Board games and Pancasila education: Teachers' perspectives in supporting global diversity

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Abstract

Global diversity is an important element in the era of globalisation to form students able to adapt to intercultural situations. Teachers as facilitators help students achieve this by paying attention to learning components such as the media used. Teachers must have the instinct that the media used must have an impact on knowledge and attitudes. So, it is necessary for teachers' perceptions regarding board game learning media to help develop media. This study aims to determine Pancasila Education teachers' perceptions of board game media in interactive learning based on global diversity. The study used a mixed method with a concurrent equal status model. Quantitative and qualitative instruments refer to three aspects of interactive learning (student engagement, independent learning and cognitive load). Quantitative data were obtained through surveys, while qualitative data were collected through semi-structured interviews to support quantitative findings. The subjects of the study were Pancasila Education teachers in 12 Muhammadiyah Junior High Schools/MTSs throughout the city of Yogyakarta. The results of the study showed that interactive board game media based on global diversity supports Pancasila education learning. Teachers provide the perception that board games need to be adjusted to the values of diversity and inclusion and based on high-order thinking skills, also need to provide collaborative challenges, positive reward and punishment systems, and independent tasks such as art projects or essays. The material must be relevant to students, have simple rules and be age-appropriate. Interactive learning can strengthen the appreciation of differences in views and cultures, preserve noble values and improve intercultural adaptation.

Keywords: Board games, Global Diversity, Tolerance.

Introduction

Currently, diversity in Indonesia is not only in a national context but also a global phenomenon involving interactions between countries, cultures and broader communities. Global diversity includes differences in ethnicity, religion, race, intergroup (SARA, in *bahasa*) and views of life in various parts of the world through technology and communication. The increasingly widespread diversity presents global diversity problems such as intolerance. Intolerance still often occurs in school environments, according to (Subagyo, 2020). Intolerance

is an attitude or view that does not accept the differences of others, so viewing something different from oneself is considered wrong.

The intolerant attitudes that often occur in the school environment are not listening to friends talking, making fun of other friends' shortcomings, and intimidating friends who are talking (Dayanti, 2017). Not only that, but differences in skin colour also often become the subject of ridicule, which decreases a person's self-confidence (Savitri, 2019). If students struggle to embrace differences within their school environment, we must consider the challenges they may face in a more diverse setting. It's essential to address these concerns thoughtfully and positively.

In today's increasingly globalised environment, students frequently encounter diverse cultures, including differences in skin colour, language, and perspectives. This exposure can lead to culture shock as they adapt to varying social norms and practices. Additionally, there is often a negative perception associated with using foreign languages among peers, with some students facing stigma for what is perceived as "pretending to be English." This situation highlights the challenges of navigating global diversity, particularly as unpreparedness in handling such differences may contribute to increased intolerance at the international level. These dynamics contrast the principle of *Bhinneka Tunggal Ika*, which emphasises unity in diversity.

Several factors can contribute to the global diversity issues mentioned above, including a) the influence of mass media and peer dynamics. Research by Mulki et al. (2023) indicates that readily accessible mass media often showcases harmful content, including violence and hate speech, which can significantly impact teenagers. The social environment, particularly peer relationships, also heavily influences their perceptions. b) a lack of understanding among students regarding diversity. Low awareness of the significance of ethnicity, religion, race, and intergroup diversity can lead to increased intolerance (Caprica, 2022). Furthermore, neglecting diversity issues can result in students becoming a generation characterised by individualism, intolerance, social withdrawal, and mistrust of others.

Private junior high schools and Islamic junior high schools (SMP/MTSs) of Muhammadiyah in Yogyakarta are schools with students' characteristics that tend to be homogeneous regarding cultural and religious backgrounds. This presents the challenges of introducing and practising global diversity values in a homogeneous environment. Students who grow up in a homogeneous environment do not have many opportunities to interact and see diversity; this allows them to have a less than favourable attitude towards what is different from them regarding ethnicity, religion, race, intergroup.

In addition, the Special Region of Yogyakarta (DIY) is an educational destination city that attracts students from outside the region to study. A survey from Goodstats showed that 70% of respondents chose Yogyakarta as their favourite city to study (Khafid, 2023). Not only that, the student exchange program by Muhammadiyah schools in Yogyakarta has added new patterns; for example, SMA Muhammadiyah 1 Yogyakarta held an international cultural exchange workshop and hosted students from 5 countries, in addition, nine students from *Streesmutprakan* School Thailand attended *Madrasah Mu'alimaat* Muhammadiyah Yogyakarta to learn Indonesian culture, plus Junior High Scholl Muhammadiyah Mujahidin Gunung Kidul received 27 students from Malaysia who were on a student exchange program (Aisyiyah, 2024; Raja, 2024; Rochmawati, 2019).

The increasing number of students from other countries coming to study in Yogyakarta has resulted in broader diversity. Muhammadiyah schools in Yogyakarta face challenges and opportunities to instil values of global diversity. According to students' perceptions, one of the challenges in global diversity is prioritising respect for cultural sensitivity (Aulia et al., 2024). Due to the urgency of these challenges and problems, it is necessary to instil global diversity in schools through Pancasila education. Pancasila education aims to strengthen the values of

tolerance, openness and acceptance, as well as responsibility and commitment to being good citizens (Fakhiratunnisa et al., 2022).

According to research by Nur et al. (2023), Pancasila education can internalise the principles underlying unity, tolerance, justice, democracy and humanity. The ideas and designs of Pancasila education teachers in implementing the values of tolerance, mutual respect, and understanding of diversity will give birth to harmony, students with character and a sense of unity on a national and global scale (Rachmadtullah et al., 2020). Therefore, Pancasila education is needed in schools to form a global diversity attitude in the younger generation. This aims to create students who are tolerant, empathetic, and aware of their responsibilities as part of the international community while preparing them to interact with the environment outside themselves (Aulia et al., 2024).

In 2020, the Ministry of Education and Culture (Kemdikbud) issued Ministerial Regulation Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024 as an effort to realise the ideals of independence by improving the quality of education and building human resources by considering global trends such as technological advances and socio-cultural changes (Kemdikbud, 2020; Kemendikbudristek, 2024). For this reason, the Ministry of Education and Culture has established the Pancasila Student Profile as a guide to the character and competency of Indonesian students, which must be implemented in learning plans in all schools, including Muhammadiyah schools. A critical aspect of the Pancasila student profile is global diversity, which emphasises mutual respect, open-mindedness in interacting with other cultures and maintaining a noble culture towards diversity at the national and international levels (Kemendikbudristek, 2024).

Implementing global diversity in Muhammadiyah junior high schools/Islamic junior high schools is urgent, as it builds students with inclusive insights amidst the diversity conditions in DIY. However, in practice, efforts to instil global diversity in schools still face several obstacles, such as learning methods that tend to be textual but are not supported by appropriate and engaging learning media and the limitations of learning media that contain global diversity (Bastrian et al., 2024; Intania et al., 2023; Japar et al., 2021). Learning that aims to introduce diversity while loving one's country requires creative teachers to deliver the learning process (Ma'arif et al., 2023).

Not only that, according to research by Chisholm (1994) and Rowan et al., 2021), teachers can shape students' attitudes, so teachers need to have a deep understanding of diversity and use accurate information about culture. This aims to avoid cultural bias that may arise in the learning process. However, teachers still use limited knowledge and learning approaches to teach diverse material interactively and enjoyably in the classroom. Therefore, teachers need to have basic knowledge related to diversity and develop appropriate teaching strategies, one of which is using Board Games as learning media. On the other hand, cultivating tolerance values in schools in research (Setiawan et al., 2024) is implemented using methods such as joint prayer, storytelling and class agreements. Meanwhile, using Board Games, the cultivation of tolerance values is not only listening to a story but, more broadly, with interactive activities, questions and challenges to solve problems that allow students to practice tolerance and appreciate diversity in real terms. Therefore, it is necessary to provide interactive Board Games learning media education based on global diversity to support Pancasila education teaching in schools.

This Board Games based on global diversity is designed in a contextual, interactive and comprehensive manner; this is in line with research by Hattie et al. (1996), which that in learning interventions, a relevant context is needed both in terms of appropriate material and encouraging active involvement and awareness of students. Interactive media will create a classroom atmosphere full of discussion and simulation related to everyday life phenomena that are more real and applicable. Interactive learning can be achieved through student involvement, independent learning, and cognitive load (Pitterson et al., 2016).

Based on research conducted by Gomez & Marklund (2018) shows that game-based tools are effective in increasing cultural awareness and building comfort in cross-cultural interactions compared to conventional discussion methods. In addition, learning using Board Games as a transformation of traditional learning has the potential for students to gain high-quality learning experiences (Othman & Ching, 2024). The success of classroom learning cannot be separated from the role of the teacher. As critical people, teachers are considered to be able to make wise choices in instilling values and practices related to diversity and can fight against narrow views in traditional education (Swartz, 2009). Therefore, it is essential to know the opinions of Pancasila education teachers regarding the development of this interactive Board Games media, especially Muhammadiyah junior high school/Islamic junior high school teachers throughout the city of Yogyakarta.

As the primary users of learning media, teachers will evaluate the interactive components of this Board Games in promoting global diversity among students. They will identify shortcomings, provide feedback on the Board Games, and adapt the content to suit different class levels, learning outcomes, and student characteristics. This collaborative effort between educators, researchers, and curriculum developers aims to understand Pancasila Education teachers' perceptions regarding using Board Games media to facilitate interactive learning that emphasises global diversity at Muhammadiyah Schools in Yogyakarta. This study offers insights into current perceptions and provides suggestions and recommendations for developing Board Games media that promotes global diversity, enhances student knowledge and attitudes, and aligns with the curriculum and the school's needs. We can create a more effective and inclusive learning environment by working together.

Method

This study uses two approaches, namely quantitative and qualitative approaches. The subjects of this study were Pancasila Education teachers in 10 junior high schools and 2 Muhammadiyah Islamic junior high schools throughout the city of Yogyakarta. The quantitative approach used a survey method to measure the percentage of teacher perceptions regarding Board Games media that support interactive learning based on global diversity using interactive learning theories (Pitterson et al., 2016), which has three aspects.

Figure 1.

Interactive learning aspect
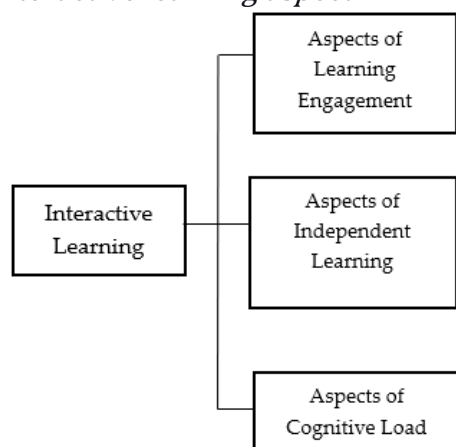
Source: Obtained from (Pitterson et al., 2016).

A qualitative approach was used to support quantitative data through semi-structured interviews with 10 Pancasila Education teachers from junior high schools and 2 Muhammadiyah Islamic Junior High School teachers throughout Yogyakarta regarding global diversity and interactive learning in Board Games. This is shown in Figure 2, which displays semi-structured interview questions submitted to Pancasila Education teachers from junior high schools/Muhammadiyah Islamic Junior High Schools throughout the city of Yogyakarta regarding global diversity in Board Games.

Table 1.

List of interview questions related to Diversities in Board Games for Pancasila Education Teachers at Muhammadiyah Middle School/Islamic Junior Highschool throughout Yogyakarta City

Aspect of Interactive Learning	Indicator Questions Related to Global Diversity	Question Number
Learning Engagement	Strategies for forming diverse groups to participate actively	1
	Components in *Board Games* reflect global diversity	2
	Elements of *Board Games* that support students to voice their opinions	3
	Your opinion on students' involvement in learning evaluation	4
	How to ensure students complete the game independently	5
Independent Learning	What global diversity activities can be added	6
	Teachers' best strategies for monitoring student engagement	7
	Simple rules that support cognitive and global diversity values	8
Cognitive Load	How to minimise elements to keep students focused on global diversity	9
	Adjustment of global diversity material to suit age and ability	10

Source: Developed by the authors based on (Pitterson et al., 2016).

Quantitative and qualitative data were analysed using the concurrent equal status model. Then, the results of the data were further analysed by researchers through data categorisation until the study's conclusion. Figure 2 shows the flow of this study.

Figure 2.

Research flow and qualitative and quantitative data analysis process
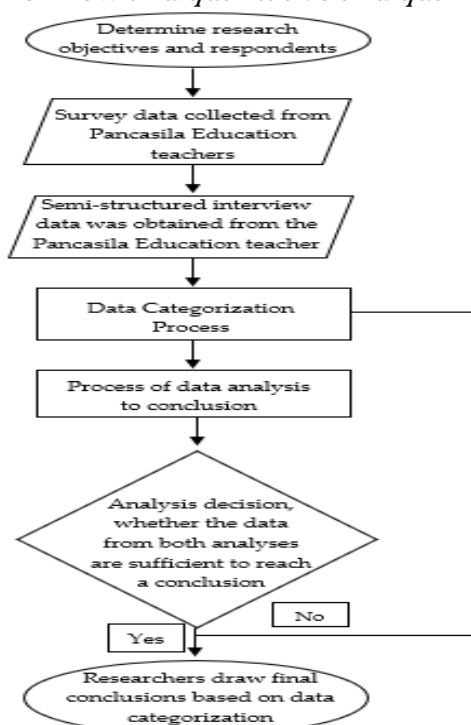
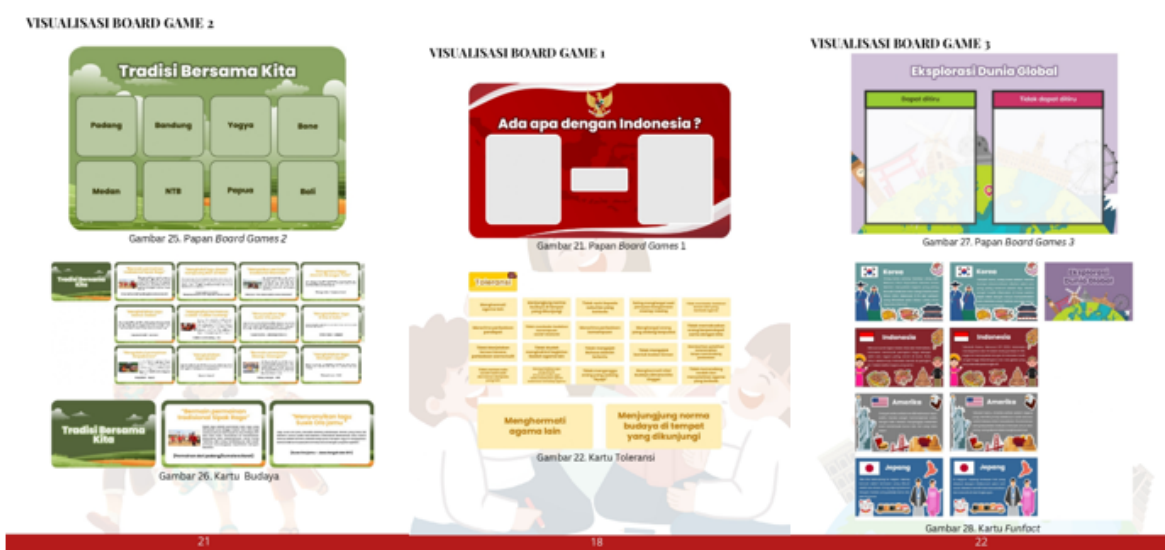*Source: Author's work (2024).*

Results and Discussion

1. Educational media *"Menjadi Berbineka"* Diverse Board Games Based on Global Diversity

Board Games as a learning media function to help teachers provide understanding to students with direct learning experiences to make it easier for students to understand the material, especially global diversity. Based on the results of interviews with Pancasila education teachers, one teacher stated that 'diversity learning needs to be adjusted to inclusive values such as respecting differences in culture, religion and background, for example in students being asked to complete challenges that require them to work with people who have different expertise or perspectives'. This indicates the need for learning media that simulates diverse experiences more realistically.

In addition, the teachers stated that they had never used Board Games as learning media related to global diversity, but they were interested in implementing it. One teacher said, 'with the help of Board Games media, students become inspired, and in terms of student involvement, it becomes better so that it fosters a sense of nationalism as an Indonesian nation'. This is in line with research (Widiana, 2022) that students who learn using the games-based learning method have an increase in terms of learning interest and understanding of concepts because games-based learning encourages student activities by learning while playing so that students feel happy and more enthusiastic, not only that, the characteristics of students also like learning by playing so that students are more motivated to learn during learning activities.

Figure 3.

Visualisation "Menjadi Berbineka" Global Diversity-Based Board Games Design

Source: Author's work (2024).

This Board Games has three game boards, each developed from global diversity. The first aspect is "Knowing and Appreciating Culture", realised through a game called "*Ada apa dengan Indonesia".* Through this game flow, students can analyse SARA diversity and what tolerance practices can be done. If students understand the concept of diversity by behaving in a way that respects culture, then if diversity is on a global scale, students will not see it as foreign and can live side by side*.*

The second aspect is "Maintaining Noble Culture, Locality and Identity", realised through a game called *"Tradisi bersama kita".* Through this game flow, students implement and support old and original cultures that live in the region as a national identity. In the game, each group identifies tangible or intangible culture in Indonesia and its origins. Discussions train students to express opinions without forcing or being aggressive. Bonus points are given if the group practices or adds cultural information so that students can evaluate the new culture they have learned; bonus points are included in the reward system as an extrinsic factor in gamification
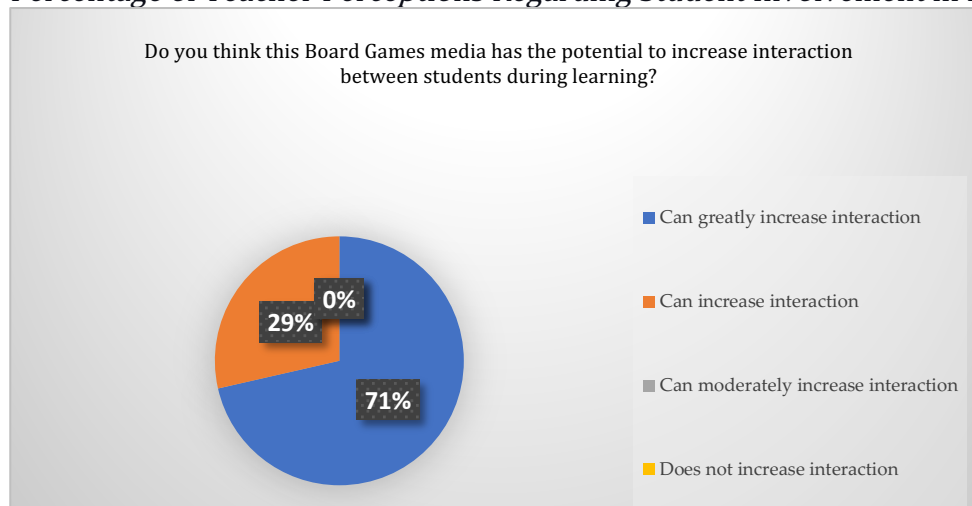
activities that can motivate students. (Händel et al., 2023). The third aspect is "Intercultural Communication", which is realised in a game called *"Eksplroasi Dunia Global"*. Through this game, students can think critically, quickly and carefully. This can broaden their knowledge horizons, help them adapt to existing norms in Indonesia, and help them be selective towards new cultures.

2. Teachers' Perceptions of Board Games Media for Student Involvement in Global Diversity-Based Pancasila Education

Student engagement is defined as students' commitment to their role as students, such as interacting and being involved in learning activities, taking notes, asking questions and solving problems (Pitterson et al., 2016; Wong & Liem, 2022). This involvement can be increased through Board Games media, which have gamification value, combining aesthetic elements of the game, increasing the ability to think, motivate, solve problems and improve learning (Khotimah & Wahyuningtyas, 2023). Board Games with gamification value can also contribute to training students in making decisions and forming appropriate strategies (Dishon & Kafai, 2022). The Board Games design based on global diversity was analysed by Pancasila education teachers in 10 junior high schools and 2 Muhammadiyah Islamic junior high schools in Yogyakarta, resulting in an upbeat assessment of the value of interactive learning.

Figure 4.
Percentage of Teacher Perceptions Regarding Student Involvement in Board Games

Do you think this Board Games media has the potential to increase interaction between students during learning?

- Can greatly increase interaction
- Can increase interaction
- Can moderately increase interaction
- Does not increase interaction

0%
29%
71%

Source: Data processed by the author (2024).

The survey results show the perception of Pancasila education teachers, 71% of whom stated that board games can significantly increase student interaction during learning. The potential for student involvement is seen through interaction activities between students during learning, one of which arises from forming groups. Board game rules encourage students to play in groups and practice communication and cooperation. For example, in the game "What's Up with Indonesia", each group discusses choosing the tolerance card to be played and designs a strategy to match it to create active interaction with group members and opponents.

The teacher's perception of the global diversity element in Board Games supports the data, which is reflected in the formation of diverse groups in terms of the student's cognitive abilities. The teacher stated that the diversity of cognitive levels of students in forming groups is needed so that they can actively participate in the learning process. According to research (Prafitasari, 2015), through the right learning strategy, diversity in the classroom can be utilised to improve interaction and collaboration between students, thus encouraging better achievement of the material. Not only that, but questions based on high-order thinking skills and direct assistance are also needed so that learning outcomes are more meaningful and beneficial for students.

In addition, in group games, an attitude of tolerance can be formed in students where students are allowed to argue between groups but are trained not to force their opinions on others and to convey arguments politely without aggressive actions. Learning using board games can form an attitude of global diversity so that if students encounter differences in culture or opinion, they can appreciate differences without showing aggressive behaviour. Teachers who stated that Board Games could increase interaction by 29% are said to be able to increase interaction because these Board Games do not yet have features or ways of playing that are varied for students to feel the global situation and the need for evaluation and a punishment and reward system in Board Games

Therefore, to form good Board Games, teachers provide the perception that Board Games need to be adjusted to game elements with more real diversity and inclusion values, for example, completing challenges that require them to work with people who have different perspectives or expertise. Not only that, but reflecting after playing board games to find out what needs to be fixed and implementing a reward and positive punishment system so that students are more enthusiastic. Based on research by Zhang et al. (2022), playing with groups of different cultures has the potential to support international language and culture learning; this can also be a suggestion for the development of virtual Board Games so that students can interact with international students in the hope of exploring and collaborating between cultures.

Learning with media that can reach broader audiences and provide direct reflection also allows teachers to adjust strategies to develop student tolerance (Trisiana et al., 2025). This is achieved through game challenges and critical thinking in Board Games, making it better than traditional methods that emphasise memorisation. Teachers' perceptions of Board Games media for student involvement in global diversity-based Pancasila education can increase interaction and shape students' global diversity attitudes, primarily through group work that trains communication, collaboration and teaching about differences. However, variations in the game, more real diversity elements, reward and punishment systems and reflection are needed to maximise the benefits of learning.

3. Teachers' Perception of Board Games Media to Help Independent Learning in Global Diversity-Based Pancasila Education

Independent learning is a learning process carried out independently through reading, studying and understanding knowledge under related learning materials inside and outside the school environment (Pongoliu & Tohopi, 2023). The independent learning process can be improved through learning with Board Games media. Based on research from (Ningtyas, 2023), the Board Games learning experiment shows that students are more independent and easier to understand learning because the characters are diverse and not boring. The design of the Board Games based on global diversity was analysed by Pancasila education teachers in 10 junior high schools and 2 Muhammadiyah Islamic Junior High Schools throughout the city of Yogyakarta, resulting in an upbeat assessment of the value of independent learning.

The survey results show the presentation of Pancasila education teachers' perceptions, and 72% stated that Board Games can encourage students to seek additional information on unsolved questions. The potential for independent learning can be seen in students seeking additional information on unsolved questions. Board Games rules direct students to answer questions about global diversity. For example, in the game *"Tradisi Bersama Kita"*, each group learns about Indonesian culture through questions and cultural practices such as singing regional songs. In *"Eksplorasi Dunia Global"*, students analyse cultural facts from 3 countries and examine values that can be imitated. This activity arouses students' curiosity about culture, both national and global, and encourages independent learning to find unsolved answers.

The data is supported by the teacher's perception of the elements of Global Diversity in Board Games reflected in the activities of students who seek additional information on

unsolved questions. The teacher stated that there need to be independent tasks outside the game, such as making art projects, essays or presentations on topics learned from the game. Research from (Umaralieva, 2021) states that through independent learning, students can gain an understanding of learning, have the motivation to learn and collaborate with teachers to design their learning environment. In addition, board game components can be designed to regulate student emotions, encourage independent work in completing tasks and interact with various characters in the game.

Figure 5.
Percentage of teacher perceptions regarding independent learning in board games
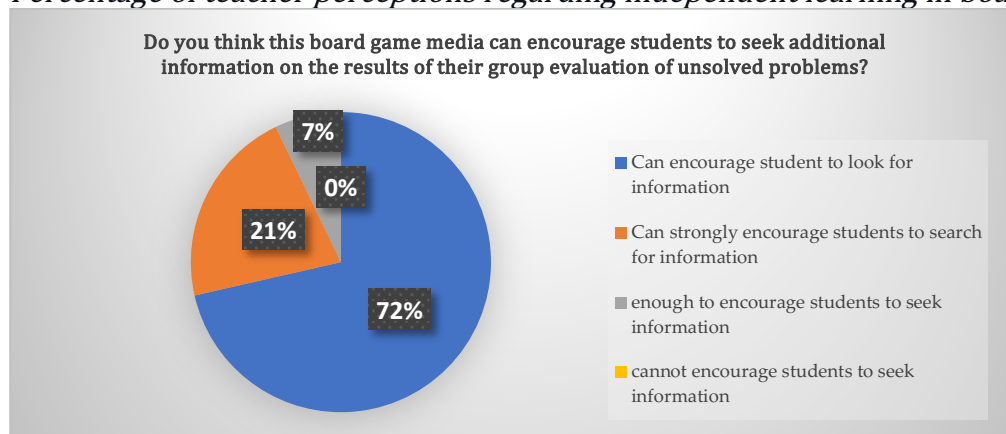
Source: Data processed by the author (2024).

Learning using Board Games can help shape attitudes towards global diversity. The components of this game display multiple national and international cultures, and how it is played encourages students to be open-minded. By getting to know many cultures and facts, students are trained to appreciate various cultures in the world while maintaining the nation's noble values. This is supported by the perception of early childhood education teachers at one of the schools in Indonesia and Thailand that it is essential to teach global skills to students by appreciating the diversity of identities so that they can inspire them to live together, avoid prejudice and inspire them to live together (Aulia et al., 2024).

Teachers who stated that Board Games media can encourage students to seek additional information on unsolved questions amounted to 21% and agreed that Board game media can improve independent learning in students through these activities. Meanwhile, 7% of teachers stated that Board Games media can encourage students to seek additional information on unsolved questions. This is because these Board Games have not been designed to enable students to regulate their emotions and role-play to interact with various characters in the game.

Therefore, to form good Board Games, teachers provide the perception that Board Games can be designed so that students learn to manage emotions, complete tasks independently and interact with various characters in social situations, in addition to the need for unique direction and monitoring of each progress in independent learning in the use of Board Games, not only that, there needs to be a mutual agreement on the completion time of each game so that it can be effective and efficient.

Teachers' perceptions of Board Games media design state that Board Games can help independent learning and form global diversity attitudes in students, especially activities designed so that students seek information on unanswered questions. In addition, the game's components reflect culture, and the rules encourage students to think openly. Students are taught to appreciate cultural diversity while maintaining the nation's noble values. However, a design is needed for the game so that students can regulate their emotions and role play to interact with various characters; a time agreement to be effective and efficient, as well as direction and monitoring of each progress after using Board Games, are needed.
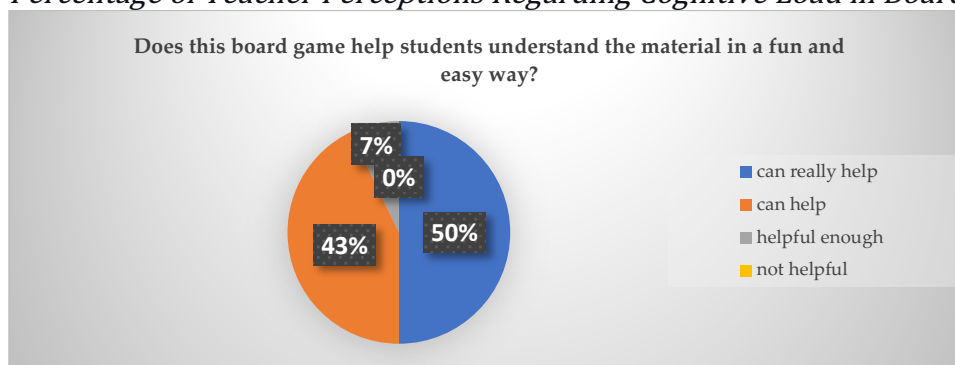
4. Teachers' Perceptions of Board Games Media to Support The Formation of Student Cognitive Abilities in Pancasila Education Learning Based on Global Diversity

In interactive learning using Board Games media, it is necessary to consider the cognitive load aspect of students. The cognitive load aspect refers to the cognitive load theory introduced by John Sweller, which helps understand how humans generally learn and store new information and what instructional practices best support learning (Likourezos, 2021). Through Board Games, interactive learning can be designed to support the processing of relevant information while minimising unnecessary burden.

Board Games are created based on three values in cognitive load theory, namely 1) minimising extraneous cognitive load processing, where visuals and activities in Board Games are designed to be relevant to learning materials, not excessive, but attract students' attention. 2) Regulating intrinsic cognitive load processing, where Board Games can present materials in a form that is easier to understand and questions under everyday life situations related to diversity and challenges are given according to students' cognitive abilities so that they can achieve learning goals. 3) Developing germane cognitive load processing, where activities such as the interaction between students, problem-solving and decision-making in the game can construct new information with the knowledge they already have; this encourages more effective information management. The design of Board Games based on global diversity was analysed by Pancasila education teachers in 10 junior high schools and 2 Muhammadiyah MTSs throughout the city of Yogyakarta, resulting in an upbeat assessment of the formation of students' cognitive abilities.

Figure 6.
Percentage of Teacher Perceptions Regarding Cognitive Load in Board Games

Source: Data processed by the author (2024).

The survey results show the presentation of Pancasila Education teachers' perceptions, and 50% stated that Board Games can really help students understand the material in an easy and fun way. This can be illustrated by the Board Games procedure, which directs students to actual activities that are relevant to everyday life. For example, in the Board Games, *"Tradisi Bersama Kita"* students are introduced to cultures from various regions, encouraging them to explore and understand this diversity through direct cultural preservation activities such as singing regional songs, telling the rules of traditional games, etc. These activities make learning more fun and strengthen understanding of the importance of maintaining national identity. In addition, the Board Games *"Explorasi Dunia Global* presents unique facts from various parts of the world and encourages them to analyse how to filter information while still respecting the nation's noble values. Through these activities, learning is made in a way that is not boring, making it an easy and enjoyable learning experience.

The data is supported by the teacher's perception of the global diversity element in Board Games reflected in the implementation of student activities when playing Board Games in a fun and easy way. The teacher stated that the material in board games can be directed to students' real lives and that distractions should be reduced by minimising game elements that are not relevant to learning objectives, such as visual elements that are too busy or have too

many rules. That way, students can focus on the game's goals and the learning contained therein so that the cognitive load is more manageable. Board Games have been proven to increase student engagement. In addition, Board Games based on cultural diversity have been proven to increase learning motivation, improve student learning outcomes and build a positive competitive attitude (Aprilia, 2023; Listyani, 2018).

In addition, this Board Games can train students to be open-minded, and students learn to recognise various cultures from other regions and countries that need to be respected and appreciated. Each culture has its uniqueness, so students need to be able to consider values that can be imitated and should not be imitated from foreign cultural situations. So that students not only learn tolerance and diversity on a national scale but can also implement this understanding in a global context. The teachers who stated that Board gGames can help students understand the material quickly and enjoyably comprised 43%, and those who said it was helpful comprised 7%. This is because the design of this Board Game still has complex rules and has not been fully adjusted to each student's learning style.

Therefore, to create good Board Games, teachers perceive that it is necessary to create simple and short game rules to make them easier to understand, especially for slow learner students, reduce distractions such as visuals and irrelevant elements, and the need to organise learning content to be applied in media according to students' learning styles. Not only that, but there must also be adjustments to the difficulty level based on age or ability and a focus on activities that encourage conceptual understanding. Teachers' perceptions of board game media state that they can support the formation of students' cognitive skills in learning Pancasila education based on global diversity, especially as a fun and easy-to-understand learning medium. In addition, game components and activities that are part of everyday life can increase students' interest in learning and improve their cognitive knowledge. However, a design is needed for Board Games that adapts to learning styles, age levels and simple and easy-to-understand procedures.

Conclusion

This study provides the perception of Pancasila Education teachers from 12 Muhammadiyah Junior High Schools/MTs in Yogyakarta towards Board Games media. The Board Games media design called "Becoming Diverse" was given to teachers who made aspects of global diversity. The study results showed that Board Games support interactive learning in Pancasila Education subjects, including student involvement, independent learning and cognitive load. As many as 71% of teachers stated that Board Games are very effective in increasing student interaction during learning, as seen from group activities that occur while playing. This can support student involvement. As many as 72% of teachers considered Board Games to encourage students to seek additional information related to unsolved questions, supporting independent learning. In addition, 50% of teachers stated that Board Games help students understand the material in an easy and fun way.

The aspect of global diversity is reflected through the activities of students when playing Board Games with respect for differences, preservation of local and national cultures, and the ability to filter foreign cultural values while maintaining a noble culture. This media helps students understand diversity with concepts that make it easier to form inclusive attitudes and strengthen national identity amid global dynamics.

This research has limitations in terms of Board Games products. The product is still in the design stage and has not been realised in its complete form and terms of direct trials with students. Based on these results, further research is recommended to create Board Games based on global diversity and the impact of long-term use. In addition, development to form a good Board Games that can achieve meaningful learning outcomes, it is necessary to add diversity and inclusion values and a reward and positive punishment system to increase enthusiasm; the way of playing is designed to manage students' emotions, for example, various

characters in social situations, and minimise game elements so that students can focus on learning objectives.

References

Aisyiyah, S. (2024). *SMA MUHI Yogya gelar workshop pertukaran budaya internasional dari 5 negara berbeda*. Suaraaisyiyah.Id. https://suaraaisyiyah.id/sma-muhi-yogya-gelar-workshop-pertukaran-budaya-internasional-dari-5-negara-berbeda/

Aprilia, N. A. (2023). *Pengembangan media Indonesian adventure board materi keberagaman untuk siswa sekolah dasar*. 1–10.

Aulia, S. S., Risti P, A. V., Hidayati, R. N., Merkuri, Y. G., & Arpannudin, I. (2024). Bagaimana peran guru mendorong siswa menjadi warga global? pemahaman keberagaman global pada guru sekolah di indonesia dan thailand. *Pro Patria: Jurnal Pendidikan, Kewarganegaraan, Hukum, Sosial, Dan Politik*, *7*(1), 101–112. https://doi.org/10.47080/propatria.v7i1.3263

Bastrian, N., Marmoah, S., & Adi, F. P. (2024). Kendala implementasi P5 dengan tema Bhinneka Tunggal Ika di sekolah dasar. *Didaktika Dwija Indria*, *12*(1), 14–19. https://doi.org/10.20961/ddi.v12i1.79362

Caprica, J. (2022). *Maraknya intoleransi terhadap ras*. Kompasiana.Com. https://www.kompasiana.com/jnriani914/62f356e03555e46a5b45d533/maraknya-intoleransi-terhadap-ras

Chisholm, I. M. (1994). Culture and technology: implications for multicultural teacher education. *Journal of Information Technology for Teacher Education*, *3*(2), 213–228. https://doi.org/10.1080/0962029940030208

Dayanti, A. D. (2017). Pengembangan sikap toleran terhadap perbedaan pendapat siswa melalui discovery learning dalam pembelajaran IPS (penelitian tindakan kelas terhadap siswa kelas VII-C SMP negeri 44 Bandung). *International Journal Pedagogy of Social Studies*, *1*(1), 60. https://doi.org/10.17509/ijposs.v1i1.2084

Dishon, G., & Kafai, Y. B. (2022). Connected civic gaming: rethinking the role of video games in civic education. *Interactive Learning Environments*, *30*(6), 999–1010. https://doi.org/10.1080/10494820.2019.1704791

Fakhiratunnisa, S. A., Arista, V. A., Widopuspito, A., Ningrum, T. K., & Firdaus, A. A. (2022). Pluralisme dan integrasi agama dalam kebhinekaan dan keberagaman indonesia. *Tsaqofah*, *2*(1), 67–79. https://doi.org/10.58578/tsaqofah.v2i1.260

Händel, V. D., Schrøder, V., Birkefoss, K., & Händel, M. N. (2023). Interplay between playful learning, digital materials and physical activity in higher education: A systematic review of qualitative studies using meta-aggregation and GRADE-CERQual. *International Journal of Educational Research Open*, *5*, 100284. https://doi.org/10.1016/j.ijedro.2023.100284

Hattie, J., Biggs, J., & Purdie, N. (1996). Effects of learning skills interventions on student learning: a meta-analysis. *Review of Educational Research*, *66*(2), 99–136. https://doi.org/10.3102/00346543066002099

Intania, B. Y., Raharjo, T. J., & Yulianto, A. (2023). Faktor pendukung dan penghambat implementasi profil pelajar pancasila di kelas IV SD negeri pesantren. *Cetta: Jurnal Ilmu Pendidikan*, *6*(3), 629–646. https://doi.org/10.37329/cetta.v6i3.2523

Japar, M., Suryaratri, R. D., Syarifa, S., Fadhillah, D. N., & Djunaidi, D. (2021). Analisis kebutuhan pemanfaatan video pembelajaran dalam meningkatkan kompetensi profesional guru PPKn sekolah menengah atas. *Jurnal Sains Sosio Humaniora*, *5*(1), 619–627. https://doi.org/10.22437/jssh.v5i1.14592

Kemdikbud. (2020). *Peraturan menteri rencana strategis kementerian pendidikan dan kebudayaan tahun 2020-2024*. Jdih.Kemdikbud.Go.Id. https://jdih.kemdikbud.go.id/detail_peraturan?main=2193

Kemendikbudristek. (2024). *Pengertian dan penerapan profil pelajar pancasila*. Pusatinformasiguru.Kemdikbud.Go.Id. https://pusatinformasi.guru.kemdikbud.go.id/hc/id/articles/14145044257945-Pengertian-dan-Penerapan-Profil-Pelajar-Pancasila

Khafid, S. (2023). *Jogja peringkat teratas jadi kota tujuan pendidikan*. Pendidikan.Harianjogja.Com. https://pendidikan.harianjogja.com/read/2023/10/29/642/1152913/jogja-peringkat-teratas-jadi-kota-tujuan-pendidikan

Khotimah, K., & Wahyuningtyas, N. (2023). Media development board game to increase student motivation in studying regional culture. *Jurnal Inovasi Teknologi Pendidikan*, *10*(3), 298–310. https://doi.org/10.21831/jitp.v10i3.60477

Likourezos, V. (2021). *An introduction to cognitive load theory*. Theeducationhub.Org.Nz. https://theeducationhub.org.nz/an-introduction-to-cognitive-load-theory/

Listyani, A. (2018). Pengembangan board game ular tangga berbasis keragaman budaya untuk kelas III SD. *Jurnal Pendidikan Guru Sekolah Dasar*, 593–604.

Ma'arif, M., Nissa, D. F., Aulia, S. S., & Immaniar, D. N. (2023). Pemanfaatan live worksheet sebagai E-LKPD pendidikan pancasila materi kolaborasi antar budaya di indonesia. *Jurnal Moral Kemasyarakatan*, *8*(1), 16–23. https://doi.org/10.21067/jmk.v8i1.8255

Mulki, M., Nelyahardi, & Wahyuni, H. (2023). Analisis faktor-faktor penyebab timbulnya perilaku bullying verbal pada siswa SMPN 16 Kerinci. *Jurnal Pendidikan Dan Konseling*, *5*. https://doi.org/10.31004

Ningtyas, S. I. (2023). Penggunaan board game sebagai media pembelajaran untuk melatih berpikir kreatif siswa. *Research and Development Journal of Education*, *9*(2), 871. https://doi.org/10.30998/rdje.v9i2.19392

Nur, R., Truvadi, L., Agustina, R., & Salam, I. (2023). Peran pendidikan pancasila dalam membentuk karakter bangsa indonesia: tinjauan dan implikasi. *Jurnal Advances in Social Humanities Research*, *1*(4), 501–510. https://doi.org/10.46799/adv.v1i4.54

Nyman Gomez, C., & Berg Marklund, B. (2018). Games for Cross-Cultural Training. *International Journal of Serious Games*, *5*(4), 81–98. https://doi.org/10.17083/ijsg.v5i4.259

Othman, M. K., & Ching, S. K. (2024). Gamifying science education: How board games enhances engagement, motivate and develop social interaction, and learning. *Education and Information Technologies*, *29*(18), 24525–24561. https://doi.org/10.1007/s10639-024-12818-5

Pitterson, N. P., Brown, S., Pascoe, J., & Fisher, K. Q. (2016). Measuring cognitive engagement through interactive, constructive, active and passive learning activities. *2016 IEEE Frontiers in Education Conference (FIE)*, 1–6. https://doi.org/10.1109/FIE.2016.7757733

Pongoliu, Y. H., & Tohopi, Y. (2023). Penerapan metode pembelajaran inkuiri dalam meningkatkan hasil belajar siswa. *Jurnal IKA PGSD (Ikatan Alumni PGSD) UNARS*, *12*(2), 259. https://doi.org/10.36841/pgsdunars.v12i2.2606

Prafitasari, A. N. (2015). *Seminar nasional fisika dan pembelajarannya 2015 heterogenitas kemampuan belajar siswa sebagai dasar pengembangan model pembelajaran leader-TRACE (Training, Action, Evaluation)*. 4–11.

Rachmadtullah, R., Syofyan, H., & Rasmitadila. (2020). The role of civic education teachers in implementing multicultural education in elementary school students. *Universal Journal of Educational Research*, *8*(2), 540–546. https://doi.org/10.13189/ujer.2020.080225

Raja, G. (2024). *Student exchange, SMP muhammadiyah al mujahidin gunungkidul kedatangan "upin dan ipin."* Radarjogja.Jawapos.Com. Student Exchange, SMP Muhammadiyah Al Mujahidin Gunungkidul Kedatangan %22Upin dan Ipin

Rochmawati, A. (2019). *Pertukaran pelajar: Siswa streesmutprakan school thailand kunjungi mu'allimaat yogyakarta*. Sekolah.Mediamu.Com. https://sekolah.mediamu.com/pertukaran-pelajar-siswa-streesmutprakan-school-thailand-kunjungi-muallimaat-yogyakarta

Rowan, L., Bourke, T., L'Estrange, L., Lunn Brownlee, J., Ryan, M., Walker, S., & Churchward, P. (2021). How Does Initial Teacher Education Research Frame the Challenge of Preparing Future Teachers for Student Diversity in Schools? A Systematic Review of Literature. *Review of Educational Research*, *91*(1), 112–158. https://doi.org/10.3102/0034654320979171

Savitri, D. (2019). *Destyananda savitri: Mengalami bullying karena warna kulit gelap*. Kumparan.Com. https://kumparan.com/kumparanstyle/destyananda-savitri-mengalami-bullying-karena-warna-kulit-gelap-1533806109643075656/3

Setiawan, A., Purnomo, P., Marzuki, M., Charismana, D. S., & Zaman, A. R. B. (2024). The implementation of tolerance values through multicultural education program. *Jurnal Civics: Media Kajian Kewarganegaraan*, *21*(2). https://doi.org/10.21831/jc.v21i2.71337

Siti Aulia, S., Marzuki, & Suyato. (2024). Persepsi tentang kebinekaan global warga negara: penelitian pada mahasiswa di universitas ahmad dahlan. *Jurnal Moral Kemasyarakatan*, *9*(1), 139–150. https://doi.org/10.21067/jmk.v9i1.10255

Subagyo, A. (2020). Implementasi pancasila dalam menangkal intoleransi, radikalisme dan terorisme. *Jurnal Rontal Keilmuan PKn*, *6*(1), 10–24. https://doi.org/10.29100/jr.v6i1.1509

Swartz, E. (2009). Diversity: gatekeeping knowledge and maintaining inequalities. *Review of Educational Research*, *79*(2), 1044–1083. https://doi.org/10.3102/0034654309332560

Trisiana, A., Triyanto, T., Zakaria, G. A. N., Sakinah, S., & Arvinth, N. (2025). Promoting diversity tolerance among Indonesians through smart mobile civic media in Citizenship Education. *Jurnal Civics: Media Kajian Kewarganegaraan*, *22*(1). https://doi.org/10.21831/jc.v22i1.1280

Umaralieva, M. (2021). *Some challenges in encouraging independent learning*. *2*(4), 2181–1385. https://doi.org/10.24411/2181-1385-2021-00812

Widiana, W. (2022). Game based learning dan dampaknya terhadap peningkatan minat belajar dan pemahaman konsep siswa dalam pembelajaran sains di sekolah dasar. *Jurnal Edutech Undiksha*, *10*(1), 1–10. https://doi.org/10.23887/jeu.v10i1.48925

Wong, Z. Y., & Liem, G. A. D. (2022). Student engagement: current state of the construct, conceptual refinement, and future research directions. In *Educational Psychology Review* (Vol. 34, Issue 1). Educational Psychology Review. https://doi.org/10.1007/s10648-021-09628-3

Zhang, B., Goodman, L., & Gu, X. (2022). Novel 3D contextual interactive games on a gamified virtual environment support cultural learning through collaboration among intercultural students. *Sage Open*, *12*(2). https://doi.org/10.1177/21582440221096141

Authors' contributions

Competing interests

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