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# Player Experience: Mixed Methods and Reporting Results

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**Abstract**

The community of video game researchers has been rapidly evolving for the past few years, extending and modifying existing methodologies used by the HCI community to the environment of digital games. This one-day workshop investigates two areas that must be addressed to continue advancing the field: mixed method frameworks, which integrate two or more techniques within a single study; and reporting as an integral part of the research process. The outcome of the workshop will be an archive of both the workshop submissions and the materials (posters and group productions). This will extend the discussion of topics beyond the workshop, and serve as a platform for future use and work. This one-day workshop will bring together contributions from practitioners and academics in a yet untapped area of games user research.

**Author Keywords**

Player Experience; Mixed Method; Games User Research; Video Games; Game Design; User Experience; Usability; Software Psychology

**ACM Classification Keywords**

H.1.2. Information Systems. Models and Principles.  
User/Machine Systems: Software psychology.

**Introduction**

Over the last decades the video game industry has grown exponentially. New sales and revenue records

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are set every year, indisputably demonstrating the influence of video games in the digital entertainment sphere. For example, In 2013 Grand Theft Auto 5 (GTA 5) reached 1 billion dollars in sales within the first 3 days of release [3,4]. To improve the user experiences and the design of video games we must develop a more complete understanding of video game players.

The progress made in the Games User Research (GUR) field has set the foundations of rigorous and effective evaluation techniques. The initial refinements were geared towards the adaptation of classical HCI evaluation techniques by adapting the evaluation from a purely productivity focus to an entertainment focus. Advancements were made towards identifying the advantages and disadvantages of multiple techniques, and the specialization of particular techniques for the games industry [1,5]. Previous CHI workshops covered primarily these traits in the field [7,9].

The progress of the GUR community has produced a solid groundwork. However, the very necessary task of scrutinizing the techniques suitable for evaluating gaming experience has focused the process onto the application of a single technique at a time. Thus, there are two areas that must be addressed for the continued advancement of the Games User Research community:

1. **Mixed methods:** Player experience techniques are generally well understood individually for single-method evaluations. However, the complexity of the player experience often can't be fully described with a single method. To develop a deeper understanding we must combine different approaches into a mixed-method framework.

2. **Reporting:** The emphasis made on the techniques themselves has occluded the importance of reporting. For GUR results to be used for positive change, it is important to communicate the research results effectively; in both academia where results augment the body of knowledge on player experience, and in the industry where the stakeholders must action upon the results of a research study of their game.

### **Workshop Goals and Discussion Topics**

The goal for the workshop is to move the practical components of conducting player experience forward. We will achieve this progress by identifying the advantages of integrating different techniques within a meaningful research context, and by accentuating the reporting as part of the overall research process.

The workshop will bring together contributions from practitioners and academics on the following topics:

#### *Mixed Methods in Video Games*

Previous works on player-experience techniques have been primarily concerned with refining the tool to the games context. Techniques have been laid out over a spectrum ranging from quantitative to qualitative, for example telemetry analytics on the quantitative side and think-aloud protocol on the qualitative end. Such evaluation techniques have gained some agreement on the technical aspects and on identifying their strengths and weaknesses. Other studies that employed different techniques, such as psychophysiological measurement during gameplay [6], were focused on validity purposes and not for encompassing different aspects of the experience.

Little advancement has been made in how to integrate 2 or more different techniques within a single research process. Since user experience in games is a complex phenomenon, the mixing of research methods provides a more complete understanding of player experience and game design. Integrating different techniques can take three basic strategies [2]: a) Sequential, where findings from a technique in the first stage in the study will be expanded at a second stage with another technique; b) Concurrent, where quantitative and qualitative data is collected within the same stage of the study; c) Transformative, where a theoretical lens is the main driver of the research design, such as in advocacy or social topics.

#### *Reporting*

Conducting research on player experience starts at the research question phase and lasts until the results have been shared. Even though communicating the findings of the study back to the community or stakeholders is key, very little attention has been given to the reporting component of the process.

Reporting can take multiple forms, ranging from written reports, slide decks, multimedia formats, and group workshops. The process of reporting user experience for games is varied and dynamic compared with traditional software applications, which can increase the complexity of reporting results. Research must find novel ways to communicate the most important findings. Moreover, analysis and reporting are not necessarily absolute sequential process, but they can feedback each other. For instance, Rebetz [8] starts the reporting process while the analysis phase is still ongoing. This is done by sharing a high level analysis with stakeholders with whom in conjunction reassess

the relevancy of different findings, which in turn shape the further analysis.

Sharing best practices, approaches, and the effectiveness of different types of reporting can grow the GUR field in a very important yet untapped area.

#### **Workshop Plan**

This is a one-day workshop intended for academics and practitioners interested in games user research and player experience. Breakout sessions and interactive activities are pivotal to the workshop.

#### *Pre-Workshop*

Workshop attendees are requested to submit a position paper (for academics), a slide deck (for practitioners), as well as any other supported materials (e.g. videos) covering research and practices on the workshop topics. These materials will be made available before the workshop on the dedicated website:

<http://hcigames.businessandit.uoit.ca/chigur/>. The site serves a double purpose: 1) to prepare and facilitate discussion during the workshop as attendees will have been asked to read the works in advance and comment on them; and 2) to reach, stimulate, and share the workshop material with a wider audience.

#### *Workshop Activities*

This one-day workshop will start with short presentations from the authors of accepted works. Then, attendees will be divided into small groups (4-5 people) to engage in an analytical discussion of the presented works. During the discussion, participants will be asked to write down the key facilitators or road blocks on the topics. Attendees' notes will be used to

generate a first collaborative poster that aggregates key takeaways on the workshop topics.

Next, attendees will participate in a round table discussion leveraging the mix of industry and academic attendees to define needs and expectations from both sectors. Attendees will be encouraged to identify opportunities of further collaboration after the workshop for multi-university projects, university-industry collaboration, and internships.

Then, attendees will be divided into small groups to brainstorm and apply potentially worthy mixed methods approaches in a case study pushing for new crossovers between approaches, as well as possible best practices and novel ways of reporting.

Next, attendees will take part in a hands-on exercise. A pre-defined case study will serve as the scenario of the exercise. In small groups, attendees will generate different reporting formats for presenting to the large group.

The final activity of the day will be creating a workshop group poster which will encapsulate the key aspects discussed and that will be displayed during the conference.

#### *Post-Workshop*

Workshop organizers will provide written summaries of the different activities from the workshop on the dedicated website, as well as adding digital copies of the group productions (i.e.: poster and interactive whiteboard).

#### **References**

1. Bernhaupt, R., ed. *Evaluating User Experience in Games: Concepts and Methods*. Springer, London, 2010.
2. Creswell, J.W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications, Thousand Oaks, Calif, 2009.
3. D'Angelo, W. Grand Theft Auto V Smashes Global Week One Sales Record. *VGChartz*. <http://www.vgchartz.com/article/251317/grand-theft-auto-v-smashes-global-week-one-sales-record/>.
4. Entertainment Software Association. *2013 Essential Facts About the Computer and Video Games Industry - Sales, Demographic and Usage Data*. Entertainment Software Association, 2013.
5. Isbister, K. and Schaffer, N. *Game Usability: Advancing the Player Experience*. Morgan Kaufmann, 2008.
6. Mandryk, R.L. and Atkins, M.S. A fuzzy physiological approach for continuously modeling emotion during interaction with play technologies. *Int. J. Hum.-Comput. Stud.* 65, 4 (2007), 329–347.
7. Mirza-Babaei, P., Zammito, V., Niesenhaus, J., Sangin, M., and Nacke, L. Games user research: practice, methods, and applications. *CHI '13 Extended Abstracts on Human Factors in Computing Systems*, ACM (2013), 3219–3222.
8. Rebetez, C. Rapid Results. *Games User Research Summit 2012*, (2012).
9. Seif El-Nasr, M., Desurvire, H., Nacke, L., et al. Game user research. *Proceedings of the 2012 ACM annual conference extended abstracts on Human Factors in Computing Systems Extended Abstracts*, ACM (2012), 2679–2682.