

Mapping user needs in the competitive trading card game community

B. Puvača (1), J.P. Almeida (2), A. Duarte (3), S. Šebek (4)

- (1) University of Zagreb, Faculty of Electrical Engineering and Computing, bojan.puvaca@fer.hr
- (2) CeDRI-IPB, Instituto Politécnico de Bragança, jpa@ipb.pt, 0000-0002-1286-2527
- (3) UNIAG, Instituto Politécnico de Bragança, aduarte@ipb.pt, 0000-0003-3759-3850
- (4) University of Zagreb, Faculty of Electrical Engineering and Computing, stjegan.sebek@fer.unizg.hr, 0000-0002-1802-1542

Abstract

Trading card games (TCGs) have evolved from locally rooted communities to globally connected networks of players who rely on online platforms for strategy discussion. Despite the increasing availability of digital tools, most do not adequately address the specific and complex needs of competitive players. This paper explores how lightweight, qualitative methods can help uncover user expectations within this globally dispersed and specialized community. A survey was distributed across various online TCG communities, to collect information about their practices and feelings about existing tools. The data was analyzed using empathy mapping to highlight user perspectives, and affinity diagramming to group recurring needs, behaviors, and frustrations. These methods helped uncover gaps between what current tools offer and what players require. The findings are used for the development of a new platform that assesses the specific needs of competitive TCG players. Future work will include continuous user feedback monitoring and localization efforts to serve international audiences more effectively. This study provides a replicable approach for researchers and designers working with specialized global userbases where standard UX methods may fall short.

Keywords: User experience, Market research, Online communities

1 INTRODUCTION

Trading card games are competitive games where players build customized decks from a pool of collectible cards and compete using complex, evolving strategies. The process of choosing which of these cards should be part of your strategy is called *deckbuilding*. Since their appearance in the early 1990s, most notably with the release of *Magic: The Gathering* [1], TCGs have spawned passionate communities centered around local game stores, tournaments, and in-person discussions. For many years, strategic knowledge and deck ideas were shared informally within these physical spaces, leading to local and isolated communities.

In recent years, those communities have significantly changed. Online platforms such as forums, Reddit *subreddits*, and Discord servers have become the center for competitive discussion, metagame analysis, and deckbuilding. For example, some popular community forums for trading card discussion on the Reddit social media platform include: *r/MagicTCG*, *r/Yugioh* and *r/PokemonTCG*. Alongside these communities, a growing number of digital tools have been developed to support players in constructing and optimizing decks. However, many of these tools fall short of meeting the real needs of competitive players, who often prefer using their intuition instead.

Identifying the needs of this userbase presents a challenge, as the community is dispersed globally among many regions, each having their own preferences for different games and ways of engaging with specific games. This study explores how lightweight, qualitative methods, specifically semi-structured

Regional Helix '25 – Transforming regions through innovation, sustainability and collaboration

surveys, empathy mapping, and affinity diagramming, can help researchers and developers understand and categorize user needs in such contexts.

By sharing this approach and its application, we hope to offer a practical model for others who aim to design for specialized, globally dispersed communities.

2 METHODOLOGY

Based on extensive personal experience within parts of the competitive TCG community, along with ongoing discussions with players and observations of online discourse, it appeared that existing digital tools for deckbuilding and probability calculation do not fully meet the needs of competitive players, particularly in preparation for tournaments. To explore this further, a qualitative survey was created using Google Forms and shared across several online platforms, including Reddit *subreddits*, Discord servers, and Facebook groups dedicated to TCGs.

The survey included approximately 20 questions, with around half being open-ended. These questions were designed to gather insights into participants' demographics, past experiences with deckbuilding, their opinions of current tools, and their emotional responses to the process of tournament preparation. In total, 30 responses were collected.

To analyze the data, responses were first organized using empathy mapping, a method used in design thinking to capture what users say, think, do, and feel in relation to a product or process [2]. This helped surface both explicit statements and implicit concerns. Next, affinity diagramming was used to cluster similar player needs, behaviors, and frustrations into meaningful groups. Affinity diagramming is a technique that involves organizing qualitative data into categories based on natural relationships or themes that emerge from the content [3].

Empathy mapping and affinity diagramming were chosen due to their grounding in design thinking, which prioritizes user-centered analysis in product development and problem solving. Affinity diagramming is effective for clustering qualitative data to identify user types and needs, as shown by [4] in their user model development regarding a popular music software. [5] used affinity diagramming along with the System Usability Scale (SUS) to analyze users' open-ended comments on the interface of online roadshow websites. These methods are effective for interpreting qualitative and unorganized input, especially when user needs are poorly documented or highly contextual. Empathy maps help with the understanding of users' needs, even if they aren't expressed directly, while affinity diagrams organize unstructured data into coherent categories.

3 RESULTS

The primary outcome of the initial research phase is the affinity diagram (Fig. 1), which clusters different user types and their experiences with the current TCG strategy tools, as well as their expressed needs when it comes to a newly proposed platform.

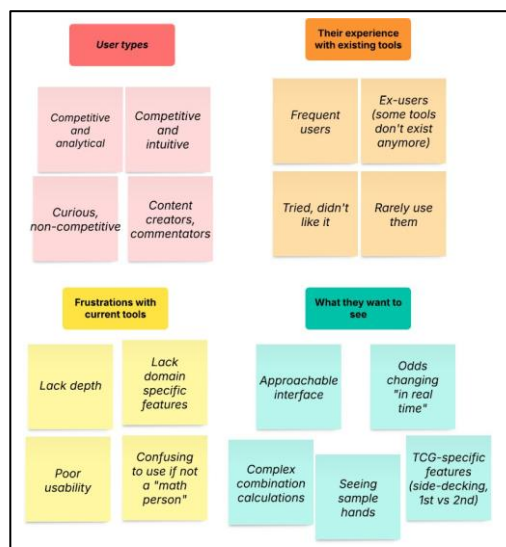


Figure 1. Affinity diagram

Regional Helix '25 – Transforming regions through innovation, sustainability and collaboration

The diagram was made by filtering through, analyzing and clustering different responses to the form distributed among trading card game players. Although the resulting diagram is relatively simple, its purpose is to summarize the most valuable insights gathered from the survey.

These insights, now structured and visualized in the affinity diagram, point toward an unmet demand in the community, one that could be addressed through the development of a new online platform.

4 FUTURE WORK

The basis of current work is the answers to the survey of circa 30 players primarily focused on only one of the popular trading card games. To make sure that the needs of the players of other TCGs are considered, a similar approach will be used after surveying other TCG communities. Other than addressing the needs of a more diverse userbase, this will also address the possibility of the sample size not being adequate for proper clustering of datapoints.

If a new online platform for competitive trading card game players is to be developed, it will be important to maintain ongoing engagement with the target audience to ensure the final product remains aligned with their evolving needs. Gathering user feedback on early prototypes and monitoring how the tool is used after launch will help identify areas for improvement and guide future updates.

Given the international nature of the competitive trading card game community, future work must also consider localization and cultural adaptation. This includes translating the tool into other languages and accounting for regional differences in gameplay habits and platform preferences.

5 CONCLUSIONS

Understanding the needs of competitive trading card game players requires methods that account for both the community's global distribution and its specialized nature. This study showed how a combination of semi-structured surveys, empathy maps, and affinity diagrams can help make sense of diverse user input and highlight common goals, frustrations, and feature requests. Importantly, the study is exploratory and primarily focused on laying the groundwork for future development efforts.

These lightweight tools proved effective in organizing user feedback and identifying critical gaps in existing platforms. The insights gathered through this process will directly inform the development of a new tool designed to better align with what users want, addressing the disconnect between current tools and player needs. Hopefully, this experience can serve as a useful reference for others working with similar niche communities, where traditional UX research methods may be difficult to apply.

REFERENCES

- [1] Magic: The Gathering | Official site for MTG news, sets, and events. Accessed: May 26, 2025. Retrieved from <https://magic.wizards.com/en>
- [2] B. Ferreira, W. Silva, E. Oliveira, and T. Conte, "Designing personas with empathy map," *Proceedings of the International Conference on Software Engineering and Knowledge Engineering*, 2015.
- [3] C. Courage and K. Baxter, *Understanding Your Users*. San Francisco, CA: Morgan Kaufmann, 2005.
- [4] He, Z., & Peng, H. (2023, July). Research on User Experience Design Based on Affinity Diagram Assisting User Modeling—Taking Music Software as an Example. In *International Conference on Human-Computer Interaction* (pp. 516-526). Cham: Springer Nature Switzerland.
- [5] Chan, T. C., Leow, M. C., & Ong, L. Y. (2022). A Practical Usability Study Framework Using the SUS and the Affinity Diagram: A Case Study on the Online Roadshow Website. *Pertanika Journal of Science & Technology*, 30(2).