

Lessons Learned from Serious Game Jams Organized by DiGRA JAPAN

Megumi AIBARA

Nihon University, College of Science and Technology
7-24-1, Narashinodai, Funabashi, Chiba, Japan
+8147- 469-5343
aibara.megumi@g.nihon-u.ac.jp

Satoru KAWAKAMI

Graduate School of Industrial Engineering, Nihon University Address line 1
1-2-1 Izumi-cho, Narashino, Chiba, Japan
+8147-474-2663

FURUICHI Masakazu

Nihon University, College of Industrial Technology
1-2-1 Izumi-cho, Narashino, Chiba, Japan
+8147-474-2663
furuichi.masakazu@nihon-u.ac.jp

Keywords

Serious Game Jam, Game Jam, Serious Game, Applied Game, SGJ

EXTENDED ABSTRACT

Eight Serious Game Jams (hereinafter referred to as SGJs) have been organized by DiGRA JAPAN since 2014. These events, which often focus on different topics related to social issues. And SGJs have had as many as 231 attendees in aggregate. The primary purpose of SGJs is to increase the publicity of “serious games” in Japan. However, based on our experience in organizing and managing SGJs, we have noticed that the conventional operational manual for game jams (Fowler, 2013), which is used for Global Game Jams (hereinafter referred to as GGJs) (Shin, 2012; Preston, 2012; Arya, 2013; Meriläinen, 2019), is not a good fit for SGJs. In this paper, we describe the lessons learned from the past seven SGJs, and also discuss our approach to the most recent jam, which was held in December, 2019.

We are involved in the proposal of the serious game development process (hereinafter referred to as SGDP), a developmental process for serious games (Aibara, 2017); and serious game-based learning materials (hereinafter referred to as SGLM), a developmental process for game-based learning materials (Furuichi, 2014). When the 1st SGJ was started in 2014, the authors were not participated in as organizers. After the event, the authors have noticed that the Serious Game Jam was very effective way to teach prototyping of software (Musil 2010) through SGDP and SGLM to students and participants, then we became the organizers from the 2nd SGJ, and keep continuing to organize all the other SGJs.

During SGJ2, we based our management primarily on the operational manual for conventional game jams, supplemented by our colleague’s experience. As an example of management of a conventional game jam, we referred to the GGJ management process (Fowler, 2013). However, as the topics of discussion at GGJ are restricted to the development of games for entertainment, it is not required for the participants to be

knowledgeable about the background of relevant events. On the other hand, during the development of serious games, extensive research about the topic to gather all relevant facts is mandatory. To address this discrepancy, we introduced two features at SGJ2. One was to set up lectures about individual topics to be delivered by specialists in the respective fields. The second was to introduce “PERA-CON.” PERA denotes a game planning document, and CON is an abbreviation for CONTEST. During SGJ2, 42 PERAs were proposed, of which 6 were selected, and 6 teams were formed to develop the corresponding serious games. Although this management technique performed remarkably well, the entire process was time-consuming (approximately 1.5 months).

Following SGJ2, we noticed the requirement for a special operational manual for SGJs, and, since then, we have attempted several different types of operation and management during SGJ3, SGJ4, SGJ5, SJJ6, SGJ7, and SGJ8 (Table 1, Figure 1). Over the course of the aforementioned SGJs, we have also gathered data and analyzed them to achieve effective management of SGJs.

Date		Topic
2014/2/2–2/3	Development	English learning
2014/5/11 2014/6/28–29	Lecture Development	Improving skills of adults for cyber security
2015/2/21–22	Development	Improving knowledge of children for Internet security
2016/2/20–21	Lecture, Development	Increasing interest in sustainable society
2016/12/10–11	Lecture, Development	Raising awareness about accessibility
2017/12/16–17	Lecture, Development	"English learning" and "Increasing parent-child communication"
2018/12/9 2018/12/15–16	Lecture, Development	Raising awareness about accessibility
2019/12/8 2019/14–15	Lecture, Development	Raising awareness about accessibility

Table 1: List of 8 SGJs and corresponding topics

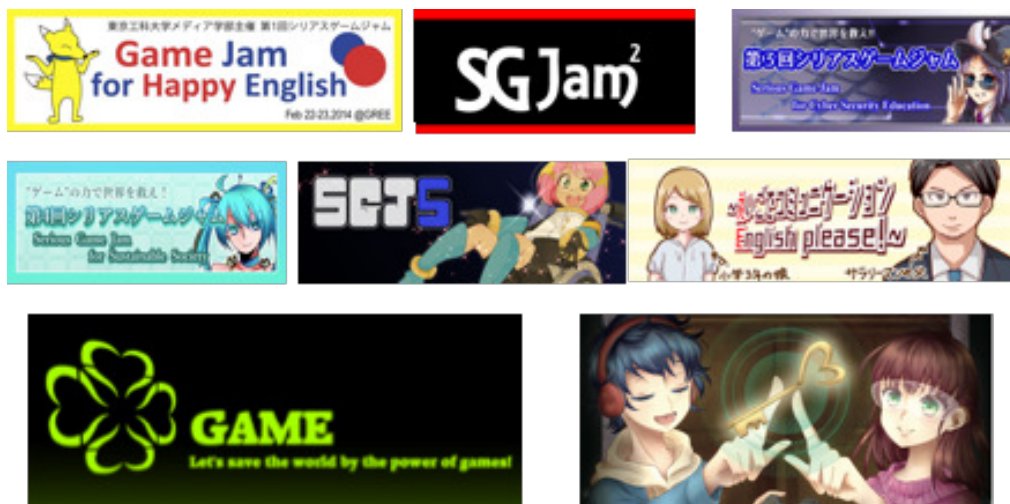


Figure 1: SGJs banner. These were created based on each theme.

We have attempted to combine SGLM and SGDP with the general game jam management process, and update this process based on the new experiences and the insights gained. In the latest version, we have introduced task management and risk

management into the process. This is because, as most SGJ participants are not experienced in the development of games or serious games or experts in relevant fields, providing them with specific tasks and deadlines may prove beneficial to them. By introducing the aforementioned management features, we expect to obtain a better ratio of completeness in prototype development, and increase the quality of such prototypes.

The 8th Serious Game Jam was held in December 2019 based on the latest manual. The central topic was to increase awareness about accessibility. The reasons behind the selection of this topic were as follows.(Figure 2)

1. During the development of console game H/W and game S/W in Japan, the consideration for universal design, especially for disabled people, has been insufficient.
2. Rehabilitation and nursing care for the elderly are utilized in various forms of games to help improve quality of life. However, commercial games are not designed with adequate features for use by the elderly.



Figure 2: SGJ8's poster.

SGJ8 was divided into two sessions: a study session and a developmental session. A workshop was organized on the first day, during which presentations were delivered by specialists and team organization was executed. Further, game design was also initiated on this day. This gave the attendants adequate time over 6 days until Day 2 to research and prepare for the developmental phase.

At SGJ8, two professionals were available in the field of accessibility. Mr. Eiichi Tanaka, the occupational therapist from the National Hospital Organization Yakumo Hospital, delivered a lecture as an expert on game accessibility. The participants were informed of the nuances of the topic and his efforts in game accessibility regarding input devices (Eiichi Tanaka 2018). The second speaker was Mr. Tsutomu Mitamura from TANOTECH Co. Ltd., who delivered a lecture on oft-requested features at rehabilitation sites in elderly nursery centers. TANOTECH Co. Ltd. was developing a system that uses motion sensors to support rehabilitation for the elderly.

SGJ8 had 25 participants and 5 teams(Figure 3). Of these, 4 teams were able to release the game to the website (itch.io) during SGJ8(Figure 4-8). The team that was given the highest award had developed a game named “Telepathy,” which enables everyone to enjoy communication by making pieces of art.

The experience of organizing the 8th SGJ confirmed the expectation that the updated management process would perform well. In particular, setting a string of deadlines for submission during a SGJ, called “Missions,” proved to be an effective method for the operator to control the efforts of the participants. However, further updation of the program with respect to timing issues, such as presenting tasks after group production on the first day, remain to be addressed.



Figure 3: Group photo of attendance of SGJ8

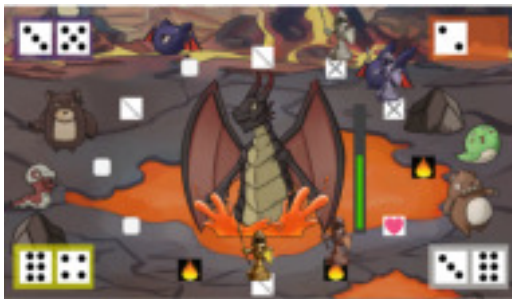


Figure 4: Dice Dragon Luck
(<https://itch.io/jam/sgj8/rate/534849>)



Figure 5: One Button Curling
(<https://itch.io/jam/sgj8/rate/534414>)



Figure 6: Unique shot!



Figure 7: Buddy Kayak
(<https://itch.io/jam/sgj8/rate/533165>)



Figure 8: Telepathy
 (<https://itch.io/jam/sgj8/rate/534890>)

ACKNOWLEDGMENTS

We would like to give our thanks to Mr. Tanaka Eiichi Mr. Mitamura Tsutomu, Mr. Yoshinari Kentaro, Mr. Matsuo Manabu, Mr. Kishimoto Yoshihiro, Dr. Mikami Kouji, Mr. Goto Makoto and Mr. Suzuki Eiji who have worked as committee members. We also would like to appreciate all attendance!

BIBLIOGRAPHY

- Allan Fowler, FoadKhosmood, Ali Arya. 2013. *The Evolution and Significance of the Global Game Jam, GGJ Workshop at FDG 2013 Workshop*, http://www.fdg2013.org/program/workshops/papers/GGJ2013/ggj13_submission_1.pdf
- Kiyoshi Shin, Kosuke Kaneko, Yu Matsui, Koji Mikami Masaru, Nagaku Toshifumi, Nakabayashi Kenji, Ono Shinji R. Yamane. 2012. *Localizing Global Game Jam: Designing Game Development for Collaborative Learning in the Social Context*, ACE 2012: Advances in Computer Entertainment pp 117-132
- Jon A. Preston, Jeff Chastine, Casey O'Donnell, Tony Tseng, Blair MacIntyre, 2012. *Game Jams: Community, Motivations, and Learning among Jammers*, International Journal of Game-Based Learning, 2(3), 51-70
- Ali Arya, Jeff Chastine, Jon Preston, Allan Fowler. 2013. *An International Study on Learning and Process Choices in the Global Game Jam*, International Journal of Game-Based Learning (IJGBL) 3(4), pp27-46
- Mikko Meriläinen. 2019. *First-Timer Learning Experiences in Global Game Jam*, International Journal of Game-Based Learning, Volume 9 • Issue 1
- Juergen Musil, Angelika Schweda, Dietmar Winkler, Stefan Biffl. 2010. *Synthesized essence: what game jams teach about prototyping of new software products*, ICSE '10 Proceedings of the 32nd ACM/IEEE International Conference on Software Engineering - Volume 2, pp 183-186
- Megumi AIBARA, Yoshihiro KISHIMOTO, Masahito FUJIHARA, Masakazu FURUICHI. 2019. *The 7th Serious Game Jam Report*, Digital Games Research Association JAPAN, Proceedings of 9th Annual Conference, pp.11-14
- Masakazu FURUICHI, Megumi AIBARA, Yanagisawa Kazuki. 2014. *Design and Implementation of Serious Games for Training and Education*, Proceedings of the IEEE 2014 UKACC International Conference on Control (CONTROL 2014), pp. 691-695
- Megumi AIBARA, Koji Suginuma, Masakazu FURUICHI. 2017. *A Proposal of ARCS Extended Model of Motivational Design and an Application to a Development*

Method for Educational Materials, Journal of Digital Games Research, 9(2), pp.15-29

Eiichi Tanaka . 2018. Promoting Game Accessibility for People with Disabilities, 2018 CESA Games White Paper. pp2-30

TANOTECH CORPORATION.2018,TANO, rehabilitation for the elderly.
<http://tanotech.jp/schedule.html>

The 8th Serious Game Jam. 2019. The 8th Serious Game Jam, TOKYO, JAPAN.
<https://itch.io/jam/sgj8>