

Annotated Bibliography

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Chou, Y. (2015). Actionable gamification: beyond points, badges, and leaderboards. CreateSpace Independent Publishing Platform.

Actionable Gamification: Beyond Points, Badges, and Leaderboards is a book by Yu-Kai Chou which discusses how Gamification and Human-Focused Design can be optimised for motivation and engagement over traditional Function-Focused Design. Chou promotes a deeper approach to gamification, going beyond superficial rewards and introducing the Octalysis Framework, which identifies eight core human motivators. The book demonstrates how these intrinsic motivators can be employed effectively in various contexts, including business and education. Chou's expertise adds credibility, although readers should be aware of potential bias towards his Octalysis Framework. While informative, the book could benefit from a more diverse range of perspectives. Overall, it offers valuable insights for those interested in leveraging gamification to engage users and drive desired outcomes.

Shameli, A., Althoff, T., Saberi, A., & Leskovec, J. (2017). How Gamification Affects Physical Activity. Proceedings of the 26th International Conference on World Wide Web Companion - WWW '17 Companion. <https://doi.org/10.1145/3041021.3054172>

The paper titled: How Gamification Affects Physical Activity: Large-scale Analysis of Walking Challenges in a Mobile Application documents a study which analyses how gamification, in particular competitions shape physical activity. The paper goes into how walking competitions in an activity tracking app are used to measure the effect they have on people's amount of physical activity, with the result of a 23% increase in average user physical activity during these walking competitions. The authors of this paper were researchers at Stanford University at the time of publishing, and the paper has been published in ACM Digital Library enhancing the credibility of the source. However, the study has some limitations such as the lack of a control group. To conclude, the study is a valuable source in the field of gamification and it's links to motivation and physical activity.

Hollander, J. B., Folta, S. C., Graves, E. M., Allen, J. D., & Situ, M. (2021). A Fitness App for Monitoring Walking Behavior and Perception (Runkeeper): Mixed Methods Pilot Study. JMIR Formative Research, 5(3), e22571. <https://doi.org/10.2196/22571>

This research paper was conducted by a group of researchers each specialists in their field. They conducted a pilot study exploring the potential of technology-based interventions to promote physical activity through social connections. The paper was also published to top-ranked peer-reviewed journal JMIR Publications. Despite the credibility of the paper, the study only focuses on one specific fitness app and may not be generalisable to other apps or interventions.

Wales, M., Mårtensson, F., Hoff, E., & Jansson, M. (2022). Elevating the Role of the Outdoor Environment for Adolescent Wellbeing in Everyday Life. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.774592>

Elevating the Role of the Outdoor Environment for Adolescent Wellbeing in Everyday Life; this is a study which discusses the role of outdoor environments in promoting adolescent wellbeing. It highlights the importance of understanding the interplay between social and physical contexts in creating youth-friendly environments. The paper was created by researchers at Swedish University of Agricultural Sciences. The paper was peer reviewed adding to its validity. One point which some readers may find is that the article does not provide enough practical guidance for creating youth-friendly environments.

Hijazi, A. N., & Baharin, H. (2023). How do visual design elements in multimedia learning material induce positive emotions in learners? *International Journal of Interactive Mobile Technologies*, 17(08), 59–77. <https://doi.org/10.3991/ijim.v17i08.39335>

This study's main objective was to identify the impact of visual design elements in multimedia learning material to induce positive emotions in learners. Findings demonstrated that a cheerful emotional design with circular forms, warm colours, and anthropomorphisms in multimedia education, as well as a happy attitude before learning, might create positive feelings and enhance learning. The authors of this paper are Ahdab Najib Hijazi and Hanif Bahari of Universiti Kebangsaan Malaysia at time of publishing. The paper was published in the *International Journal of Interactive Mobile Technologies*, a peer reviewed academic journal adding to its validity. However, the study's reliance on self-reported measures of learners' emotions and subjective experience may be subject to bias potentially creating some inaccuracy in the results.

Capel, T., Schnittert, J. F., Snow, S., & Vyas, D. (2015). Exploring Motivations of Young Adults to Participate in Physical Activities. *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems*. <https://doi.org/10.1145/2702613.2732800>

This article is about exploring the motivations of young adults aged 18 to 24 years to participate in physical activities and how technology might best support this motivation. Three of the authors are of Queensland University of Technology, with the other being from University of Siegen. The article was published in ACM Digital Library, a peer reviewed highly regarded archive. However, the study did not explore in-depth the potential negative aspects of technology use in sports motivation, such as over-reliance on technology which may be a factor some should be aware of.

Bicen, H., Demir, B., & Serttas, Z. (2022). The Attitudes of Teacher Candidates towards the Gamification Process in Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 13(2), 39-50. <https://doi.org/10.18662/brain/13.2/330>

This study was conducted by researchers from University of Mediterrenian Karpasia and Near East University. The study examines the perceptions and opinions of pre-service teachers on the use of gamification in the classroom. The study was published in *Lumen*, a peer reviewed journal. Despite the perceived validity, the sample size of the study may not be representative of the entire population of pre-service teachers, as it was conducted in a specific geographic location, Turkey.

Hoare, E., Milton, K., Foster, C., & Allender, S. (2016). The associations between sedentary behaviour and mental health among adolescents: a systematic review. International Journal of Behavioral Nutrition and Physical Activity, 13(1). <https://doi.org/10.1186/s12966-016-0432-4>

Conducted by Erin Hoare and colleagues from Deakin University in Victoria, this study looked at the relationship between sedentary behaviour and mental health among adolescents. The study aimed to examine the impact of screen time on mental health outcomes such as depressive symptomatology, psychological distress, and self-esteem. The study followed the PRISMA guidelines and was published in a peer reviewed journal. Despite this, with the study only focusing on adolescents this may have left potential insights undiscovered as for example behaviour in childhood could have effects on sedentary behaviour in adolescence etc.

Kokil, U., & Harwood, T. (2022, May 17). The Interplay Between Perceived Usability and Quality in Visual Design for Tablet Game Interfaces - JUX. JUX - the Journal of User Experience. <https://uxpajournal.org/perceived-usability-quality-visual-design-game/>

The Interplay Between Perceived Usability and Quality in Visual Design for Tablet Game Interfaces is a study which investigates low quality interface design vs high quality design in tablet games and how the difference effects mood, usability and engagement. Participants rated the perceived usability of the game conditions as equivalent. However, participants experienced a higher level of user engagement in the game interface with high-quality visual design. The study was carried out by specialists in their fields, and published in the Journal of User Experience, a peer reviewed academic journal. Despite the validity the study did have some limitations, including the researcher being the sole observer during the iterative game design and development process; important information may have been missed.

Weber, P., Grönewald, L., & Ludwig, T. (2022). Reflection on the Octalysis framework as a design and evaluation tool. ResearchGate. https://www.researchgate.net/publication/361054198_Reflection_on_the_Octalysis_framework_as_a_design_and_evaluation_tool

This study reflects on the Octalysis Framework which has had little research reflected on it's applicability. Findings show that the use of the Octalysis framework is often simplified and can also be overwhelming. The results further reveal that the framework itself can be helpful in the creation and evaluation of concepts, especially when extensive user research is not possible. This paper was conducted by researchers from the University of Siegen. However, the paper was published in Researchgate, which is more of a social network for researchers which doesn't require peer review, affecting the validity of the paper.