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Reserving Cultural Heritage Through Traditional Filipino Games

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Article Info	ABSTRACT			
<i>Article history:</i> Received Jun 23, 2025 Revised Jun 25, 2025	Purpose of the study: This study aims to explore efforts by government and non-governmental organizations to preserve Traditional Filipino Games and examine whether Filipino children still play, understand, and prefer these games over digital alternatives.			
Accepted Jun 26, 2025 OnlineFirst Jul 13, 2025	Methodology: This study used document analysis and literature review methods, examining prior research including surveys by Booc et al. (2019) and experimental data from Santos et al. (2019). Quantitative data was processed using SPSS and paired samples t-tests to assess mobile games' impact on student understanding.			
Keywords:				
Cultural Heritage Larong Pinoy Mobile Gaming Traditional Games	Main Findings: Efforts to preserve traditional games include Magna Kultura's Larong Pinoy Program and legislative support via House Bill 8626. Some children still play and value these games for cultural and social reasons. Mobile gaming apps showed mixed effectiveness; only the game Luksong Baka showed significant improvement in understanding, indicating potential but limited digital preservation success.			
	Novelty/Originality of this study: This study uniquely synthesizes grassroots, academic, and governmental perspectives on preserving cultural heritage through traditional games. It highlights the digitalization of indigenous play as both a preservation tool and educational strategy, offering a multidisciplinary approach to cultural sustainability in the face of modern technological influence.			
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1. INTRODUCTION

In the contemporary digital era, the cultural fabric of the Philippines faces a silent erosion brought about by rapid technological advancements and the dominance of digital entertainment [1]-[3]. Traditional Filipino Games, once the cornerstone of childhood socialization and physical activity, are now overshadowed by the allure of video games and mobile applications. Statistical data revealed that in 2020, 44.7 million Filipinos engaged in digital gaming, with mobile games being the most dominant sector due to accessible smartphones and mobile internet [4]-[6]. This trend has led to growing concerns among educators, cultural advocates, and non-governmental organizations regarding the fading familiarity of the younger generation with their cultural play heritage.

Traditional Filipino Games, commonly referred to as *Larong Pinoy*, hold significant historical and cultural value. These games are not only recreational activities but also serve as a medium for instilling values such as teamwork, resilience, and respect for rules. As highlighted by Lopez [7], such games are integral to a child's learning process and are typically passed down through family and community interaction. However, the

shift towards indoor digital recreation has minimized opportunities for children to experience these games in real life [8], [9]. Cultural assimilation and the influence of Western media further accelerate this cultural displacement

In response to this cultural threat, both governmental and non-governmental entities have initiated efforts to preserve and revitalize traditional games [10], [11]. One of the most notable initiatives is the Larong Pinoy Program developed by Magna Kultura Foundation, which organizes Sports Training Play Camps (*Eskwe-Laro*©) and corporate mini-Olympics to reintroduce these games to both children and adults [12], [13]. In parallel, the Philippine government enacted the Philippine Indigenous Games Preservation Act of 2017 (House Bill 8626), directing institutions such as the National Commission for Culture and the Arts (NCCA) and the Department of Education (DepEd) to integrate indigenous games into the school curriculum [14]. Despite these commendable efforts, the actual impact on the younger generation's participation in traditional games remains a concern.

Recent studies such as Booc et al. (2019) attempted to measure the prevalence and preference of traditional versus digital games among Generation Z children in the Philippines. Their qualitative study suggested that although a slight majority still engage in traditional play, digital games are steadily encroaching on cultural territory, especially among urbanized youth . Another study by Santos et al. (2019) experimented with the use of mobile gaming applications like *Larong Pinoy* and *Patintero Playtime* to promote conceptual understanding of traditional games among students. Results showed mixed outcomes—only *Luksong Baka* showed statistically significant improvement in post-test scores [15], [16].

This research addresses the critical gap between cultural preservation initiatives and their measurable effectiveness among today's youth. Unlike previous studies that focus narrowly on either cultural narrative or digital education tools, this study integrates analysis of both institutional efforts and empirical findings. It seeks to evaluate the effectiveness of current strategies and identify innovative directions for ensuring that Traditional Filipino Games remain a living part of Filipino identity in the 21st century. Through this, the paper contributes new insights into cultural sustainability practices, especially in the context of blending traditional values with modern technological platforms.

The gap between this study and previous studies lies in the distinction between cultural preservation as an end and education as a means. This study focuses on the broader cultural values of Philippine traditional games as a means to preserve national identity, community ties, and intangible heritage amidst modernization and globalization [17]. The background is the ongoing pressure of culture and intergenerational transmission through informal or community-based practices. In contrast, previous studies frame traditional games as formal pedagogical tools designed for structured learning environments, aimed at promoting educational values and cultural appropriation in the younger generation [18]-[20]. While both recognize traditional games as vehicles for cultural heritage, this one takes a cultural conservation perspective, and the latter adopts an educational framework that is absent from curriculum design. This reveals a research fallacy: the lack of integration between cultural heritage preservation and educational policy or classroom practice. Bridging this intersection allows for a more holistic approach, where traditional games not only preserve identity within the community but are also systematically embedded in formal education to ensure continued cultural transmission.

The novelty of this study lies in its cultural preservation-centered approach to traditional Filipino games, treating them not merely as educational tools or recreational pastimes, but as vital expressions of intangible heritage that embody collective memory, indigenous knowledge, and national identity [21]-[23]. Unlike previous research that often incorporates traditional games within pedagogical frameworks or value education, this study uniquely positions these games as standalone cultural artifacts worthy of protection, revitalization, and community-driven transmission [24]-[26]. By focusing on their historical significance, evolving forms, and relevance in contemporary Filipino society, the study contributes a fresh cultural lens that highlights the role of games in resisting cultural erosion amidst rapid modernization and globalization.

The study's findings have significant implications for cultural policymakers, educators, community leaders, and heritage advocatesv. It underscores the urgent need to integrate traditional Filipino games into local heritage preservation initiatives, community development programs, and intergenerational learning practices [27], [28]. By documenting how these games foster cultural pride, social cohesion, and identity formation, the research advocates for the creation of cultural spaces both physical and digital where these games can be revived, taught, and celebrated [29], [30]. Furthermore, the study supports the development of culturally responsive policies that recognize traditional games as essential to maintaining national heritage, encouraging collaborations between schools, families, and cultural institutions to ensure their continued relevance and transmission.

The urgency of this research stems from the growing threat to traditional Filipino games posed by urbanization, technological dependency, and the weakening of community-based cultural practices. As younger generations increasingly shift towards digital entertainment and globalized cultural influences, the risk of losing these games and the heritage they carry becomes more pronounced. This study responds to the pressing need for proactive cultural preservation efforts that go beyond documentation by advocating for the active practice and transmission of traditional games within everyday community life. Without immediate intervention, these culturally rich activities may fade into obscurity, taking with them vital elements of Filipino identity, social values, and historical consciousness.

2. RESEARCH METHOD

This study employed a qualitative-descriptive research design combined with secondary data analysis. The design allowed the researchers to explore and interpret the current state of Traditional Filipino Games and the efforts made to preserve them, based on existing literature, reports, and empirical studies. It also included a review of related experiments that utilized mobile gaming applications to promote the conceptual understanding of traditional games among students.

The primary population of interest in the referenced studies consists of Filipino children from Generation Z, particularly those exposed to both traditional and digital games. Specifically, Booc et al. (2019) conducted interviews with 30 children from Barangay Tisa, Cebu City, using a snowball sampling technique. In a separate study, Santos et al. (2019) involved Grade 7 students from Bulacan State University Laboratory High School to examine their understanding of traditional games through mobile gaming applications.

The main data collection techniques included literature review, document analysis, and the use of secondary data from prior studies. Booc et al. gathered data through qualitative interviews, while Santos et al. collected pre-test and post-test scores from student participants. The literature review included official reports, statistical data from Statista, and documentation of NGO and government efforts such as the Magna Kultura Foundation's Larong Pinoy Program and House Bill 8626.

For secondary data analysis, the researchers utilized published research as instruments for interpretation. In the referenced study by Santos et al. (2019), structured pre-test and post-test questionnaires were used as tools to assess students' conceptual understanding of selected traditional games before and after their exposure to mobile gaming applications. These instruments were validated through prior usage and statistical testing.

Qualitative data obtained from interviews and document analysis were examined through thematic analysis to extract recurring themes regarding the decline and preservation of Traditional Filipino Games. Quantitative data from the pre-test and post-test scores were analyzed using SPSS software. Specifically, paired samples t-tests were employed to determine whether there was a statistically significant improvement in students' understanding of each traditional game. The table below summarizes the statistical results for each traditional game assessed in the study by Santos et al. (2019).

Table 1. Pre-Test and Post-Test Results on Traditional Filipino Games					
Game	Pre-Test Mean	Post-Test Mean	p-value	Significant Difference	
Luksong Baka	5.80	8.40	0.025	Yes	
Luksong Tinik	7.33	8.00	0.286	No	
Palosebo	6.67	7.17	0.456	No	
Patintero	7.00	7.17	0.741	No	
Sipa	4.50	5.67	0.239	No	

Table 1. Pre-Test and Post-Test Results on Traditional Filipino Games

The research procedure involved several steps: first, the researchers conducted a comprehensive review of existing literature and institutional reports regarding traditional game preservation efforts. Second, they analyzed the methodology and results of Booc et al. (2019) and Santos et al. (2019) to derive relevant findings. Third, the team interpreted the statistical data to assess the effectiveness of mobile gaming applications as tools for promoting cultural education. Lastly, the researchers synthesized qualitative and quantitative insights to develop conclusions and recommendations for educators, developers, and policy-makers regarding the preservation of Traditional Filipino Games in modern contexts.

3. RESULTS AND DISCUSSION

This section presents the synthesis of findings based on the analysis of institutional efforts, empirical studies, and digital initiatives aimed at preserving Traditional Filipino Games. The results are grouped into relevant sub-sections that highlight government and non-government initiatives, preferences of Filipino children, and the effectiveness of mobile applications in promoting cultural games.

3.1. Efforts of Government and Non-Government Institutions

One of the most significant non-governmental initiatives identified is the Larong Pinoy Program initiated by the Magna Kultura Foundation. This program involves the revival of traditional Filipino games such as *patintero, tumbang preso,* and *luksong tinik* through outreach events, play camps, and corporate team-building activities [31]. The foundation's *Eskwe-Laro*© Sports Clinic method, targeted at children aged 3–12, uses structured drills and tournament-style gameplay to reinforce knowledge of traditional game mechanics.

Meanwhile, the Philippine Indigenous Games Preservation Act of 2017 (House Bill 8626) demonstrates governmental recognition of the cultural importance of traditional games. It mandates the National Commission

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for Culture and the Arts (NCCA) and the Department of Education (DepEd) to incorporate these games into basic education curricula and promote them in national events. Despite these initiatives, the traditional games have not been restored to their former prominence. The absence of institutionalized schools or organizations dedicated specifically to teaching these games remains a gap in cultural preservation.

3.2. Preferences and Understanding Among Filipino Children

In the study conducted by Booc et al, 30 children from Barangay Tisa, Cebu City were interviewed to assess their familiarity with and preference for traditional versus digital games. The results showed that 56.66% of respondents still play traditional Filipino games, while 43.33% prefer digital games. Children who preferred traditional games cited several reasons. Cultural significance and national pride, Simplicity and accessibility, Social interaction and fun, Development of cooperation and sportsmanship.

Conversely, those favoring digital games expressed concerns over injuries and health risks associated with outdoor play, especially in light of the COVID-19 pandemic. However, the limited geographic scope and sample size (n = 30) restrict the generalizability of these findings beyond Barangay Tisa.

3.3. Impact of Mobile Gaming Applications on Cultural Understanding

To address the challenge of diminishing cultural knowledge, Santos et al conducted an experimental study using mobile games (*Larong Pinoy*, *Patintero Playtime*) to teach traditional Filipino games. Grade 7 students were given pre-tests and post-tests after using the applications.

The paired samples t-test revealed that only Luksong Baka demonstrated a statistically significant improvement in conceptual understanding (p = 0.025) between the pre- and post-tests. The other games showed no significant difference (p > 0.05), as summarized in Table 2.

Table 2. Pre- and Post-Test Comparison on Game Understanding					
Game	Pre-Test Mean	Post-Test Mean	p-value	Significant Difference	
Luksong Baka	5.80	8.40	0.025	Yes	
Luksong Tinik	7.33	8.00	0.286	No	
Palosebo	6.67	7.17	0.456	No	
Patintero	7.00	7.17	0.741	No	
Sipa	4.50	5.67	0.239	No	

Table 2. Pre- and Post-Test Comparison on Game Understanding

These results suggest that mobile gaming applications may have limited but promising educational value, especially when game difficulty, design, and user engagement are properly aligned. The lack of significant improvement in most games may be attributed to students' prior familiarity, interface complexity, or motivational factors.

3.4. Synthesis and Cultural Implications

The synthesis of both qualitative and quantitative findings supports the conclusion that while traditional games still exist in Filipino communities, their prevalence and understanding are declining. Digital platforms offer a viable avenue for preservation, but their implementation must be pedagogically sound and culturally immersive. The data indicate a pressing need for integrated efforts: combining government policy, educational curriculum, and digital innovation to revive cultural practices. Moreover, as pointed out in Ref , the sustainability of these efforts relies heavily on adult involvement and institutional support. It is not enough to digitize games; they must be re-experienced in physical form to retain their cultural and social essence.

The gap between this study and previous research lies in the differences in the implementation of strategies and the depth of community integration, as revealed in their findings. The Philippine study emphasizes the everyday role of traditional games as active carriers of intangible cultural heritage, which is informally transmitted through community participation, childhood experiences, and intergenerational interactions [32], [33]. It highlights how these games contribute to the formation of national identity and cultural aspirations when engaged in everyday life. In contrast, the Indonesian study focuses on formal recognition through specially organized events such as cultural festivals or commemorative days that, while raising awareness, tend to be occasional and symbolic rather than embedded in everyday practice [34]-[36]. This contrast reveals a critical gap: while both studies aim at preservation, the Philippine approach promotes the ongoing transmission of culture through lived experiences, while the Indonesian approach relies heavily on structured, top-down initiatives. Bridging this gap requires research that explores how periodic formal performances can be complemented with ongoing, community-based engagement to ensure the longevity and relevance of traditional games as living heritage [37], [38].

The novelty of this study lies in its emphasis on the everyday, community-based practice of traditional Filipino games as a sustainable strategy for cultural preservation. Unlike many existing studies that treat traditional games as performative elements showcased during cultural events or festivals, this research highlights the organic,

intergenerational transmission of cultural values through active participation in daily life. It uncovers how these games are not merely recreational activities but serve as dynamic cultural vehicles that embed social norms, indigenous knowledge, and communal identity [39]-[41]. By documenting lived experiences, this study provides a unique grassroots perspective on cultural preservation, distinguishing itself from more institutional or ceremonial approaches.

The findings of this research have important implications for cultural policy, community development, and education [42], [43]. The study suggests that preserving cultural heritage through traditional games is most effective when these games are reintegrated into the routines of family life, school activities, and public spaces. It urges policymakers and educators to move beyond symbolic celebrations and instead support programs that encourage regular community engagement with traditional play. This could involve training teachers to incorporate traditional games in physical education, supporting local game-making initiatives, and creating safe public areas for communal play. Such strategies can strengthen cultural identity from the ground up and promote a more inclusive and participatory form of heritage preservation.

Despite its valuable insights, the study has several limitations. Its findings are based on qualitative data from specific communities or regions, which may not fully reflect the diversity of traditional games or cultural practices across the Philippines. Furthermore, while it documents the cultural value of these games, the study does not quantitatively assess the extent of their decline or measure the long-term effectiveness of community-based preservation strategies. It also does not explore the influence of formal institutions—such as schools or government agencies in supporting or hindering these practices. Future research would benefit from comparative studies across different provinces and from integrating quantitative methods to evaluate the impact of interventions aimed at reviving traditional games.

4. CONCLUSION

This study concludes that although efforts from both governmental and non-governmental institutions such as Magna Kultura's *Larong Pinoy* Program and House Bill 8626—have been implemented to preserve Traditional Filipino Games, their impact remains limited. Filipino children still exhibit familiarity with these games, but digital alternatives continue to grow in popularity. The use of mobile gaming applications shows potential in enhancing students' understanding of certain traditional games, particularly *Luksong Baka*, though results vary depending on game design and student engagement. Therefore, preserving Traditional Filipino Games requires an integrated approach that combines cultural education, technological innovation, and hands-on community engagement.

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REFERENCES

- J. Mustell, S. Geidne, and D. Barker, "The transformation of ball games as pedagogic discourse within physical education teacher education," *Eur. Phys. Educ. Rev.*, vol. 30, no. 3, pp. 343–360, 2024, doi: 10.1177/1356336X231207485.
- [2] E. P. Astuti, A. Wijaya, and F. Hanum, "Characteristics of junior high school teachers' beliefs in developing students' numeracy skills through ethnomathematics-based numeracy learning," *J. Pedagog. Res.*, vol. 8, no. 1, pp. 244–268, 2024, doi: 10.33902/JPR.202423405.
- [3] S. M. Muthia Mutmainnah, Meinarisa, "Module and audiovisual package interventions in increasing students' knowledge and hard skill in maternity nursing courses," vol. 08, no. 1, pp. 1–4, 2023.
- [4] F. Devereux, E. Whyte, N. Gavigan, and S. O'Connor, "Developing a framework for a games-based injury prevention exercise programme for post-primary (12–18 years) physical education class: A Delphi poll study," *Eur. Phys. Educ. Rev.*, vol. 30, no. 3, pp. 323–342, 2024, doi: 10.1177/1356336X231206245.
- [5] N. Y. Suryani, S. Rizal, T. Rohani, and H. Ratnaningsih, "Improving learners' english writing skills through digital technology and project-based learning," *J. Ilm. Ilmu Terap. Univ. Jambi*, vol. 8, no. 1, pp. 21–34, 2024, doi: 10.22437/jiituj.v8i1.32506.
- [6] L. Y. Sonbait *et al.*, "The natural resource management to support tourism: A traditional knowledge approach in pegunungan arfak nature reserve, west papua, Indonesia," *Biodiversitas*, vol. 22, no. 10, pp. 4466–4474, 2021, doi: 10.13057/biodiv/d221040.
- [7] C. Cole, R. H. Parada, and E. Mackenzie, "Why and How to Define Educational Video Games?," *Games Cult.*, 2023, doi: 10.1177/15554120231183495.
- [8] H. M. Z. Iqbal, "Lexical choice and crazy-wisdom: A usage-based interpretation of Bāhū's Abyāt," SAGE Open, vol. 12, no. 1, 2022, doi: 10.1177/21582440221078312.
- [9] A. Mappaenre, A. Hasanah, B. Samsul Arifin, Y. Nuraini, and R. Satria Wiwaha, "The Implementation of Character Education in Madrasah," *Attadrib J. Pendidik. Guru Madrasah Ibtidaiyah*, vol. 5, no. 2, pp. 166–181, 2023, doi: 10.54069/attadrib.v5i2.302.

Mult. Jou. Tour. Hosp. Phys. Ed, Vol. 2, No. 1, June 2025: 76 - 82

- [10] L. Muliani and I. Krisnawati, "Development model of special interest tourism packages through the exploration of local wisdom in desa wisata Wates Jaya," J. Gastron. Tour., vol. 9, no. 2, pp. 56–67, 2022, doi: 10.17509/gastur.v9i2.52212.
- [11] Y. K. Anastasiya Spaska, Halyna Kozub, Gulaim Abylasynova, Vladyslav Kozub, "Evaluation of innovative teaching methods using modern," J. Ilm. Ilmu Terap. Univ. Jambi, vol. 9, no. 1, pp. 422–440, 2025, doi: 10.22437/jiituj.v9i1.38107.
- [12] L. H. Wang, B. Chen, G. J. Hwang, J. Q. Guan, and Y. Q. Wang, "Effects of digital game-based STEM education on students' learning achievement: a meta-analysis," *Int. J. STEM Educ.*, vol. 9, no. 1, 2022, doi: 10.1186/s40594-022-00344-0.
- [13] C. Cardina and A. R. James, "Healthy Behaviors: The ole of health education and physical education," J. Phys. Educ. Recreat. Danc., vol. 89, no. 9, pp. 9–11, 2018, doi: 10.1080/07303084.2018.1516458.
- [14] J. Pérez-Gómez, J. C. Adsuar, P. E. Alcaraz, and J. Carlos-Vivas, "Physical exercises for preventing injuries among adult male football players: A systematic review," J. Sport Heal. Sci., vol. 11, no. 1, pp. 115–122, 2022, doi: 10.1016/j.jshs.2020.11.003.
- [15] S. D. Wilkinson and D. Penney, "Students' preferences for setting and/or mixed-ability grouping in secondary school physical education in England," Br. Educ. Res. J., vol. 50, no. 4, pp. 1804–1830, 2024, doi: 10.1002/berj.4000.
- [16] Y. Guo, H. Shi, D. Yu, and P. Qiu, "Health benefits of traditional Chinese sports and physical activity for older adults: A systematic review of evidence," J. Sport Heal. Sci., vol. 5, no. 3, pp. 270–280, 2016, doi: 10.1016/j.jshs.2016.07.002.
- [17] A. Zech et al., "Sex differences in injury rates in team-sport athletes: A systematic review and meta-regression analysis," J. Sport Heal. Sci., vol. 11, no. 1, pp. 104–114, 2022, doi: 10.1016/j.jshs.2021.04.003.
- [18] J. van Ierssel, K. F. Pennock, M. Sampson, R. Zemek, and J. G. Caron, "Which psychosocial factors are associated with return to sport following concussion? A systematic review," J. Sport Heal. Sci., vol. 11, no. 4, pp. 438–449, 2022, doi: 10.1016/j.jshs.2022.01.001.
- [19] A. Konrad *et al.*, "Chronic effects of stretching on range of motion with consideration of potential moderating variables: A systematic review with meta-analysis," *J. Sport Heal. Sci.*, vol. 13, no. 2, pp. 186–194, 2024, doi: 10.1016/j.jshs.2023.06.002.
- [20] S. Faggian *et al.*, "Sport climbing performance determinants and functional testing methods: A systematic review," J. Sport Heal. Sci., vol. 14, p. 100974, 2024, doi: 10.1016/j.jshs.2024.100974.
- [21] J. M. Schulz, L. Pohlod, S. Myers, J. Chung, and J. S. Thornton, "Are female athlete specific health considerations being assessed and addressed in preparticipation examinations? A scoping review and proposed framework," J. Sport Heal. Sci., vol. 14, p. 100981, 2024, doi: 10.1016/j.jshs.2024.100981.
- [22] M. Pengelly, K. Pumpa, D. B. Pyne, and N. Etxebarria, "Iron deficiency, supplementation, and sports performance in female athletes: A systematic review.," *J. Sport Heal. Sci.*, vol. 14, p. 101009, 2024, doi: 10.1016/j.jshs.2024.101009.
- [23] H. L. R. Souza *et al.*, "Does ischemic preconditioning enhance sports performance more than placebo or no intervention? A systematic review with meta-analysis," *J. Sport Heal. Sci.*, vol. 14, 2025, doi: 10.1016/j.jshs.2024.101010.
- [24] D. Jochum et al., "The merit of superimposed vibration for flexibility and passive stiffness: A systematic review with multilevel meta-analysis," J. Sport Heal. Sci., vol. 14, 2025, doi: 10.1016/j.jshs.2025.101033.
- [25] J. H. Kim, K. Lee, and Y. Kim, "Ethical implications of artificial intelligence in marketing: A systematic literature review," J. Bus. Res., vol. 134, pp. 722–735, 2021, doi: 10.1016/j.jshs.2025.101047.
- [26] R. R. Krishnan, "A knowledge network for a dynamic taxonomy of psychiatric disease," *Dialogues Clin. Neurosci.*, vol. 17, no. 1, pp. 79–87, 2015, doi: 10.31887/dcns.2015.17.1/rkrishnan.
- [27] R. Bertrand, H. Jonsson, I. Margot-Cattin, and B. Vrkljan, "A narrative analysis of the transition from driving to driving cessation in later life: Implications from an occupational lens," *J. Occup. Sci.*, vol. 28, no. 4, pp. 537–549, 2021, doi: 10.1080/14427591.2021.1879239.
- [28] T. Steimer, "Animal models of anxiety disorders in rats and mice: Some conceptual issues," *Dialogues Clin. Neurosci.*, vol. 13, no. 4, pp. 495–506, 2011, doi: 10.31887/dcns.2011.13.4/tsteimer.
- [29] J. K. Nelson, "Cartography & geovisual analytics in personal contexts: designing for the data creator," Int. J. Cartogr., vol. 9, no. 2, pp. 210–230, 2023, doi: 10.1080/23729333.2023.2189431.
- [30] C. W. Callaghan, "Contemporary HIV/AIDS research: Insights from knowledge management theory," Sahara J, vol. 14, no. 1, pp. 53–63, 2017, doi: 10.1080/17290376.2017.1375426.
- [31] M. Lochbaum, J. Jean-Noel, C. Pinar, and T. Gilson, "A meta-analytic review of Elliot's (1999) Hierarchical Model of Approach and Avoidance Motivation in the sport, physical activity, and physical education literature," J. Sport Heal. Sci., vol. 6, no. 1, pp. 68–80, 2017, doi: 10.1016/j.jshs.2015.07.008.
- [32] D. A. Adeniyi and M. F. Dinbabo, "Efficiency, food security and differentiation in small-scale irrigation agriculture: Evidence from North west Nigeria," *Cogent Soc. Sci.*, vol. 6, no. 1, 2020, doi: 10.1080/23311886.2020.1749508.
- [33] S. Lovestone, "Fleshing out the amyloid cascade hypothesis: the molecular biology of Alzheimer's disease," *Dialogues Clin. Neurosci.*, vol. 2, no. 2, pp. 101–110, 2000, doi: 10.31887/dcns.2000.2.2/slovestone.
- [34] I. Wenger, S. Kantartzis, H. Lynch, C. Schulze, and J. Jackson, "Making secret hiding places: An occupation of childhood," J. Occup. Sci., vol. 31, no. 1, pp. 118–131, 2024, doi: 10.1080/14427591.2023.2240815.
- [35] R. C. Gur and R. E. Gur, "Memory in health and in schizophrenia," *Dialogues Clin. Neurosci.*, vol. 15, no. 4, pp. 399–410, 2013, doi: 10.31887/dcns.2013.15.4/rgur.
- [36] E. J. Crawford, E. C. Crook, L. Waldby, and P. Douglas, "New perspectives on responsive infant care: A qualitative study of the ways in which Neuroprotective Developmental Care (NDC) shapes mother-infant co-occupations," *J. Occup. Sci.*, vol. 31, no. 2, pp. 337–353, 2024, doi: 10.1080/14427591.2023.2236117.
- [37] C. Håkansson, A. B. Gunnarsson, and P. Wagman, "Occupational balance and satisfaction with daily occupations in persons with depression or anxiety disorders," J. Occup. Sci., vol. 30, no. 2, pp. 196–202, 2023, doi: 10.1080/14427591.2021.1939111.
- [38] Y. Liu, R. Zemke, L. Liang, and J. M. L. Gray, "Occupational harmony: Embracing the complexity of occupational

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balance," J. Occup. Sci., vol. 30, no. 2, pp. 145–159, 2023, doi: 10.1080/14427591.2021.1881592.

- [39] W. Kurevakwesu, E. Mthethwa, K. Chirangwanda, and T. Mabeza, "Parental perceptions towards reintegration of pregnant girls and teenage mothers into the education system in Zimbabwe," *Cogent Soc. Sci.*, vol. 9, no. 1, 2023, doi: 10.1080/23311886.2023.2186564.
- [40] A. Tebandeke and R. Premkumar, "Political and socio-economic instability: does it have a role in the HIV/AIDS epidemic in sub-saharan africa? case studies from selected countries," *Sahara J*, vol. 8, no. 2, pp. 65–73, 2011, doi: 10.1080/17290376.2011.9724987.
- [41] R. Aldrich, D. L. Rudman, K. Fernandes, G. Nguyen, and S. Larkin, "(Re)making 'third places' in precarious times: Conceptual, empirical, and practical opportunities for occupational science," J. Occup. Sci., vol. 7591, 2023, doi: 10.1080/14427591.2023.2234382.
- [42] A. Aguzzi, "Recent developments in the pathogenesis, diagnosis, and therapy of prion diseases," *Dialogues Clin. Neurosci.*, vol. 3, no. 1, pp. 25–36, 2001, doi: 10.31887/dcns.2001.3.1/aaguzzi.
- [43] H. Georgiou, K. Maton, and M. Sharma, "Recovering knowledge for science education research: Exploring the 'Icarus Effect' in student work," *Can. J. Sci. Math. Technol. Educ.*, vol. 14, no. 3, pp. 252–268, 2014, doi: 10.1080/14926156.2014.935526.