PROJECT CONCEPT DOCUMENT

K2DM

Contents

CONCEPT

In today's fast-paced digital age, where information is key, our agency, K2DM, has taken on the task of developing something special: the Pixel Playground Knowledge Database Website. The Pixel Playground is an innovative virtual production studio. What we desire to create will be more than just a website; it will be a new way to explore, share knowledge, and gain the latest information on the numerous equipment that the lab has in place. The Pixel Playground brims with innovation. However, because of the complexity of its technologies, most of its potential remains unfulfilled. This project arises from the desire to bridge this information gap, display the Pixel Playground effectively, and give students, teachers, and external stakeholders the resources they require to fully understand the capabilities of the Pixel Playground.

Our primary goal is to showcase the services, technologies, and resources within the Pixel Playground, to make it accessible for all users. We aim to create a virtual window into it. But what distinguishes our approach is that we want to create an engaging journey rather

than just offer information. Users should be able to explore the Pixel Playground's more thoroughly with each click on our website.
We plan to achieve this by fully understanding our target users, identifying their problems and pain points, and meeting their needs. To ensure that our website satisfies their unique needs, we have carried out in-depth user research to learn about their preferences and challenges.
To execute our concept, we carried out secondary research, which involved looking up existing knowledge databases and platforms online. This helped us learn about industry best practices and potential market gaps.
We proceeded to conduct primary research through surveys and interviews. Through these interactions, we were able to communicate directly with our target audience and learn about their wants, preferences, and pain points regarding information sharing in virtual production.
We also conducted a competitive analysis to evaluate both the pros and cons of current knowledge databases and to spot areas for differentiation.

GOALS

The primary goal of this project is to fulfil Pixel Playground’s need for a concise, understandable guide. The video lab's services and technologies are currently not adequately showcased or accessible online, limiting its visibility and reach to potential users and stakeholders. Currently, there is no centralized platform to provide clear, current, and comprehensive information about the lab's offerings. In the desired situation, the Pixel Playground video lab will have an up-to-date, user-friendly website that offers a coherent and engaging overview of its services, technology, and capabilities. Users of the website can quickly explore the products and services of the lab and get a clear sense of the resources available, as well as be guided on how to use said resources.
For students, teachers, and outside stakeholders, the website will act as a dependable source of information, promoting engagement and collaboration.

The project's benefits include:

1. Increased Visibility: The website will increase the lab's visibility, bringing in potential students, teachers, and partners who want to make use of its innovations by presenting the lab’s content in a simple and easy to understand way.

The possibilities offered by the project include:

1. Comprehensive Information Hub: The website will serve as a comprehensive hub, providing in-depth information on the services, tools, and project opportunities offered by the lab.

2. Effortless Updates: The website's design will make it easy to keep the information up to date, keeping it current and responsive to changing needs.

OUR TARGET GROUP

Our target group primarily consists of students and teachers from FHICT and Media Design. Also, we aim to cater to students and teachers from various profiles, as well as external stakeholders like Pulsed and potential students thinking about choosing FHICT for their academic career. Through our user research, we have seen a recurring theme among this broad audience: they have a curiosity about what the Pixel Playground has to offer yet lack easy access to information about the lab.

CONTEXT

The Pixel Playground, Fontys' in-house virtual production lab, is well equipped with professional-grade equipment and capabilities. However, despite its immense potential, it is underutilized and hidden from its intended users—students, teachers, and external stakeholders. The main issue is the scarcity of comprehensive, easily accessible information about the services, technologies, and resources offered by the lab. Currently, the lab lacks an easy to access and easy to understand guide about its capabilities and how to use its equipment.

To bridge the information gap and fully utilize the Pixel Playground, we hope to create an online platform that will allow users access, explore, and understand the services that the lab offers.

The Pixel Playground is within R10, the building of Information and Communication technology of FHICT. The environment fosters innovation and creativity, making it an ideal hub for people interested in virtual production.

The dominant culture in this academic setting promotes sharing knowledge and the advancement of technology. Aligning this culture with the lab's potential, however, is the current problem. Our idea focuses on capitalizing on this culture by offering a platform that values acquiring knowledge.

We have learned more about the experiences of our target audience through our user research. Most users show a great desire to explore the Pixel playground despite not knowing much about it and are frustrated by the lack of readily available information. They are curious and would like to have access to resources that will improve their knowledge of the lab offerings. Their problems are caused by how difficult it is to find relevant information.

SECONDARY RESEARCH

As part of our secondary research, we explored the concept of a knowledge base, getting insights from industry leaders. According to Atlassian, a software company that designs products to help teams work and collaborate better, a knowledge base is described as a selfserve online repository of information pertaining to a product, service, department, or specific subject matter. This invaluable resource accumulates data from various sources, with

contributions primarily coming from individuals well-versed in the relevant subjects, collectively expanding and enriching the knowledge base.

Some of the first websites we researched for our secondary research include the following:

- Wikipedia: Wikipedia is an online encyclopedia that lets people write, edit, and maintain entries on several topics. It is known for its huge information base compiled by volunteers from across the world. Wikipedia mostly consists of textual articles with references and links to related articles. It may also include images and some media.

- YouTube: YouTube is a platform for sharing videos, allowing users to publish, watch, and engage with videos on a range of topics. It is well known for its enormous collection of user-generated video content. Tutorials, vlogs, documentaries are all available on YouTube. YouTube encourages user interaction through features like likes, comments, shares, and subscriptions. To keep viewers watching, it also makes personalized recommendations.

- Coursera is a platform for online learning that provides courses and degrees from universities and other institutions worldwide. It is known for offering highquality teaching materials. Coursera curates' information by collaborating with universities and other organizations to provide approved courses. Coursera primarily provides reading materials, quizzes, and video lectures.

These websites served as valuable sources of inspiration and provided us with a solid foundation to kickstart our research.

PRIMARY RESEARCH

We conducted a survey with 20 respondents so far. With this survey, we were able to identify the following:

1. A large proportion of the people interested in the pixel playground are students.
2. The survey reveals a strong curiosity among respondents about the Pixel Playground. Many expressed a desire to access detailed information about the lab's services and technologies.
3. A recurring theme among respondents is frustration due to the scarcity of accessible information about the lab.

Based on our survey results, 90% of respondents are students (see Appendix 1), and this suggests that our design choices should be primarily centered on students. It should be our top priority to develop an interface and content that appeals to students, assuring accessibility, engagement, and ease of use.

100% of respondents (see Appendix 4) rely on online resources for their coursework and teaching materials, and 55% of them (see Appendix 2) use these resources very often. These results showcase the crucial part that digital learning platforms play in education today.

60% of respondents admit to being entirely unfamiliar with the Pixel Playground, while 35% express some level of familiarity, and only 5% of respondents (see Appendix) say they are extremely familiar with the Pixel Playground. These results point to an information gap that our website seeks to bridge. We envision our website becoming a knowledge center by offering a comprehensive and easily available knowledge database, turning the lab from unknown to a well-known and accessible resource.

The survey's findings reveal a recurrent theme: respondents have a great need for instructions on how to use the resources available at the Pixel Playground (see Appendix 3). This pattern demonstrates the practical requirements of our target audience, emphasizing their demand for easy-to-access information about how to use the lab's equipment. What is particularly noteworthy is the preference respondents (see Appendix 5) indicate for tutorials that integrate text- and video-based content.

We also conducted interviews to gain deeper understanding of how our target users interact with online learning platforms and educational websites.

From the interview, here are the key findings:

User-Friendly Interface: Sally emphasized the importance of an easy-to-use interface that allows for effortless navigation.
Multimedia Support: Sally mentioned the need for the website to support various types of content, including text, images, and videos. This aligns with the multimedia nature of the Video Lab.
Content update: Sally expressed concern about outdated content. He recommended regular updates.
Clear Navigation: Sally mentioned the challenge of getting lost within websites. He suggested a well-organized structure and a search function to improve navigation. Integration with Multimedia: Given the multimedia focus of the Video Lab, Sally emphasized the need for the website to seamlessly handle various media types, including proper categorization.
Engagement Elements: Sally expressed interest in interactive elements like quizzes or games to make the learning experience more engaging and enjoyable.

PERSONAS

From our research, we not only gained valuable insights into knowledge databases but also took a critical step in better understanding our target audience. Utilizing the information gained, we created personas that represent the individuals who would use the Pixel Playground Knowledge Database. These personas serve as guides in tailoring our platform to meet the specific needs, preferences, and expectations of our users, ultimately ensuring a more personalized and user-centric experience.

Fig. 1 Alexandra persona

Fig. 2 Francis persona

Fig. 3 Alex persona

COMPETITOR ANALYSIS

We researched and analysed some of our potential competitors to gain a deeper understanding of the competition. By analysing their strengths and weaknesses, we were able to gather valuable information that will help us make our choices and help with the success of our project.

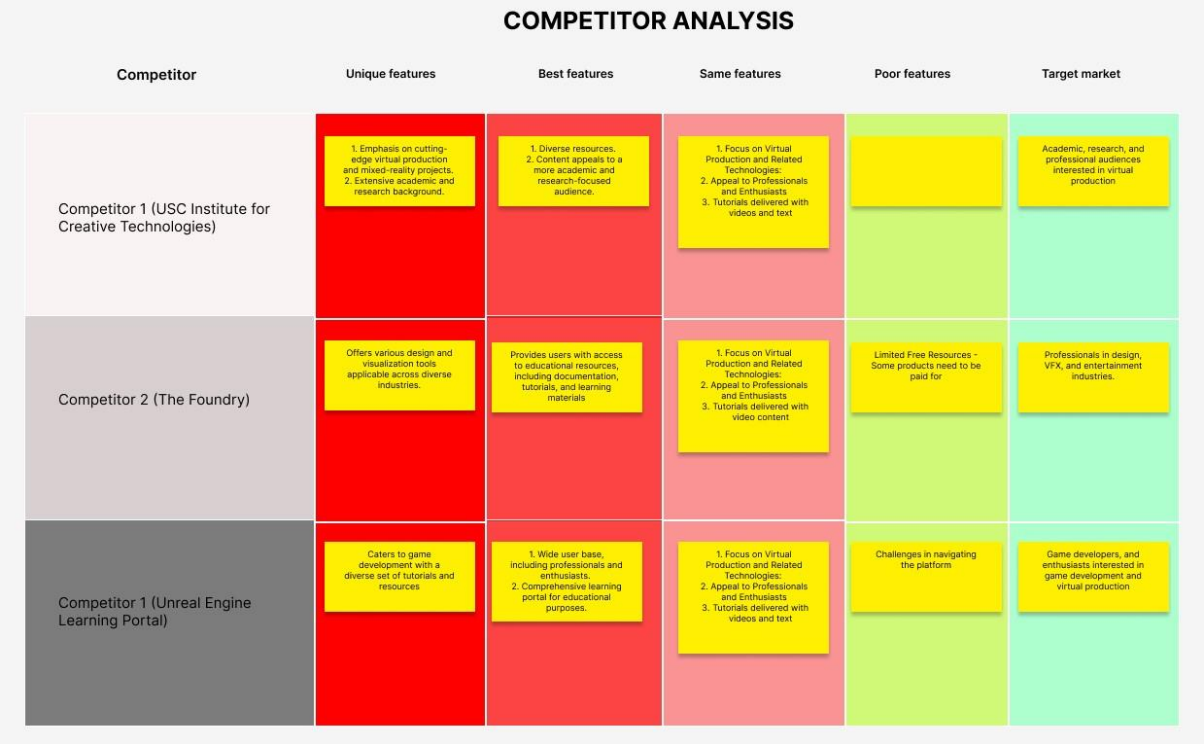

Fig 4. Competitor analysis

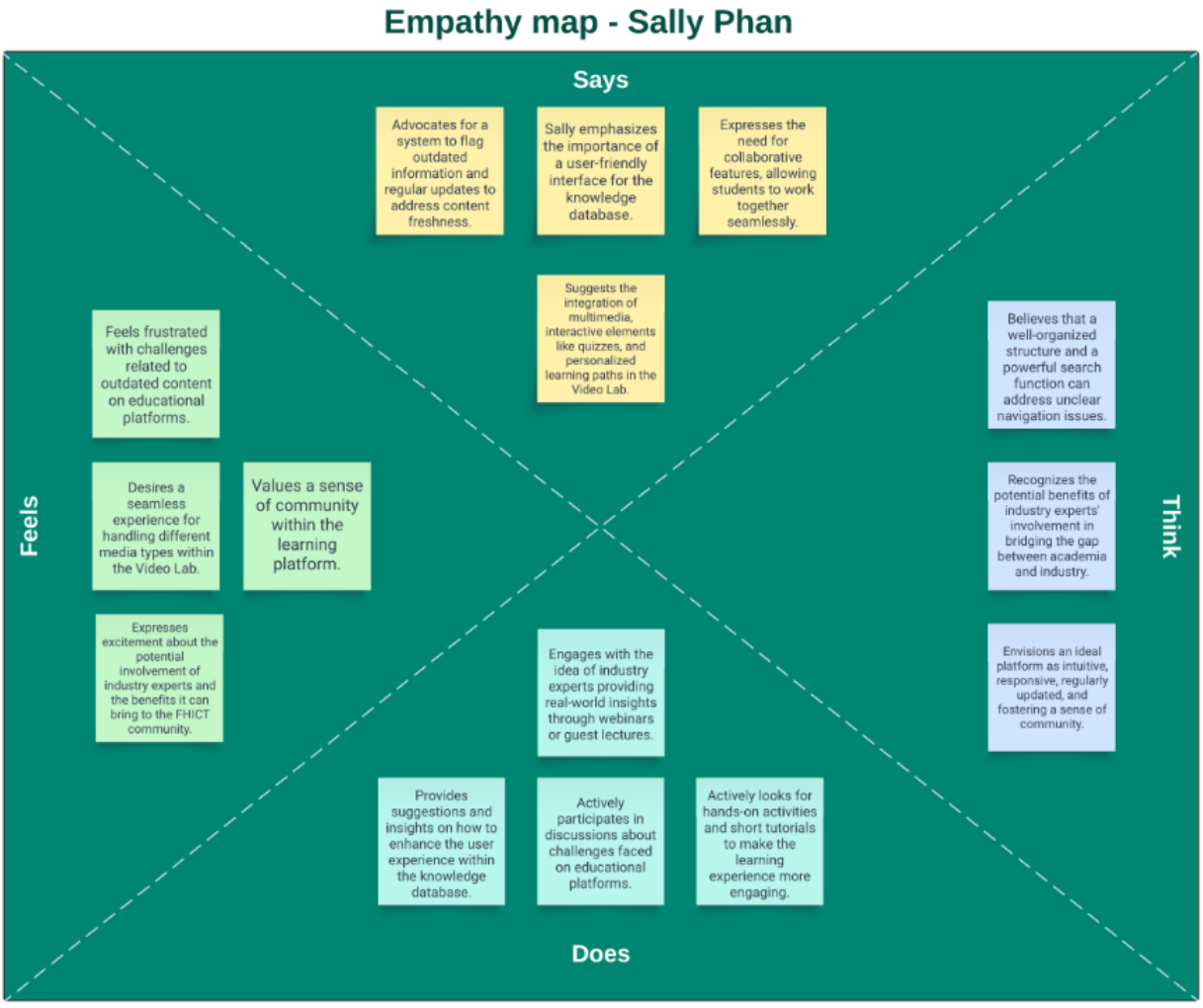

Fig 5. Empathy map

POV

USER	NEED	INSIGHT
A student aspiring to utilize the Pixel Playground for virtual production	To find accessible and user-friendly tutorials and resources to enhance the user's understanding of the lab's equipment.	The user observed that there is a lack of tutorials or guidance. online which hinders his ability to effectively leverage the lab's potential. Furthermore, many of his fellow classmates share this frustration and have expressed their desire for resources that can empower them to explore the full capabilities of the Pixel Playground. Additionally, students from other profiles have shown interest in understanding how the lab operates and the opportunities it offers for learning and innovation.

Table 1. POV

HOW MIGHT WE?

1. How might we make user-friendly tutorials accessible for students to use the Pixel Playground effectively?
2. How might we create a reliable system for keeping the tutorials up to date?
3. How might we make the website engaging, ensuring users keep coming back for more information?

PROCESS FOR IDEATION

We broke down our core issue and looked for potential solutions using the Lotus Blossom Framework. The lotus blossom method is a framework for coming up with ideas starting from one main theme. From the main theme, eight concepts emerge, and each of them serves as the inspiration for eight other themes. It helps aid teams in looking at several angles of a problem or difficulty.

We began by identifying the core problem, which was that students lacked information and instructions on how to use the lab's resources efficiently. With this primary issue in mind, we split off to create eight potential solutions, which are symbolized by the "petals" of our lotus blossom. Then, we went a step further by coming up with concepts and insights for each solution.

Fig 6. Lotus blossom framework

FEEDBACK GATHERED

We asked our User-Centered Design teacher for feedback while we worked to improve our concept. One noteworthy piece of feedback we received spoke to our concept's usability and accessibility. From our research results, our target users appreciated the value of easy navigation and the ease with which tutorials could be located. To solve this, our UCD teacher suggested possible fixes like adding a search function, filters, or prominently displaying direct links to tutorials at the top of the web page, especially when the number of tutorials is limited. We will continue working to incorporate this feedback in our efforts to improve the user experience of our Pixel Playground Knowledge Database Website.

WHY OUR CONCEPT MEETS THE BRIEFING

Not only does our concept for the Pixel Playground Knowledge Database Website fit the project briefing, but it also has been tailored to meet the expectations of students. Firstly, we prioritize students in our design concepts. We are aware that when using online resources, students frequently look for clarity and simplicity.

Our idea addresses the primary objective, which is to create a complete platform for showcasing the resources, services, and technology offered by the Pixel Playground. To make sure that our concept not only satisfies but also surpasses the project's objectives, we conducted extensive secondary and primary research, user surveys, interviews, and competitive analysis.

Our concept stands out because of its unique approach to user engagement and information sharing. Through research and analysis, we recognized even more the importance of available tutorials and guidance for using the Pixel Playground.

The results of our research, which included feedback from users and competitive analysis, helped us get more insight and develop our concert even more. We seek to successfully meet the users' needs for easily available and understandable information on the Pixel Playground.

PLANS FOR ITERATION

Our approach for continuous improvement is to iteratively improve and refine our project. To do this, we will:
Integration of Feedback: We will continuously look for and take into account the insightful feedback we receive from stakeholders, experts, and user testing sessions. This feedback will serve as our guiding light to enhance and improve our project.
Prototype testing: We will conduct user testing to ensure that it can succeed in the real world. By doing this, we will be able to analyze user interactions, spot pain points, and keep improving the design and functionality.

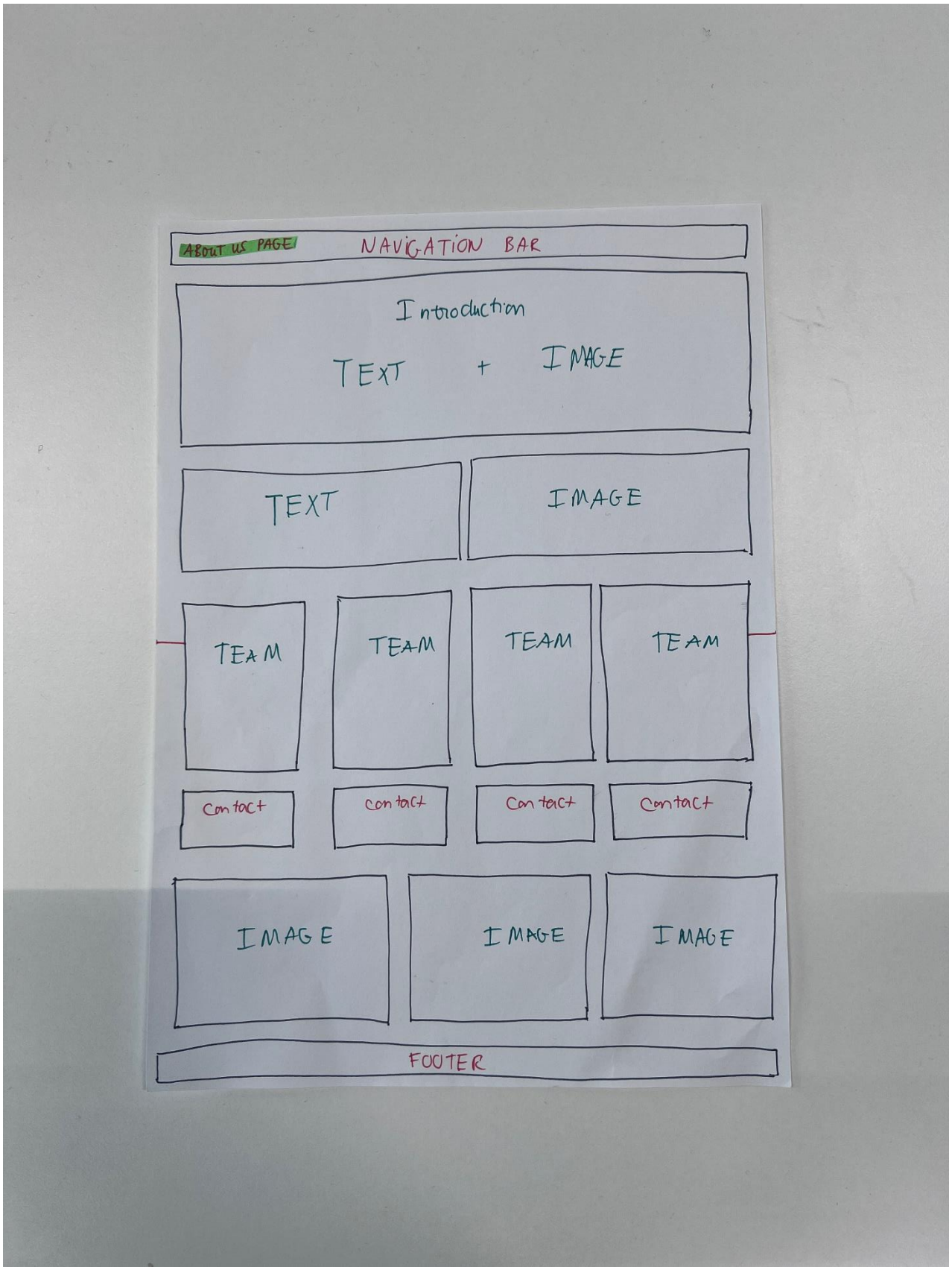

Fig 7. About us page

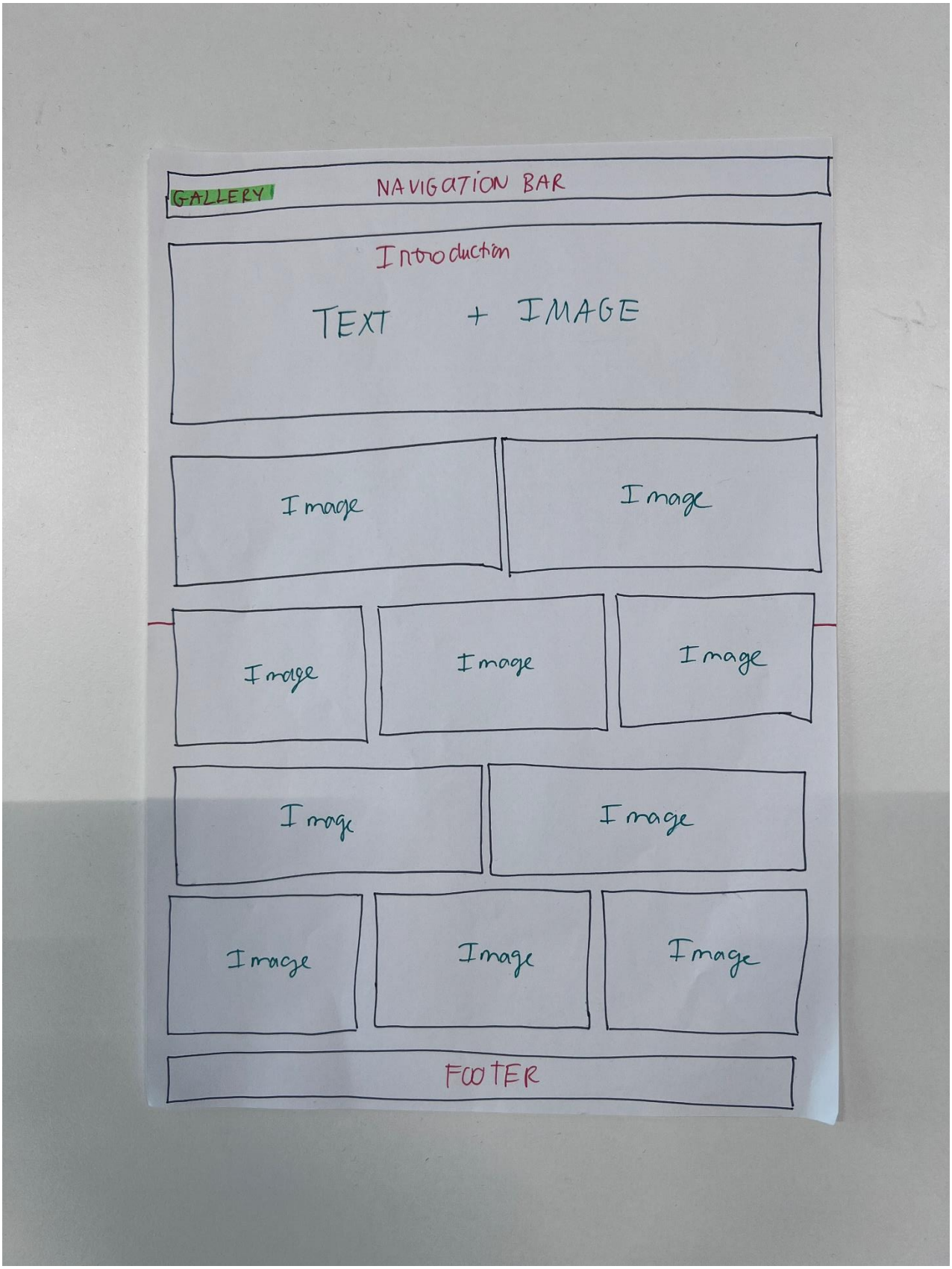

Fig 8. Gallery page

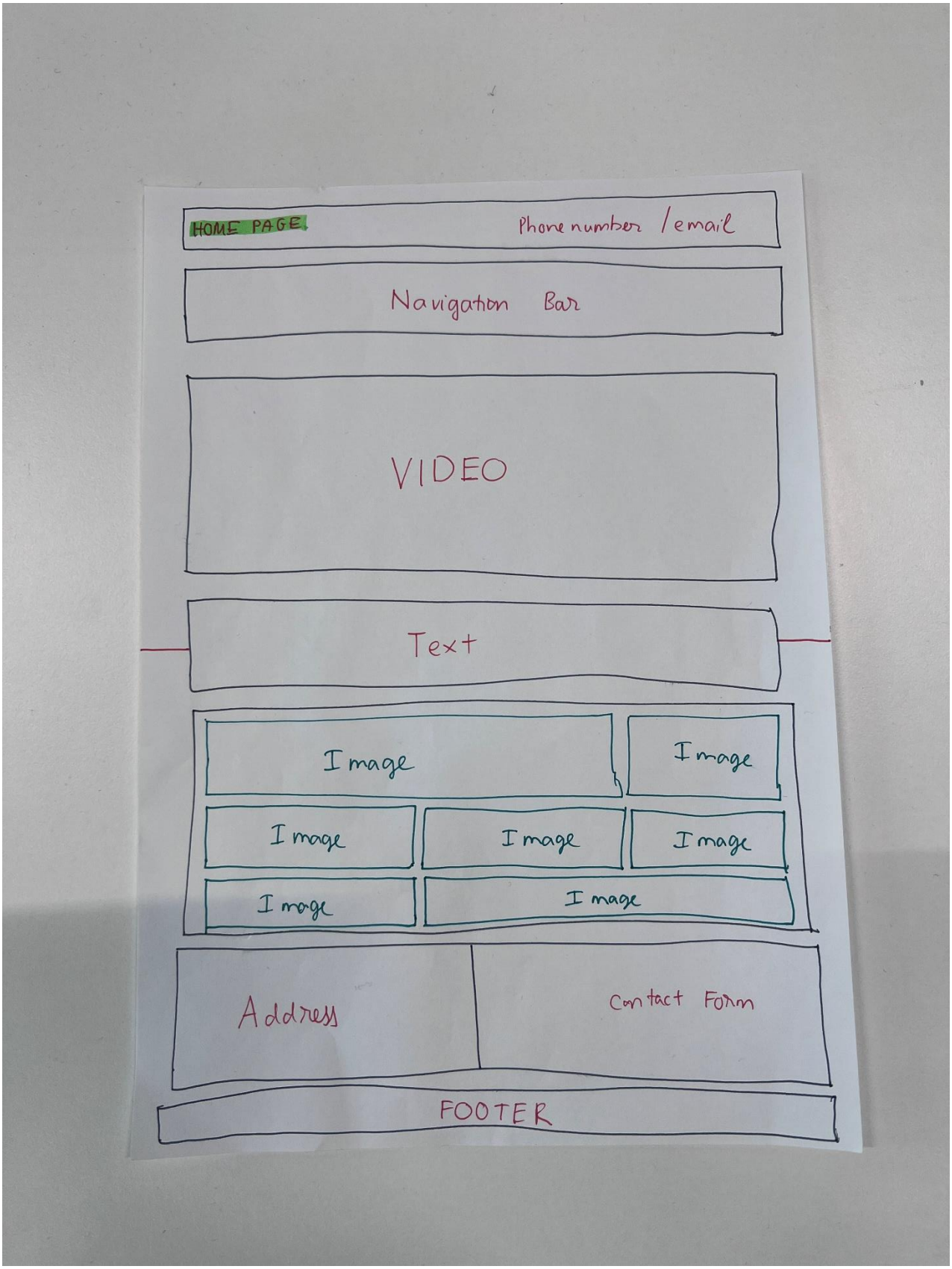

Fig 9. Homepage

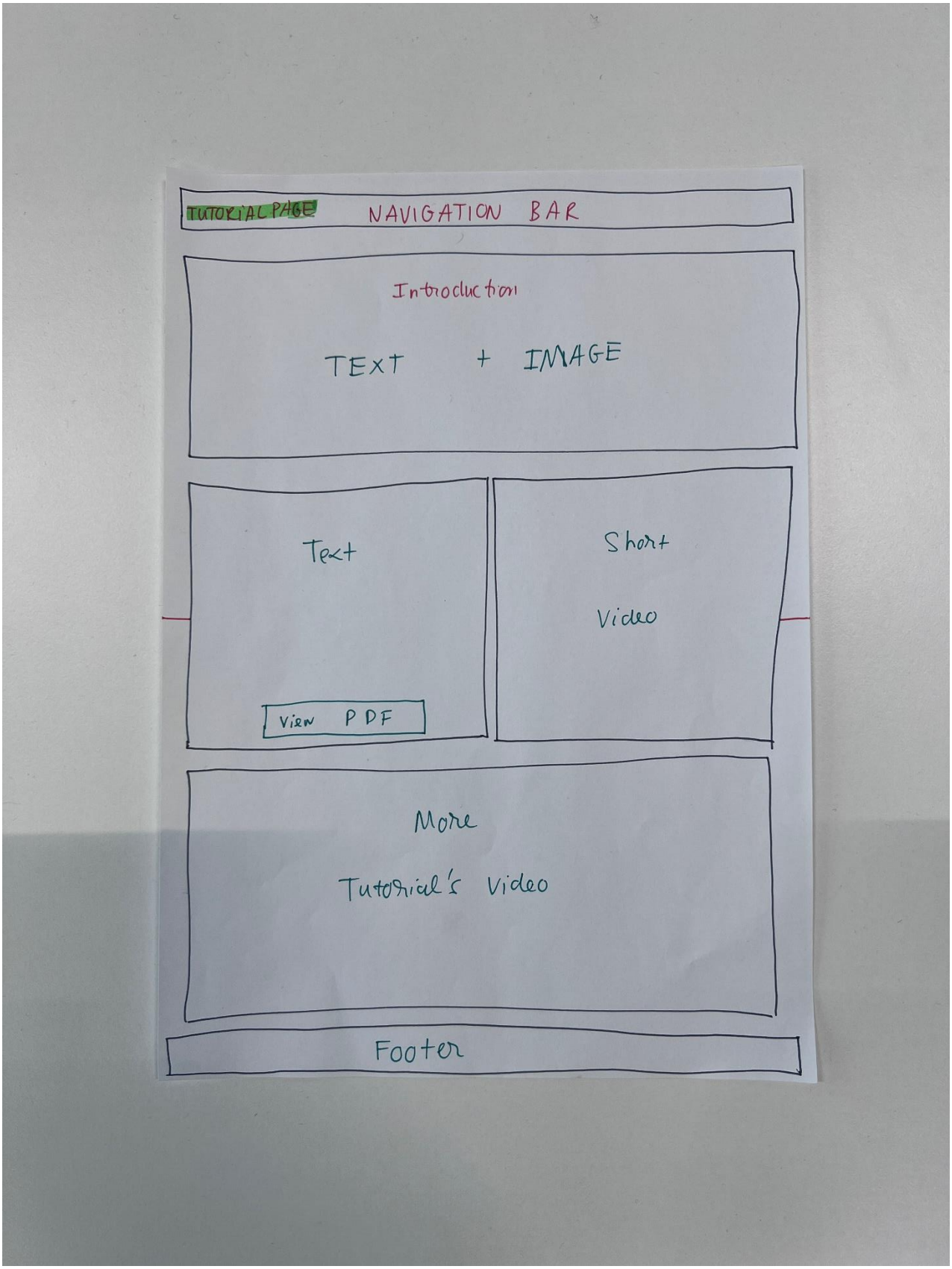

Fig 10. Tutorials page

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- USC Institute for Creative Technologies

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- The Foundry

https://learn.foundry.com/

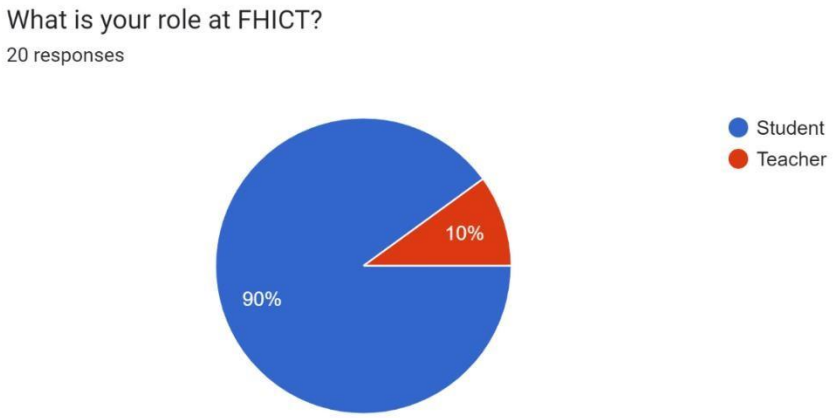
- Unreal Engine Learning Portal

https://dev.epicgames.com/community/

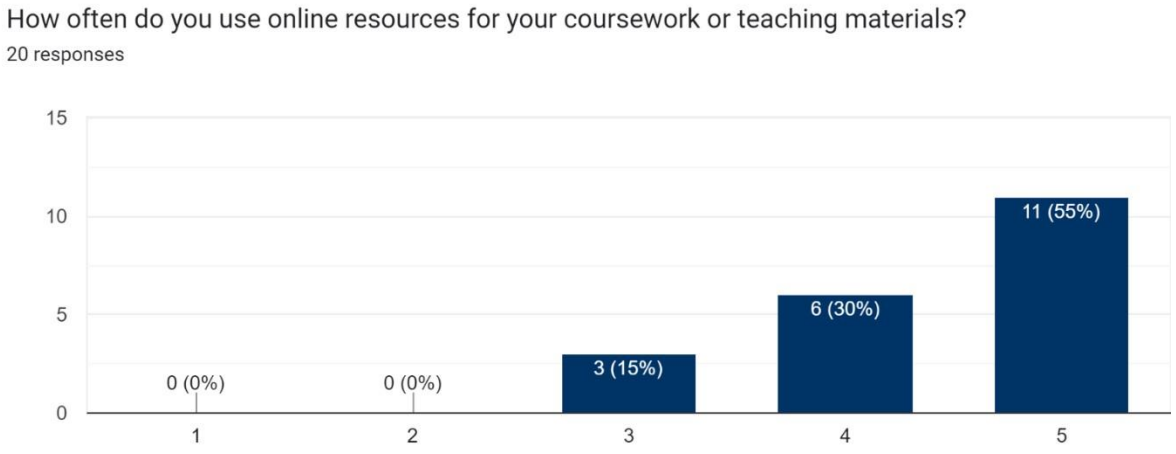
APPENDIXES

Website/Knowledge database Survey https://forms.gle/jKXtWUWzyZxHrQKo6

APPENDIX 1



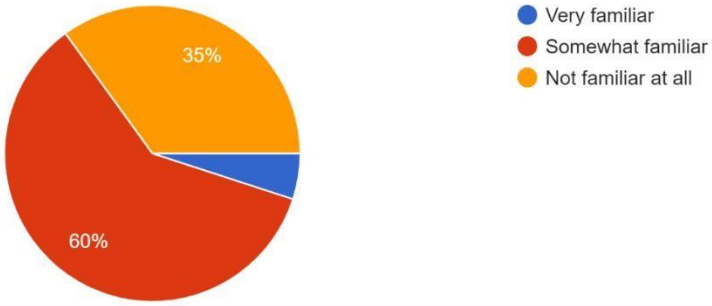
APPENDIX 2



APPENDIX 3

How familiar are you with the Pixel Playground/video lab?

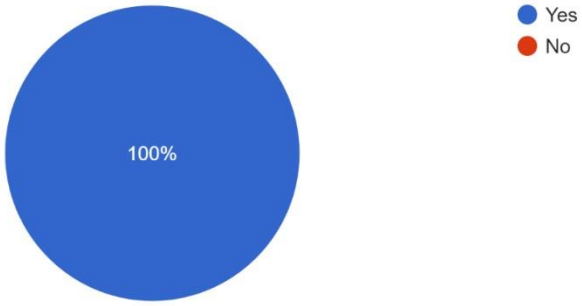
20 responses



APPENDIX 4

Do you think it will be useful to have tutorials before visiting the video lab so you can see how things work?

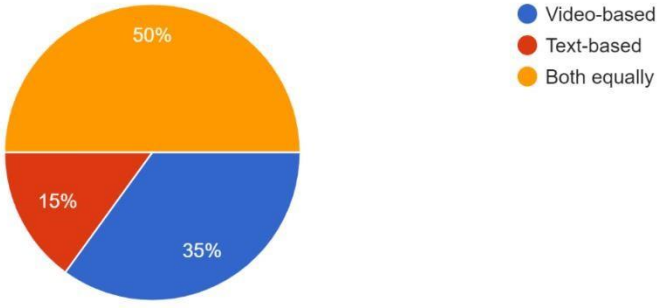
20 responses



APPENDIX 5

Would you prefer video-based tutorials and content over text-based content, or do you prefer both?

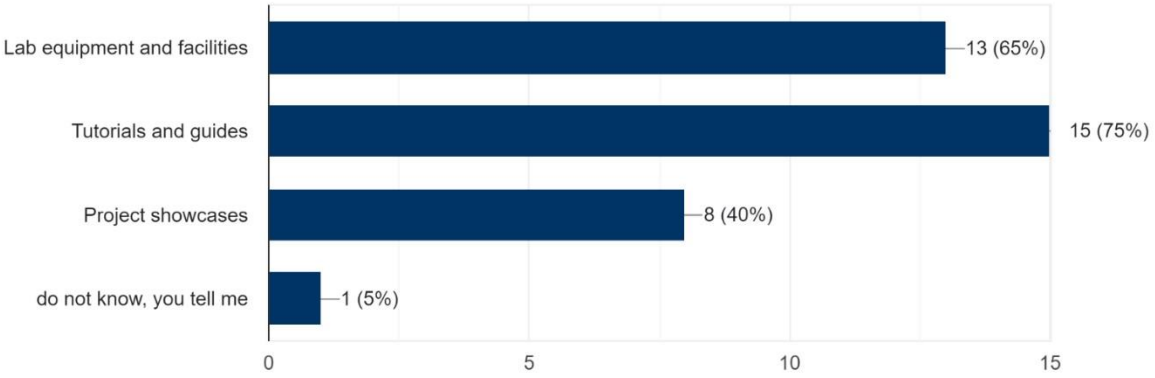
20 responses



APPENDIX 6

What type of information would you like to see on the Pixel Playground Knowledge Database Website?

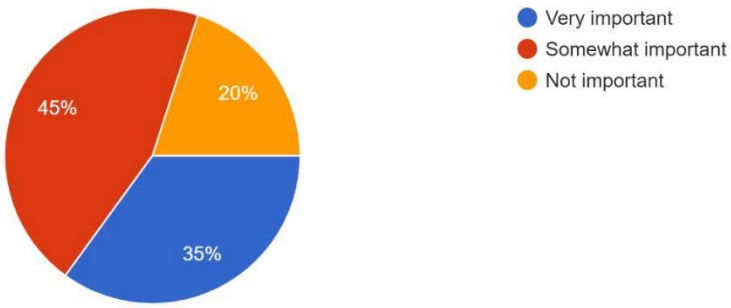
20 responses



APPENDIX 7

How important is it for the website to have a search function to find articles and keywords easily?

20 responses



APPENDIX 8

Are there any specific features or functionalities you expect from the website? (e.g., search, video playback, interactive tutorials)

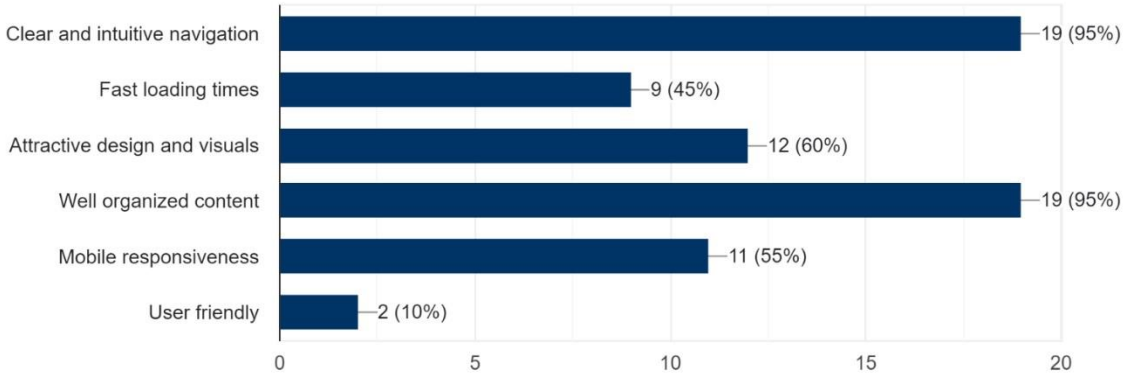
18 responses

- Being able to jump to a specific part of the video
- Images
- Text of speech
- Interactive Tutorials
- Inside tips
- Search, interactive tutorials
- fixing the glare from having a camera on a screen
- Interactive way of learning
- In-depth tutorials

APPENDIX 9

When browsing a website, what factors contribute the most to your overall satisfaction with its usability?

20 responses



APPENDIX 10 INTERVIEW TRANSCRIPT 1

Interview with Sally for developing and improving the usability of the website for the knowledge database for the Video Lab in R10.

Interviewer: Dang Khoa Nguyen
Interviewee: Sally Phan (ICT student)

Interviewer: Good morning, Sally! Thank you for joining us today. Our focus today is on the knowledge database for the Video Lab in R10. Before we start, can you give us a brief introduction about yourself?

Sally: Hi there, I'm Sally, an ICT student.

Interviewer: Thank you, Sally, may we have your consent to record this interview? We want to make sure we capture every valuable insight you're about to share.

Sally: Sure, no problem. Let's go!

Interviewer: What specific features do you think are crucial for a knowledge database website?

Sally: Well, I think it's gotta be easy to use, ya know? Like, you should be able to find stuff real easy. And it should show different things, like texts, pictures, and movies. Oh, and it's gotta let people work together too.

Interviewer: Can you share any challenges you've faced while using similar platforms or educational websites in the past, and how do you think those challenges can be addressed in the Video Lab's knowledge database?

Sally: Oh yeah, sometimes things are old and not fresh anymore. We gotta keep things new and maybe let people tell when stuff's old. Also, sometimes you get lost and don't know where you are. So, we need clear order and a strong find thingy.

Interviewer: Based on your experiences with other educational websites, what features or functionalities do you think would make the Video Lab's knowledge database stand out?

Sally: Well, since it's about videos and stuff, it needs to be really good with videos. And it can have fun things like quizzes or games. Oh, and it should know what I like and show me that!

Interviewer: What type of information or content would you find most valuable on the Pixel Playground Knowledge Database Website?

Sally: I want real stuff, like real examples, things that happened in the real world, and how people do projects. Not just the boring stuff.

Interviewer: Considering the multimedia nature of the Video Lab, how should the website handle different types of content to support your learning experience?

Sally: It needs to make all the things easy to find. Like, put them in folders with names and stuff. Maybe let people say if things are good or bad too.

Interviewer: What search and navigation features do you believe would make it easier for you to find and access the information you need within the knowledge database?

Sally: I think just a box where you type and it shows what you want. And a menu that's not messy so you can click and get there.

Interviewer: Are there any specific interactive or engaging elements you would like to see on the website to enhance your overall learning experience?

Sally: Little lessons that aren't too long, like mini-classes. And maybe stuff where you can play around and learn while you play!

Interviewer: Could you describe an ideal online platform or resource that greatly assists you in your studies or work within these areas?

Sally: The best thing is when it's easy to use. And when lots of people can work together and share.

Interviewer: Are you aware that external stakeholders, such as industry experts, may also use the website as a resource? How do you see their involvement benefiting the FHICT community?

Sally: That sounds cool! Maybe they can tell us how things are in the real world, like through videos or talks. It can help us learn better and know what's waiting for us out there.