

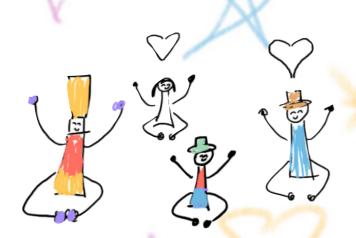
Unit 9: Element 2

The Reflective Practitioner

Marie-Charlotte Roy

Neuro-Inclusive design is underrepresented in contemporary practices. My goal is to change that by creating crafted products that help neurodivergent communities feel included and comfortable. My design approach is playful and colourful, appealing to mostly younger audiences.

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Overview: projects

One Sheet - had more of a storytelling background about a personal experience (a swiss tradition celebrated each year). I wanted to switch to more useful design for the people, and more playful and colorful. I kept the puppets from the One Sheet but researched deeply into puppets for neurodivergent children and how helpful they could be.











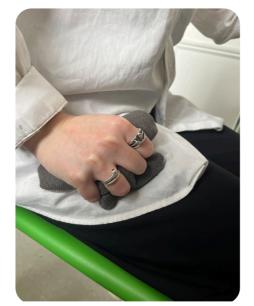


Designing for this project strengthened my design practice and grounded me deeper into craftsmanship.

External Brief

Overview: practice

Comfort Animal.







Design proposals 2 (2024) - Stress-relief comfort animals



Ecologies of Action (2024) - Development of previous project

Designer identity: Previous work



In previous work, the Ecologies of Action project greatly served my understanding of my creative practice. The brief was to design for the neurodivergent workforce in the office, and add-on to *Haworth's* portfolio, an office furniture brand. The product had to look like part of their collection. This was an eye-opening project and I used it to further my skills and start a base of knowledge in the area of neuro-inclusive design.



My puppets used in a Neurodivergent classroom. Modified image inspired by EDSpaces (2022). How Learning Space Design Can Support Student Well-Being. Available at: https://ed-spaces.com/stories/how-learning-space-design-can-support-student-well-being/(accessed: 19 January 2025)





Jim Henson Foundation (2024) Autism and Puppets. Available at: https://www.hensonfoundation.org/pdw/pdw/ (Accessed: 19 January 2025)



Spin'Bud final photoshoot

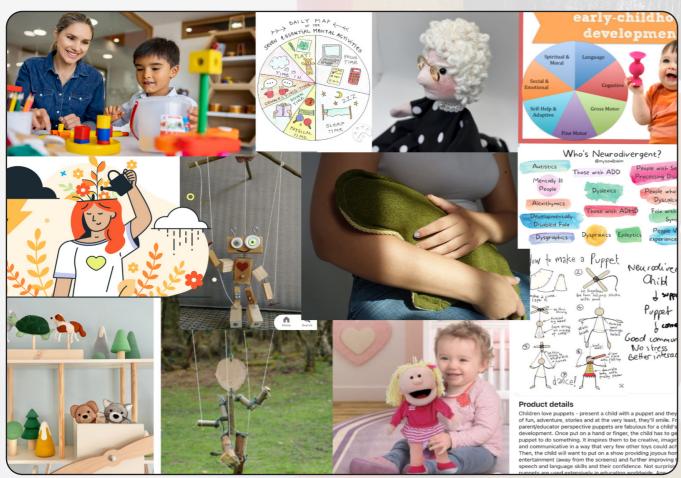
Why did I choose puppets?
Puppet making - encompasses making, storytelling, and playfulness. What did I change between the two projects? Kept the puppets but the 2D aspect of the One Sheet limited me too much. I also wanted to go back to designing for the neurodivergent audience.

Puppetry is already somewhat present in the neurodivergent community - but it lacks depth and meaningful engagement.

= Strong opportunity for design intervention.

Perfectly aligns with my focus—combining craft, neurodivergent inclusivity, and playful yet simple making.

Enquiry: context



External Brief visual board - vision of early reserearch

Mass-produced design often neglects sensory needs and accessibility in products. This makes learning and daily experiences challenging for neurodivergent individuals. We can create products to help that. Investing in neuro-inclusive design today is crucial for shaping a future where all minds can develop, learn, and thrive.

I admire the style and design approach of **Donna Wilson** and **Alexander Girard** amongst others, with their playful, tactile, and character-driven aesthetics. My work aligns with the audience and context like that of **Cas Holman** and **Konstantin Grcic**, focusing on interactive, functional, and specific to neuro-inclusive design.

Alexander Girard (1952) Wooden Dolls





Cas Holman (2011) Rigamajig

Donna Wilson (2023) Creature Collective

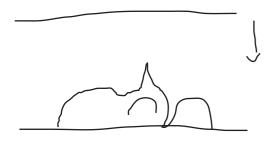


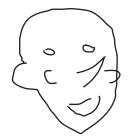


Konstantin Grcic (2010) Magis Me Too Standing Coat Rack

Enquiry: early research

One Sheet early stages: masks/common theatre props - it was my interest. Thinking about how I could make it happen with one sheet of material - pressure forming was an idea. But it did restrict me and what i wanted to do.





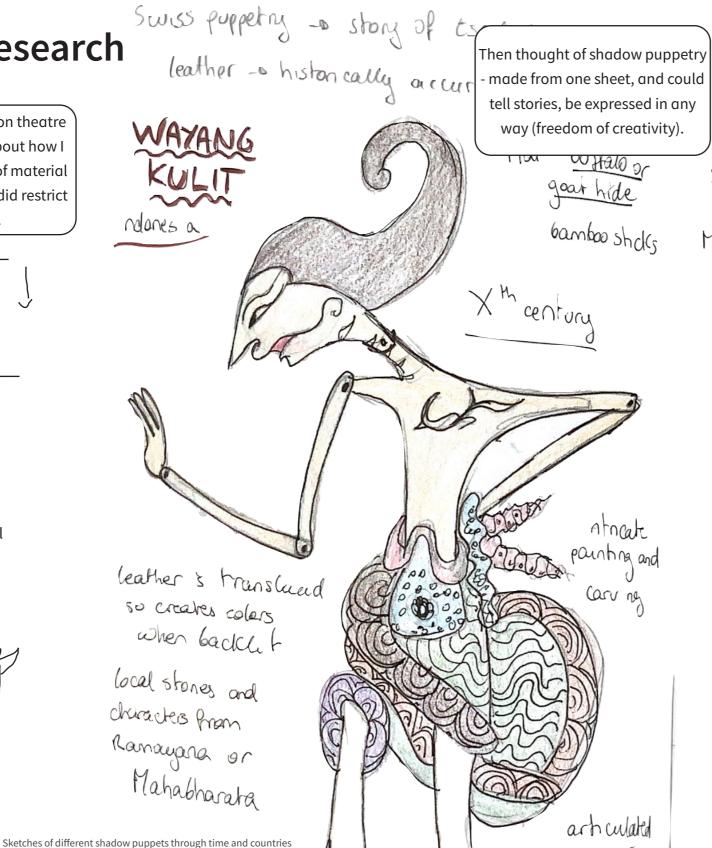
Vacuum formed mask Ceramics or metal



Masquerade mask?

- Tartuffe, Arlequin

Moliere theatre characters





blackeye" n Turkish Shadow theatre name of hero

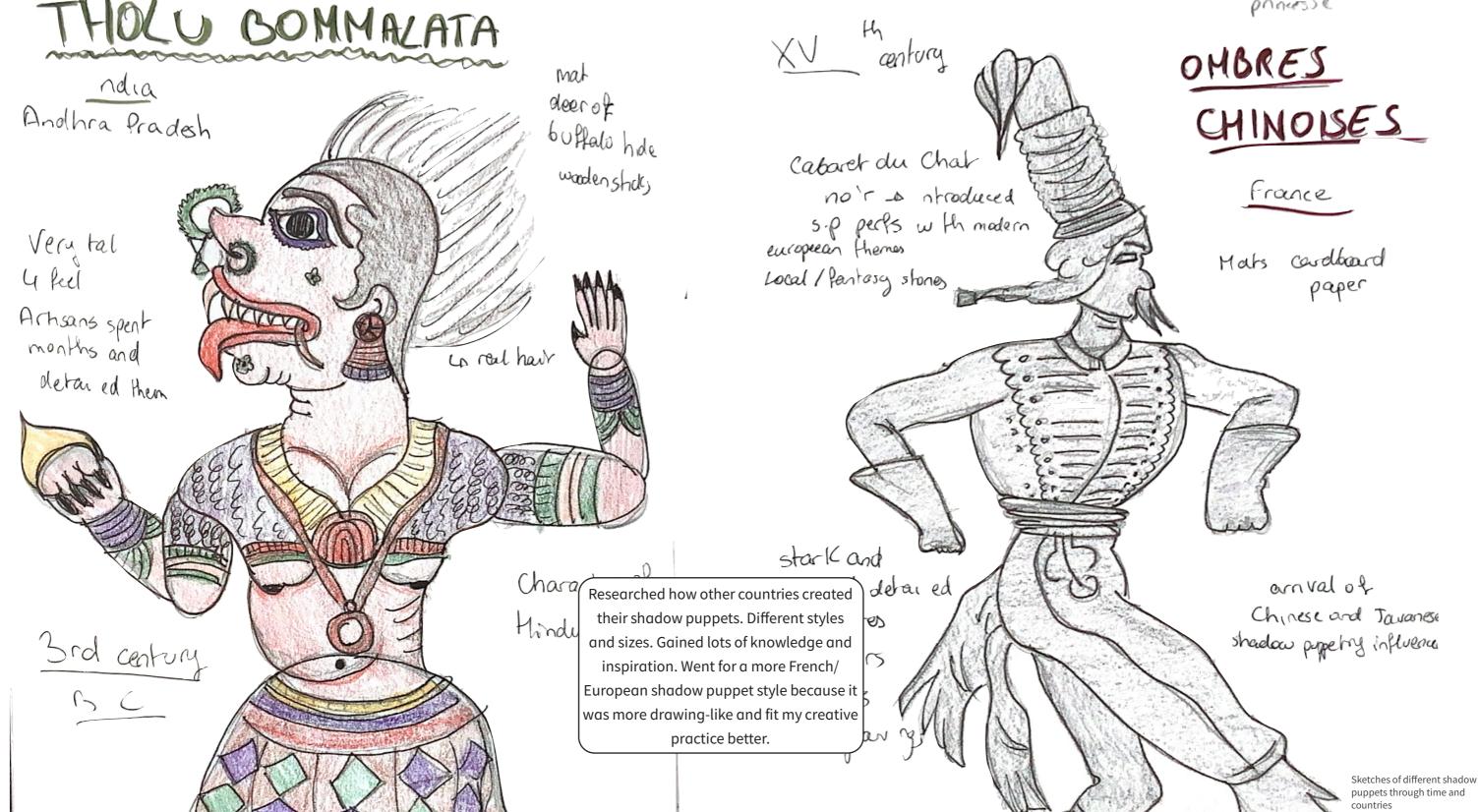
XIV th century Othoman Em

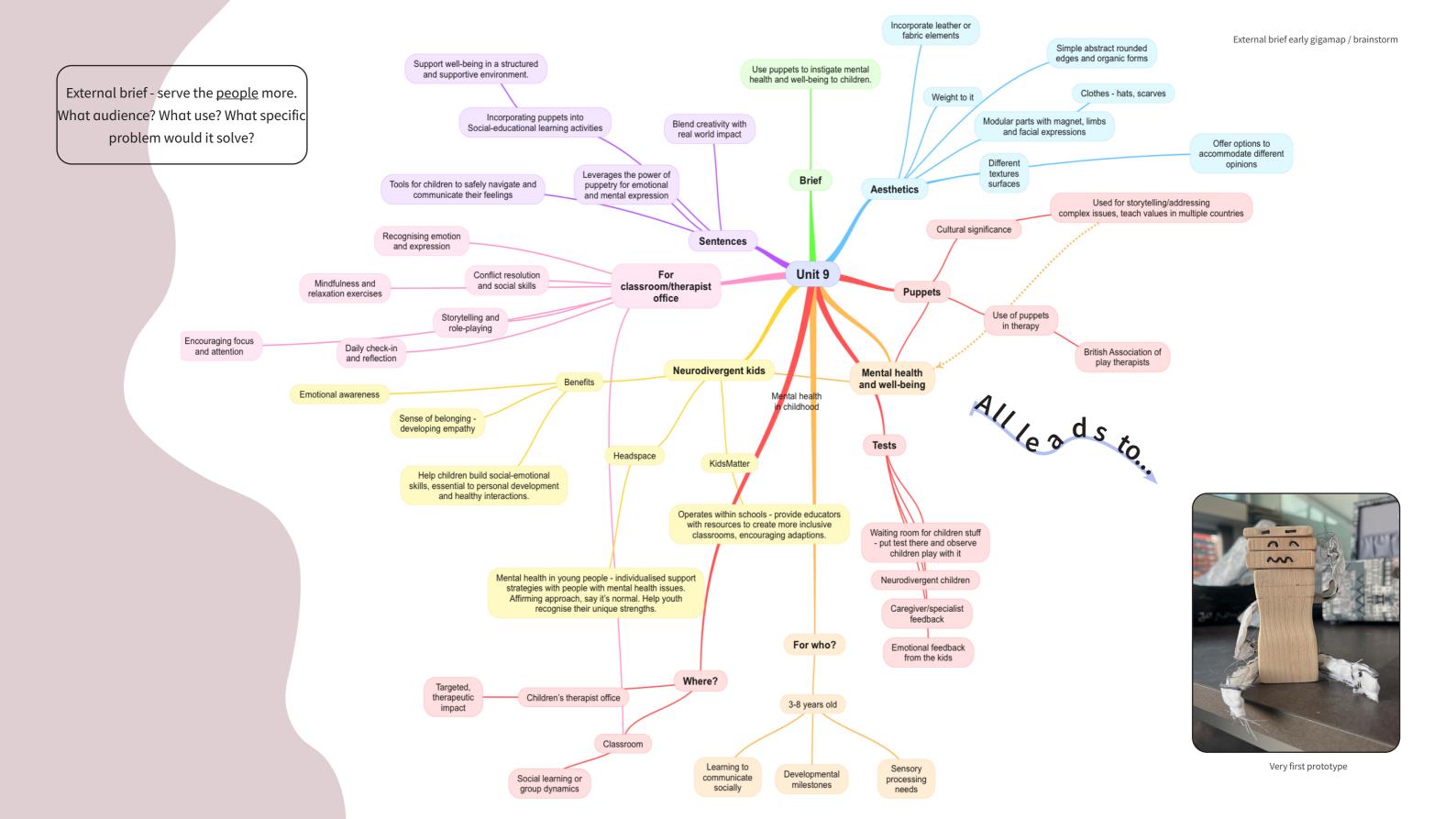
Souhnced stones about sours on the Empire

Mat camel or cowh de processed and painted to be bright

30 40 cm tall arheulated 1 mbs wooder meta rod







Knowlege: design challenge

Brief: Creative Conscience - Education.

Create solutions to any exisiting problem in the education field.

Making learning more accessible and engaging.

Point of View statement:

Studies show that up to **40**% of autistic children experience alexithymia (a condition that makes identifying and describing emotions difficult) (PubMed, 2018). Neurodivergent children often struggle to learn in classrooms because they have difficulty recognizing and expressing emotions. It is a growing reality and designing to facilitate their education is a first step in forming the future generations.

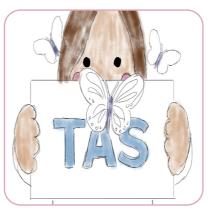
Drawing of children raising their hand

How might craftsmanship instigate emotional awareness in young neurodivergent students?



Children with ADHD experience **emotional dysregulation**, leading to frustration, shutdowns, or outbursts in classroom settings (National Institutes of Health, 2013).

Child outburst. Inspired by: National Institutes of Health (2013) Psychometric Properties of the Emotion Dysregulation Inventory in a Nationally Representative Sample of Youth. Available at: https://pubmed.ncbi.nlm.nih.gov/31910035/ (Accessed: 19 January 2025)



49.93% of autistic children have Alexithymia. (PubMed, 2019)

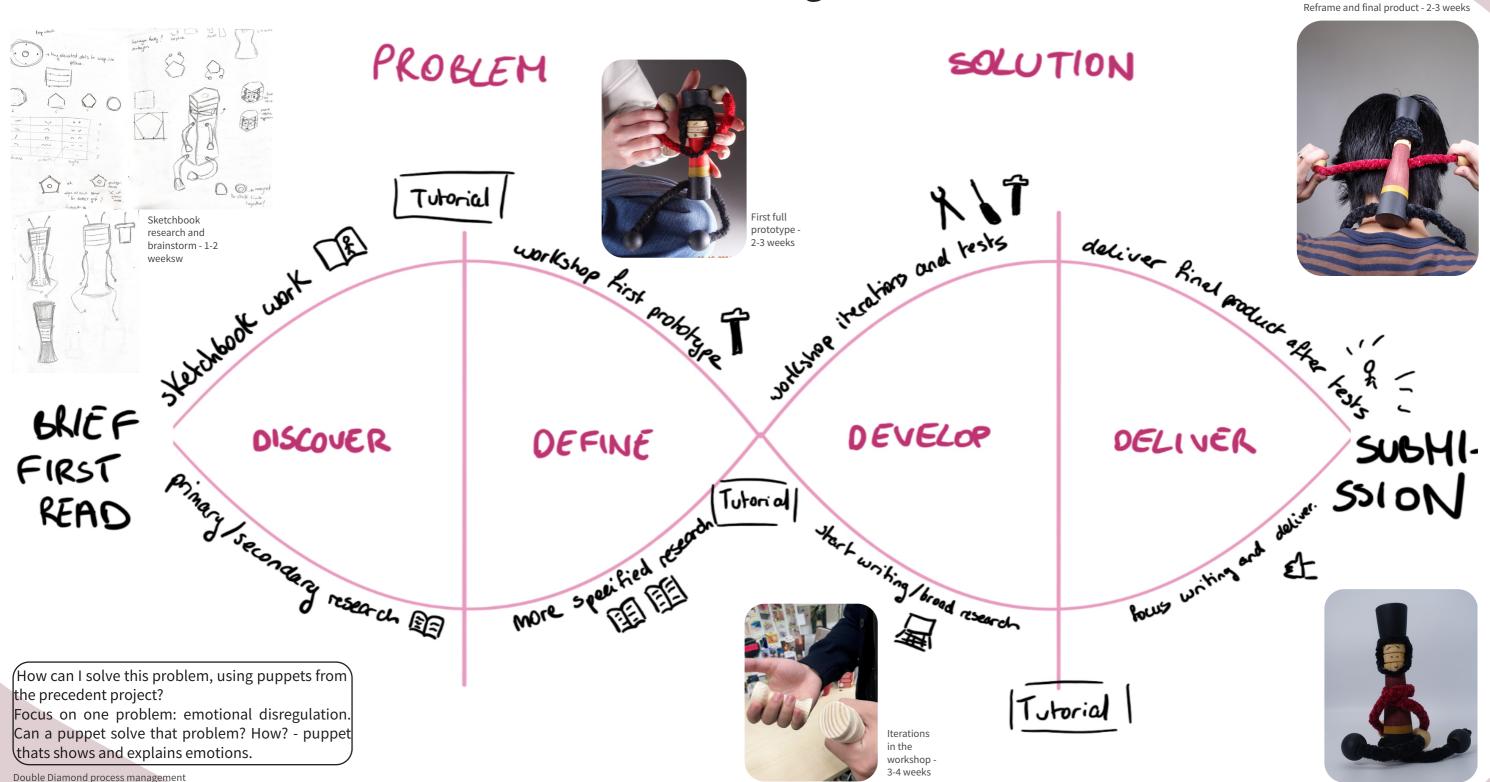
AS. Inspired by: PubMed (2019) Investigating alexithymia in autism: A systematic review and meta-analysis. Available at: https://pubmed.ncbi.nlm.nih.gov/30399531/ (Accessed: 19 January 2025)



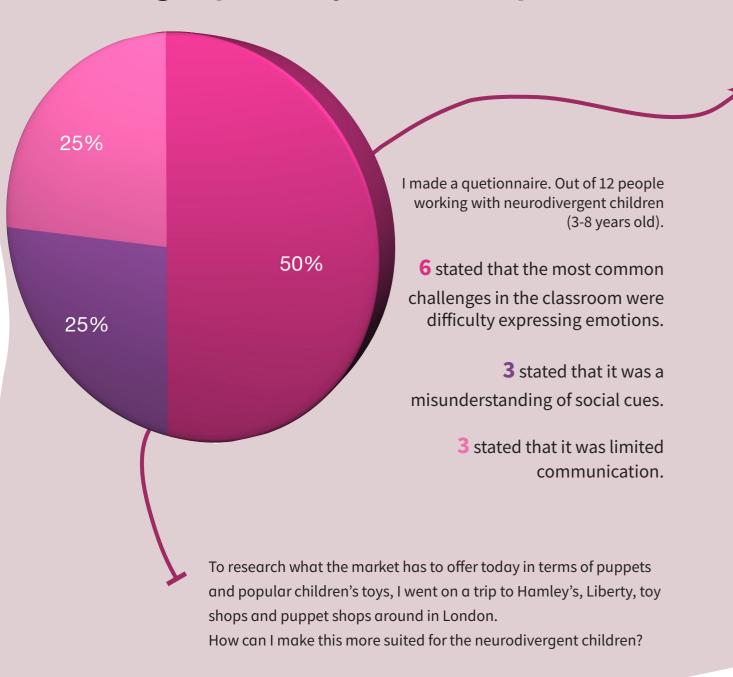
92.1% of children experiencing school distress and attendance difficulties were neurodivergent. (Durham University, 2023)

Difficulty learning. Inspired by: Durham University (2023) Neurodivergent Pupils' Experiences of School Distress and Attendance Difficulties. Available at: file:///Users/M.C/Downloads/FIELDING%20ET%2 AL_FULL%20MANUSCRIPT_PREPRINT.pdf (Accessed: 19 January 2025)

Process: management



Knowlege: primary research probes



















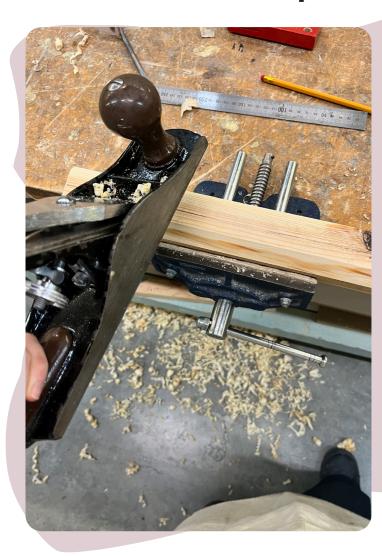


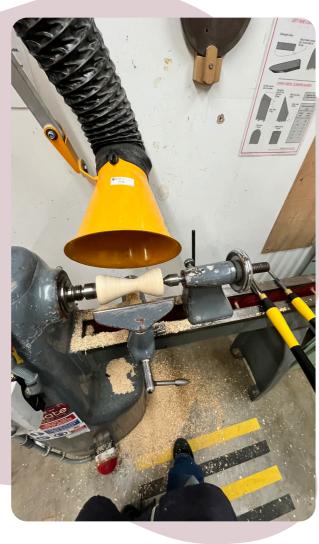






Process: technique



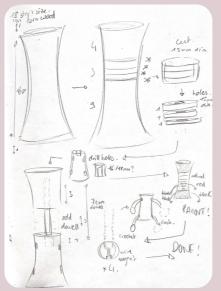


The Lathe - makes a cylinder piece of wood spin quickly horizontally. With special tools, you can carve into the spinning wood and create curved shapes. This is mostly used to make legs. Tried different types of wood on it too.

Planar - Shaves off wood at the surface. Used to shave off the sharp corners of the wood before it goes onto the lathe for a smoother start.

Other machines used - bandsaw (to cut), disc sander (to sand), drill press (to make holes of different sizes). I also used **sandpaper** manually for the smaller pieces and nooks.

Chenille yarn Crochet - for the limbs, folded stitch on itself to create a tube, then single crochet stitch around the wire.









Lathe a long hourglass shape the

length of the whole puppet

Plane wood to prepare it for the

Lathe



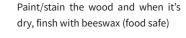














Photos taken in the UAL Chelsea wood workshop (except the crochet one)

Crochet a tube around wire and recycled plastic sleeve to make the limbs. Thread through the puppet's body and attach wooden balls at each end. Crochet hat cover too, assemble. Done!



Communication: critique

User feedback:

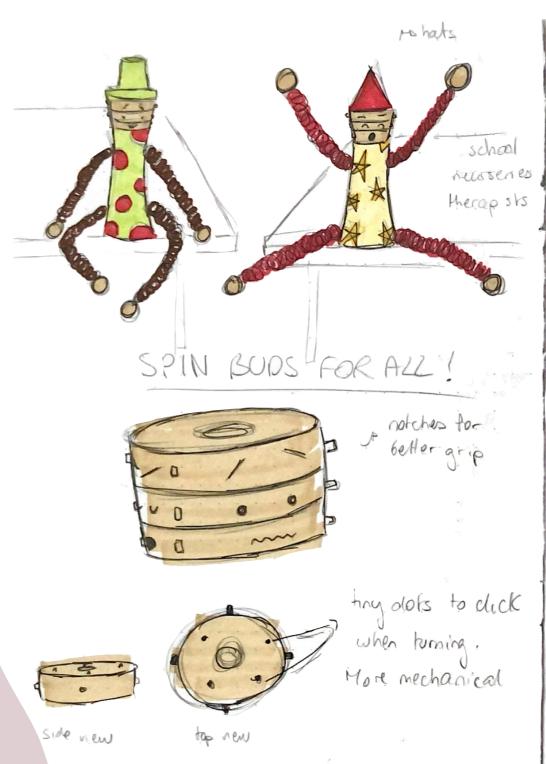
- Face better to spin/better grip
- What is the use of it being a soldier?
- Colours too dark

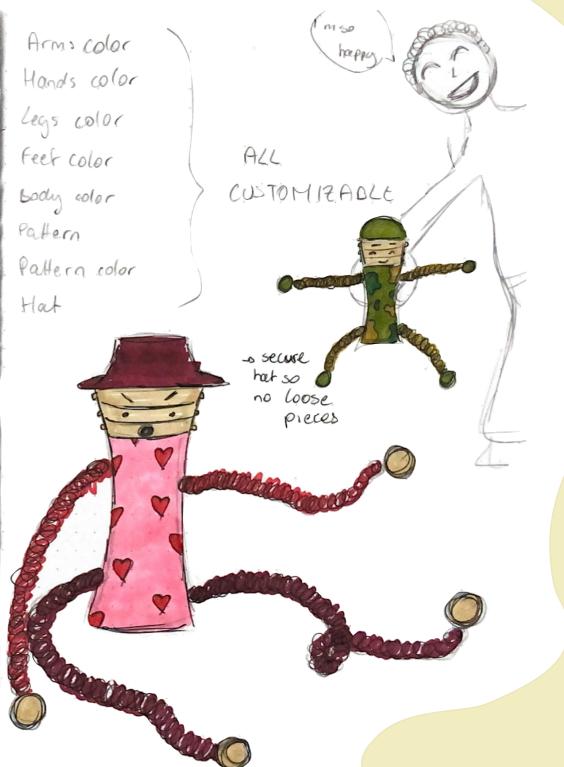
Changes:

Make the face bigger more simple to turn - small notches around the head to make it more easy to grip.

Tiny 3D dots on the wood's surface between the stacks to hear "click" and to block the face in place - trademark of fidget-like toys.

Changed the soldier look because the colours are too dark and a soldier made no specific sense for the product. Instead, I want the looks to be personalizable.





Future directions sketches

Designed

puppets

learning

right yet.

neurodivergent children, Spin'Bud

emotions to life.

safe

handmade way

to learn emotions and feelings for

the children who can't get it just

bring

and

and

Spin'Bud

A Spin'Bud for everyone!

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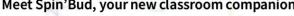






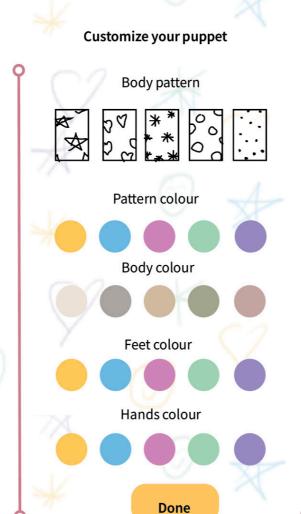




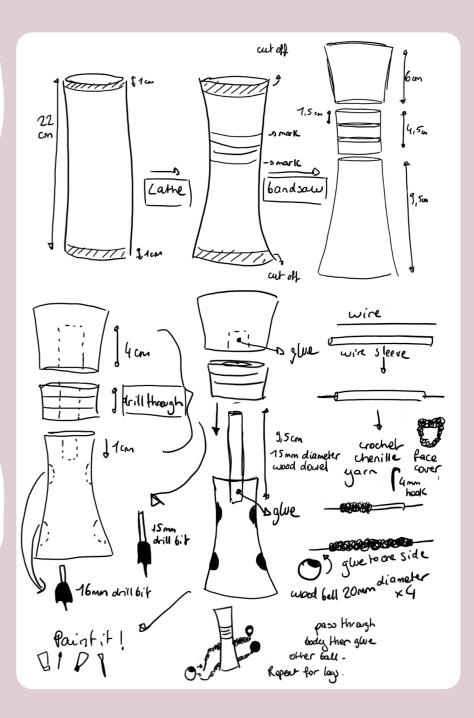








Realisation: production



Realisation: relevance







Spin'Bud photoshoot



Puppet in it's context: teacher using it to teach and encourage opening up to emotions

These puppets address the lack of emotionally engaging, neuro-inclusive tools in classrooms. They help neurodivergent children explore emotions and social interaction. They offer a playful, sensory-friendly learning tool that mass-produced toys often lack.

Conclusion: reflection

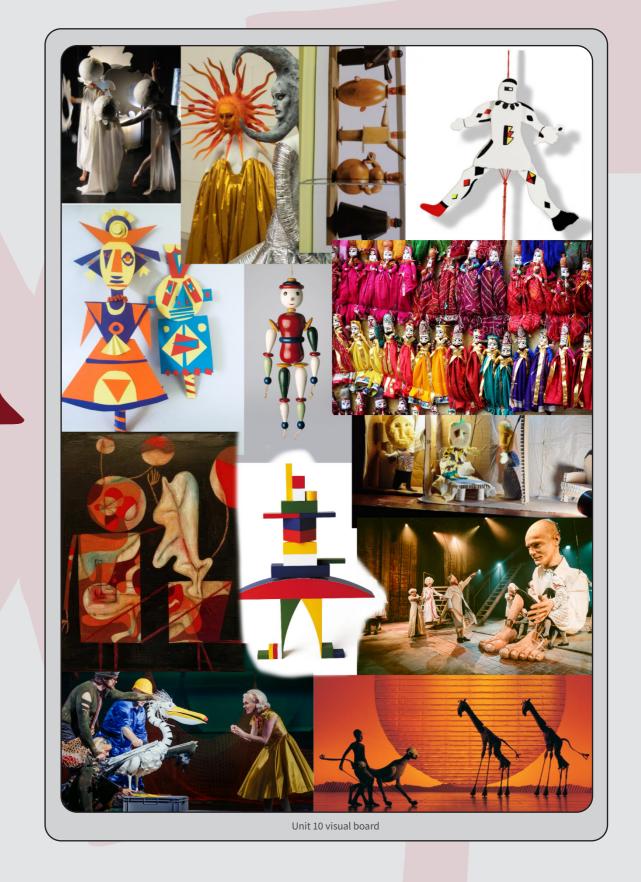


Next project?

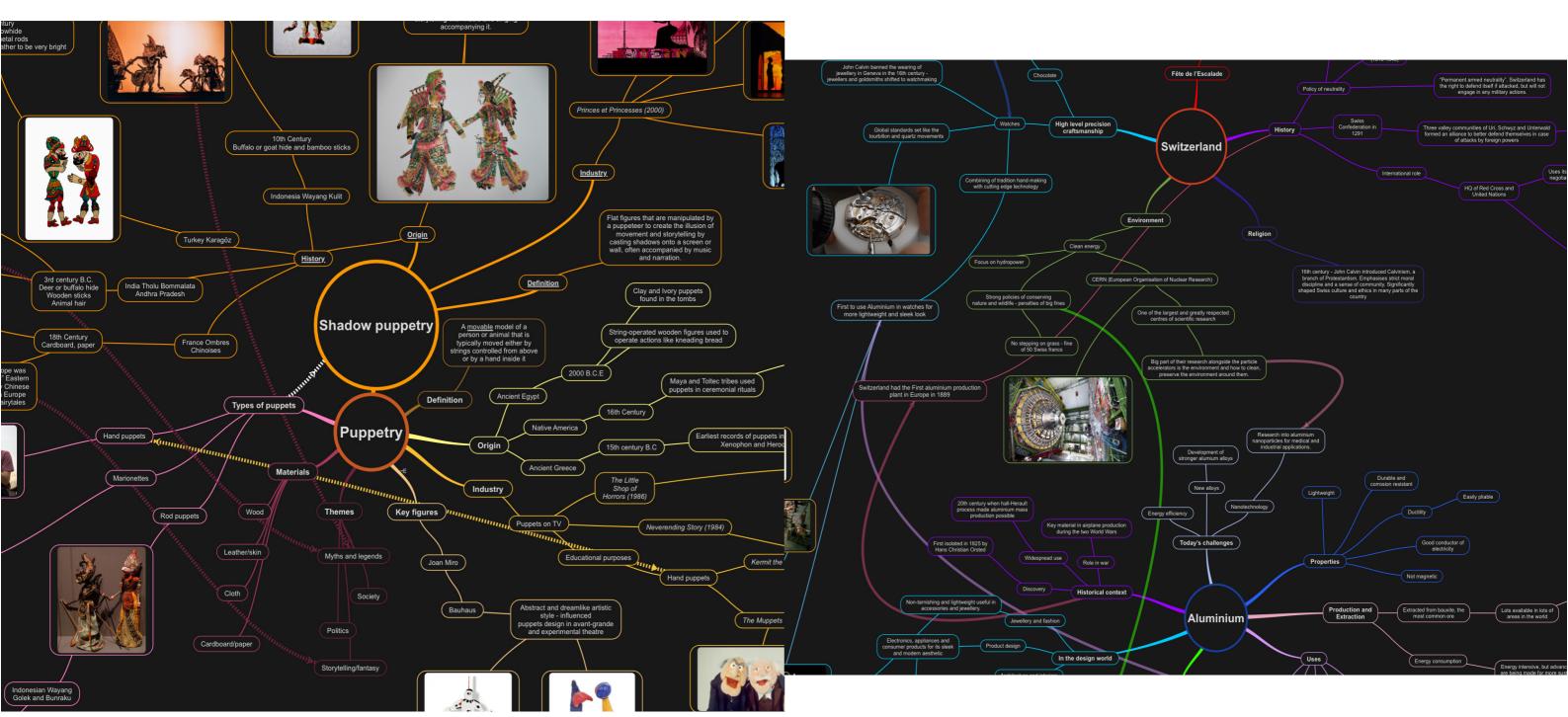
Enhanced my understanding of craft, and neuro-inclusive design. Developed new skills while refining my approach to making.

In the next project - continue working with puppets: how to include puppets to help everyday life?

More abstract puppet? Limits of a puppet? Continue designing for children?

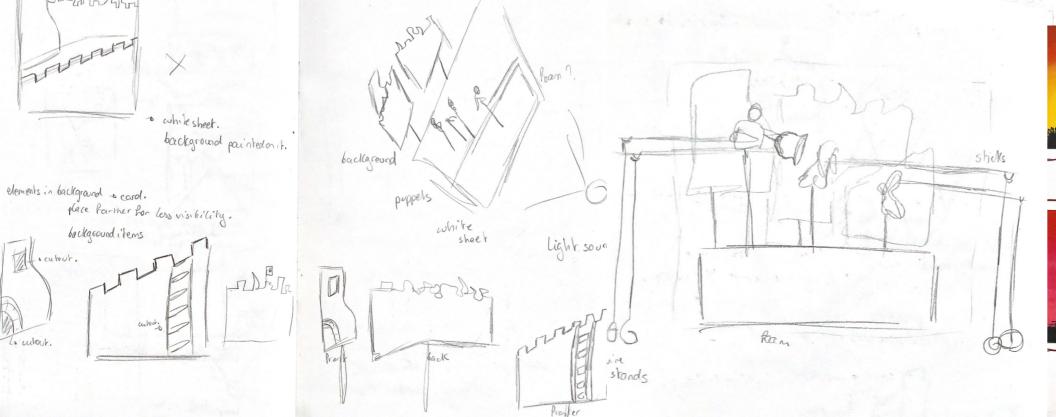


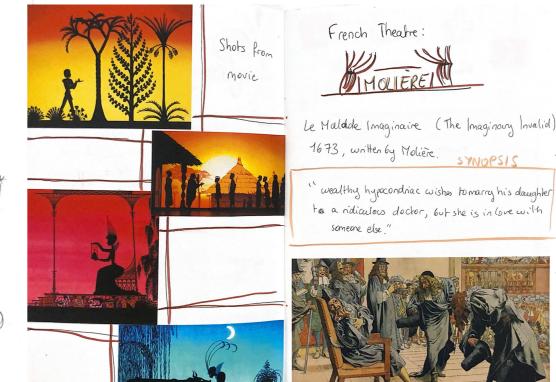
Appendix: One sheet gigamap

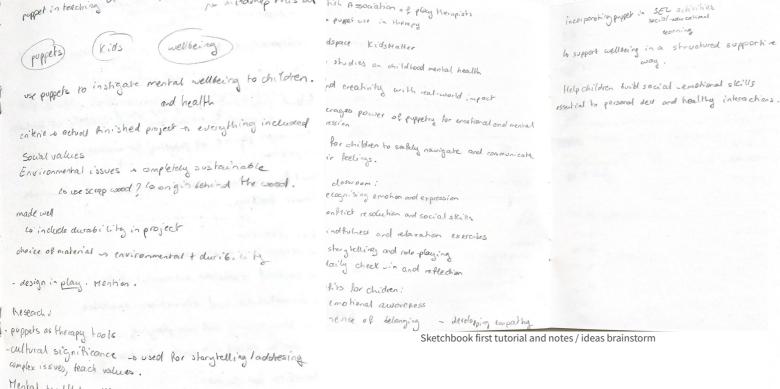


Gigamap zoomed in - shadow puppetry and puppetry relations, as well as Switzerland and aluminium

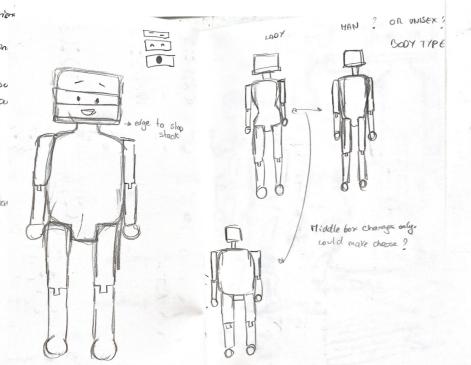


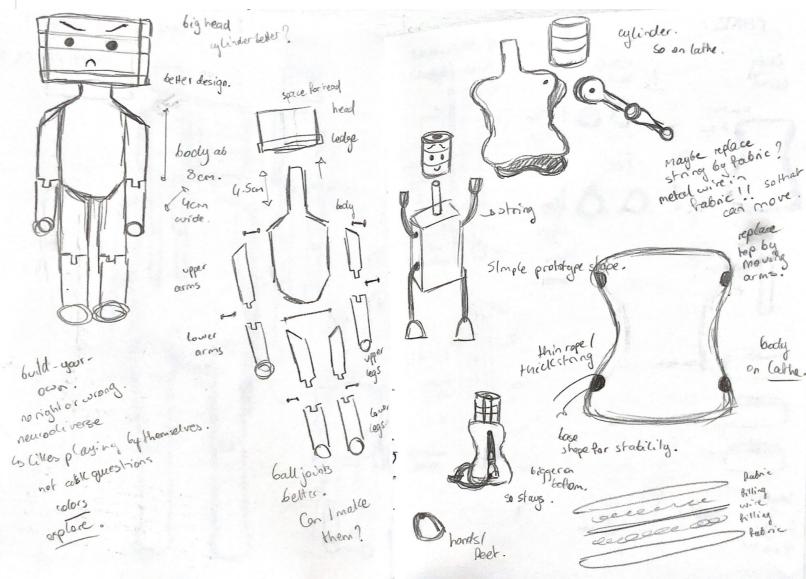


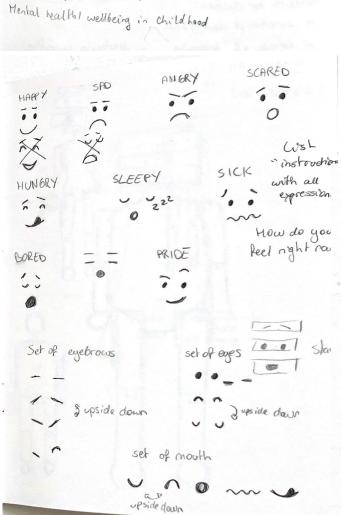


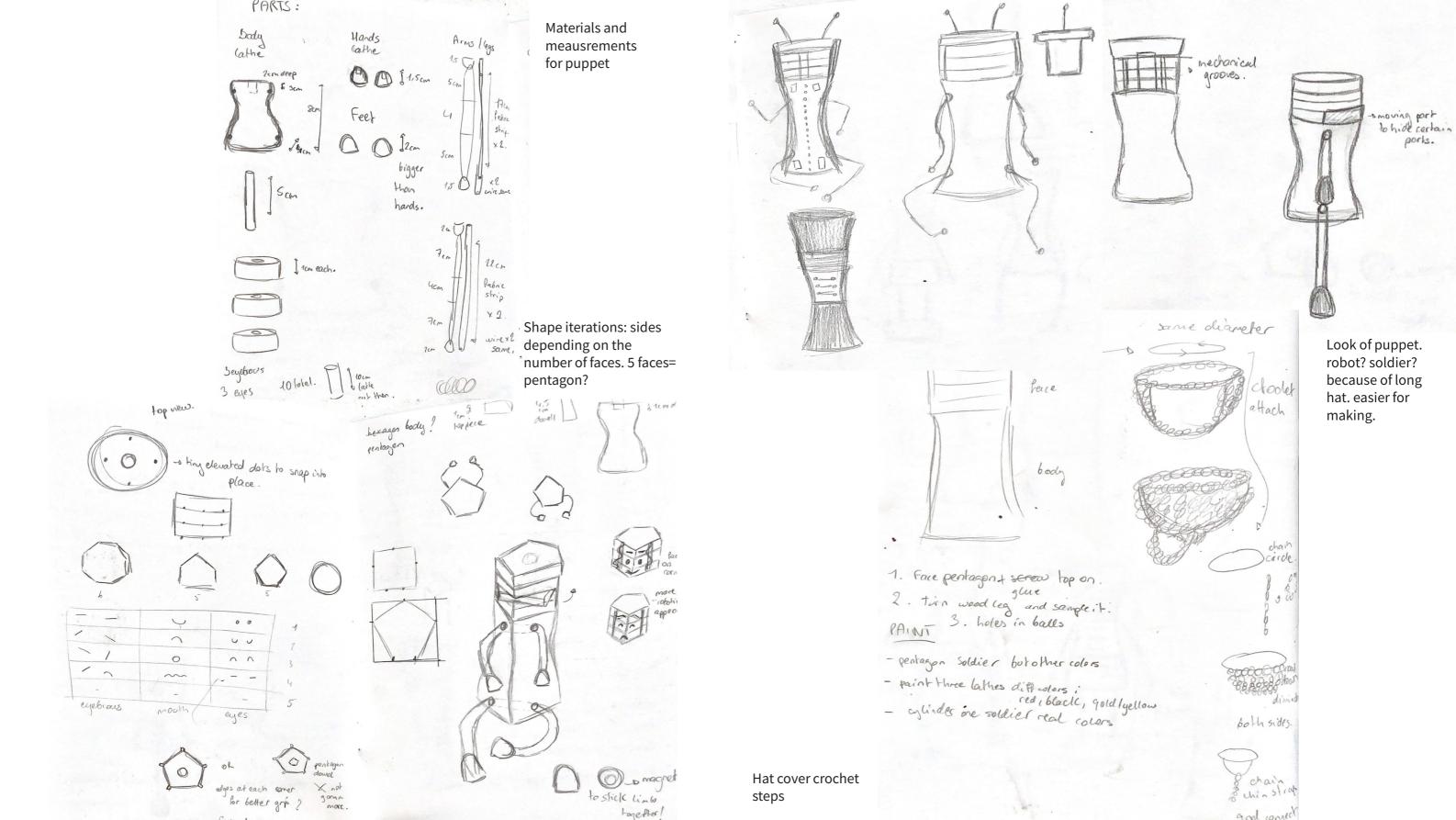


Appendix: External Brief sketchbook









Appendix: Material exploration











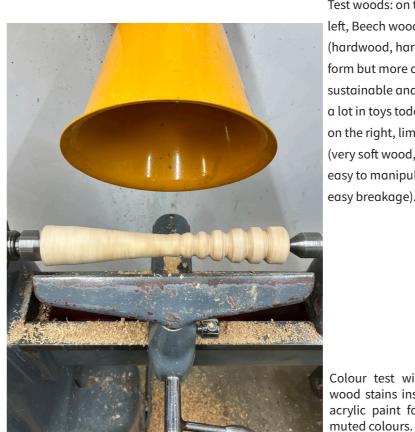




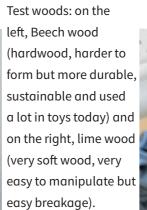


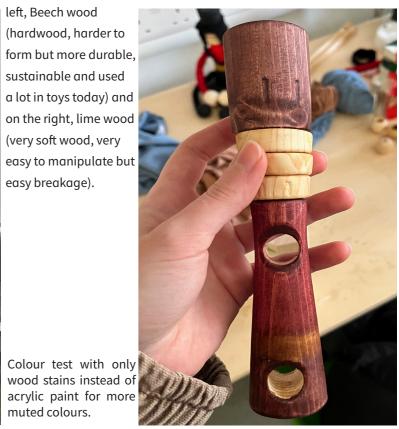
Attempt to crochet woth old t-shirts (cotton, wool, and linen but way too thick.











Questions asked	Answers given							Questions asked	Answers given		
the children?	Specialised therapist for neurodivergen t children	Teacher in inclusive preschool	Private clinic for neurodivergen t speech therapy	Nursery teacher	Private daycare	Non-profit organisation supporting families with neurodivers t children	After trying to reach out to professional caretakers and therapists specialized	Do the children respond positively to interactive tools in the classroom?	Yes	Yes	Yes, interactive features like buttons or lights are very engaging
Age group of the children you work with?	3-8 years	3-5 years	6-8 years and sometimes younger	3-6 years	4-8 years	All ages		engage them most? Materials best suited for toys in the classroom? Why?	Fabrics, mixed materials	Wooden toys and silicone toys	Wooden toys and teddy bears
challenges in	Difficulty expressing emotions	Sensory overload from noise, light, textures	Challenges socially, maintaining communicatio n	Difficulty transitioning between tasks and maintaining focus	Understanding social cues, anxiety	Limited communicat n or delaye language developmen		Would you prefer a puppet with movable and detachable features?	Yes, adds flexibility in teaching.	Yes	Yes
	Non-verbally, gestures and body language	Behaviours like withdrawal or outbursts	Drawing or storytelling	Verbally or behavioural	Drawing	Non-verbal like crying a clinging to because of privacy and ethic rules, built a detailed questionnaire and se	because of privacy and ethic rules, I built a detailed questionnaire and sent	What size would work best for classroom use?	Small and portable	Small and portable	Small and portable
	Emotions charts to label feelings	Role-playing activities	Dolls and puppets	Sensory bins, music therapy	Calming corner	Social storic	neurodivergent children. The 12 answers helped shape the puppet in it's meaning	How do you ensure the toys are inclusive to all in the classroom?	Choosing tools that cater to diverse needs	Make sure it's usable by children with varying motor skills	Adjustable levels of engagement
understand and express their emotions?	Yes, low	,	Yes	Yes	Yes, adds	Yes, non-	Link to the questionnaire: https://docs.google.com/forms/d/e/1FAIp OLSdBV 1HXGk40HbkiOSzpaDDJtCzHfHc	If you could design the perfect toy for your classroom, what features would it have?	Sensory elements like textures, sounds, buttons, light, etc.	Customisable features	Durable and non-toxic materials
puppet with different facial expressions help children understand emotions better?	pressure environment for exploring emotions	representation makes it easier for children to recognise and understand emotions			additional cues	threatening way to he,r understand emotions	b1xvEPJA6lLy1D3p6A/viewform	What would make a puppet be a valuable addition to the classroom?	Ability to act out emotions	Ability to act out emotions	Expressive features and interactive mess
engaged in	Storytelling, imaginative play	Hands-on play with interactive toys	Sensory activities	Yoga, dance, physical activities	Group storytelling with acting out roles	Interactive physical games	Answers to the questionnaire I've gotten back	Any feedback on current classroom toys that could be modified to better serve the needs of neurodivergen tohildren?	Lack adaptability	More personalised features needed	Too generic

Yes

Soft fabrics

friendly materials

fine motor

Medium for

group

activities

Try to find something

that's good

Interactive

emotional skills

social-

and building

Ability to act

out emotions,

cuteness

Wrong

materials

for everyone

skills

and sensory

Yes, helps with Yes, versatile

Medium for

group

activities

Providing

different

options

Calming

elements

Durability for

Wider variety

elements, not

of sensory

enough

durability

long use

Yes

Yes, they captivate their

wooden toys

Yes

Small and

portable

Avoiding

Modular

Soft fabric

that feels

touch

clean

good to the

Not easy to

design

g toys

overstimulatin

interest

Fabrics, wood. Plastic,

Appendix: Extra Pictures





Iterations, colour tests, shape tests





First full puppet test



Feedback given to me on the formative assessment:

- Very good response to brief
- More user tests and connect with experts, scientific studies
- Lok at the classroom context
- Good iteration, move validation for colour palette
- Make faces bigger
- More testing
- Strong idea and concept emerging well
- Ambitious project
- Testing needs structure
- Colour palette needs more focus, rationale
- Draw out concept to external design object.

marie

strong idea, concept emenging well sconnectioning with rationale sconnectioning with rationale * ambitions on project * * festing weed) structure.

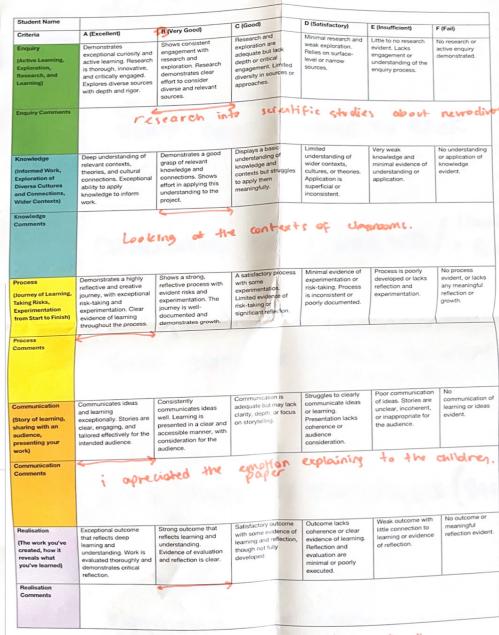
(a) eq: have formal data gallering

* Kolover palette: weeds from s/rationale ? * rigorous exploration + expansion of natural context, choices, manufacture * draw out idea/concept from

vois project to external de sign

object

* maybe ficus in contextual scatfolding



Formative Feedback Sheets Critical Practice Year 3

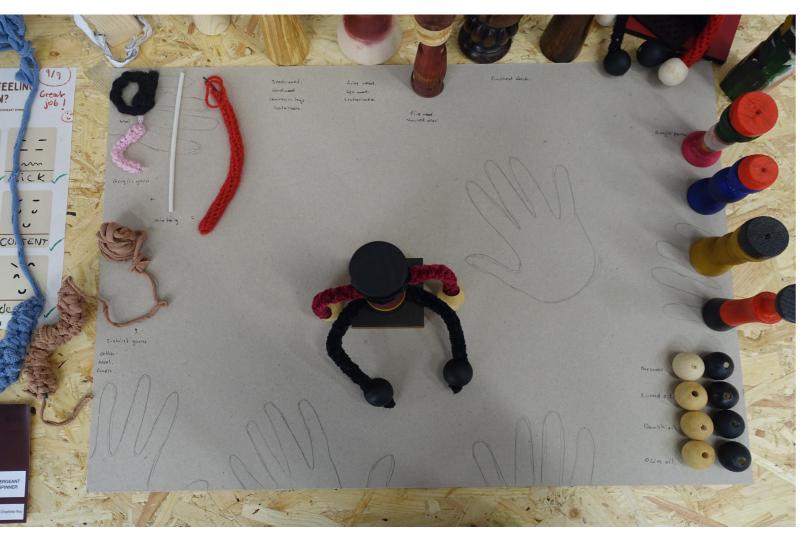


Feedback papers by Gareth Owen Lloyd, Tim Carson, and Zeynep Beren Kadioglu







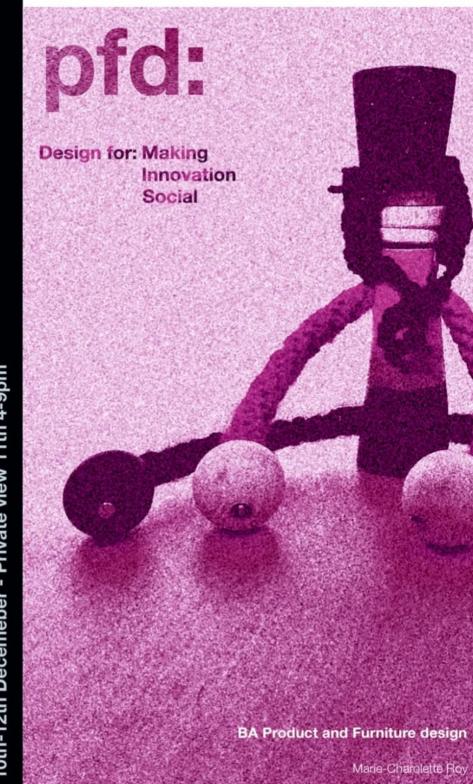








Triangle space Chelsea College of Arts SW1P 4JU



WIP show display - Iterations and material explorations present around the central finished puppet.

Spin'Bud











#FFC857

#6AB9E1

#D087BA

#9BD8B3

#A78BFA

Logo:







Repeating patterns:

















Source Sans Variable Regular Body text SPIN'BUD Meet your new classroom companion!

Impact Brand name SPIN'BUD

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