

Playful Pedagogy: Student Perceptions of Academic Skill Development Through Board Games

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Abstract: Game-based learning (GBL) has been widely recognized in higher education for its potential to enhance learning, foster peer-to-peer connections, support metacognitive and executive functioning, and facilitate collaborative learning (e.g., Jääskä & Aaltonen, 2022; Kim et al., 2009; Glaister et al., 2024). Across Canadian postsecondary institutions, GBL initiatives have emerged in academic programs, libraries, and teaching and learning centres (Garbati & Skrepnek, 2024, 2025). At our institution, examples include a Game Studies minor, an extensive video game collection housed in the library, and a collection of more than 300 board games maintained by the academic skills centre. This study focuses on the academic skills centre's game café, a long-running co-curricular initiative in which students gather to play board games with peers for up to four hours. While the game café is well-attended, little evidence has been collected regarding participants' experiences and perceived learning outcomes. To address this gap, we investigated students' perceptions of the game café, including their participation patterns and perceived development of academic skills such as verbal communication, written communication, critical thinking, and problem solving through gameplay. Data were collected through paper-based surveys administered during Winter and Fall 2025. A total of 104 students completed the survey. Analysis of findings note attendance and participation trends, students' perceptions of learning and skill development, and interest in future GBL-focused workshops. This paper provides an overview of relevant literature, outlines the study's research goals and methodology, presents key findings, and discusses their implications for teaching and learning in higher education. We conclude by identifying future directions for research and considering the pedagogical potential of the game café as a co-curricular learning environment.

Keywords: Game based learning, Academic skill development, Game café

1. Introduction

Game-based learning (GBL) is an increasingly visible component of higher education, with educators and support units exploring the pedagogical potential of games across curricular and co-curricular contexts. Benefits of GBL include enhanced student engagement, opportunities for peer-to-peer interaction, metacognitive and executive functioning skill development, and support for collaborative learning (Glaister et al., 2024; Jääskä & Aaltonen, 2022; Kim et al., 2009). While many studies have examined games as instructional tools embedded within courses, games are also being used in broader campus environments to foster community, belonging, and informal learning opportunities.

Within Canadian higher education, GBL initiatives have emerged in a variety of settings, including academic departments, libraries, centres for teaching and learning, and student support units (Garbati & Skrepnek, 2024, 2025). These initiatives reflect a growing recognition that learning extends beyond the classroom and that co-curricular spaces can provide meaningful opportunities for students to develop academic and interpersonal skills (Deng et al., 2019; Garbati & Skrepnek, 2026; Yeo et al., 2023). Board games, in particular, offer unique affordances in this regard. Through gameplay, students engage in communication, strategic thinking, decision making, problem solving, collaboration, and reflection, often within highly social and low-stakes environments. As a result, board game programs may serve as valuable sites for student learning and development, even when their primary purpose is recreational.

At our institution, the Academic Skills Centre maintains a collection of more than 300 board games and regularly hosts game cafés that invite students to gather, play games, and connect with peers. These events are open to students from across the institution and are designed to provide an accessible and welcoming space for social interaction and engagement. Although the game cafés have been offered for several years and consistently attract participants, little evidence has been collected regarding students' experiences at these events or their perceptions of learning through gameplay. Understanding how students experience such programs is important for evaluating their educational value and informing future programming decisions. To address this gap, we conducted a study examining students' perceptions of the Academic Skills Centre's game café. Specifically, we explored patterns of attendance and participation, students' perceptions of academic skill development through gameplay, and their interest in additional GBL-focused programming. Survey data were collected from students

attending game cafés during Winter and Fall 2025, yielding responses from 104 participants. By examining students' experiences and perspectives, this study contributes to the literature on co-curricular GBL in higher education and offers insights into the pedagogical potential of board game cafés.

2. Research Question

The main research question guiding our study was:

RQ1: How do university students perceive their participation in a co-curricular game café and its contribution to academic skill development?

Additional research questions were:

RQ2: What patterns of attendance and participation characterize students' engagement with the game café?

RQ3: How do students perceive the contribution of board game play to the development of academic skills, including verbal communication, written communication, critical thinking, and problem solving?

RQ4: What learning outcomes do students associate with their participation in the game café?

RQ5: To what extent are students interested in participating in future game-based learning workshops and related programming?

3. Purpose

Although game cafés are common in many higher education settings, limited research has examined how students experience these initiatives or the extent to which they perceive learning benefits from participation. Existing scholarship has largely focused on GBL within curricular contexts, leaving co-curricular game spaces comparatively underexplored. As institutions continue to invest in board game collections, gaming events, and other game-based initiatives, there is a need to better understand how students perceive these experiences and the potential educational value they attribute to them.

The purpose of this study is to investigate students' perceptions of a university game café hosted by an Academic Skills Centre. Specifically, the study explores how students engage with the game café, the academic skills they believe are supported through board game play, and their interest in future game-based learning opportunities. By examining students' perspectives, this research seeks to contribute to a growing body of literature on game-based learning beyond the classroom, to provide insight into the role of game cafés as co-curricular learning environments, and to explore the pedagogical potential of board game programming within higher education.

4. Methods

4.1 Research Design

This study employed a descriptive survey design to investigate students' perceptions of participation in a university game café. Given the exploratory nature of the research, a survey approach was selected to capture participants' experiences, perceptions of learning, and views regarding academic skill development through board game play. Data were collected across three game café events held during Winter 2025 and Fall 2025, allowing for the examination of participation patterns and perceptions across multiple iterations of the program.

The game cafés were hosted by the university's Academic Skills Centre and were open to all students regardless of program or year of study. During each event, participants were invited to select and play board games from the centre's board game collection. Students could participate for as little or as much time as they wished during the event, with game café sessions lasting up to four hours.

4.2 Survey Instrument

A paper-based survey was developed by the research team to gather information about students' experiences at the game café. The instrument was designed to align with the study's research questions and focused on participation, perceptions of learning, academic skill development, and interest in future game-based learning opportunities.

The survey consisted of both closed- and open-ended questions. Part 1 of the survey asked participants to share demographic and participation-related information, including students' year of study, previous attendance at game cafés, duration of participation, and the games played during the event. Participants were also asked to

indicate whether they attended the game café alone or with friends and how frequently they engaged in board gaming outside of the event.

Part 2 of the survey asked about participants' perceived learning outcomes. Participants completed a series of Likert-scale items examining the extent to which they believed gameplay contributed to the development of academic skills. Skills assessed included verbal communication, written communication, critical thinking, problem solving, collaboration, and other transferable skills identified in the literature on game-based learning. Additional open-ended questions invited participants to describe any learning experiences they associated with gameplay and to elaborate on skills they felt were strengthened through participation.

Part 3 of the survey examined students' interest in future GBL initiatives offered through the Academic Skills Centre. Participants were asked whether they would attend workshops focused on learning through board games and were provided with opportunities to explain their responses and offer suggestions for future programming.

4.3 Data Collection and Analysis

Survey data were collected at three game café events between Winter and Fall 2025. At the conclusion of gameplay, students were invited to complete the survey voluntarily. Participation was anonymous, and no identifying information was collected. A total of 104 completed surveys were obtained across the three events. Quantitative data were analyzed using descriptive statistics, including frequencies, percentages, and means, to identify patterns of participation and perceptions of academic skill development. Responses to open-ended questions were reviewed and coded inductively to identify recurring themes related to learning, skill development, and students' experiences at the game café. These qualitative findings were used to contextualize and enrich the quantitative results. This study was approved by the university's Research Ethics Board.

5. Findings

5.1 Demographic and Participation

A total of 104 students completed surveys across three game café events held between Winter and Fall 2025, including 44 respondents at Game Café 1, 29 respondents at Game Café 2, and 31 respondents at Game Café 3. Participants represented a broad range of academic disciplines, with the largest groups coming from Biology and Life Sciences ($n = 42$), Management and Commerce ($n = 12$), Economics ($n = 11$), Communication, Culture, Information and Technology ($n = 9$), and Psychology ($n = 5$). The remaining participants represented a variety of other disciplines ($n = 22$). Across all three events, respondents were primarily early-career undergraduate students, with average years of study ranging from 1.90 to 2.16. Attendance data suggest that the game café attracted both returning and new participants. While 70% of respondents at Game Café 1 reported attending a previous game café, this proportion decreased to 52% at Game Café 2 and 39% at Game Café 3, indicating that the program continued to engage new students over time.

Across the three events, students reported playing a wide variety of board games, with 23 unique games played at Game Café 1, 15 at Game Café 2, and 18 at Game Café 3. Popular games include Anomia, Taboo, Spot It, Chess, Connect 4, Blokus, Jenga, Uno, Bananagrams, and various card-based games. These findings suggest that the game café appealed to students from diverse disciplinary backgrounds and supported a range of gaming preferences.

Students generally described the game café as a positive and enjoyable experience that provided opportunities for both social interaction and learning. Open-ended responses frequently highlighted the event as a space to connect with peers, relax, and take a break from academic demands. Participants referred to the game café as a "stress-free experience," a "good de-stressor," and a place where they could "meet new people" and "connect with people." Several participants emphasized that gameplay encouraged communication, collaboration, strategic thinking, and problem solving, while others identified additional skills such as patience, deductive reasoning, decision making, teamwork, memorization, risk assessment, and social skills. Students may view these skills as transferable beyond gameplay itself, suggesting that board games can provide informal opportunities to practice competencies relevant to academic and professional contexts. Interest in future game-based learning programming was also substantial. Many participants expressed enthusiasm for workshops that would explore the relationship between board games and learning, citing opportunities to develop critical thinking, concentration, creativity, and interpersonal skills. Students who indicated less interest in future workshops generally attributed their decision to time constraints, heavy course loads, commuting demands, or scheduling conflicts rather than a lack of perceived value. Collectively, the findings suggest that students view

the game café as more than a recreational activity; rather, they perceive it as a welcoming co-curricular environment that supports social connection, personal development, and the cultivation of transferable academic skills.

5.2 Perceptions of Academic Skill Development

Findings indicate that participants reported highly positive, affective, and motivational experiences in relation to the Game Café. All respondents (100%) endorsed feeling happy when engaging with board games, with the majority indicating strong agreement (82%). Motivation-related outcomes were similarly robust, as 76% of participants agreed or strongly agreed that participation in board games motivates them to learn new things, suggesting a strong perceived linkage between gameplay and intrinsic learning orientation. Tables 1 and 2 provide summary data about students' perceptions. Students responded to these question prompts on the survey. Table 1 provides summary data about students' responses to survey question 6, which focused on perceptions of peer interaction and motivation as related to game café participation. Table 2 provides summary data about students' responses to survey question 7, which focused on perceptions of academic skill development as related to game café participation.

In contrast, perceptions of social connection demonstrated greater variability. While most respondents (61%) agreed or strongly agreed that the Game Café provides opportunities to meet others, fewer participants (44%) reported having formed new friendships or peer connections through their involvement. These items also elicited a comparatively higher proportion of neutral and disagreement responses, indicating a more heterogeneous distribution of social experiences.

Perceived academic benefits were more moderate and less uniformly endorsed. Specifically, 47% of respondents agreed or strongly agreed that the Game Café provides opportunities to develop academic skills, while 35% indicated that their participation supported their coursework. Both items were characterized by substantial neutrality, suggesting that the perceived transferability of Game Café experiences to formal academic contexts may not be consistently recognized across participants.

Analyses of perceived skill development (survey question 7)) further elucidate these patterns. High levels of endorsement were observed across several domains, including problem-solving (84%), verbal communication (83%), creativity (79%), collaboration/teamwork (78%), and critical thinking (76%). More modest levels of agreement were reported for organization (57%) and time management (52%). Notably, writing skills were comparatively under-endorsed, with only 25% of respondents indicating agreement or strong agreement, and 47% reporting disagreement or strong disagreement. This pattern suggests that while participants perceive broad cognitive and interpersonal benefits, these may not extend uniformly to more traditionally academic or discipline-specific skills such as writing. Collectively, participants demonstrated strong endorsement of board games as a pedagogical tool, with 85% agreeing or strongly agreeing that board games are valuable for learning. These findings underscore the salience of affective and motivational engagement in shaping participants' perceptions of learning within informal, game-based contexts, while also highlighting variability in perceived academic transfer.

Table 1: Students' Perceptions of Game Café

Prompt (# of respondents)	Strongly Disagree # (%)	Disagree # (%)	Neutral # (%)	Agree # (%)	Strongly Agree # (%)
I am happy when I play board games at the Game Café. (104)	0 (0)	0 (0)	0 (0)	19 (18)	85 (82)
I met a friend or a new peer at the Game Café. (104)	26 (25)	13 (13)	20 (19)	12 (12)	33 (32)
The Game Café provides me with an opportunity to meet people. (104)	7 (7)	7 (7)	26 (25)	22 (21)	42 (40)
The Game Café provides me with an opportunity to develop my academic skills. (103)	9 (9)	19 (18)	26 (25)	28 (27)	21 (20)
My experience at the Game Café has helped me with my coursework. (104)	20 (19)	19 (18)	29 (28)	16 (16)	20 (19)
I am motivated to learn new things when I play board games. (104)	6 (6)	7 (7)	12 (12)	31 (30)	48 (46)

Table 2: Students' Perceptions of Academic Skill Development at the Game Café

Prompt (# of respondents)	Strongly Disagree # (%)	Disagree # (%)	Neutral # (%)	Agree # (%)	Strongly Agree # (%)
I learn critical thinking skills. (103)	2 (2)	4 (4)	18 (17)	27 (26)	52 (50)
I learn verbal communication skills. (103)	2 (2)	2 (2)	13 (13)	34 (33)	52 (50)
I learn writing skills. (103)	22 (21)	27 (26)	29 (28)	12 (12)	13 (13)
I learn organization skills. (102)	8 (8)	11 (11)	24 (24)	31 (30)	28 (27)
I learn time management skills. (103)	16 (16)	6 (6)	27 (26)	27 (26)	27 (26)
I learn how to collaborate with peers/teamwork. (103)	5 (5)	8 (8)	10 (10)	26 (25)	54 (53)
I learn problem-solving skills. (103)	4 (4)	2 (2)	10 (10)	32 (31)	55 (53)
I learn how to be creative. (103)	0 (0)	3 (3)	18 (17)	23 (22)	59 (57)
I think board games are a valuable tool for learning. (103)	1 (1)	1 (1)	14 (14)	17 (17)	70 (68)
I learn other skills. (76) Please specify.	18 (24)	0 (0)	19 (25)	10 (13)	29 (38)

Note. Some prompts not answered by all respondents

6. Discussion

The findings of this study suggest that game cafés represent a promising form of co-curricular game-based learning within higher education. Although the game café examined in this study was not explicitly designed as an instructional intervention, students had perceived associations between their game café experience and learning, skill development, and personal growth. This finding highlights the potential for educational benefits to emerge within informal learning environments. While existing game-based learning literature focuses on the integration of games into courses or intentionally designed educational activities, the present study suggests that students may also perceive learning opportunities within recreational game spaces. As such, game cafés may occupy a unique position at the intersection of social engagement, recreation, and learning.

One notable finding was the diversity of students who participated in the game cafés. Participants represented a broad range of academic disciplines and levels of study, indicating that the format has appeal beyond a single academic program or student population. This interdisciplinary participation is particularly valuable within contemporary higher education, where opportunities for interaction across disciplines are often limited. Unlike classroom environments, where students are typically grouped by program or course, the game café created a shared space in which students could interact with peers from different academic backgrounds through a common activity. In this way, the game café may contribute to a broader sense of campus community while simultaneously exposing students to diverse perspectives and experiences.

Students also perceived communication, collaboration, critical thinking, and problem solving as outcomes associated with gameplay (see Table 2). These perceptions align closely with claims made in the game-based learning literature regarding the cognitive and social affordances of games. Board games often require players to interpret information, evaluate alternatives, anticipate consequences, negotiate with others, and adapt strategies in response to changing conditions. Although participants may not have approached the game café with the intention of developing academic skills, many may have perceived parallels between the challenges encountered during gameplay and the skills required for academic success. This observation suggests that students themselves perceive connections between recreational activities and learning processes. Such perceptions may increase the value students attribute to co-curricular programming and encourage them to view learning as occurring beyond traditional instructional settings.

The findings further reinforce the social dimensions of game-based learning. Across all three game cafés, students perceived the game café as providing an opportunity to interact with peers, meet new people, and strengthen existing friendships (see, for example, Table 1 b, c). These observations echo previous research identifying social interaction as a central component of both game-based learning and student engagement. While learning outcomes often receive primary attention in educational research, students' comments suggest

that social connections may be equally important in understanding the value of game cafés. For many participants, the opportunity to spend time with friends, connect with other students, and engage in a shared activity may be a key motivation for attendance. Given growing concerns about student isolation and belonging within higher education, game cafés may offer a relatively low-cost and accessible mechanism for fostering social integration on campus.

Another important theme emerging from the data was the role of the game café as a space for relaxation and stress reduction. In open-ended survey responses, students noted the game café provided them with an opportunity to take a break from coursework, reduce stress, and engage in an activity unrelated to academic pressures. These findings suggest that the educational value of game cafés may extend beyond skill development alone. Participation may also support student well-being by creating opportunities for recreation, social interaction, and balance within demanding academic environments. Rather than viewing recreation and learning as separate or competing goals, the findings indicate that students may experience both simultaneously within the game café context.

Students' interest in future workshops related to board games and learning provides additional support for the educational potential of this programming. Many respondents expressed curiosity about how games could be used to develop academic skills, enhance concentration, support critical thinking, or facilitate learning more broadly. This interest suggests that students recognize educational possibilities within gameplay and may be receptive to more intentional forms of game-based learning programming. At the same time, responses from students who indicated they would not attend future workshops reveal an important consideration for practitioners. In most cases, reluctance was associated with time constraints, heavy course loads, employment commitments, or commuting challenges rather than skepticism regarding the educational value of games. This finding highlights the practical realities students face when engaging with co-curricular programming and suggests that accessibility and scheduling considerations may be as important as program content itself.

Taken together, these findings contribute to a growing body of scholarship that positions game-based learning as extending beyond formal classroom environments. The game café examined in this study functioned not only as a recreational event but also as a social and educational space in which students perceived opportunities to develop transferable skills, connect with peers, and engage in meaningful learning experiences. While participants did not necessarily describe their experiences using the language of pedagogy or academic development, their reflections suggest that board game play can support many of the same outcomes that institutions seek to cultivate through formal and co-curricular programming. Consequently, game cafés may represent an effective and relatively accessible approach for institutions seeking to promote student engagement, community building, and holistic learning within higher education.

7. Limitations

Several limitations should be considered when interpreting the findings of this study. First, the study relied exclusively on self-reported survey data, meaning that the findings reflect students' perceptions of learning and skill development rather than direct measures of learning outcomes. Although students frequently associated gameplay with communication, critical thinking, problem solving, and other transferable skills, the present exploratory study cannot determine whether participation in the game café resulted in measurable improvements in these areas. Future research could incorporate observational methods, pre- and post-assessments, or longitudinal designs to examine the relationship between participation and skill development more directly.

Second, participation in both the game café and the survey was voluntary. As a result, respondents may have been more likely to hold positive attitudes toward board games and game-based activities than the broader student population. This self-selection bias may have influenced participants' perceptions of the educational value of the game café and limited the representativeness of the findings. Similarly, students who attended the game café but chose not to complete the survey may have held different perspectives that were not captured in the data.

Third, the study was conducted at a single Canadian university and focused on one game café program hosted through an Academic Skills Centre. Institutional culture, student demographics, available resources, and program design may influence how students experience game cafés in different contexts. Consequently, caution should be exercised when generalizing these findings to other institutions or postsecondary settings. Replication studies conducted across multiple institutions would strengthen understanding of the broader applicability of the findings.

Finally, while the survey captured participation patterns and perceptions across three game café events, it did not explore potential differences associated with specific game types, levels of player experience, or social dynamics within gameplay groups. Future studies could examine how particular categories of games (e.g., strategy, cooperative, word-based, or party games) contribute to different learning outcomes and whether students' perceptions vary according to their prior gaming experience.

Despite these limitations, the study provides valuable insight into students' experiences within a co-curricular game café and highlights several avenues for future investigation. Additional research exploring the relationship between board game play, student engagement, academic skill development, and well-being would contribute to a deeper understanding of the role game-based initiatives can play in supporting learning beyond the classroom.

8. Conclusion

Game-based learning continues to gain attention within higher education as institutions seek innovative approaches to support student engagement, learning, and community building. While much of the existing literature has focused on games integrated into formal teaching contexts, this study examined a co-curricular game café hosted by an Academic Skills Centre and explored students' perceptions of participation, learning, and academic skill development. Drawing on survey responses from 104 students across three game café events, the findings suggest that students perceive board game play as contributing to a range of transferable skills, including communication, critical thinking, problem solving, collaboration, and decision making. Participants also emphasized the social and recreational value of the game café, describing it as a welcoming environment that fostered peer interaction, stress relief, and a sense of community. Furthermore, many students expressed interest in future programming that more explicitly connects board games and learning, suggesting that game-based initiatives may have broader educational potential beyond recreational engagement. The findings contribute to the growing body of research on game-based learning in higher education by highlighting the pedagogical possibilities of informal and co-curricular learning environments. Although the game café was not designed as a formal instructional intervention, students nevertheless identified meaningful learning experiences associated with participation. These results suggest that board game cafés can serve as accessible and inclusive spaces that support both student development and campus engagement. As postsecondary institutions continue to explore innovative approaches to teaching, learning, and student support, game cafés represent a promising model worthy of further investigation. By bringing together recreation, social connection, and opportunities for skill development, such initiatives have the potential to complement formal educational experiences and contribute to a more holistic approach to student learning in higher education.

Ethics Declaration: This study was approved by the university's Research Ethics Board.

AI Declaration: Generative artificial intelligence was not used in this study or paper.

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