoints, differing from more hierarchical, teacher-led communication models where information is passively received.

One of the key advantages of participatory communication in PBL is its role in fostering social and emotional learning (SEL), which is crucial for cultivating tolerance, empathy, and respect among students. Through open discussions and collaboration, students develop essential social skills that contribute to a more inclusive and harmonious classroom. Notably, tolerance emerges as a significant outcome, as students learn to value diverse perspectives—an essential skill in today's multicultural world.

The necessity for tolerance education has become increasingly critical amid global diversity and ongoing social conflicts. Schools are pivotal in promoting values of respect, empathy, and understanding. By embedding tolerance education within the curriculum, educators can equip students with the skills to navigate a world rich in cultural, religious, and social diversity. The combination of PBL and participatory communication presents a promising approach for enhancing tolerance education in high schools, actively engaging students while fostering respect for diversity through collaborative efforts.

Project-Based Learning (PBL) in the Educational Landscape

Project-Based Learning originates from constructivist learning theories, which assert that students learn best when they actively participate in meaningful tasks. Pioneers of constructivism, such as Jean Piaget and Lev Vygotsky, highlighted the significance of active learning, where students develop new knowledge through their experiences and interactions (Vygotsky, 1978). PBL embodies these theories by placing students in real-life situations that require them to utilize prior knowledge, engage in inquiry, and collaborate to solve complex issues.

Research indicates that PBL enhances student outcomes by promoting critical thinking, creativity, and deeper comprehension.

For example, a study by Geier et al. (2020) found that students involved in PBL performed better academically in science compared to their peers in traditional settings. Additionally, PBL fosters the development of 21st-century skills—such as communication, teamwork, and problem-solving—that are essential for success in today's world (Hung, 2021). Working on relevant projects motivates students to learn and helps them see the practical implications of their studies.

The benefits of PBL extend beyond academic success. By providing opportunities for group collaboration, discussion, and reflection, PBL also encourages social learning and helps students enhance their interpersonal skills. As students work together on projects, they learn to navigate differing opinions, negotiate roles, and build consensus, all vital skills for fostering a tolerant and respectful society. This social dimension of PBL makes it an effective tool for addressing diversity and inclusion issues in schools.

Participatory Communication in Education

Participatory communication is a democratic method of interaction that aims to involve all participants in decision-making. It is based on the principle that every voice should be heard and respected, emphasizing dialogue, mutual respect, and collective problem-solving (Freire, 1970). In educational contexts, participatory communication alters the traditional teacher-student dynamic, empowering students to take an active role in their learning. Rather than being passive recipients of information, students become co-creators who contribute their ideas and perspectives.

In PBL, participatory communication is crucial for fostering teamwork and ensuring that all students are engaged. Group discussions, a fundamental aspect of PBL, provide a platform for students to share thoughts, analyze issues from various angles, and collaboratively devise solutions. This form of communication is

particularly beneficial in diverse classrooms, where students may come from various cultural or socio-economic backgrounds. By promoting open dialogue and idea exchange, participatory communication helps students develop a deeper understanding of each other's perspectives, which is essential for nurturing tolerance.

Moreover, participatory communication enhances social inclusion by allowing all students, regardless of background or abilities, to contribute to the learning experience. In traditional classrooms, students who are shy or less confident may hesitate to participate, leading to feelings of exclusion. In a PBL environment that prioritizes participatory communication, however, students are encouraged to voice their ideas, fostering a more inclusive and supportive classroom climate. This approach helps build self-esteem and social awareness—key components of social-emotional learning (Zins & Elias, 2016).

Tolerance Education in Schools

As global interconnections increase, understanding and appreciating diversity becomes increasingly vital. Schools play a key role in promoting tolerance, defined as the acceptance and respect for differences in others, including race, ethnicity, religion, gender, and cultural background. Tolerance education aims to equip students with the skills and attitudes necessary to navigate a diverse world and contribute to a more peaceful and inclusive society.

Incorporating tolerance education into school curricula is essential for fostering social cohesion and reducing prejudice and discrimination. Research shows that students involved in programs emphasizing diversity and inclusion are more likely to develop positive attitudes toward people from different backgrounds (Banks, 2016). Furthermore, tolerance education can help prevent conflicts and promote harmony in schools, creating a

safer and more supportive learning environment for all students.

By integrating participatory communication into PBL, educators can cultivate a classroom atmosphere that not only boosts academic achievement but also nurtures social-emotional growth and tolerance. As students collaborate on projects, they encounter diverse perspectives and learn to appreciate different viewpoints. This process helps dismantle stereotypes and foster mutual respect, which is crucial for promoting tolerance both within schools and in broader society.

Research Problem and Questions

Despite the recognized importance of tolerance education and participatory communication in schools, there remains a gap in empirical research exploring how these elements intersect within PBL. This study aims to address this gap by investigating how participatory communication within PBL fosters tolerance among high school students. Specifically, it seeks to answer the following questions:

1. How does participatory communication in PBL promote the development of tolerance among students?
2. What role does the teacher play in encouraging inclusive and respectful communication in PBL settings?

RESEARCH OBJECTIVES

The main objective of this study is to analyze how participatory communication contributes to fostering tolerance among high school students through PBL. Additionally, the study aims to:

1. Assess how participatory communication empowers students by providing them a platform to express their opinions and share their stories.
2. Examine the impact of participatory communication on students' social awareness and self-esteem.

LITERATURE REVIEW

The theoretical foundation for this study is rooted in constructivist learning theories and participatory communication models, both of which emphasize active engagement and collaboration as essential components of learning. Constructivism, pioneered by thinkers such as Jean Piaget and Lev Vygotsky, posits that learners construct knowledge through their experiences and social interactions. Vygotsky's social development theory is particularly relevant to this study, as it highlights the importance of social interaction in cognitive development. Vygotsky (1978) argues that learning occurs most effectively in social contexts where individuals collaborate and communicate with one another, thus scaffolding each other's learning processes.

In the context of Project-Based Learning (PBL), Vygotsky's theory suggests that students develop higher-order thinking skills when they work together to solve complex, real-world problems. The interaction between peers, facilitated by a teacher, becomes a central element of knowledge construction. Furthermore, participatory communication—the idea that communication should be inclusive, dialogic, and democratic (Freire, 1970)—plays a critical role in fostering collaboration and mutual respect within learning environments. Freire's concept of dialogic learning supports the notion that students and teachers should engage in reciprocal communication, where each participant's voice is valued, thus creating a more inclusive and empowering learning space.

In the context of tolerance education, social learning theory (Bandura, 1977) also provides a relevant framework. Bandura's theory emphasizes that individuals learn behaviors, attitudes, and values through observation and interaction with others. In a PBL environment, where students work closely with peers from diverse backgrounds, they have

the opportunity to model tolerant behaviors, such as empathy, respect, and open-mindedness, leading to a deeper understanding of and commitment to tolerance.

Project-Based Learning (PBL)

Project-Based Learning (PBL) has gained significant traction in recent years as an effective educational strategy that promotes active, student-centered learning. In PBL, students are tasked with working on projects that require them to apply their knowledge and skills to solve real-world problems, thus making learning more meaningful and relevant. The approach contrasts with traditional, teacher-centered models of instruction, which often focus on rote memorization and passive learning (Savery, 2015).

Numerous studies have highlighted the benefits of PBL for improving student engagement, motivation, and academic achievement. For example, Geier et al. (2020) found that students participating in PBL demonstrated higher levels of achievement in science subjects compared to those in traditional instructional settings. The study concluded that PBL encourages deeper understanding of content by requiring students to apply knowledge in practical contexts, thus promoting critical thinking and problem-solving skills. Similarly, Hung (2021) argues that PBL fosters learning transfer, wherein students can apply what they have learned in one context to new and different situations, a key skill for success in the 21st century.

However, PBL's benefits are not limited to academic outcomes. Studies have also shown that PBL promotes social and emotional learning (SEL) by encouraging students to collaborate, communicate, and resolve conflicts within group projects. For instance, Hmelo-Silver (2019) highlights that PBL environments provide students with opportunities to develop important interpersonal skills, such as empathy,

cooperation, and leadership. These skills are critical for fostering an inclusive classroom climate where students from diverse backgrounds feel respected and valued.

In relation to tolerance education, PBL offers a unique platform for students to engage with diversity. Because PBL often involves group work, students are exposed to a variety of perspectives, experiences, and ideas, which can challenge stereotypes and reduce prejudice. As Banks (2016) notes, when students are given the opportunity to collaborate with peers from different cultural and social backgrounds, they are more likely to develop positive attitudes toward diversity and inclusion. Thus, PBL not only enhances academic learning but also promotes social values such as tolerance, respect, and empathy.

Participatory Communication

Participatory communication is a form of interaction that emphasizes dialogue, inclusivity, and mutual respect. It contrasts with more hierarchical, one-way models of communication, where information flows from a teacher to students without meaningful exchange (Freire, 1970). In educational settings, participatory communication encourages students to actively contribute to discussions, share their ideas, and engage in collaborative decision-making processes. This approach aligns with Vygotsky's social constructivism, which stresses the importance of interaction and communication in the development of knowledge and understanding.

Participatory communication is particularly important in the context of PBL, where collaboration is a central component of the learning process. According to Biesta (2015), participatory communication fosters a democratic classroom environment in which all students feel valued and heard. This type of communication is essential for promoting student agency, as it empowers students to take ownership of their learning by giving them a

platform to voice their opinions and contribute to group discussions.

Moreover, participatory communication has been shown to enhance social-emotional learning by promoting skills such as active listening, empathy, and conflict resolution. Zins and Elias (2016) argue that participatory communication helps students develop a greater sense of social awareness, as they are encouraged to consider different perspectives and work together to find solutions to common problems. In diverse classroom settings, this type of communication is essential for fostering an inclusive environment where all students feel respected and valued, regardless of their background.

Recent research has also highlighted the role of participatory communication in promoting cultural competence and tolerance. For instance, Suleiman and Yusoff (2020) found that classrooms that prioritize participatory communication are more likely to cultivate intercultural understanding and respect for diversity. Their study, which examined communication practices in multicultural schools, concluded that when students are given the opportunity to share their cultural experiences and perspectives, they are more likely to develop an appreciation for diversity and a commitment to tolerance.

Tolerance Education

Tolerance is an essential value in diverse societies, and schools play a critical role in promoting tolerance through education. Tolerance education involves teaching students to respect and appreciate differences in race, ethnicity, religion, gender, and cultural background. The goal is to equip students with the knowledge, skills, and attitudes necessary to navigate a diverse world and contribute to a more inclusive and peaceful society.

Research on tolerance education emphasizes the importance of creating inclusive classroom environments where students from

different backgrounds feel respected and valued. According to Banks (2016), schools that promote diversity and inclusion are more likely to foster positive intergroup relations and reduce prejudice and discrimination. Banks argues that tolerance education should be integrated into the school curriculum through activities that encourage students to engage with diversity, such as group discussions, collaborative projects, and cross-cultural exchanges.

The relationship between tolerance education and PBL is particularly significant, as PBL provides a natural platform for students to engage with diverse perspectives. Through collaborative group work, students are exposed to different viewpoints and experiences, which can challenge their assumptions and broaden their understanding of the world. Gurin et al. (2021) found that students who participated in collaborative learning projects were more likely to develop intercultural competence and empathy compared to those in traditional classroom settings. Their study concluded that PBL, combined with participatory communication, is an effective tool for promoting tolerance and respect for diversity in schools.

Moreover, Long and Magerko (2020) argue that the inclusion of digital tools in PBL can further enhance tolerance education by allowing students to engage with global perspectives. Their research on the use of technology in PBL found that students who worked on digital projects with peers from other countries were more likely to develop a global mindset and a commitment to social justice. Thus, PBL not only fosters academic and social skills but also prepares students to be active and responsible global citizens.

METHODOLOGY

Research Design

This research adopts a qualitative design, which

is particularly effective for examining the complex interactions within classroom settings that foster tolerance among students. By utilizing qualitative methods, the study seeks to capture the subtle interactions and social contexts that shape students' understanding and appreciation of diversity. This aligns with Creswell's (2018) view that qualitative inquiry is essential for investigating intricate phenomena, enabling researchers to explore participants' experiences and perspectives in depth. Employing a qualitative framework allows for the identification of emerging themes and patterns from students' lived experiences, providing rich, contextual insights into how tolerance is cultivated in educational environments.

Data Collection

Data for this study were collected using a triangulated approach, which included in-depth interviews, classroom observations, and document analysis. In-depth interviews were conducted with a carefully selected group of high school students, ensuring a diverse range of backgrounds and experiences. This sampling method was intended to capture a variety of viewpoints, with participants chosen based on their involvement in collaborative learning activities and their interaction with diverse peers. Classroom observations supplemented the interviews, giving the researcher the opportunity to contextualize student interactions and behaviors in real-time. Additionally, analyzing curriculum materials and student work offered further insights into how tolerance education is embedded within the academic framework. This comprehensive approach not only strengthens the credibility of the findings but also provides a holistic understanding of the factors that contribute to the development of tolerance among students.

RESULTS AND DISCUSSION

The findings derived from the interviews and observations conducted in the study, which examined the role of participatory communication in promoting tolerance among high school students within a Project-Based Learning (PBL) framework. The analysis emphasizes the dynamics observed in group discussions, the effects of these interactions on student engagement, and the critical role of teacher facilitation in fostering an inclusive learning atmosphere.

Increased Student Engagement in Problem-Solving Tasks

A major discovery of this research is the heightened level of student engagement noted during problem-solving activities within the PBL framework. Interviews with students indicated that they felt more committed to their learning when participating in collaborative projects focused on real-world issues. As one student expressed,

“Working together on a project allows me to express my opinions. My friends and I in the group can listen to each other's opinions. I feel that my thoughts can be heard and get a good response so that I am more motivated to participate in the discussion..”

Classroom observations corroborated this finding, showing students actively collaborating in groups, brainstorming, and discussing potential solutions to relevant problems. The PBL approach empowered students to take charge of their learning, resulting in increased participation and enthusiasm. The projects, grounded in real-life challenges, prompted students to engage deeply with the material, thereby enhancing their critical thinking and problem-solving abilities.

Additionally, students noted that discussing real-world issues allowed them to connect their classroom learning to their

personal lives. For instance, a project focused on environmental concerns led students to reflect on their own behaviors and community practices, further increasing their engagement. This connection between personal relevance and academic tasks is essential for maintaining student interest and facilitating meaningful educational experiences.

Development of Mutual Respect and Understanding During Discussions

The findings also reveal the growth of mutual respect and understanding among students during group discussions. Participatory communication within PBL established a platform for students to share their varied perspectives, resulting in richer dialogue and deeper insights into different issues. Through these discussions, students learned to value diverse viewpoints, which is vital for fostering tolerance.

Several interviewees highlighted how the collaborative aspects of PBL challenged their assumptions and broadened their understanding of others' experiences. One student remarked, “Listening to my classmates' stories made me realize how different our lives are, but also how we can relate to one another.” This sharing of personal narratives cultivated empathy and helped dismantle barriers between students from different backgrounds.

Observations of group discussions indicated that students engaged in active listening, showed curiosity about each other's viewpoints, and worked together to negotiate solutions. This environment encouraged respectful expression of thoughts and consideration of alternative perspectives. As they addressed disagreements, students developed conflict-resolution skills, which further reinforced their understanding of mutual respect and cooperation.

The Role of Teacher Facilitation in Guiding Inclusive and Tolerant Behavior

Teachers played a crucial role in facilitating participatory communication, shaping a classroom climate that promotes inclusivity and tolerance. They served as guides, providing support to encourage open dialogue and ensuring that every voice was heard. Through targeted questioning and prompting, teachers facilitated deeper discussions, helping students connect their experiences with the project themes.

One observed method involved implementing structured discussion protocols, which created a safe environment for students to express their thoughts. Teachers emphasized respectful communication, modeling inclusive behaviors and establishing expectations for student interactions. As one teacher stated,

"I encourage students to express their opinions and respect each other's opinions. I instill in each that the main thing in learning is not right or wrong, but the courage to express opinions and a good curiosity to find the truth of every thought. So that every idea will enrich the others. Thus, every student feels comfortable sharing ideas. Therefore, communication skills such as intelligence to listen and the ability to respect each other are capital in the learning process itself."

Observations indicated that teacher facilitation went beyond merely managing discussions; it actively promoted a culture of respect and inclusivity. For example, teachers underscored the importance of diverse perspectives and addressed any instances of bias or exclusion that arose during discussions. This proactive strategy not only reinforced principles of tolerance but also empowered students to hold each other accountable for maintaining respectful dialogues.

In interviews, students recognized the positive influence of teacher support in cultivating a culture of tolerance. Many noted that having a teacher who valued their

contributions made them more willing to engage in discussions. The teacher's facilitative role was regarded as essential in creating a safe environment where students felt comfortable expressing their thoughts and learning from each other.

The findings from this study highlight several key themes related to the role of participatory communication in Project-Based Learning and its influence on fostering tolerance among high school students:

1. **Increased Engagement:** Active involvement in real-world problem-solving tasks significantly boosted student engagement, resulting in a more dynamic and meaningful learning experience. By connecting academic content to personal relevance, students became more invested in their education.
2. **Mutual Respect and Understanding:** Participatory communication cultivated a climate of mutual respect, enabling students to appreciate diverse perspectives. The sharing of personal experiences during group discussions fostered empathy and deepened their understanding of tolerance.
3. **Teacher Facilitation:** Effective teacher facilitation was pivotal in guiding inclusive and respectful discussions. By modeling and encouraging constructive communication, teachers helped establish a classroom culture that valued every student's input.

Interpretation of Findings

The results of this study provide important insights into how participatory communication functions within Project-Based Learning (PBL) and its role in fostering tolerance among high school students. This supports existing literature that highlights the significance of active engagement and collaborative learning. For example, research by Thomas (2000) and

Savery (2015) illustrates how PBL effectively boosts student motivation and participation through authentic problem-solving activities. Our findings align with this, as students expressed greater involvement when collaborating on projects that addressed real societal challenges. These findings reinforce Vygotsky's (1978) social development theory, which emphasizes that learning is inherently social, relying on interaction and communication. By participating in group discussions, students were able to share varied perspectives and engage in meaningful conversations, collaboratively constructing knowledge. This resonates with the work of Denzin and Lincoln (2017), who suggest that participatory communication deepens understanding and promotes collaboration among learners.

However, this research also reveals some subtleties that have not been widely explored in previous studies. While earlier research mainly focused on the academic impacts of PBL, our findings shed light on its socio-emotional benefits, particularly the growth of mutual respect and empathy among students. This shift in perspective provides a more comprehensive view of the outcomes associated with participatory communication, indicating that the emotional and social aspects of learning are as vital as cognitive development.

Participatory Communication and the Impact on Tolerance

The examination of participatory communication within PBL highlights its crucial role in enhancing tolerance among high school students. As students engaged in discussions that respected diverse viewpoints, they developed empathy and a better understanding of different life experiences. This is particularly pertinent given today's societal demand for tolerance education in increasingly multicultural environments. Current research

emphasizes the urgent need for educational strategies that promote social cohesion and respect among diverse populations (Banks, 2016; Gurin et al., 2021).

Facilitating open dialogue through participatory communication provides students with the necessary skills to navigate and appreciate diversity. This is especially relevant in our globalized world, where exposure to a variety of cultural backgrounds is common. The findings suggest that creating an environment where students feel comfortable sharing their viewpoints can enhance tolerance, which is essential for citizenship in a multicultural society.

Moreover, fostering tolerance through participatory communication tackles significant social issues like prejudice and discrimination. Suleiman and Yusoff (2020) noted that classrooms that emphasize inclusive communication are better positioned to nurture intercultural understanding and respect. This study supports that notion, showing that when students engage in respectful dialogue, they become more adept at challenging stereotypes and advocating for social justice.

Practicing Participatory Communication

The implications of this study are crucial for future educational practices, particularly concerning the training and professional development of teachers. The findings indicate a strong need for educators to hone their skills in facilitating participatory communication and effectively managing group discussions. Teachers are instrumental in guiding these conversations, fostering inclusive environments, and ensuring all voices are acknowledged. Professional development initiatives should incorporate training on strategies for creating safe spaces for dialogue, encouraging active listening, and handling conflicts during discussions. Educators must be equipped with the tools necessary to model respectful communication and empower

students to voice their opinions without fear of judgment.

Furthermore, integrating participatory communication strategies into the curriculum can significantly enrich the educational experience for students. Schools should explore adopting PBL methodologies that focus on real-world issues relevant to students' lives. This integration can lead to more engaging and meaningful learning experiences that promote not only academic skills but also essential social values like tolerance and respect. By connecting the findings to existing literature, examining their societal implications, and discussing practical applications, we emphasize the importance of educational practices that embrace diversity and promote inclusive learning environments.

CONCLUSION

The results of this research underscore the significance of participatory communication within Project-Based Learning as a mechanism for fostering tolerance among high school students. By engaging actively in collaborative projects and discussions, students not only develop critical academic skills but also vital social values such as empathy, respect, and understanding. Integrating participatory communication strategies into classroom practices is essential for nurturing a more inclusive and tolerant society.

Incorporating these strategies into the school curriculum can greatly enhance students' social awareness and contribute to their growth as respectful and responsible individuals. Future research should further investigate the long-term effects of participatory communication and PBL on student outcomes, particularly in diverse educational environments.

REFERENCES

Book

- Banks, J. A. (2016). *Cultural Diversity and Education: Foundations, Curriculum, and Teaching*. Routledge.
- Creswell, J. W. (2018). *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2017). *The SAGE Handbook of Qualitative Research*. Sage Publications.
- Freire, P. (1970). *Pedagogy of the Oppressed*. Continuum.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.

Journal

- Barron, B., & Darling-Hammond, L. (2008). Teaching for meaningful learning: A review of research on inquiry-based and cooperative learning. *Edutopia*.
- Biesta, G. (2015). Education, communication, and democracy: The ethics of listening. *Educational Theory*, 65(5), 487-507. <https://doi.org/10.1111/edth.12138>
- Geier, R., Blumenfeld, P., Marx, R., et al. (2020). The effects of project-based learning on science achievement: A randomized controlled trial. *Journal of Research in Science Teaching*, 57(3), 283-305. <https://doi.org/10.1002/tea.21655>
- Hung, W. (2021). Problem-based learning: A learning environment for enhancing learning transfer. *New Directions for Adult and Continuing Education*, 2021(169), 41-50. <https://doi.org/10.1002/ace.20416>
- Hmelo-Silver, C. E. (2019). Problem-based learning: What and how do students learn?. *Educational Psychology Review*, 31(2), 213-236. <https://doi.org/10.1007/s10648-019-09452-7>
- Long, D., & Magerko, B. (2020). Designing for divergent interdisciplinary learning: An exploration of participatory design in education. *Journal of Educational Technology & Society*, 23(2), 27-39.
- Savery, J. R. (2015). Overview of Problem-Based Learning: Definitions and

- Distinctions. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 3-15.
- Suleiman, A., & Yusoff, Y. (2020). The role of participatory communication in enhancing intercultural understanding in multicultural classrooms. *Journal of Education and Learning*, 14(3), 123-135.
<https://doi.org/10.5539/jel.v14n3p123>
- Zins, J. E., & Elias, M. J. (2016). Social and emotional learning: Promoting the development of all students. *Journal of Educational Psychology*, 108(2), 179-182.
<https://doi.org/10.1037/edu0000058>

