

Somability

An interactive art experience to improve
self-confidence and fitness



HELLO



Somability

An interactive art experience to improve
self-confidence and fitness



Wendy Keay-Bright

cariadinteractive.com

CARIAD:

Centre for Applied Research in Inclusive Arts and Design

Cardiff School of Art and Design

@CariadInteract @CSADnews @ CARIADnews

Somability

Inspiration

- Animation
- Interactive Arts/Exertion Games
- Co-Creation/Positive Design
- Design Principles

58.000 people with complex needs in England
do not have access to digital innovation

By 2030 this figure will more than double*

Article 30 of the United Nations (UN) Convention on the Rights of Persons with Disabilities States that it is the right of persons with disabilities to take part in cultural life on an equal basis with others; furthermore they should have an opportunity to organize, develop and participate in disability-specific sporting and recreational activities.

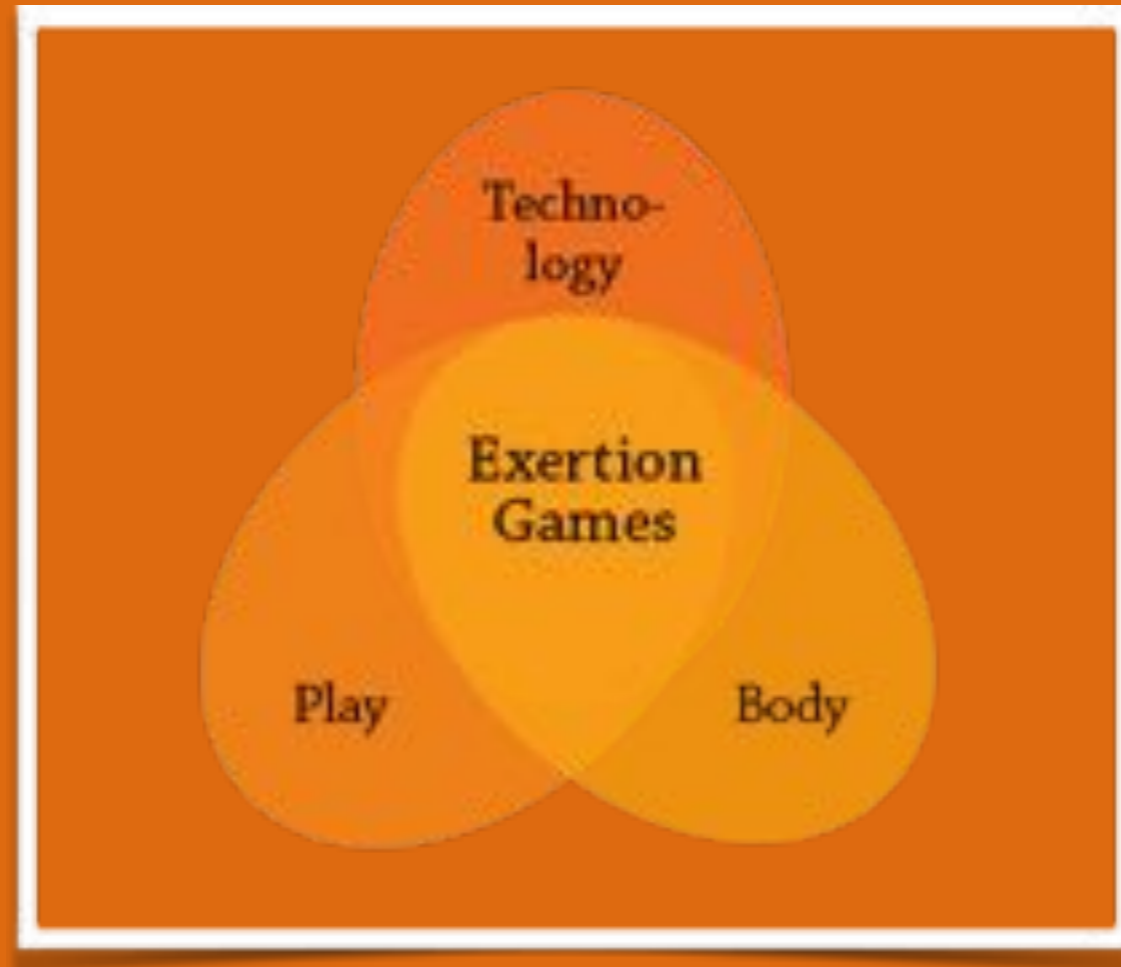
The technologically adept and those with the most complex needs are not well connected....

Interactive Arts

Interactive art is defined through co-creation. The artist may be the originator but the artwork is something that needs to be actuated by a “user”. If the user “does nothing”, it remains unrealised potential.

Huhtamo, 2007

Exertion Games



The Exertion Games Lab, RMIT

Exertion Games

making physical gaming more accessible to non gamers

Interactive Arts



“Videoplace” Myron Kruger

...are not bound by rules, interaction is *emergent*, rather than scripted as in a game scenario.

In describing the principles of interaction as emergent we are able to design for open-ended, creative, unpredictable, and ambiguous encounters, thus accommodating a wider range of participant interaction.

Interactive Art

- Interactive art is potentially a unique, emergent medium, distinct from sculpture, graphic art or music.
- In order to respond intelligently the computer should perceive as much as possible about the participant's behaviour.
- The participants should be aware of how the environment is responding to them.
- The visual responses should not be judged as art, nor the sounds as music. The only aesthetic concern is the quality of the interaction.

Myron Kruger

Co-Creation

collaboration in making propositions

Positive Design

designing for possibility
focus on the effect on subjective wellbeing

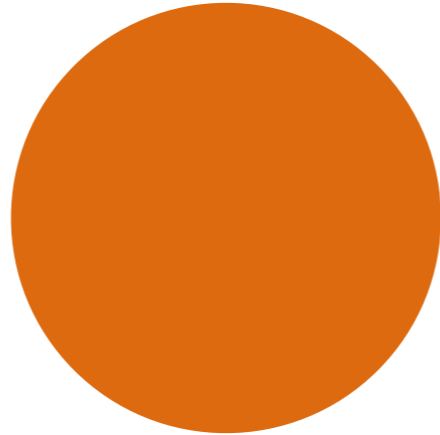
Desmet, Jimenez & Pohlmeier, 2014

Propositions
not
Solutions

Design Principles

Make IT*Simple

* information technology/inclusive technology?





Leave out Everything Except the Magic

Go with the Flow

Make it Irresistible

Somability

Research in Practice

Leave out Everything Except the Magic

Leave out Everything Except the Magic

- cause and effect: causality - action = reaction
- pause and effect
- force and effect
- phenomena: elasticity, inertia, momentum, magnetism, velocity, acceleration
- pressure: tap, push, squeeze, stretch
- space: up, down, high, low, left, right

Leave out Everything Except the Magic

Try out ReacTickles Magic

Go with the Flow

Go with the Flow

- clear goal [personal]
- total energised focus [attention]
- actions and awareness merge [skill appears effortless]
- lose awareness of self [increased following flow state]
- sense of control over actions
- time goes by unnoticed
- intrinsically rewarding

Go with the Flow

Try out Somantics

Make it Irresistible

Make it Irresistible

- discover a theme [Laban]
- stimulate the senses [visually engaging]
- interaction should be palpable [easy to observe]
- social interaction [empathy]
- memorable [positive emotions override negative]
- holistic
- exciting

“Successful experiences are those that people find unique. They want to repeat them, build on them, they are enjoyable and sustainable over time”.

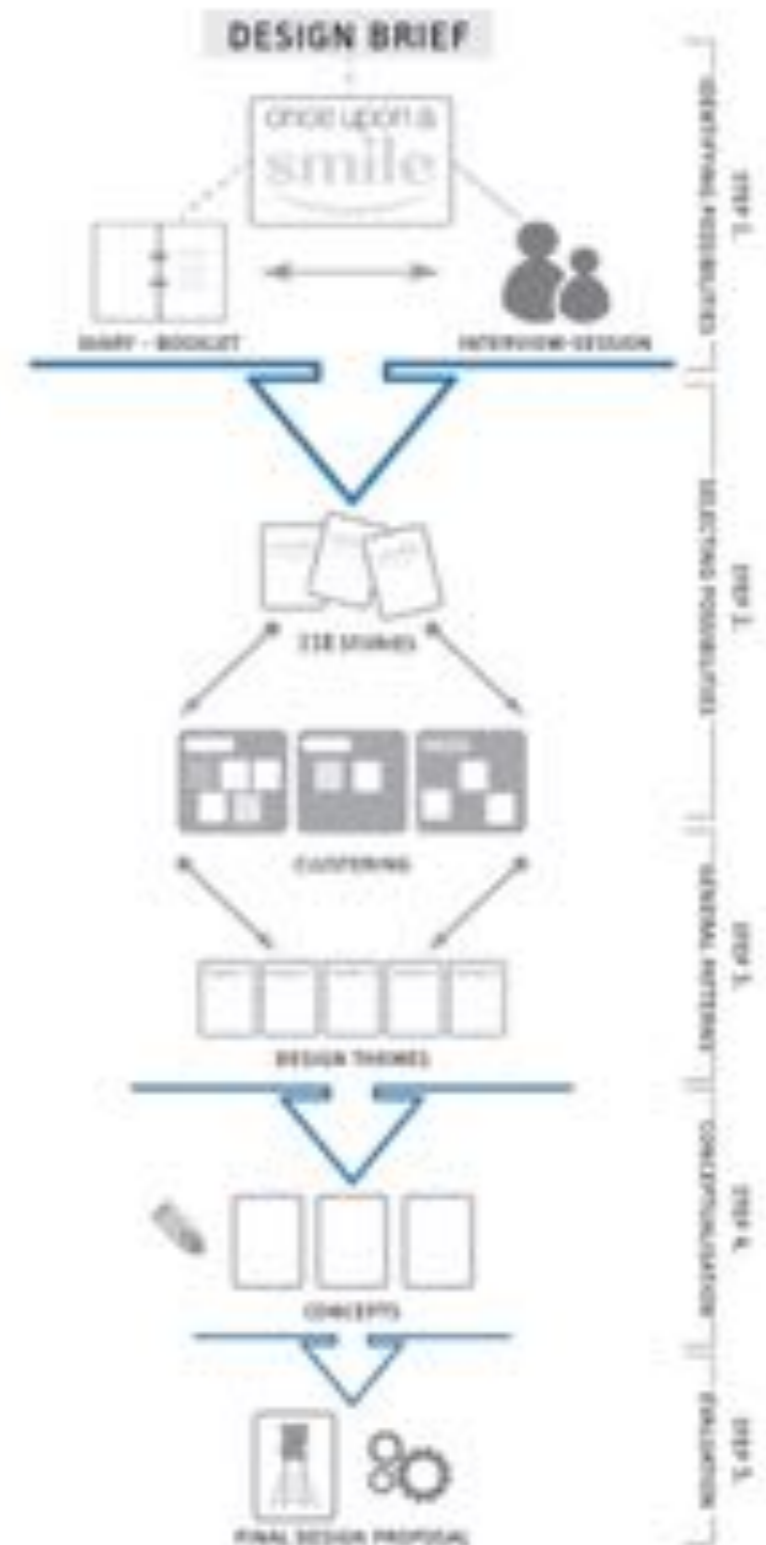
Desmet & Pohlmeier, 2014

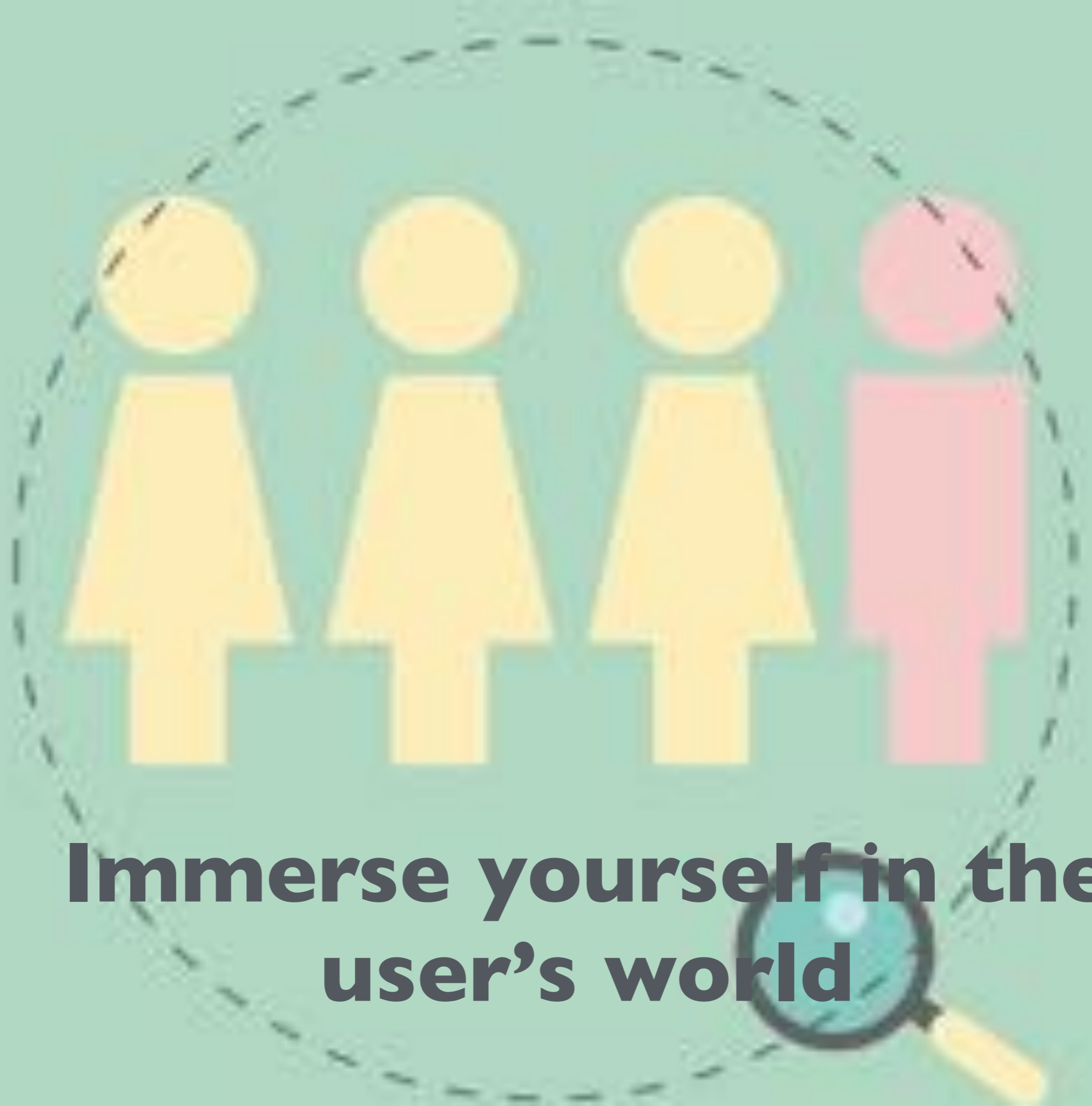
Make it Irresistible

Try out Somability

Methods

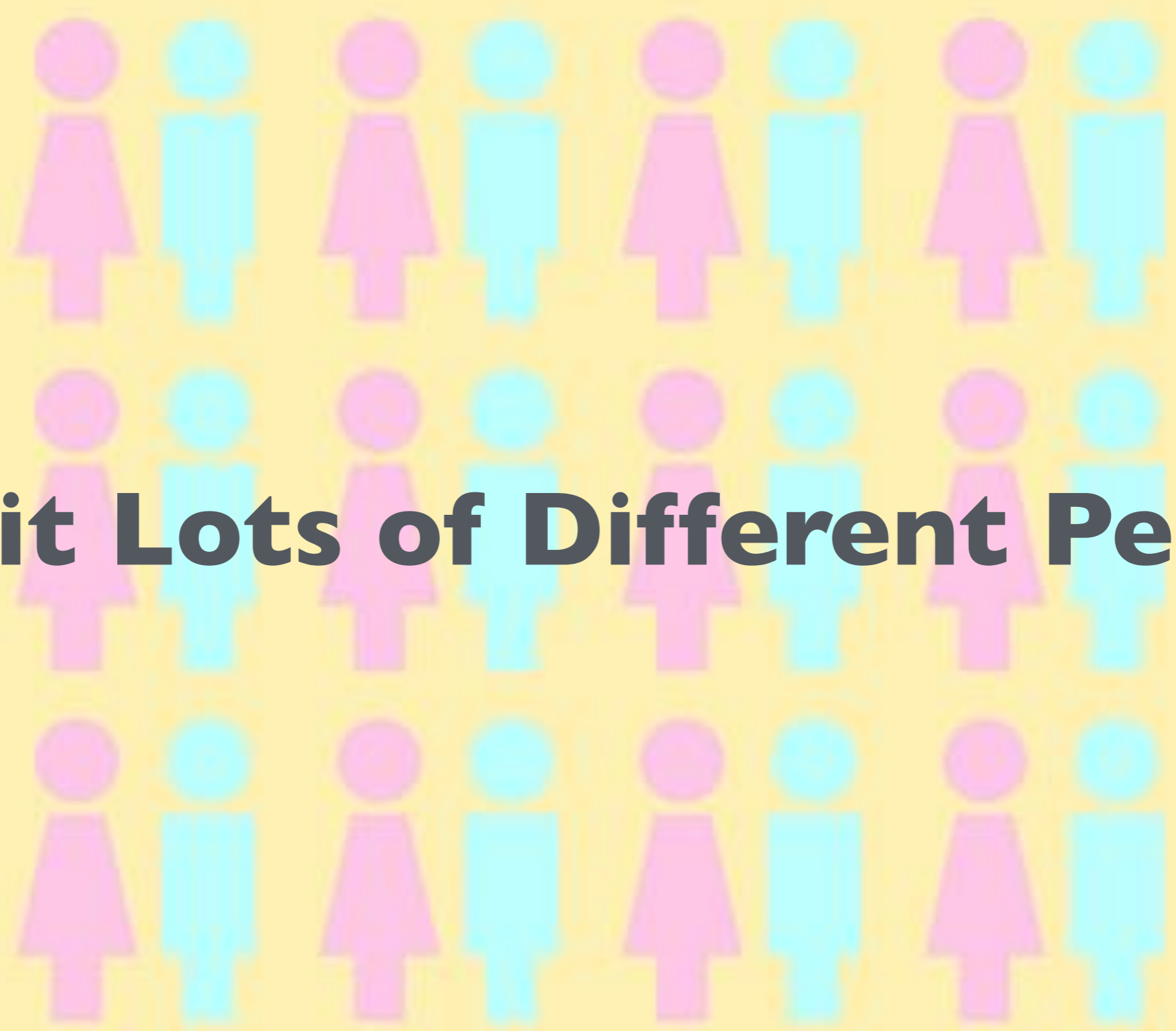
- Immersion
- Inspiration
- Ideation
- Visualisation
- Proposition
- Reflection





**Immerse yourself in the
user's world**

Recruit Lots of Different People



An illustration featuring a green clipboard with a white sheet of lined paper. A yellow pencil with a black eraser and a black graduation cap are positioned to the right of the clipboard. The background is a light blue gradient.

**Identify Key Themes and
Sources of Inspiration**

Courses

Curriculum Programmes

[Qualifications](#)[Course Finder](#)[Customised Accreditation](#)[Costs](#)[Case Studies](#)[Funding](#)[Home](#) > [Courses](#) > [Programmes](#) > [Towards Independence](#)[Overview](#)[What it involves](#)[Getting started](#)

Towards Independence

Towards Independence provides a framework of activities through which **personal, social and independence skills** can be developed and accredited for those with severe learning difficulties (SLD) and profound multiple learning difficulties (PMLD).

Towards Independence offers formal recognition for small steps of achievement towards a larger goal. Modules can be used separately and accumulated to build a record of personal achievement.

[Starting Out](#)



Obtain Consent to Record

CARDIFF
SCHOOL OF ART & DESIGN
Somability

A Project with Rhondda Cynon Taf Skills for Independence

CONSENT FORM FOR SERVICE USERS



I..... Would like to take part in the
Somability project. **SERVICE USER** or **STAFF** TO PRINT NAME

Please tick ✓ or cross ✗ on the



YES



you can take my photograph



YES



you can take a video of me



YES



you can show it to other people
SERVICE USER or **RCT STAFF**



Please use this space to tell us anything about you that may affect your enjoyment of this project.

Thank you.



Personas

Name: _____

PASSPORT

Age: _____



SOMATOPIA

About Me:

Things I respond well too - things that could help at difficult times.

Physical characteristics:

About my body and senses - I might need assistance with these

Friends and family, pets:

About my relationships with others - I have an older sibling, my best friend is...

Likes and Dislikes:

Tv, Games, Food, Sport.....Sounds, Colours, Materials.

Communication:

This is the best way to communicate with me.

MY SPECIAL INTEREST FOR THE WORKSHOP (CIRCLE)

MUSIC & SOUND | MOVEMENT & DANCE | TECHNOLOGY & DESIGN



About Me:

Things I thought were hard to do - things that used to be difficult for me

When people talk calmly
frowny people.
Smiley people

Physical characteristics:

about my body and senses - I might need assistance with these

my hands do not work very well.
Painful when people touch my hands
Need help with writing and opening things.
I understand most things, but do not speak so well.

Friends and family, pets:

About my relationships with others - I have to give advice my best friend is

I live with my mum and dad
I am going to Singapore next week for a wedding.
I have 2 brothers, Robert (older) and Ashley (younger)
I have lots of friends

Likes and Dislikes:

My favorite food, sport, music, colors, movies

I like dance and drama. I like going to the cinema and the theatre and out for tea-time. I like cake and color. I like pasta.
I like to watch X-factor and the Voice on TV. I do not like dogs and cats

Communication:

This is the best way to communicate with me

Sign me what to do.
Speak clearly and don't use complicated words.
I understand things very well, but people might find it difficult to understand me and I sometimes lack confidence in speaking to people. I know a little

MY SPECIAL INTERESTS FOR THE CLIVE WORKSHOP (PLEASE CIRCLE) ^{little} ^{Neukabau}

MUSIC & SOUND

MOVEMENT & DANCE

TECHNOLOGY & DESIGN

Ideation

| | | | |
|---|---|---|---|
|  |  |  |  |
| <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> |
|  |  |  |  |
| <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> |
|  |  |  |  |
| <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> | <hr/> <hr/> <hr/> |



ECHO:



Tractor trails play back

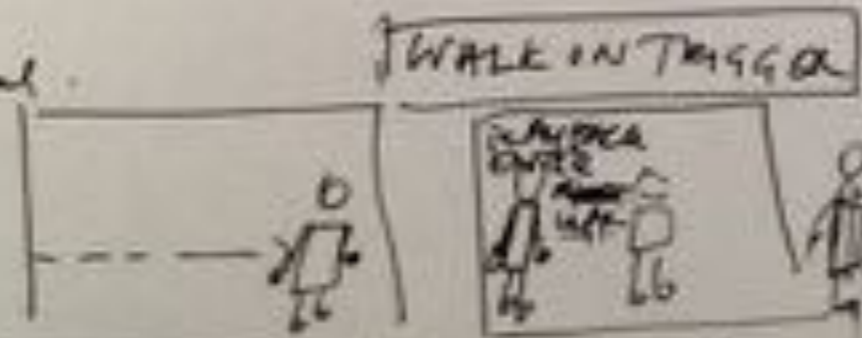
ECHO VID (MAYBE
DASH)



~~Tractor trails~~ only records if
you move.



Start record. Idea is to return
to original starting spot to
see full loop.



movement triggers record. Playback on exit from frame. Background removed. Playback from

STATE BUFFER



Record sequence. presents both as separate
images. MAY BE ONE
STATE BUFFER



objects fall from sky
You sort into left
and right ones.

EFFECT

EFFORT

MISTING NINJA

① starts full colour. Light image button.



wipe away colour to reveal image

PARTICLE FINGER

②



shoots particles from fingers

SHOOTER PUZZLE

③



starts with floating bubbles -
reduce size by popping till all
gone

Fruit Ninja

Asteroids

change shapes as they get
smaller. turn all to squares

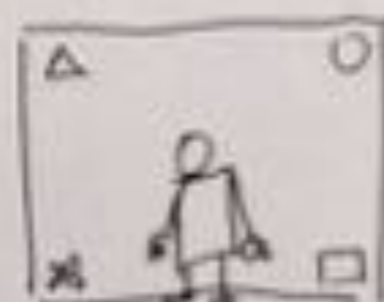
SCARTING BALLS

④



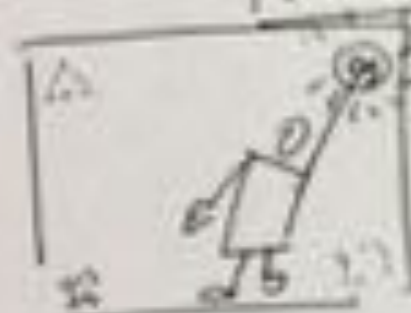
Shapes fall from top. sort left and
right

⑤



touch the shape that shines

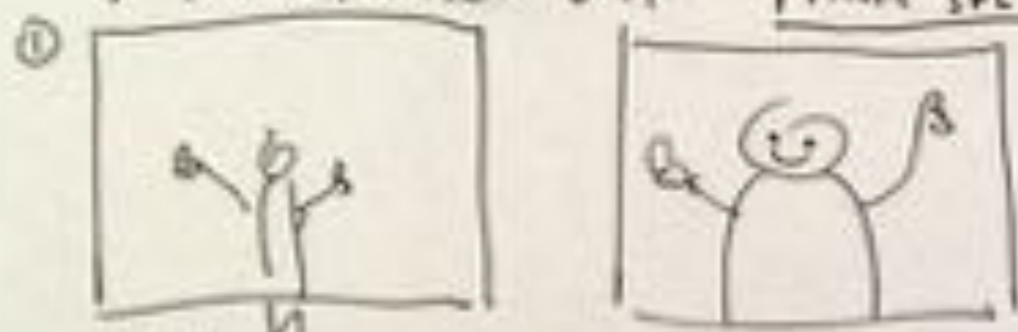
TOUCH TARGET



PROXIMITY

5 second video loop

TRIM SPEED



As I get closer the loop gets shorter.

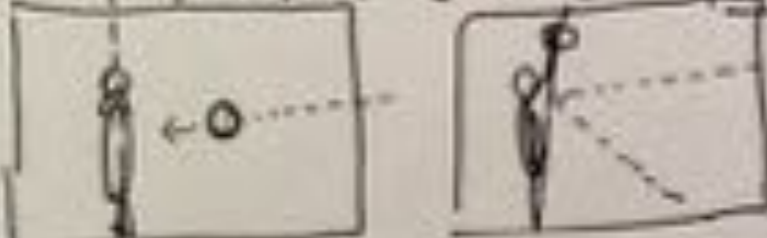
OR



proximity of bodies.

③ Balls fired into scene.

CANNON BALL

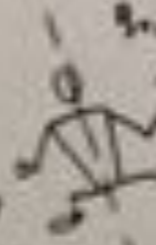


OUTER OF FRAME IS BOUNDARY.

OR

Each person is

def. taking turns to fire ball.

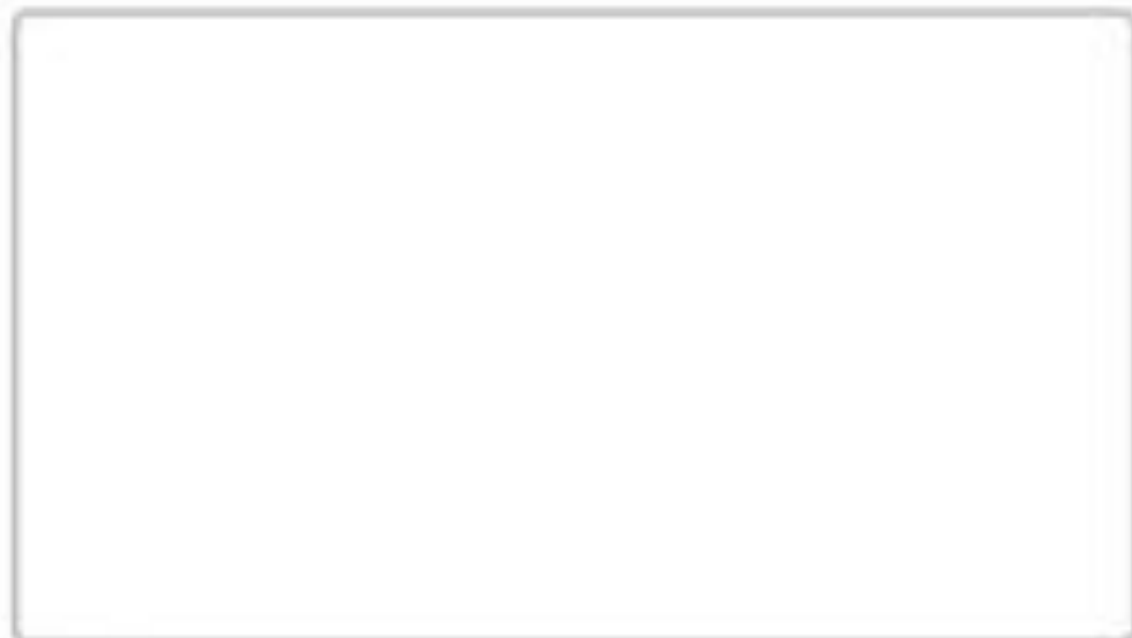


body is angle

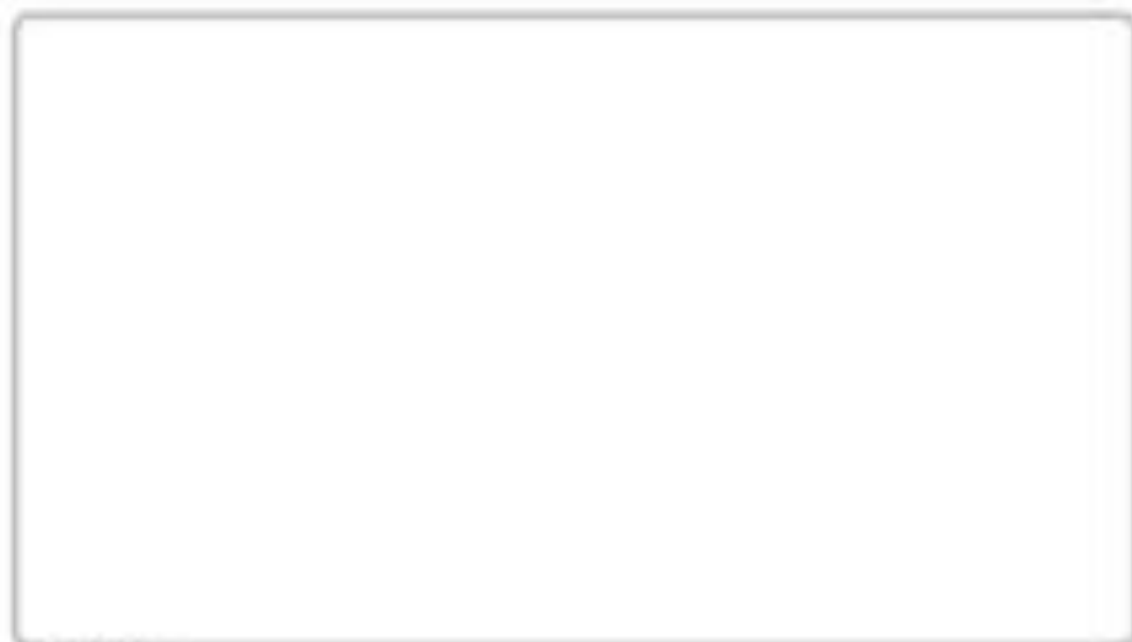
deflection angle.

Name: _____

Use this storyboard to plan out how your interaction will work.

A large, empty rectangular box with a thin black border, intended for drawing a storyboard panel.

Description:

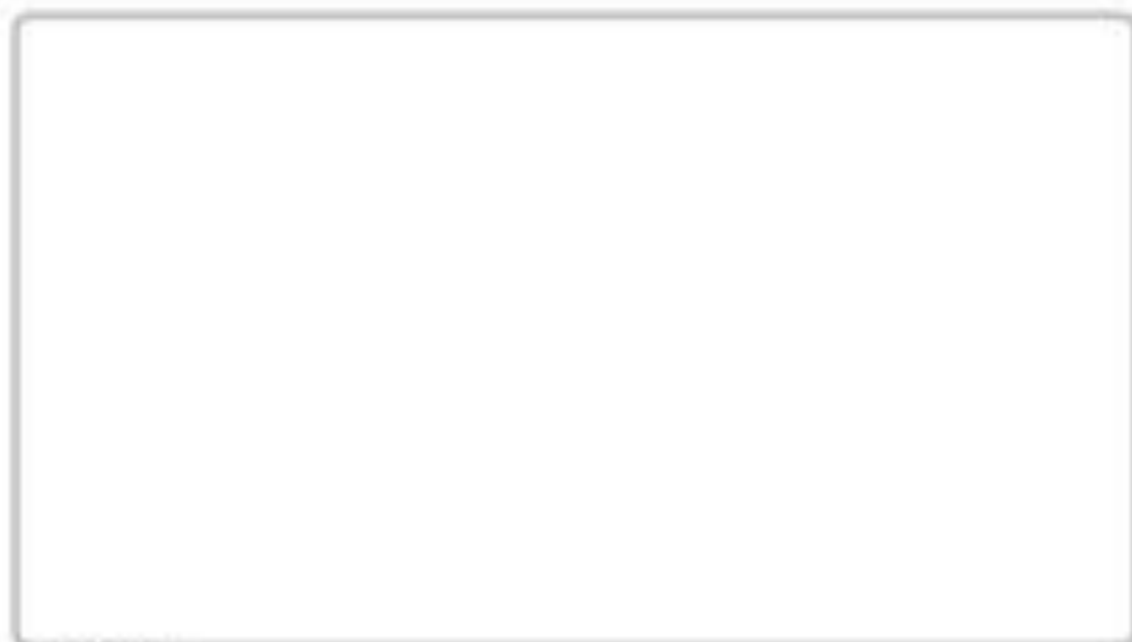
A large, empty rectangular box with a thin black border, intended for drawing a storyboard panel.

Description:

STORY BOARD

A large, empty rectangular box with a thin black border, intended for drawing a storyboard panel.

Description:

A large, empty rectangular box with a thin black border, intended for drawing a storyboard panel.

Description:

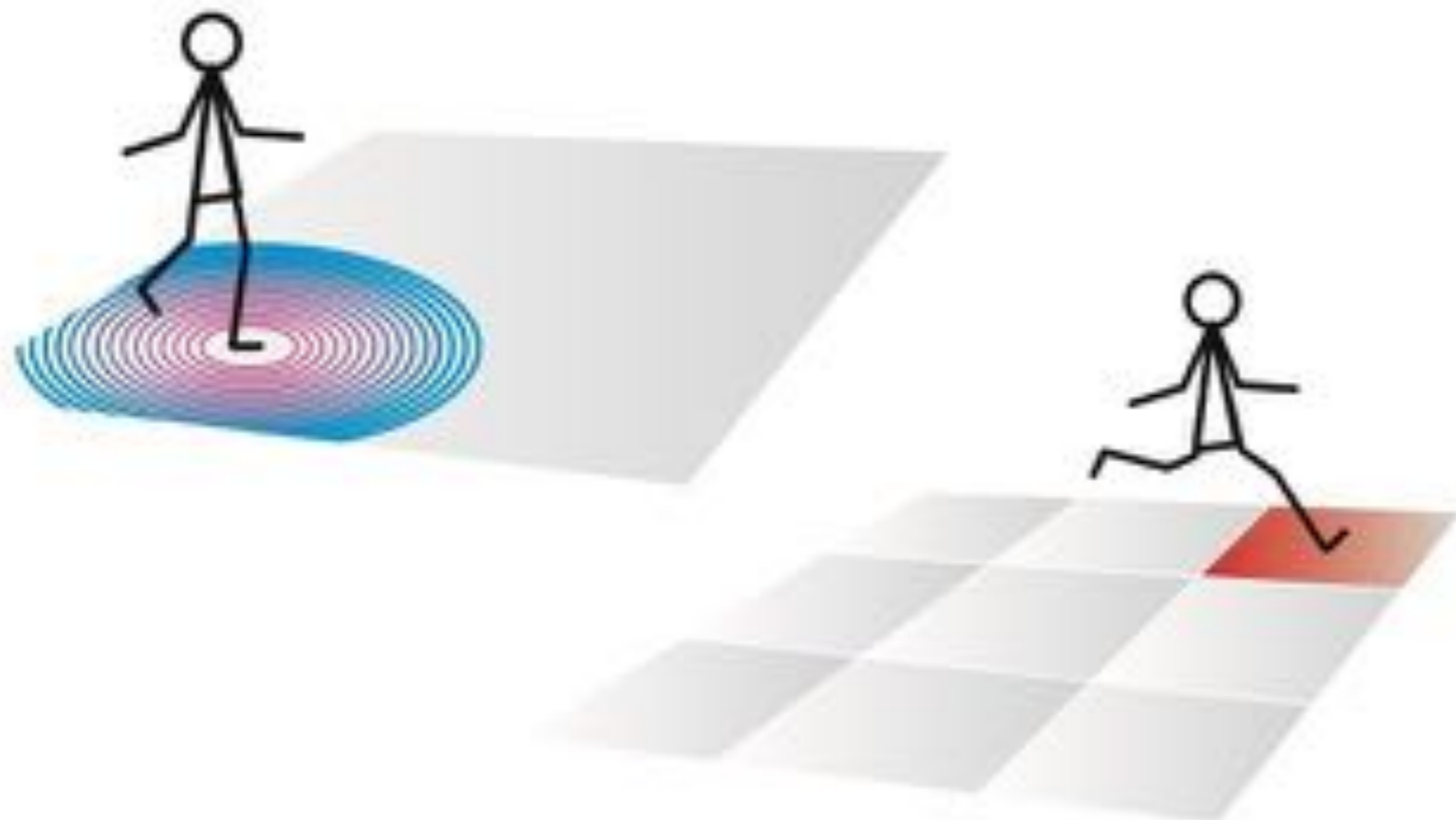
Collecting Things

Choose shapes to fill the screen with layers of miniature versions.



Rhythm

First interaction - "Stamping" to trigger visual shock waves and sound.

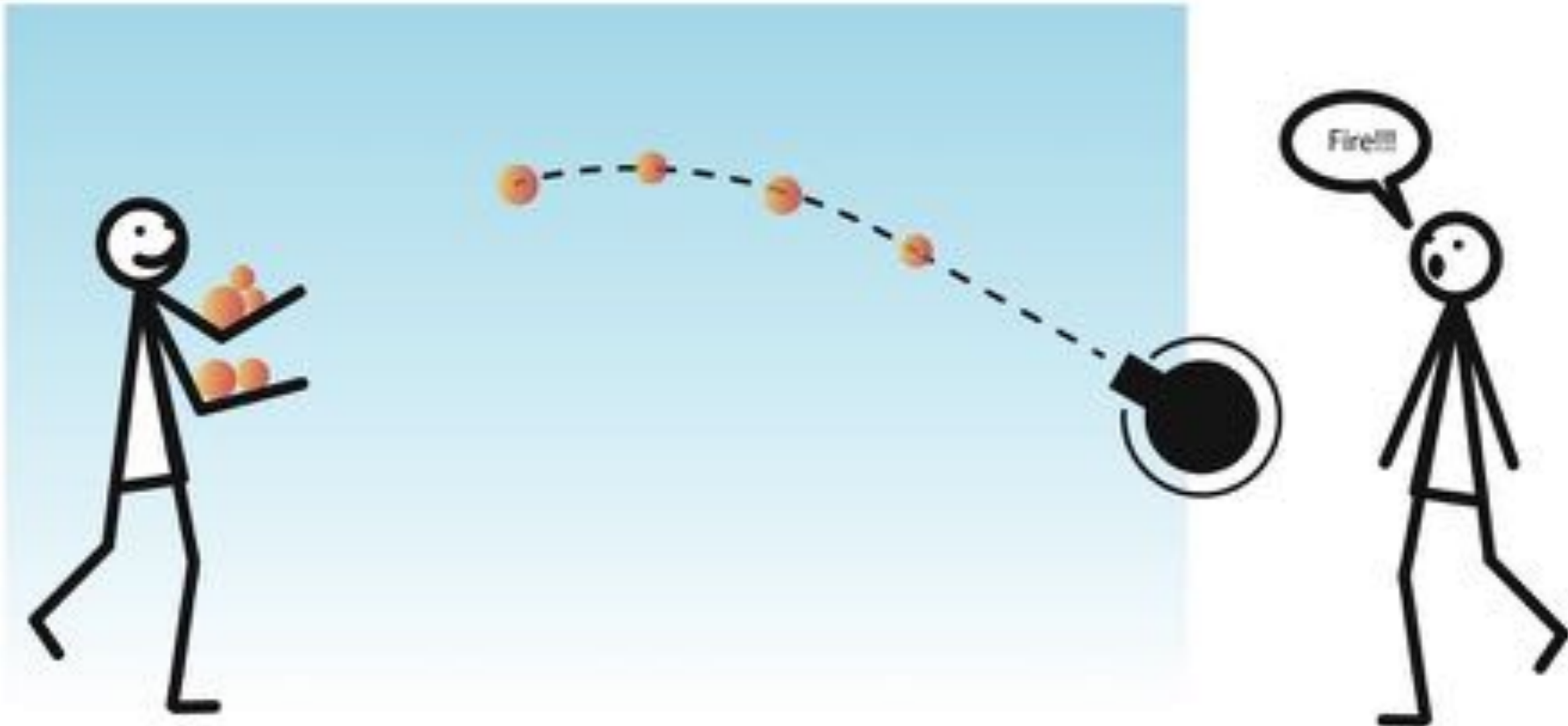


Second interaction - "Simon says" style interaction.



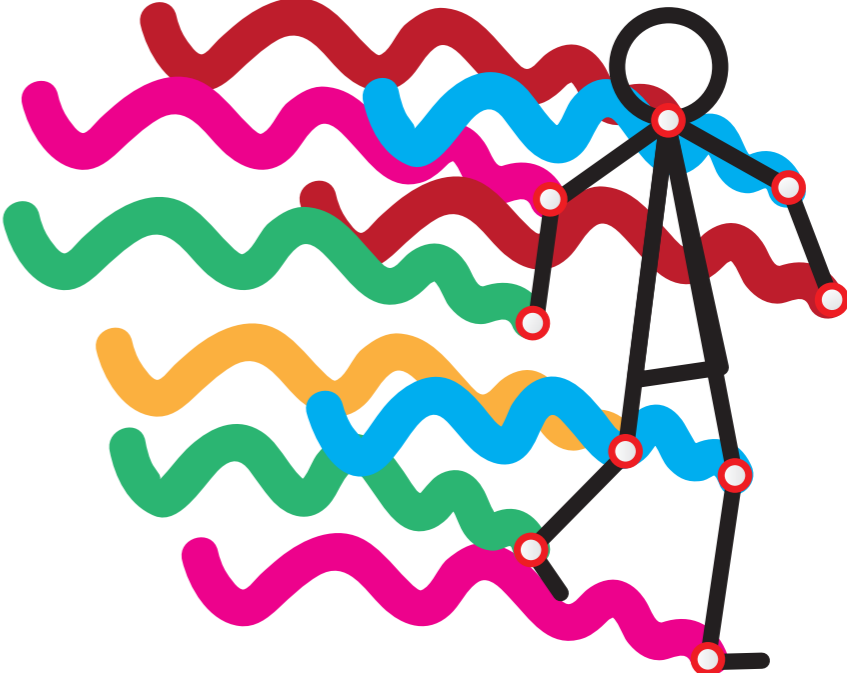
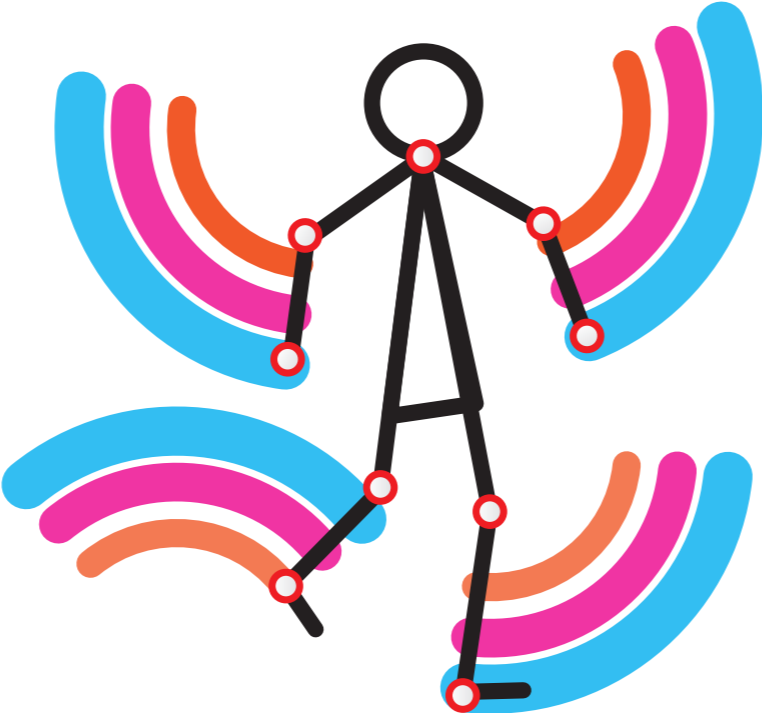
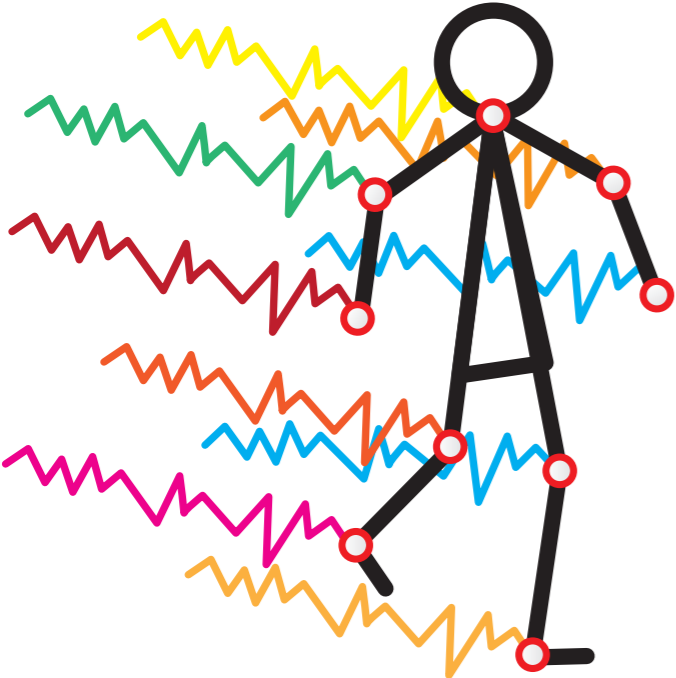
Togetherhness

One person fires the ball by shouting or making a noise.
One person catches.



Stillness

Tracing rails of movement behind you.
With different effects as the lines get older.





REACH



FLOW



BALANCE



Mirror



Silhouette

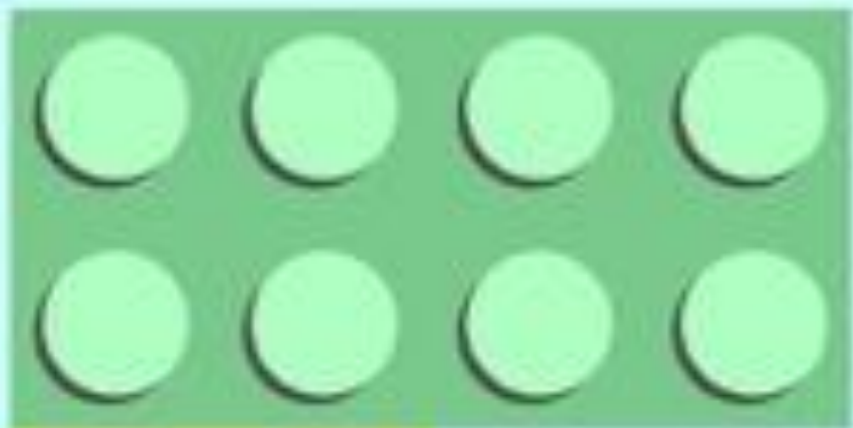


Skeleton

Somability

An interactive art experience to improve self-confidence and
fitness

Your Turn!



Make things together



Name: _____

PASSPORT

Age: _____



SOMATOPIA

About Me:

Things I respond well too - things that could help at difficult times.

Physical characteristics:

About my body and senses - I might need assistance with these

Friends and family, pets:

About my relationships with others - I have an older sibling, my best friend is...

Likes and Dislikes:

Tv, Games, Food, Sport.....Sounds, Colours, Materials.

Communication:

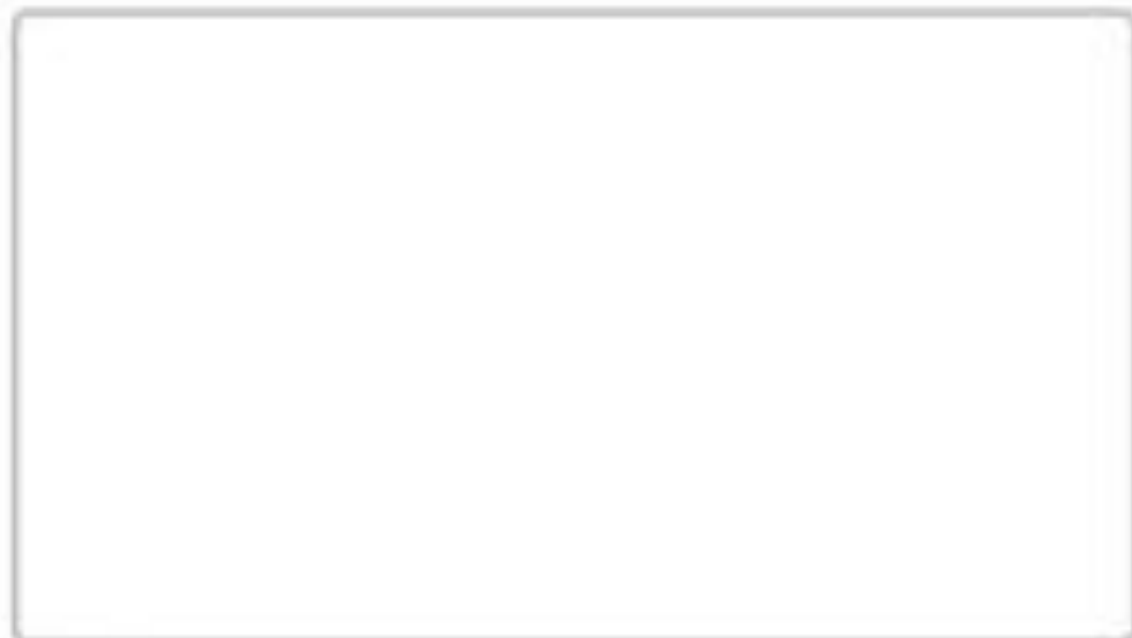
This is the best way to communicate with me.

MY SPECIAL INTEREST FOR THE WORKSHOP (CIRCLE)

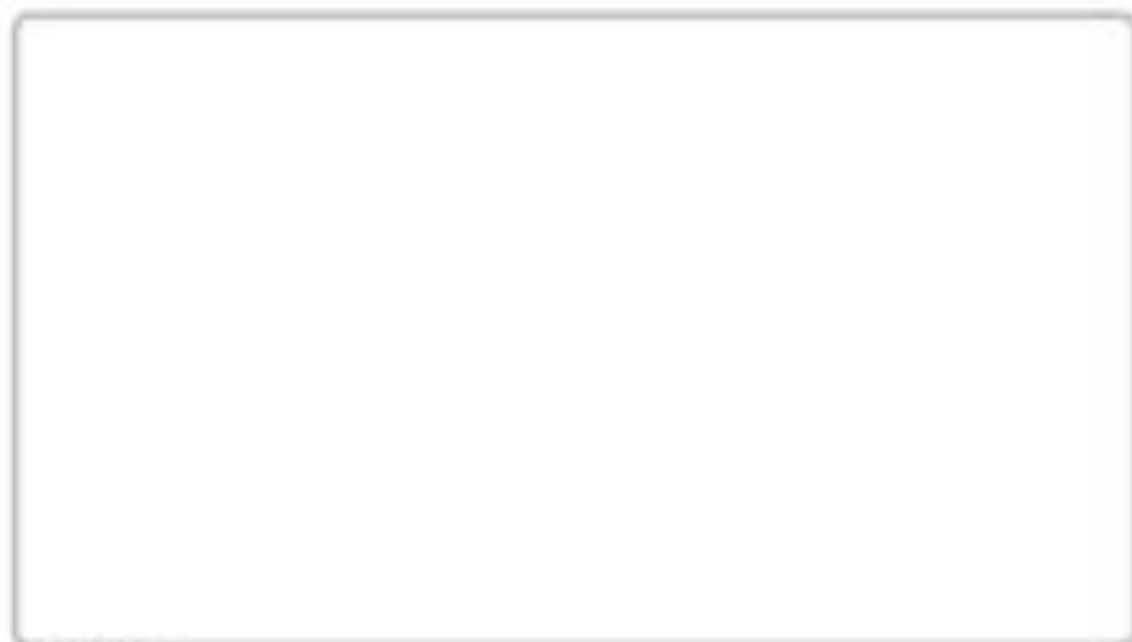
MUSIC & SOUND | MOVEMENT & DANCE | TECHNOLOGY & DESIGN

Name: _____

Use this storyboard to plan out how your interaction will work.

A large empty rectangular box intended for drawing a storyboard panel.

Description:

A large empty rectangular box intended for drawing a storyboard panel.

Description:

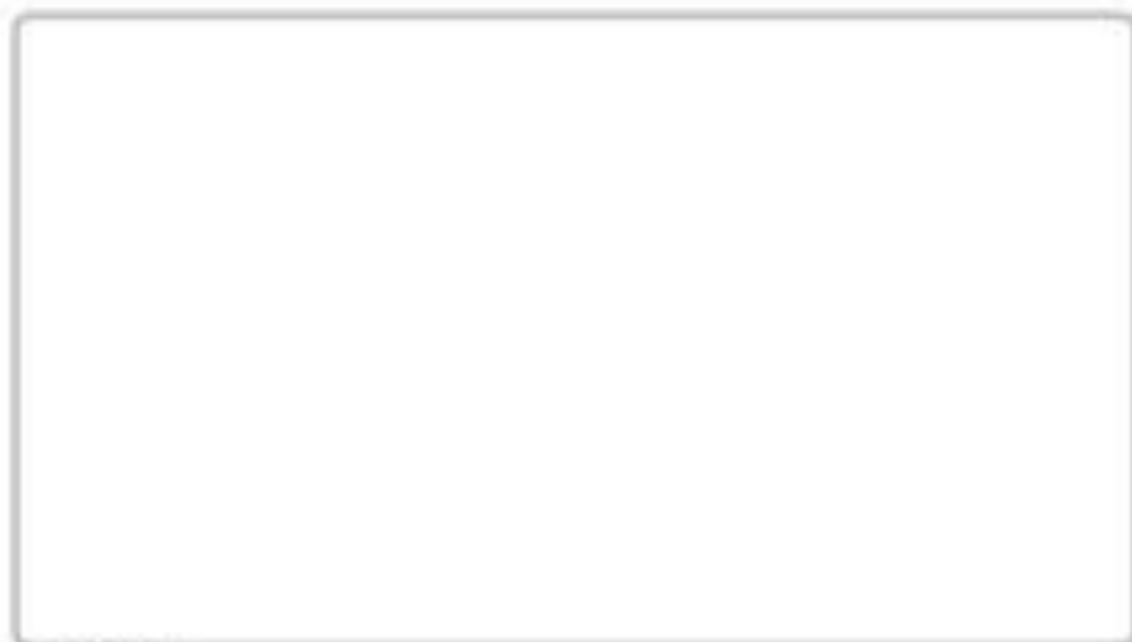
STORY BOARD



SOMATOPA

A large empty rectangular box intended for drawing a storyboard panel.

Description:

A large empty rectangular box intended for drawing a storyboard panel.

Description:

Reflection & Review



SOMABILITY ENGAGEMENT DIARY

Please use this to record Service User experience of using Somability



YOUR NAME: _____

SERVICE USER: _____

DATE: _____

LOCATION: _____

DURATION OF SESSION: _____

INTERACTION MODE

Culminate Evaluation: ASDAN Using a Sensory Environment

On a scale of 1-10 could you rate service user development using Somability

EXPECTATION

1.10 1. Awareness of activity

- A) Where they knew that the activity was going to happen?
- B) Did they freely go the space where the activity took place?

Extra Notes

CONTROL

2. Choosing

- A) Where they able to choose when to start or join in?
- B) Did they recognise when the application or mode changed?
- C) Where they able to choose an application or mode?
- D) Where they able to maintain their interest without prompting?
- E) Where they able to choose when to finish?

Extra Notes

ADAPTATION

3. Working with others:

- A) Did they show awareness of other people sharing the application?
- B) Were they able to respond to others?

Extra Notes

Before Session

What were your expectations?

During Session

Anything new or unusual?

After Session

Has reflection and/or peer review been used?

ANYTHING YOU WOULD LIKE TO ADD

Have Conversations



Your Interactive Art

collaborate in designing something magical and irresistible

- Think of a setting, who are the people in the setting?
- Think of a person, what makes them special?
- How could something magical happen?
- Draw 4 stages of the interaction
- Act it out
- Make things together
- Perform
- Review

Somability

THANK YOU

Somability has been co-designed with
Rhondda Cynon Taf
Skills for Independence
Artis Community
Cardiff School of Art and Design
Cariad Interactive



Somability

THANK YOU

Somability was generously funded by the Rayne Foundation, Rhondda Cynon Taf LEA and Microsoft Creative Evangelist Group

Wendy Keay-Bright
cariadinteractive.com
Cardiff School of Art and Design

@CariadInteract @CSADnews @ CARIADnews

