EDUCATIONAL BOARD GAME FOR IMPROVING EMPATHETIC MIND AND COMMUNICATION

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ABSTRACT

The Friedrich Naumann Foundation and the King Prajadhipok's Institute in Thailand created the educational board game PeaceSoCracy, based on the online game available on the Tabletopia platform. The purpose of this board game is to encourage non-violent communication and an empathetic mind. Each process in the game play delivers more than just communication skills. Furthermore, playing educational board games means more than just following the rules; it also gives players the opportunity to experience and learn various lessons and skills. This research study examined players' learning experiences, decision-making skills, opinions, attitude, perspective, social skills, and communication skills that came from playing the PeaceSoCracy board game both online and offline. The research methodology employed qualitative research, which involved interviewing participants about their opinions and observations during the play session. In this study, 18 undergraduate students participated in face-to-face (F2F) sessions, and five undergraduate students played both F2F and online platforms. The observation and interview phases employed thematic analysis. The results indicated that the participants reported distinct differences in their experiences when playing in face-to-face (f2f) sessions compared to the online platform (via Tabletopia), especially the emotional engagement and interpersonal interaction. Moreover, players utilized a variety of skills in each phase, including creative thinking, problem solving, and communication, while the facilitators could potentially influence the play session by providing encouragement, guidelines, rules, and monitoring questions and answers. Furthermore, the players understood each other through communication and had an empathy mindset.

KEYWORDS

Educational Board Game, Communication Skill, Undergraduate Students, Empathetic Mind

1. INTRODUCTION

The Friedrich Naumann Foundation and King Prajadhipok's Institute designed PeaceSoCracy, a board game, to foster communication skills in the face of social conflict, as part of their "Promotion of Peaceful Society" statement (Sukumal Surichamorn et al., n.d.-b, n.d.-a). There were fifteen stories from three clusters or levels: family, society, and country (Sukumal Surichamorn et al., n.d.-a, n.d.-b). These stories would encourage awareness of nonviolent communication and judgment without bias.

Conflicts of communication and emotion that caused various problems, particularly in negotiations and meetings, sometimes came from "assertiveness" (Dzaferovic, 2012) and thought under inadequate resources (Oetzel & Ting-Toomey, 2013). These conflicts were caused by differences in beliefs, opinions, and feelings, miscommunication, and unfair power. We could categorize them into five types: data conflict, structural conflict, interest conflict, value conflict, and relationship conflict (Moore, 2014). Therefore, there is a need for tools or methods to alleviate the conflict. Communication is one of the most critical elements of conflict resolution, resulting in the theoretical innovation of diverse communication techniques. Among those well-known concepts, nonviolent communication (NVC) gains practitioners' attention to solve these conflicting problems.

Nonviolent communication (NVC), or compassionate communication (Rosenberg, 2015), is a communication skill that includes listening and speaking to understand and connect the mind of a speaker to a listener deeply (Lasater & Lasater, 2022; MacNair & Psychologist for Social Responsibility, 2006; Martin & Varney, 2003; Rosenberg, 2015). However, NVC was not only a communication technique but also concentration with the thoughtful topic (Rosenberg, 2015) and the appropriate words that were chosen for talking with anyone (Lasater & Lasater, 2022). Furthermore, one of the key factors in NVC was empathy and a lack of judgment were key factors in NVC, which supported successful communication (Juncadella & Blackmore, 2013; Koopman & Seliga, 2021).

Owing to the meaning and connotation of words and phrases, each conversation really shows the thoughts of the speaker, awareness, and understanding of the situation, culture, and listeners' minds (Lasater & Lasater, 2022). This concept also reminds the speakers to be aware of using words and gestures before expressing each dialogue (Lasater & Lasater, 2022). Upon the concern of the empathetic conversation, NVC absolutely reduces conflict and increases peace in the community (MacNair & Psychologist for Social Responsibility, 2006) through regenerating positive dialogue and solutions (Dzaferovic, 2012). Applying NVC in real life may decrease stress, anxiety (Zandkarimi et al., 2019), anger, and heart healing from bad situations (Roy, 2019). Furthermore, NVC could be a tool for leveraging the emotional well-being of family members (Cheung et al., 2023).

NVC is not only the communication process or language usage; it also integrates observation and understanding the feelings, needs, and requirements of others (Museux et al., 2016; Rosenberg, 2015). There are four crucial elements of NVC that contribute to communication without judgement or discussion about emotion (Koopman & Seliga, 2021; Zandkarimi et al., 2019). Firstly, observation without judgment (Museux et al., 2016) focuses on not only words in the conversation but also nonverbal communication using gestures, postures, or facial expressions (Jung et al., 2023; Sung & Kweon, 2022). Secondly, Museux et al. (2016) emphasize the importance of accepting others' feelings, while Sung & Kweon (2022) emphasizes the importance of comprehending and connecting these feelings to needs. Some researchers applied tools such as word charts of feelings and needs to increase comprehension (Jung et al., 2023; Koopman & Seliga, 2021; Sung & Kweon, 2022), pictures, or situations (Baesler & Lauricella, 2014; Jung et al., 2023). Thirdly, signal comprehension happened after a long conversation, involving both feelings and needs (Museux et al., 2016). The last one asks for generating effective and tangible action (Museux et al., 2016). Nevertheless, these skills cannot be articulated without training; the instructor needs to nurture and encourage the practitioners to have them. Experiencing listening, thinking, and speaking was a powerful method to enhance nonviolent communication skills (Koopman & Seliga, 2021; Lasater & Lasater, 2022) that was related to playing a board game as a simulation, such as the PeaceSoCracy board game.

In a gaming session, the gameplay unfolds through observation and interaction between participants, which leads to the development of communication skills (Museux et al., 2016). Additionally, integrated activities, feeling cards, and other media could support communication skills (Jung et al., 2023).

"Game" is one play tool that is applied in learning activities to encourage learners' knowledge and skill (Plass et al., 2019; Thomas & Brown, 2011); consequently, applying games in education was called an educational game that was different from only "game." Educational games were designed to enhance learning with elements in the game and instructional steps in the game dynamic to gain knowledge along with play to debrief (Garris et al., 2002).

Generally, instructions for game-based learning consist of three main steps (Figure 1), including input, process, and output (Garris et al., 2002). The first step is to provide 1) academic content and 2) game factors. The second one was the game cycle, which consisted of 1) user judgment or reaction happening in the game, such as joy, happiness, and attraction; 2) user behavior; and 3) system feedback. This second step shows that engagement in content and game flow is a key to encouraging motivation and constructing knowledge through games by themselves. Owing to the process in the second step, it was aligned with experiential learning theory (ELT), which focused on learning in practical context and creating knowledge by themselves (Kolb & Kolb, 2009; Kolb, 2014). Furthermore, the third step was the debriefing and learning outcomes, which were meaningful because there was a relation between game cycle and achievement (Eisenack, 2013; Pivec & Dziabenko, 2004).
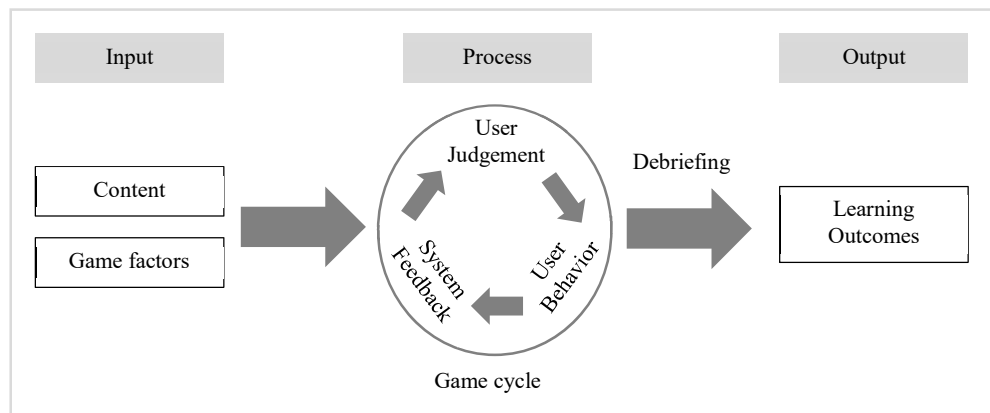
Figure 1. Input-Process-Output Game Model (Garris et al., 2002)

Board game was applied as a learning tool that encouraged participation (Eisenack, 2013; Fjællingsdal & Klöckner, 2020) in class and cooperativeness, especially, 'incorporating board game' could improve problem solving skills, critical thinking, system thinking, and communication skills (Hinebaugh, 2009). Consequently, a board game that could encourage skills and knowledge about a specific topic might have various dynamics, such as remembering or sorting for increasing memorizing skills or answering the question for approving understanding skills. The first type of board game, such as a memory board game, was a board game that helped players understand the concept of a specific topic in an easy way, increasing learning engagement in the classroom (Normalita et al., 2023). Whereas there were other types, such as complex board games that consisted of strategies, rules, roles, materials, and dynamics, players had to plan strategies for reaching the goal of the game (Gobet et al., 2004).

Owing to various types of board games, the instructors tried to apply both commercial board games, gamification, and educational board games in learning sessions, not only in class but also after class (Gobet et al., 2004; Hinebaugh, 2009). Although educational board games would have to focus on education and learning, enjoyment and engagement were still key points in this context (Booker & MItchell, 2021). Applying subjects or learning topics to a board game during a learning session practically enhanced learners' participation and attention in lessons (Normalita et al., 2023). Some studies demonstrated that learners discussed and focused on the instruction much more than without game playing (Normalita et al., 2023).

Online board games such as the Tabletopia platform are open to long-distance players. This platform made the board game that had to be played offline an online game (Jensen et al., 2023). Playing on an online platform encouraged the possibility of learning and upskilling from playing board games that were once limited to face-to-face sessions. This platform could help, especially not only players but also developers, initiate board games in the COVID-19 period (Almeida et al., 2021). As a PeaceSoCracy board game that was translated into English and converted to an online board game on the Tabletopia platform. There were both Thai and English versions that could play as individual (Solo function) and group (Hotseat).

However, both board games and online board games still had a well-planned lesson, including an introduction, monitoring, and reflection session with organized questions and skilled facilitators for effective playing board games. Accordingly, this research study was conducted to explore the steps in learning activities that were designed, the opinions about games and learning experiences from games, and the skills that participants acquired from playing this game.

1.1 Research Objectives

The objectives of this research were threefold. First of all, the researchers aimed to explore the learning activities and experiences that emerge during gameplay. Second, the study sought to examine the specific skills that participants develop from playing the PeaceSoCracy board game. Finally, this research will compare the differences between playing the game with friends in an on-site setting and playing it on an online platform.

2. METHOD

This research study was conducted with qualitative research that consisted of observation and interviewing the participants.

2.1 Sample

After signing the research consent form, we recruited 23 undergraduate students from public and private universities in Thailand through volunteer applications. Grantors and faculty published recruitment details and application links on their social media pages. The registration process gathered basic information and sorted the games based on participant preference. The project coordinator, who managed the activities, described the activity details to each participant before confirming their decision to join the playing session and the activity date.

Before the play session on the activity date, the researchers informed the participants about the purpose and process of the activity, the research study, and the data collection process, giving them the option to withdraw at any time.

For the play session, two facilitators, experienced in non-violent communication and PeacSoCracy board games, divided the 18 undergraduate students into two groups. Following the play session, ten undergraduate students agreed to participate in interviews. Five undergraduate students engaged in both on-site and online gaming through the Tabletopia platform.

2.2 Research Tools

To explore the action and skills that occur during game play, we used a recording observation note and a semi-structured interview form to gather context and reflection from the game. Firstly, the recording note consisted of 1) duration, 2) action, and 3) behaviors and/or words from players (as shown in Table 1).

Table 1. Observation note

Duration	Action/steps	Behavior/words
20 minutes	**Briefing**: Greetings and introduction to the PeaceSoCracy board game, with questions posed to the participants, such as Do you have any experience with conflict? And what's the solution? After that, the play coach would present the game rule, set up the game, and choose one scenario.	Participants would share experiences and ideas that led to educational goals, game goals, and rules. ***The researchers would record time, gestures, and conversation.***
45 minutes	**Playing**: the play coach would monitor, support, and encourage participants to ask the questions, collect the information, and share ideas.	***The researchers would record time, questions, and conversations.***
35 minutes	**Debriefing**: the participants would share their opinions and experiences from the playing session.	***The researchers would record shared messages.***

Based on the recorded information from the playing session, the researchers conducted an interview to gather more detailed information about the participants' thoughts, thinking processes, and opinions during playing times and reflection periods. The researchers interviewed the participants, who were two play coaches and three players after the game session, in a semi-structured interview. The interview consisted of three main topics: 1) the experiences from the game session; 2) the thinking skills that happened in the game; and 3) the impact on communication and conflict management.

2.3 Analysis

The researchers transcribed, decoded, and analyzed the information from observation and interview using the thematic analysis method. To verify the qualitative data, the researchers interpreted observation notes and keywords from interview transcripts, such as role play, reasoning, sharing ideas, questions, thinking, and others. These words represented the situations that occurred during the play session, as well as the reflections and perspectives on each case.

Thematic analysis was employed as the method to systematically decode the language from the interview transcripts. This entails interpreting the data by identifying patterns based on the research questions and pre-defined themes. The resulting themes or codes revealed key insights, which formed the core findings of the study (Clarke & Braun, 2017).

2.4 Research Ethics

Before commencing the play session, the participants would receive information about the research study, the voluntary process, registration, and orientation. The information included purpose and process of activity, brief of research study, collecting data process, participation agreement, and assurance of confidentiality. Moreover, the participants were able to withdraw anytime during the research study process.

3. RESULT

The PeaceSoCracy board game was not only a party game, but it also served as an educational tool, encouraging players to learn and understand other perspectives with empathy. To achieve the educational goal, the play coach will take the following five steps with the fellows: 1) introduction; 2) preparation (or setting up a game); 3) briefing; 4) playing; and 5) debriefing.

First, the play coach would have outlined the education goal and game goal by identifying objectives, followed by a brief description of empathetic communication and the game scenarios, categorized into three levels: family, society, and country. The most crucial aspect for all players to concentrate on was articulating the game goal, as they were required to begin by choosing a case from a selection of 15 cases across three levels: family, society, and nation. Secondly, the main elements of the game included the peace board, situation cards, inquiry cards, heart, and sandglass, while the personal elements included player cards, question examples, character cards, story cards, and other cards. After setting up the game session, the play coach guided the players by eliciting their conflict experiences and selecting one scenario from a selection of 15 cases based on the group's decision. Next, the coach assigns roles to the players, after which players A and B proceed to read the scenario. When all players understood the roles and rules of the game, they started to ask questions and collect information.

Due to the dynamic nature of the game, players were required to gather information by questioning the case owners and actively listening to their fellow players. These sessions required players to generate questions, engage with the case owner, review, and reflect on the information shared and persuaded by each party. Table 2 displays the details of each step.
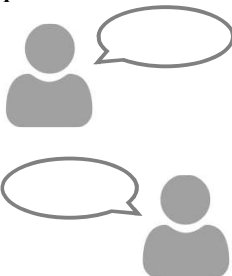
Table 2. Process of playing board game

Steps	Role of play coach	Scope of reflection from interview and observation
Introduction (10 minutes)	1. Overview the objectives in game. 2. Give a concept of empathetic communication. 3. Explain three types of scenarios: family, society, and country.	- Prior knowledge about communication and empathy is reviewed and recalled. - Experiences, age, and academic level were factors in selecting types of scenarios.
Preparation (10 minutes)	1. Set up the game. 2. Deal cards and distribute other elements.	- Review cards on hand. - Understand the context of the card.
Brief (10 minutes)	1. Ask a question about the conflict situation. 2. Provide an example and a few instances of conflict in society. 3. Explain the education goal and the game goal (how to win). 4. Set roles for each player. 5. Describe the rules of the game: steps to play and point counting. 6. Play Turn No. 0 (Zero) as a simple turn.	- Create a set of questions and collect data. - Plan and set goals for collecting and analyzing information.
Play (60 minutes)	1. Guide players to follow the rules and role play. 2. Encourage players to ask, examine, and criticize the given information. 3. Monitor players to listen and be concise.	- Ask questions to collect information. - Communicate with other players and topic owners (players A and B). - Listen and judge without bias.
Debrief (30 minutes)	1. Reflect on deductive and inductive reasoning. 2. Connect the game with real life.	- Connect the play experience (that has just been done) and story with real life. - Share your opinion and discuss it with other players with reasons.

As a result of activities in three steps (brief, play, and debrief), players could improve various skills, especially communication skills, creative thinking, critical thinking, and listening skills. Player A reflected, "I had to persuade and improvise after reading the information on a card." "I had to make up a story based on my experiences." This message indicated that the players were required to understand the message on the cards, scrutinize the answers and information provided by the topic owners, establish connections between each answer, and formulate various questions to gather additional data and prepare their responses. These skill sets were always present during the play phase and the reflection phase (see Table 3).

Furthermore, some participants expressed that they would actively listen, gather, and analyze data during each turn to determine the final answer. According to the role in the game, the players reflected that they could practice listening and speaking skills without judgement because of the dynamic in the game that directed participants to listen to the story from both sides and ask questions to understand the feelings of each side. So, they did not focus on right or wrong; however, they concentrated on information and context in the situation.

Table 3. Detail and reflection in play session

Sub steps in play session	Skill sets	Reflection
Sharing information by topic owners	- Communication skill - Persuasion - Creative thinking	*I had to persuade and improvise after reading up a story based on experience.* *(player A)*
Understanding information in a card	- System thinking - Critical thinking - Communication skill - Interpretative skill	*I chose "question card", I would get more information and could interpret.* *(Player B)*
Collecting information	- Listening skill - Analyze the information - Evaluate the data and collect more - Connect each information	*If I have a chance, I will choose only "Open 5 cards" and "3 questions" for gathering information and eliminating the choices.* *(player C)* *There are many questions and sometimes the same questions are asked, so I had to reply in other sentences under the given message* *(Player F)*
Asking and answering the questions	- Problem solving - Creative thinking - Deep listening	*... I tried to ask the desire of the case owner, why they would like it that way, and how to reach the goals because the case owner could not share the desire directly.* *(Player I)* *I had to create questions for gathering more data and create an answer for giving more detail.* *(Player D)* *If I were a mediator, I would have been neutral and listened to both sides before deciding without bias.* *(Player E)* *I would concentrate on the keywords from the conversation that related to the case and focus on the repeated words about feeling and desire.* *(Player G)*
Assessing information and anticipating the targeted mindset	- Critical thinking - System thinking	*I think the "eliminate choice" card could help me if I didn't know how to ask more questions.* *(Player H)* *The solution to everything should be based on data from communication and not on the bias of only one person. We synthesized all data.* *(Player J)*

In addition, participants reflected that they could learn the process to understand the complicated issue in society as follows: "*Board games helped learners understand the difficult social topics*" (Facilitator A) and "*I felt that communication in games increased awareness between two sides, and at the same time, the players could get more heart (~points) from discussion or answering questions*" (Player E). Because of the play steps in game dynamic, the answer of each case came from listening, asking, listening again, summarizing, matching the information with the prior data, deciding the feeling of case's owner, and answering the mission.
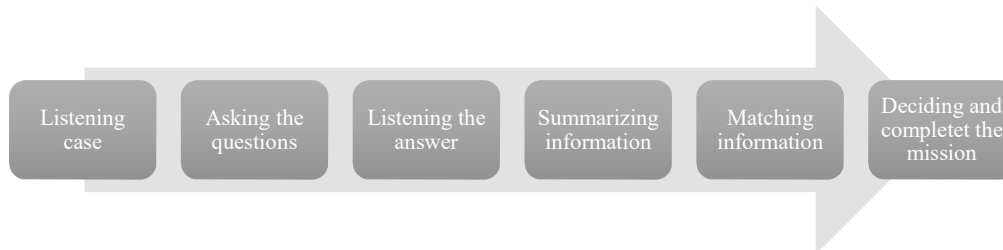

Figure 2. Process to achieve the mission

This process might run as a loop for criticizing the information that came from his/her turn and other players because each player in his/her turn would draw the different question card or action card. Each card brought to the new information that they collected and used for guesting the final answer as the player reflected that "*The solution of everything should base – on data from communication not from bias of only one person. We synthesized all data…*".

The online platform (Figure 2) offers three distinct types of play: solo, group, and online. According to the three different types, 1) Solo promotes one-player setup and solo play, 2) Hotseat offers multiplayer mode on the same desktop, and 3) Online mode allows players to play with other online users. Although there was an individual type, all players recommended that there should be four players per playing session. They could not play only one in a game like this communication game. However, the participant said that "*if they set the chatbot or integrate AI in the system, solo is possible because we can chat with computers*."

Figure 3. PeaceSoCracy in Tabletopia website: https://tabletopia.com/games/peacesocracy

Nevertheless, this game should have four players to make the situation clearer and participate in questioning. Most of them mentioned that they prefer to play on-site more than online because they can see facial expressions and chit-chat with their friends, although there are supporting tools in online sessions such as chatrooms or VDO conferencing.
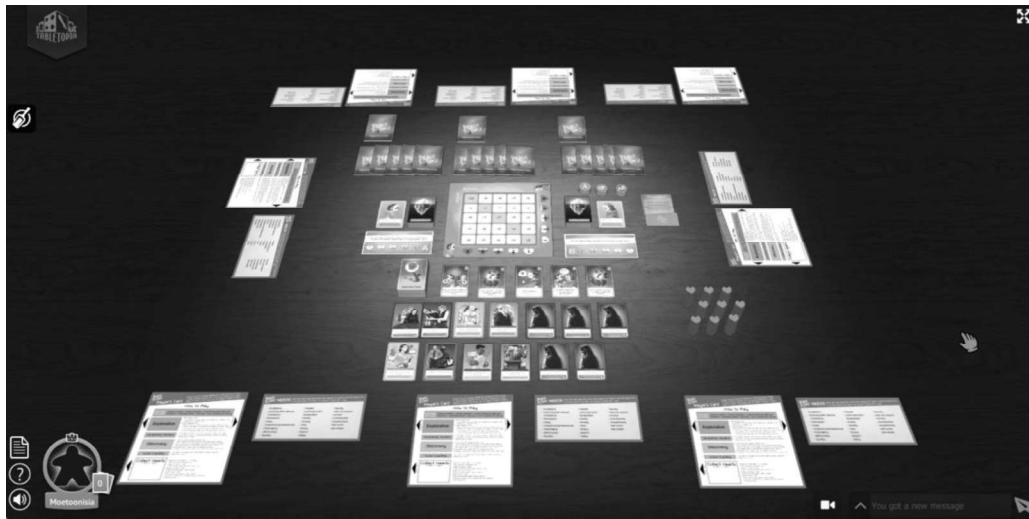
Figure 4. PeaceSoCracy online board game set up in Tabletopia

All participants mentioned the moderators who should have background in NVC or communication for more proficiency during the game. Furthermore, the moderators should prepare themselves in the game manual, cases, and questions in each card for solving or answering the questions.

In part, all participants said that "I prefer to play with an unknown person or stranger more than close friends because of avoiding bias and nervousness.

4. CONCLUSION

The PeaceSoCracy board game, both online and physical, successfully fosters empathy, critical thinking, and communication skills. It included five phrases: 1) introduction, 2) preparation, 3) briefing, 4) playing, and 5) debriefing—players engage with complex social scenarios, requiring them to actively listen, ask questions, analyze information, understand the situation, and answer the questions. These processes help develop crucial skills such as persuasion, creative thinking, and conflict resolution.

Participants highlighted the benefits of face-to-face gameplay that enhanced emotional engagement and interpersonal interaction compared to online play. While the online platform offered flexibility, most players recommended group play for better immersion. They suggested integrating AI for solo play.

Participants suggested that a background in communication or nonviolent conflict resolution was crucial for the moderator's role in effectively guiding the gameplay. Many also preferred playing with strangers to avoid bias and enhance open-mindedness.

5. DISCUSSION

This research study aimed to explore learning activities that happen in game play both online and offline, and examine skills that come from playing the PeaceSoCracy board game. According to the research objective, the study was conducted with qualitative methodology through interviews and observation. The research study was organized by implementing the PeaceSoCracy board game with undergraduate students and integrating debriefing sessions after playing the game. On the report of the implementation session, the moderator was the important person who regulated, monitored, and facilitated as a play coach. According to regulation for this kind of board game, the moderator should have experience and knowledge of NVC, the roles and rules of the game, and the persons who had to organize the NVC workshop because of the event in each session (Dzaferovic, 2012).

Situations that were classified into three levels: family/personal, community/society, and country/international topics were the meaningful cases for practicing listening, thinking, discussing, and expressing ideas (Koopman & Seliga, 2021). Each topic in each level could encourage the players to relate the gameplay experience to their real-world experiences. In common cases, the players would feel free to understand, ask questions, and discuss with other players.

Sometimes it was the emotional conversation that made it hard to empathize with the other in communication (Juncadella & Blackmore, 2013); nevertheless, the board game might decrease the complicated process and information through steps of talking and release people's feelings and needs. Because effective communication should begin with showing the intention, feeling, belief, or trust with a true discussion and deeply listening to another group (Sofer & Goldstein, 2018).

The game session's discussion and questioning encouraged the players to reflect, comprehend the information, and recognize the necessity and crisis of both sides in relation to the real-life situation (Eisenack, 2013). Additionally, the players who owned the topic had to use rhetoric and integrate it into communication ways to persuade the other players to trust their messages (Cattani, 2020; Gorsevski, 1999). The facilitators in the session have the potential to shape the atmosphere and engagement, mirroring the development of NVC. The facilitator should understand the concept of NVC at the very least and engage with the activity (Gill et al., 2022). Consequently, the facilitators who had different basic concepts, either game playing or nonviolent communication, might shape the tone, questions that happened, and discussion in game play. In an online platform, synchronous discussion via typing or talking supports effective communication; however, body language still plays a crucial role in perception(Ismail et al., 2021), who identified that a real-time conference with an open camera was the key.

Observation was another important skill in NVC because observers would collect more information from verbal and nonverbal communication, especially tone of voice, eyes, gestures, and patterns of conversation (Jung et al., 2023; Mayes, 2010; Sung & Kweon, 2022). Some players used the observation skill for both tone of voice, gesture, and facial expression.

Moreover, there were a set of words that helped players guess the feelings and/or needs of case owners and a set of questions to collect information and eliminate that guessing word. These tools could help players understand (Koopman & Seliga, 2021) and focus on the case and related information; furthermore, the empathetic mind was increased from listening sessions and conversations between players. According to empathizing with the case, the players had to ask various questions to collect sufficient information, which indicated the much more questions a conversation effected the message from the case's owner because the case's owner cannot sometimes say the direct message or requirement.

The players identified that the more they talked, the more they understood each other and got more points. Talking sessions were meaningful for increasing awareness among litigants (Mayes, 2010). This proved that board games could be a tool for encouraging learning and knowledge to do something (Taspinar et al., 2016), like the PeaceSoCracy board game, which showed the improvement of deep listening, communication skills, analysis thinking, and system thinking skills.

Consequently, an online platform might support communication and enhance the NVC skill through playing an online PeaceSoCracy board game because of the online environment that allowed the players to meet the various players and talk without bias (Antonijevic, 2008) via VDO conference (Ismail et al., 2021) or emoticons (Koh, 2022). These online tools were the supporting materials for enhancing an empathetic mind and comprehensive communication.

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