



**MA Applied Imagination 2023**  
**Project Six: Hotroom - interviews & interventions**  
**Monday 25 September**

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# Research question



**How can we create gaming concepts to develop motivation and encouragement during the recovery process for stroke survivors?**



Fig 1: (Pinterest, n.d.)

# Interview with two Vastu Shastra experts & a Feng-Shui expert - Alternative Well-being

<https://journalchevenvthmaai.myblog.arts.ac.uk/2023/06/23/analysis-of-the-feng-shui-interview/>

<https://journalchevenvthmaai.myblog.arts.ac.uk/2023/05/03/vastu-shastra-interview-questions/>

<https://journalchevenvthmaai.myblog.arts.ac.uk/2023/05/22/analysis-of-the-first-interview-with-a-vastu-shastra-expert/>

<https://journalchevenvthmaai.myblog.arts.ac.uk/2023/05/23/analysis-of-the-second-interview-with-a-vastu-shastra-expert/>

## Main findings:

Vastu interview 1: Exact consideration of placing objects and furniture is crucial

Vastu interview 2: Vastu in hospitals can lead to relaxation (for patients and employees) and quicker recovery

Feng-Shui interview: Part of the craft is cleaning spaces, which does not require a huge investment and the correct alignment of furniture

->(Overall both practices overlap and are from different countries)

## Quotes:

“The intention of Feng-Shui is to create a space that is supportive of your overall well-being.”

“Deep cleaning and decluttering will generate huge energetic results ”

“Cluttered spaces create cluttered minds.”



Fig 2: (Flipkart, n.d.)

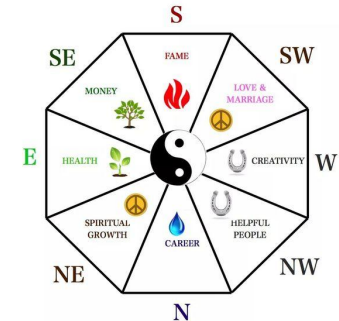


Fig 3: (magicbricks, 2023)

# Interview with a light artist - Mood & mental well-being



## Main findings:

- Was not focused on healing, however, understood the effects of mood with lighting which they experienced with visitors to their show who found art calming

## Quotes:

“I am interested in provoking a response, and I’m very aware that the quality of light, and it’s context within my own work, can affect the mood of the viewer”

“The quality of light is very important – how bright the light is, the colour of the light”

Fig 6: (Mark Boot, n.d.)

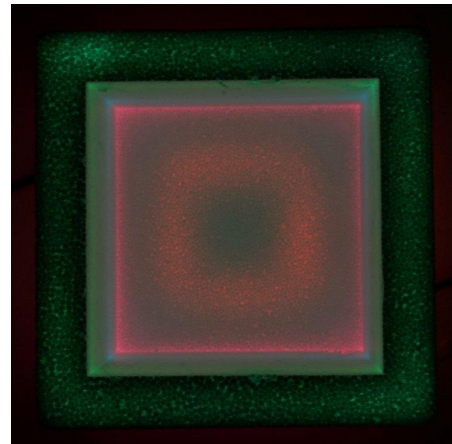
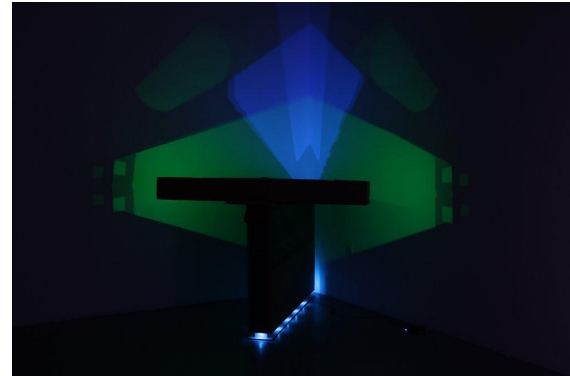


Fig 4: (Mark Boot, n.d.)



Fig 5: (Mark Boot, n.d.)

# Interview with a Chromo therapist - Healing techniques for mental well-being

<https://journalchevennevthmaai.myblog.arts.ac.uk/2023/07/24/conversation-interview-with-a-chromotherapy-and-self-healing-expert/>

## Main findings:

-Chromo therapist had no direct experience with stroke patients, however worked as a healthcare professional and was aware of the rewards for healing with other patients.

- Benefits include: anti inflammatory effect, regulation of blood pressure, improving self esteem.

## Quotes:

**“Colors have the power to reassure, how to make people more agitated. Some famous brands already use this technique.”**

**“After the session, the patient leaves feeling less stressed.”**



Fig 7: (Tripadvisor, n.d.)



Fig 8: (iStock, n.d.)

# Interview with a doctor - Recovery tools for stroke survivors

<https://journalchevennevthmaai.myblog.arts.ac.uk/2023/08/08/interview-with-a-doctor/>

## Main findings:

- Existing tools and therapies are sufficient (in general)
- Physiotherapy, speech therapy, occupational therapy are most effective
- Drug therapy isn't effective when it comes to advancing the health
- Motivation varies from patient to patient, strokes are often followed by depression
- Issues often arise when it comes to financing the patient's therapy by the health insurance

## Quotes:

**“Walking aids, rollators, etc. stair lifts, care bed, stand-up aid are used as improvement in a stroke patients daily life”**



Fig13: (Parkview Health, 2023)

# Interview with a stroke survivor - Physical and mental analysis

<https://journalcheyennevthmaai.myblog.arts.ac.uk/2023/08/21/interview-with-a-stroke-survivor/>

## Main findings:

- Card games, memory games and sensory games worked best on their healing journey
- Repetition of same game, movement or exercise had a radical impact
- Recording and documenting the healing process was important for self-awareness of improvement

## Quotes:

**“I also used online typing courses and online eye exercises.”**

**“I think also a stroke doesn't affect all people's ability to think, just their connection to their body so a lot of stroke survivors are 100% fine in their mind, they may not be able to communicate it.”**

**“As progress can seem small it is easy to forget how far you come in your journey. I took a few videos and photos and checked in to see how far I'd come and I was always surprised.”**



Fig14: (ChoosePT, n.d.)

# Interview with a physiotherapist - Expertise with stroke survivors

<https://journalchevennevthmaai.myblog.arts.ac.uk/2023/08/08/interview-with-a-physiotherapist/>

## Main findings:

- Motivation of patients mostly arises when training in groups or with a therapist
- Training at home alone barely happens
- Most difficult age groups are the early 20's and around 45-60 years (comparison to healthy people keeps on coming up)
- By making games digitally , the therapist would be able to track the progress
- Online training groups (via teams or zoom) could boost motivation
- Skittles, balls and thera bands have lost their appeal in the present day



Fig 15: ( ACE sports clinic, n.d.)

## Quotes:

**“The questions “why did it hit me and not someone else” keep germinating among the above mentioned age groups”**

**“The age groups in between appear to be more motivated and less likely to make comparisons with “healthy”.”**

**“By practice in the APP, the therapist would also have a better overview of the progress.” - “You don't notice that you're practicing because it's playful.”**

**“There are also special splints that help with reactive step triggering. But these are incredibly expensive.”**



# Stakeholders for interventions 1,2,3:

## Creative professionals



- Creatives offer a different perspective to those within the industry
- They can also connect with emotional triggers such as colour, sensory etc.
- They could also provide playful ideas such as the water games which can be required for the development of gaming.



Fig 16: (verywellmind, n.d.)

# How has intervention 1 changed/helped the situation



Fig 17: (Posterlounge, n.d.)



Fig 18: (Adobe Stock, n.d.)



Fig 19: (Freepik, n.d.)

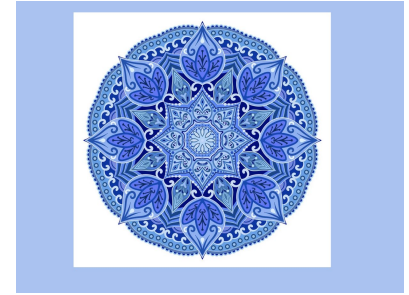


Fig 20: (iStock, n.d.)

Participants understood the impact of healing using alternative methods such as mandalas. Their connection to emotion and colour also impacted well-being responses. This helped me to understand how these elements could be included in games for stroke survivors.

# Intervention 1 - Mandalas for positive well-being

[https://docs.google.com/presentation/d/11XMoKD0AZIY0cPAE4YUZYOYhrVay1v2MhmKH7xeXl0M/edit?pli=1#slide=id.g252db150383\\_0\\_77](https://docs.google.com/presentation/d/11XMoKD0AZIY0cPAE4YUZYOYhrVay1v2MhmKH7xeXl0M/edit?pli=1#slide=id.g252db150383_0_77)

<https://journalcheyennevthmaai.myblog.arts.ac.uk/2023/06/24/intervention-mandalas-for-positive-wellbeing/>



-Noticing how participants react to mandalas in combination with music on an emotional level

## Quotes and feedback:

-“Purple feels healing and calming - more meditative”

-“I feel connected to the green one; it makes me calm”

-“The red mandala which can be intimidating”

-“The second one actually is the most peaceful one in my mind, which can not only attract my attention, it can also keep my attention.”

-“Green as a colour makes me think of mother nature growing and flourishing”

-“The blue and green mandalas are much more comfortable to look at. Blue usually makes me the most relaxing”

-“The red mandala was both off-putting and a burst of energy”

-“The purple one evokes a mysterious black hole in the universe and is very fascinating”



# Intervention 1, evidence/engagement

Please answer the following questions (change the colour of the number)

Participant 6

Which one is the most healing to you? 1, 2, 3, 4

Which one is the least healing to you? 1, 2, 3, 4

Which one makes you most energetic? 1, 2, 3, 4

Which one is most engaging and appealing? 1, 2, 3, 4

Please explain your feelings on the most responsive ones: The second, green mandala caught me immediately and I couldn't forget it while looking at the others. The design was interesting to view and has this expression that I can't describe, but enjoy. Perhaps it was the music. The first, red mandala was both off-putting and a burst of energy, maybe because the design looks like it bursts off the edge.

Please answer the following questions (change the colour of the number)

Participant 10

Which one is the most healing to you? 1, 2, 3, 4

Which one is the least healing to you? 1, 2, 3, 4

Which one makes you most energetic? 1, 2, 3, 4

Which one is most engaging and appealing? 1, 2, 3, 4

Please explain your feelings on the most responsive ones:

The third and first one has a background which acts similarly to a moving effect which makes it most appealing and energetic. Although the color red doesn't give a healing energy overall more like fierce energy. The second and fourth one has no background therefore it is not effective as the other two with background. (looks more to me like an art showcase in a gallery/ indian folk art - rangoli - as the designs are similar )

The most responsive one for me would be the third one as it's calming to look at, eye catching and looks like it is moving in a way.

# How has intervention 2 changed/helped the situation

Participant 4

I would provide the patient some lovely and customized cushions or artefacts as their companions, which make them feel like they are not alone and help with their emotions and spiritual comfort. The artefact could be any shapes, but they should all match with the medical device testing standards.

Based on the patient's preference for the type of room environment, there will be a light projector in the room for them to choose the environment they would like to immerse with. Even though some patients are not able to go outside to relieve boredom, they can still have the opportunity to engage with a different environment with the digital effects.



Fig 21: (von Thun, 2023)

Participant 8

I have never actually been to a hospital in the UK, which from the look of it can be quite dull even if they provide all the facilities needed. I feel like there should be more colours and plants to make the space look more lively. The colours can be in panels or removable wallpaper so that it can be customizable for the hospital. Windows that allow sunlight and fresh air would be great as well.

Maybe the hospital can also provide inspiring books and even board games so the space feels more comfortable.



Fig 22: (von Thun, 2023)

## The development of ideas from the intervention:

As stroke survivors begin their recovery stages in hospitals, I was keen to know how these environments could improve well-being initially. Interestingly, much of my research connected to tactile, colour and visual sensation was also suggested by participants. From here, I could envisage small visual sensations for stroke survivors.

# Intervention 2 - Your ideal hospital space

[https://docs.google.com/presentation/d/1albHFynEdG7qqdfGOM6lWfkvfW8LK5mVadLXAByc5Q/edit#slide=id.g2553db98e4c\\_0\\_2](https://docs.google.com/presentation/d/1albHFynEdG7qqdfGOM6lWfkvfW8LK5mVadLXAByc5Q/edit#slide=id.g2553db98e4c_0_2)



-Participants suggesting how healing and hospital spaces could be improved

## Quotes and feedback:

-“I would love to listen to calming sounds such as nature and see projections (e.g. moving clouds) on the ceiling”

-“Light therapy can be effective for some patients who are ill ” - “Effective for some patients who are ill and in a bad mood, as well as for those who feel fearful and uneasy”

-“Light projector in the room for them to choose the environment they would like to immerse with. Even though some patients are not able to go outside to relieve boredom, they can still have the opportunity”

-“I would love to be able to open my eyes and see large green plants when I am in hospital”

-“Painting can reduce my anxiety and nervousness, and it is also an ideal way to kill time. ”

-“I feel like there should be more colours and plants to make the space look more lively. ”

<https://journalchevennevthmaai.myblog.arts.ac.uk/2023/07/06/intervention-your-ideal-hospital-space/>

# How has intervention 3 changed/helped the situation



## Participant 1

Alongside walking in water, stimulation of arms and movements, some fun context could be added if patient is physically able and to take away the focus on exercise by creating a revised version of a [watergun](#). This pumping action and moving of fingers could be incorporated into games for the pool such as aiming at a target or through rings



## The development of ideas from the intervention:

This was an intervention to understand physical requirements and how gaming could be included. Although there were interesting responses, this idea could not advance as the possibilities of working with water were limited, hence I moved onto exploring other visual sensations and modes of progress.

Fig 23: (von Thun, 2023)

# Intervention 3- Mobility in water for stroke survivors

[https://docs.google.com/presentation/d/1P3tc\\_4D\\_fepWtpY4x2XVXITEYpkQfgrvm85N5zC4ZvM/edit#slide=id.g259ac49357a\\_0\\_2](https://docs.google.com/presentation/d/1P3tc_4D_fepWtpY4x2XVXITEYpkQfgrvm85N5zC4ZvM/edit#slide=id.g259ac49357a_0_2)

<https://journalcheyennevthmaai.myblog.arts.ac.uk/2023/07/25/intervention-mobility-in-water-for-stroke-survivors/>

-Engagement of people suggesting fun games and exercises in water

## Quotes and feedback:

-“A water gun. This pumping action and moving of fingers could be incorporated into games for the pool”

-“An aquatic environment can help to stretch the muscles and promote flexibility. Aqua Yoga is both meditative and relaxing”

-“Get a certain degree of pressure relief. In addition, from the mental level, the ambient temperature of the water can help the participants relax.”

-“Throwing coins trains the agility of body and eyesight.”



# Stakeholders intervention 4-

## Role of physiotherapist



Fig 24: (Ultimate Health Clinic, n.d.)

Gave constructive advice using their experience with stroke survivors on physical requirements in gaming solutions. It was best to use this intervention with the physiotherapist and not with a stroke survivor as there were some safety concerns e.g. hot/cold sensory responses to consider.

[https://docs.google.com/presentation/d/198uJv7O\\_ktfOBLIH6hbVM8HCM2laVYwqUny9mP70hoc/e/dit?hl=de#slide=id.g2757e86b1d6\\_0\\_3](https://docs.google.com/presentation/d/198uJv7O_ktfOBLIH6hbVM8HCM2laVYwqUny9mP70hoc/e/dit?hl=de#slide=id.g2757e86b1d6_0_3)

<https://journalcheyennevthmaai.myblog.arts.ac.uk/2023/08/22/intervention-with-a-physiotherapist/>

# How has the intervention changed/helped the situation



Fig 25: (OpenAI, Dall.E2, 2023)



Fig 26: (OpenAI, Dall.E2, 2023)



Fig 27: (OpenAI, Dall.E2, 2023)

## The development of ideas from the intervention:

This was the most successful intervention as I gave the physiotherapist a variety of visual and tactile options to consider for gaming solutions based on the feedback from interview. These sensations will be developed considering 3d prototypes everyday objects.

Games and instructions will also be considered i.e. repetition and methods of documenting progress

# Intervention 4, Sensory Responses



-Was made especially for a physiotherapist to explore sensory and tactile responses

## Main findings:

-To develop the intended games further their suggestions were:

-> Adding Hot/cold vibrations, different structures in order to reach deep muscles

->Integrating levels to games

->Combining games with music (like the “Simon game” does)

## Quotes and feedback:

-“It is also important in tactile rehabilitation to take all sensory levels into account. It would also be good if, for example, hot/cold; smooth/structured (your pictures show this); and combined with vibrations to get into the deeper muscle chains.”

-“ The toy could work with the mirror neurons: you get the same application toy in each hand. If we take the toy from slide 4, for example, the couples could sit in different places and you have to find the right ones.”

“There are also special splints that help with reactive step triggering. But these are incredibly expensive.”



Fig 28: (Fun Stuff, n.d.)

# Intervention 4, evidence/engagement

## Answers:

Wichtig in der Taktile Rehabilitation ist es auch alle sensorischen Ebenen zu berücksichtigen. Dabei wäre es auch gut, wenn man z.B heiß/ kalt; glatt/strukturiert (dies zeigen ja deine Bilder); und mit Vibrationen kombiniert wird, um in die tieferen Muskelketten zu geraten.

It is also important in tactile rehabilitation to take all sensory levels into account. It would also be good if, for example, hot/cold; smooth/structured (your pictures show this); and combined with vibrations to get into the deeper muscle chains.

Wenn man nun ein Spiel entwickelt kannst du ja jede Ebene mit Variationen versehen.

Z.B eine spezielle vibrations Frequenz, und man muss die zusammenpassenden Pärchen finden oder eben die gallertige Oberfläche etc.

If you now develop a game you can add variations to each level.

E.g. a special vibration frequency, and you have to find the matching pairs or just the gelatinous surface etc.

Auch hier könnte das Spielzeug mit den Spiegelneuronen arbeiten: man bekommt in jede Hand das gleiche Applikations-Spielzeug. Nehmen wir z.B das Spielzeug aus Folie 4 könnten die Pärchen ja an unterschiedlichen Stellen sitzen und man muss die passenden finden.

Here, too, the toy could work with the mirror neurons: you get the same application toy in each hand. If we take the toy from slide 4, for example, the couples could sit in different places and you have to find the right ones.

Bei Folie 9 könnte ich mir auch gut ein musikalisches „Spielzeug“ vorstellen.

On slide 9, I could well imagine a musical "toy".



Sowas in der Art. Das könnte man auch gut als Gruppentherapie integrieren.

Something like that. It could also be integrated into group therapy.

# Figures List




Fig 1: *People playing board games* (n.d.) *Pinterest*. Available at: <https://www.pinterest.com/pin/people-playing-board-games--147563325280355733/> (Accessed: 16 September 2023).

Fig 2: *Wall Sticker Poster Of 'Vastu Shastra'* (n.d.) *Flipkart*. Available at: <https://www.flipkart.com/wall-sticker-poster-vastu-shastra-unframed-good-luck-positivity-decorative-cupboards-home-offices-1-piece-wall-decor-paper-print/p/itm4e3b3349cdb5> (Accessed: 04 August 2023).

Fig 3: *Feng Shui Bagua Map - Understanding What It Is And How To Use It In Your Home* (2023) *magicbricks*. Available at: <https://www.magicbricks.com/blog/feng-shui-bagua-map/130106.html> (Accessed: 04 August 2023).

Fig 4: *Four Roche Boxes, 2014, Detail*. (n.d.) *Mark Boot*. Available at: <https://www.markboot.co.uk/el-wire-sculptures/tmiovuqrcwtgcec6yvv4m7qznoxh0ge> (Accessed: 02 August 2023).

Fig 5: *Lines crossed* (n.d.) <https://www.markboot.co.uk/time-based-led-lines-crossed>. *Mark Boot*. Available at: <https://www.markboot.co.uk/time-based-led-lines-crossed> (Accessed: 02 August 2023).

Fig 6: *Box Set 2021 Pt3 - TV boxes* (n.d.) *Mark Boot*. Available at: <https://www.markboot.co.uk/box-set-2021-an-installation-in-three-parts/zec6qeggapzv7jbv5n3yv64wnvtgse> (Accessed: 02 August 2023).

Fig 11: *Photo: Our Rain Treatment Room. Chromotherapy in all of our treatment rooms* (no date) *tripadvisor*. Available at: [https://www.tripadvisor.in/LocationPhotoDirectLink-g43466-d9788408-i484953139-Healing\\_Touch\\_Spa-Rochester\\_Minnesota.html](https://www.tripadvisor.in/LocationPhotoDirectLink-g43466-d9788408-i484953139-Healing_Touch_Spa-Rochester_Minnesota.html) (Accessed: 02 August 2023).

Fig 12: *Pink corner; spa: chromotherapy and relax* (n.d.) *iStock*. Available at: <https://www.istockphoto.com/tr/foto%C4%9Fraf/chromotherapy-and-relax-gm155388744-19572076> (Accessed: 02 August 2023).




Fig 13: How to find the right doctor for you (2023) Parkview Health. Available at: <https://www.parkview.com/blog/how-to-find-the-right-doctor-for-you> (Accessed: 16 September 2023).

Fig 14: Recovery From a Stroke: 9 Benefits of Physical Therapy (n.d.) ChoosePT. Available at: <https://www.choosept.com/health-tips/recovery-stroke-9-benefits-physical-therapy> (Accessed: 16 September 2023).

Fig 15: The Most Common Physiotherapy Treatments for Healing & Wellbeing (n.d.) ACE sports clinic . Available at: <https://www.acesportsclinic.com.au/blog/the-most-common-physiotherapy-treatments-for-healing-wellbeing/> (Accessed: 16 September 2023).

Fig 16: A Creative Person Is Conservative and Rebellious (n.d.) verywellmind. Available at: <https://www.verywellmind.com/characteristics-of-creative-people-2795488> (Accessed: 16 September 2023).

Fig 17: Poster Mandala - Deine Schöpferkraft (n.d. Posterlounge. Available at: <https://www.posterlounge.de/p/328053.html#paid=19450> (Accessed: 02 August 2023)

Fig 18: Flower Mandala in green and brown colors. Vintage decorative elements. Oriental pattern. Islam, Arabic, pakistan, chinese, ottoman, Indian, turkish ... (n.d.) Adobe Stock. Available at: <https://stock.adobe.com/at/images/flower-mandala-in-green-and-brown-colors-vintage-decorative-elements-oriental-pattern-islam-arabic-pakistan-chinese-ottoman-indian-turkish-motifs/111580975> (Accessed: 02 August 2023).

Fig 19: Abstract mystic blue painted picture mandala of vishuddha chakra (n.d.) freepik. Available at: [https://www.freepik.com/premium-photo/abstract-mystic-blue-painted-picture-mandala-vishuddha-chakra\\_36754735.htm](https://www.freepik.com/premium-photo/abstract-mystic-blue-painted-picture-mandala-vishuddha-chakra_36754735.htm) (Accessed: 02 August 2023).

Fig 20: Blaue Mandala. Geometrischen Kreis Element auf weiß. – Vektor Illustration (n.d.) iStock. Available at: <https://www.istockphoto.com/de/vektor/blau-mandala-geometrischen-kreis-element-auf-wei%C3%9F-gm936357226-256143043> (Accessed: 02 August 2023).



Fig 21: Screenshot 1, Intervention 2 (2023) photo by Cheyenne von Thun

Fig 22: Screenshot 2, Intervention 2 (2023) photo by Cheyenne von Thun

Fig 23: Screenshot 1, Intervention 3 (2023) photo by Cheyenne von Thun

Fig 24: *8 Reasons You Should See a Physiotherapist* (n.d.) *Ultimate Health Clinic* . Available at: <https://ultimatehealthclinic.ca/blog/healthcare-tips-and-news/reasons-you-see-physiotherapist/> (Accessed: 16 September 2023).

Fig 25: Pearl teacup (2023) photo created with Open AI, Dall.E2

Fig 26: Spike teacup (2023) photo created with Open AI, Dall.E2

Fig 27: Moss teacup (2023) photo created with Open AI, Dall.E2

Fig 28: *Categories* (n.d.) *Fun Stuff Toys*. Available at: [https://www.fstoy.com/index.php?option=com\\_virtuemart&keyword=&category\\_id=&limitstart=&mosmsg=Sorry%2C+but+the+Product+you%27ve+requested+wasn%27t+found%21](https://www.fstoy.com/index.php?option=com_virtuemart&keyword=&category_id=&limitstart=&mosmsg=Sorry%2C+but+the+Product+you%27ve+requested+wasn%27t+found%21) (Accessed: 23 August 2023).