The *Social Play Workshop* introduces and encourages STEAM (Science, Technology, Engineering, Arts, Maths) skills and capabilities in the primary School classroom. This iteration of the workshop took place on Thursday the 7th June at Kyoto International Primary School, Japan. The workshop was conducted in English and delivered to a class of 18 students.

We began by introducing ourselves and describing our roles as game researchers and makers. We then invited responses of the types of games students liked to play asking them to discuss their likes and dislikes. This allowed us to develop a shared language and set of reference points as well as an opportunity to hear about students understanding of videogames and coding.

Having introduced the broad ideas and established a shared language of games, we brought the students together in a class-wide game of Rock/Paper/Scissors. All of the students would face off and once a winner was established, the defeated had to support the victorious until an ultimate class champion was decided. The exercise was presented as a way for the students to reflect on working together and encouraging each other. The students embraced the game with colossal energy.
Developing their own games

The teacher in attendance assigned the students into groups. Each group had three to four members. We then assigned a series of strategies to enable students to imagine and develop their own games and game worlds through the following lenses:

**FEATURES**

What is your game about? What type of game is it? What makes your game different? Does it have an interesting story, funny sounds, lovable Characters or clever ideas? Perhaps it has multiplayer options and you can change the characters to look how you want. List what makes your game different on a post-it note.

**ACTIONS**

What are the verbs of your game? The doing words. Doing words often end with “ing”. Here are some words that might describe what a player can do in your game:

- Racing
- Catching
- Chasing
- Digging
- Escaping
- Throwing
- Eating
- Driving
- Jumping
- Building
- Dodging
- Diving
- Skipping
- Dancing
- Exploring
- Flying
- Fighting
- Walking
- Catching
- Making
- Skating

List your game verbs on a post-it note.

**RULES**

What are the rules of your game? How are they held in place? For example in a soccer game there are rules about not touching the ball with your hand unless you are the goal keeper as well as rules about how long the match should last and how players should treat each other. It is up to the players to stick to these rules and there is a referee to enforce them. Who is the referee in your game? List the rules on a post-it note.

**CHARACTERS**

What is your character like? What does your character like? What does your character not like? How do they act? How do they look? Why are they this way?

List the characteristics and draw them on a post-it note.
WORLD BUILDING

A key character in your game is the world in which it is set. On a large piece of paper, draw the world of your game. This should include the setting, the environment, the nature and the space of your game.

SOCIAL PLAY

Now that you have completed your game worlds, look at the games worlds that other students have created. Consider how your characters and games might be similar and the attempt to connect your games together. You will need to do some play testing to make sure that your combined rules, characters and games are fair for all players. You will need to each make some changes to keep your games fun for all.

ANALOGUE TO DIGITAL

The class then shifted to a discussion of digital tools and programming. About four of the eighteen students showed some previous knowledge of programming but none were very familiar with Scratch or ScratchJr. Although we had planned to work with ScratchJr, downloading the app proved impossible due to international log-in issues, so we adapted the workshop on-the-fly to work with the browser-based Scratch instead. Students worked on one computer per group drawing their characters and familiarising themselves with the program under our mentorship.

COMPLETION

At the end of the workshop, student’s hand-drawn game assets were photographed and imported into Scratch where the characters could be animated and controlled through the program. Because the student games could not be completed within the two-hour span of the workshop, we completed game animations and provided ‘video recording’ of each via a Google Drive allowing students to have a digital asset of their efforts. We also provided the original files of their games inviting them to adapt them further in the future.
To enable future engagement with the ideas addressed in the workshop we provided the school teacher a prototype Workshop Kit containing posters and pamphlets for future games and technology activities. Finally, we provided a series of links to additional STEAM-for-kids activities. These are listed below:

- [https://makeymakey.com/](https://makeymakey.com/) - An easy to use microcontroller that turns conductive objects - bananas, tinfoil, graphite, etc. - into interactive objects; it works very well with Scratch, for example as a platform for creating your own game controller

- [https://www.littlebits.com/](https://www.littlebits.com/) - Simple coding kits that provide a great platform for kids to create ideas around project-based learning activities

- [https://www.media.mit.edu/groups/lifelong-kindergarten/overview/](https://www.media.mit.edu/groups/lifelong-kindergarten/overview/) - Life Long Kindergarten MIT (developers of Scratch, MaKey, etc.

- [http://scratchjr.org/teach/activities](http://scratchjr.org/teach/activities) - ScratchJR class Activities

- [https://www.scratchjr.org/hoc.html](https://www.scratchjr.org/hoc.html) - ScratchJR Programming examples

- [http://pbskids.org/learn/scratchjr/activities/space-exploration](http://pbskids.org/learn/scratchjr/activities/space-exploration) - ScratchJR Challenges