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# Pikku Kakkonen Game Jam - Making Games for and with Children

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## Abstract

In this paper, we are reflecting on the experiences and the design of a game jam event that focused on creating games for kids, as well as involving children as co-creators. Pikku Kakkonen Game Jam was run at Tampere (Finland) in 2018 as a collaboration between Finnish Game Jam organization and Finnish national broadcasting company YLE. The game jam had 27 adult jammers as participants and resulted in 6 games in a weekend long event. Children's involvement was brought in via an engagement on a TV show Pikku Kakkonen (Tiny Two) asking children's drawings on game character ideas. In the jam, the adult jammers picked a selection of drawings as a starting point for their games and a small group of children came in to perform voice acting, test the games and to give feedback. In this report, we will share the design of the event and our reflection on the elements critical for a success of any similar events.

## CCS Concepts

• Applied computing → Computer games.

## Keywords

Game jam, game jams for kids, game development, co-creation, games for kids, children's games, Finland

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## 1 Introduction

Game jams are accelerated game making events [10], often dedicated to co-creation processes (e.g. [2, 6, 13]). Most of the jams are focused on making games for adult players and there is less participation of kids at the jam sites. Prior to the Global Game Jam (GGJ) [5] rule for legal age of participants it was more common to have underage children as participants of the events. For instance, the GGJ site in Stockholm encouraged participants of all ages to

join the event at Tekniska Museet (Museum of Technology) (2014-2016) resulting in a variety of games and teams, with the youngest participant being 3 years old.

In 2018, Global Game Jam introduced a separate game jam dedicated to young creators, GGJ Next. It was merged back to the main GGJ in 2023. Other example game jams along these lines are Game Jam Junior [12], TjejHack [15], Game Jam with Brain Bee [12], and Kodu Game Jam [12]. There are probably more game jams like this, but there is no systematic experience sharing happening in this space.

While many jams are not specifically directed to young participants, a popular way to make games with kids is to attend a regular game jam as a parent-child team. For example, a famous father-daughter duo created the *Sissy's Magical Ponycorn Adventure* game [3] at ToJam 2011 [8], in Toronto. Game developer Ryan Henson-Creighton and his 5 year old daughter Cassandra created a game together: Cassandra made all the art and voice acting, while the father programmed the game.

Involvement of young creators in game jams can be conducted in various ways. It is important to reflect how younger players and jammers can be catered for in the jams, as it is not straightforward to organize a successful event and the format of game jams have a great educational potential (cf. [1, 4]).

## 2 Pikku Kakkonen Game Jam

Pikku Kakkonen Game Jam [7] was run in collaboration between a non-profit organization Finnish Game Jam [11] and the national broadcasting company YLE. Pikku Kakkonen (Tiny Two) is a long standing children's TV show targeted at an audience of preschool and elementary school-aged children. The first show was aired in 1977 and has been running from Monday to Friday (now also on weekends) as a regular show on the national TV channel TV2 in Finland [14]. The typical structure of the show is built in combination of host activities and viewing of short animated TV shows (or other) children's content in between. The host can do crafts, play games or have some pedagogical content in the show. Nowadays the show also has online content, an app including games. YLE has almost 3000 permanent staff members [16], out of which around 10 are dedicated to game development. The developers contribute to content related to Pikku Kakkonen, Buu Klubben (a Swedish language children's show) and Galaxi (a show for school aged children) shows.



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Figure 1: The jamming area with the life size doll house.

## 2.1 The Jam Setup

The Pikku Kakkonen Game Jam took place in October 2018 at the TV studio in Tampere Finland, where also the main TV show is scripted and shot. For this event, we timed the jam so that the props of the TV show would double as an interesting and inspiring backdrop for the jammers to join (Figure 1). Pikku Kakkonen team had just finished their production on special series for their show (with a life-size dollhouse), and we were able to use the studio as a location for our jam, before the set was dismantled. The jam was modeled after the archetypal GGJ event, as the local jammer community was used to this format. A key aspect of this jam was the inclusion of the target audience in the development process. The co-creation was divided into three aspects: kids drawing game characters, participating in voice acting and game testing.

The event started at 4:30 pm on Friday and the jammers were able to stay at the jamming venue until 11pm on the first day. On the first day, the participants were exposed to the children's drawings and they were forming teams. The night ended up with a sauna get-together to make the social experience of the event informal and fitting to the local community's expectations. On the second day, the venue opened at 10am and the jammers were introduced to the studio space where they started working on their games. The day also featured a presentation by the Pikku Kakkonen content experts, developers and educational experts that were able to educate the jammers about the target group's cognitive abilities, preferences, and tastes. The third day the development continued at the studio at noon and around 6pm the event was over. The highlight of the third day was the arrival of a small group of kids representing the target group joining the studio and testing the games at the jamming space. The children were recruited through a sign-up form on the YLE website [9]. See Figure 2 for the full schedule of the event.

## 2.2 Game Character Template

Before the jam, the viewers of the Pikku Kakkonen TV show were engaged in a challenge of creating their own game characters. A very simple template was put available on the website of the TV

### Friday 16:30-23:00 (Sauna Movie)

16:30 Registration (Mediapolis Lobby)  
17:00 Opening words  
18:00 Brainstorming and team forming  
21:00 Snack and sauna  
23:00 Doors closed

### La 10:00 - 22:00 (Studio L1 - Lattia1)

10:00 Introducing studio premises and the Pikku Kakkonen doll house  
10:30 Teams are seated, development continues  
14:00 Lunch  
18:30 Snack and sauna  
22:00 Doors closed

### Su 12:00 - 18:00 (Studio L1 - Lattia1)

12:00 Coffee available (Lämpö)  
12:00 Development continues  
13:00 Setting up the games for testing  
13:00 Deadline for voice acting requests  
13:30-14:30 Kids testing the games and voice acting  
15:00 Lunch  
16:30 Gameplay videos uploaded  
17:00 Upload deadline  
17:00-18:00 Closing ceremony and cleaning up

Figure 2: The Schedule of the Pikku Kakkonen Game Jam.



Figure 3: A piggy character Poffu and its pet Putte. Poffu's favorite food is strawberries. Name details are left out from this image.

show as a downloadable and printable pdf<sup>1</sup>. The kids were able to then mail the sheets to the TV-studio (see Figure 3).

## 2.3 Picking the Characters

On the first day of the jam, the participants were given a chance to choose their favorite game characters to inspire them to create games (Figure 4). The teams were formed based on short pitches involving presenting the characters that were chosen. The jammers were limited to hold two character sheets at the same time, to allow each jammer the equal chances to choose their favorites. The jammers were very excited to get to know what kids had drawn and the limitations caused playful "fights" over the best characters.

<sup>1</sup>The template is available for download at: <https://aakoosgamelab.com/other-materials/>.



Figure 4: Jammers selecting their favorite characters.

## 2.4 Learning about the Target Group

In the event, the jammers got a lecture about the constraints and features of kids games that they might have not otherwise understood as adult players. The pedagogy experts from the TV show gave a short 20 min. lecture on the second day of the jam, right before the development started. This proved to be really important, as the jammers were not familiar with the target group and depending on kids' age and development levels, different kinds of game features needed to be considered. At that time, us organizers also did not have our own kids and we were not familiar with the children's games.

## 2.5 Testing Session

On the final day, the teams got a chance to test the games with kids before they finalized the pieces. This was organized by the TV show's educational experts. Handful of kids entered the jam site and the teams were able to get their feedback and observe them play.

## 2.6 Voice Acting

The teams were also given a chance to have kids do voice acting for their games. A spreadsheet was provided to the teams for collecting lines and instructions for the audio technician, who then recorded the clips with the children joining on Sunday. Five teams utilized this service and up to 10 lines per game were recorded with the kids in a short time slot. In example, multiple "plops" and giggles were recorded for the *Plop Plop!* game; different kinds of "hellos" and "oh-nos" were recorded for *ScoopisScoopis*; more elaborate lines improvised by kids were recorded for *Krokoralli* (see descriptions of the games in the next section). The names of the kids were added to the spreadsheet next to the lines allowing teams to credit the right kids on the final upload pages of the games. Altogether 18 kids participated in voice acting.

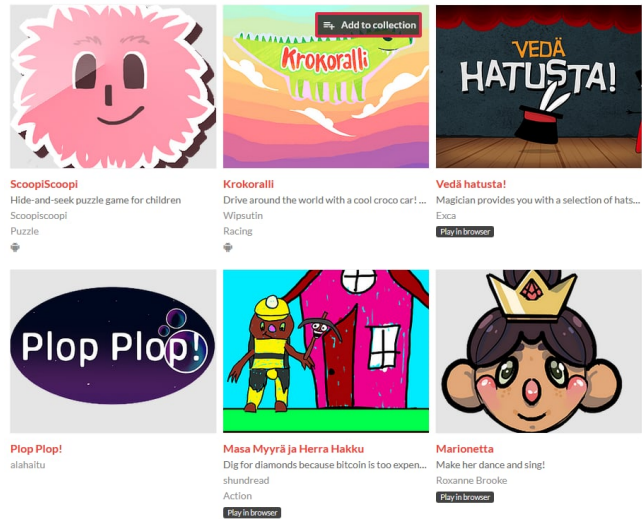


Figure 5: A screenshot of the games from the Pikku Kakkonen Game Jam itch.io page.

## 2.7 The Games

The games were uploaded under the creative commons license to itch.io set specifically for this game jam<sup>2</sup>. In total, 6 games were developed at the event (see Figure 5).

The games varied in their designs and use of children's drawings, five teams utilized voice acting performed by the kids. In *Krokoralli*, the player controls a crocodile on wheels using an on-screen driving wheel on a touch screen with an aim of picking up the friends of the crocodile. The game was inspired by two drawings, one of them being the crocodile. *ScoopisScoopis* is a hide-and-seek game where the player searches for characters and items hidden behind things in a scene. While this was also inspired by the drawings, also the participating children contributed to the voice acting in the game. *Vedä hatusta!* is a collection of minigames where the game characters were inspired by the drawings of at least five different children. In *Plop Plop!* the player pops bubbles using the hands of the game character Urho the worm from one of the drawings. The game is controlled with Kinect, so the hands of Urho replicate the movements of the player's hands. While the main character was directly from a drawing, the game mechanic was inspired by another character with hand drawn bubbles on the background. In *Masa Myyrä ja Herra Haku*, a mole named Masa digs through the ground to collect diamonds in order to bring them to the top. The concept came from a drawing with a Masa mole with its "pet" pickaxe. In *Marionetta*, the player controls a marionette princess doll, also inspired by a child artist.

## 3 Reflection

The jam was a successful experience both for the participants and the organizers. There are a couple of important features of this jam that we would like to reflect on. First of all, we deemed the character template to be a successful feature. The simple template

<sup>2</sup>The jam website on itch.io: <https://itch.io/jam/pikku-kakkonen-game-jam>

made it possible for kids of different ages to participate and it made the choosing of the material by the jammers easy and exciting. The characters were fast to absorb and compare, as well as mix and draw inspiration from. Only drawback of this was that we were not prepared to have so many drawings, and many of the contributions were left out.

Secondly, the presence of the educational experts was very important for the making of games. Most of the jammers were not familiar with the gaming habits, cognitive limitations and tastes of the young players prior to the jam. A short presentation by the educational experts working with the TV show was informing and guiding the selection of game genres and mechanics. While the testing of the games was organized in the jam, we would perhaps now run it differently. The archetypal game jam format of a weekend is a little bit too short for multiple iterations of the game, so the teams were not able to fully match the testing results with the final builds. A longer jam format would have also allowed more content for the jammers to get accustomed to kids as a target group.

The use of the Pikku Kakkonen studio as the jam location was also a success. It was motivating and inspiring for the jammers to join the event, but also rewarding for the young testers and voice actors to visit the jam. The jammers were provided with a relaxing and sharing environment (including the sauna), which contributed to a positive and experiential atmosphere important for game jam experiences. While it did not directly impact the games, it impacted the experience.

While we did not manage to conduct a follow-up with the participating kids, we do know that the kids that joined the jam location on Sunday enjoyed their time at the venue. Voice acting was exciting activity and the testing session involved laughter and enthusiasm. YLE's team also wrote an article highlighting the selected drawings with original character sheets [9], which must have been exciting to witness for those young artists.

We are not anticipating that the exact format of Pikku Kakkonen Game Jam would be replicated as such. It can be hard (even though not impossible) to partner up with a TV show. Our case is tied to the special nature of Pikku Kakkonen, their production, expertise of the team, as well as the format of existing engagement model with their audience (for instance, sending mail to Pikku Kakkonen is a long standing tradition). But utilizing game character templates, setting up voice acting service, and running a testing session worked well and these features were a great fit for the accelerated nature of game jams. Furthermore, these event features seemed to inspire the adult jammers and positively engage the young co-creators. The character template is very easy to copy and adapt to other jams, voice acting service is relatively easy to set up in any game jam, and testing session is possible to organize with friends and family of the organizers and participants. We do believe that the format would benefit from a longer jamming time, and the designs of the games could be prepared towards a "maximalist" approach to allow as many characters and other contributions from the kids to be included in the games.

We also recommend future jam organizers to give more time for testing with the target group and allow more space for the educational experts to inject their expertise, perhaps even including them in the game teams or have them join as mentors to give feedback to the games throughout the jam.

## 4 Conclusion

In this game jam report, we have presented our experiences with a game jam making games for and with children. The jam was successful in integrating children in the development process with a use of game character templates, voice acting and game testing. Using children's hand drawn game characters was especially successful feature of the event: the drawings inspired the jammers and gave a great way for the kids to join the jam in a remote manner. While testing and educational expertise was present in the jam, it should be allotted more space at the jam program to improve the results of the games and facilitate the jammers learning of the target group.

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