Investigating Visual Hierarchy in Google Sites On Lanna Mural Paintings At Wat Phumin, Nan Province With SSRU University Students

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Abstract

This study delves into the dynamic intersection of digital design, cultural heritage, and education, specifically examining the application of visual hierarchy principles in Google Sites through semi-structured interviews. The research focuses on the presentation of Lanna Mural Paintings at Wat Phumin in Nan Province, with a unique emphasis on the perceptions and interactions of university students from Suan Sunandha Rajabhat University (SSRU). Lanna Mural Paintings, renowned for their intricate designs and cultural narratives, present a challenge in conveying their essence on digital platforms while ensuring an engaging user experience. The literature review draws from foundational works on visual hierarchy, web design, and educational technology to construct a robust research framework. Incorporating semi-structured interviews enhances the qualitative dimension of the study, providing a more comprehensive understanding of the nuanced perspectives and experiences of SSRU's university students in relation to Lanna Mural Paintings on Google Sites.The research objectives encompass the analysis of visual hierarchy implementation in Google Sites showcasing Lanna Mural Paintings, an assessment of its impact on the perception and understanding of Lanna cultural heritage among SSRU university students, and the identification of preferences and challenges in user interaction within an educational context. Through the incorporation of semi-structured interviews, the study aims to capture in-depth insights into the qualitative aspects of user experiences, shedding light on subjective interpretations and preferences. By addressing these objectives, the study aspires to contribute nuanced insights into the design of digital platforms for cultural heritage presentation, particularly within the realm of higher education. The findings, enriched by the qualitative data gathered through semi-structured interviews, have the potential to inform best practices for engaging university students with cultural artifacts online. Moreover, this research seeks to advance our understanding of the synergies between visual hierarchy, digital platforms, and cultural preservation in an educational setting, paving the way for more effective strategies in the intersection of technology, education, and cultural heritage.

Keywords

visual hierarchy, web design, semi-structured interviews, educational technology, Lanna Mural paintings

Introduction

In the era of digital communication, the integration of technology with cultural preservation offers unprecedented opportunities to engage audiences with historical artifacts. This research endeavors to explore the application of visual hierarchy principles in the context of Google Sites, focusing on the presentation of Lanna Mural Paintings at Wat Phumin in Nan Province. Moreover, the study is uniquely positioned to gauge the perceptions and interactions of university students from Suan Sunandha Rajabhat University (SSRU), providing a nuanced understanding of the impact of visual hierarchy on this demographic.

Lanna Mural Paintings, characterized by their intricate designs and vibrant narratives, serve as invaluable repositories of cultural history. Wat Phumin, situated in Nan Province, houses a collection of these paintings that depict local folklore and historical events. As we transition these visual treasures into the digital realm, the challenge lies in effectively conveying the essence of Lanna art while ensuring a seamless and engaging online experience.

Visual hierarchy, a fundamental principle in design, plays a pivotal role in guiding users through digital content. Our investigation seeks to analyze how visual hierarchy influences the perception and interpretation of Lanna Mural Paintings within the unique demographic context of SSRU university students.

Literature Review

Visual Hierarchy

Visual hierarchy is a fundamental principle in design that guides the arrangement and presentation of visual elements to prioritize information and guide the viewer's attention. In the context of digital design and cultural heritage, understanding and implementing visual hierarchy principles play a crucial role in effectively communicating information and creating engaging user experiences. As emphasized by Tondreau (2018), effective visual hierarchy is essential for guiding users through content and facilitating a seamless interaction with digital platforms.

Web Design

Web design is a multifaceted field that encompasses the planning, creation, and maintenance of websites. It involves a combination of aesthetic and technical elements aimed at delivering an optimal user experience. Effective web design is essential for achieving various goals, including user engagement, accessibility, and overall success in the digital landscape. In the realm of web design, usability and user experience are paramount. Jakob Nielsen and Hoa Loranger (2006) emphasize the importance of user-centered design principles, advocating for designs that prioritize user needs and preferences. This user-centric approach involves considering factors such as navigation, readability, and visual appeal to create a seamless and enjoyable interaction for website visitors.

Semi-structured Interviews

Semi-structured interviews are a qualitative research method that combines elements of both structured and unstructured interview formats. In these interviews, the researcher follows a set of predetermined questions while retaining the flexibility to explore additional topics or probe deeper into specific responses. Jaber F. Gubrium and James A. Holstein (2002) point out one of the key advantages of semi-structured interviews lies in their ability to capture the depth and complexity of human experiences. Through open-ended questions, researchers can uncover

participants' perceptions, attitudes, and motivations, contributing to a more comprehensive understanding of the research topic.

Educational Technology

Educational technology, often abbreviated as EdTech, refers to the use of technology to enhance and support educational processes and outcomes. It encompasses a wide range of tools, resources, and applications designed to facilitate learning, teaching, and assessment. The integration of educational technology into various educational settings has the potential to transform traditional approaches to instruction and create more engaging and effective learning experiences. Chris Dede (2010) added that adaptive learning technologies represent another significant development in educational technology. These technologies use data and analytics to personalize learning experiences for individual students, catering to their specific needs and pace of learning.

Lanna Mural Paintings

Hiram W. Woodward Jr. (2005) explains Lanna Mural Paintings represent a distinctive form of Thai art with historical and cultural significance. Originating in the Lanna Kingdom, which existed from the 13th to 18th centuries in what is now Northern Thailand, these murals are characterized by intricate designs, vibrant colors, and depictions of cultural narratives. The term "Lanna" refers to the cultural and historical heritage of the region. David K. Wyatt (2004) mentions Wat Phumin, located in Nan Province, Thailand, is renowned for its exquisite Lanna Mural Paintings that adorn the walls of its main assembly hall. These murals are a testament to the rich cultural and artistic heritage of the Lanna Kingdom, reflecting the unique blend of local traditions with influences from neighboring regions.

Objectives
1. To analyze the application of visual hierarchy in Google Sites presenting Lanna Mural Paintings at Wat Phumin.
2. To assess the impact of visual hierarchy on the perception and understanding of Lanna cultural heritage among SSRU University students.
3. To identify preferences and challenges in user interaction with digital representations of cultural artifacts in an educational context.

By investigating visual hierarchy through the lens of SSRU university students, this study aspires to contribute valuable insights that can inform the design of digital platforms for cultural heritage presentation, particularly within the framework of higher education.

Methodology

Three students from Suan Sunandha Rajabhat University (SSRU) were requested by the researcher to take part in this study. They were asked to access the website by scanning the QR code provided at https://sites.google.com/ssru.ac.th/watphumin/ as shown in Figure 1.

Figure 1. Qr code of https://sites.google.com/ssru.ac.th/watphumin/

Alvalyn Lundgren who wrote about examples of visual hierarchy in Scale, Contrast, Direction, and Position, accessed https://alvalyn.com/capture-attention-with-visual-hierarchy/ in november 24th, 2023.

Scale
In hieratic scaling, the primary focus is on the largest element in the design, which represents the most crucial information. Smaller details are proportionally reduced in scale.

Contrast
The greater the contrast between light and dark colors, the more a visual element will stand out and catch our attention. Shape contrast is also employed to enhance visibility, as exemplified by the HEADLINE, which distinguishes itself through intricate shapes.

Direction
Visually distinctive elements are those that deviate from the predominant alignment. In a design primarily characterized by horizontal emphasis, tall, vertical, or diagonal shapes will be the first to capture attention.

Position
The placement on the page inherently establishes a hierarchy. In the context of reading from left to right, the upper left quadrant holds the utmost significance, followed by the lower right quadrant. Subsequently, the upper right quadrant holds a higher position than the lower left quadrant, which is of the least importance.

Tools of Research
The researcher decided to focus the Semi-structured Interviews with Three SSRU university students on the topic of visual hierarchy, using the examples by Alvalyn Lundgren as figure 2. Using the wireframe of Google Sites for the interviews enha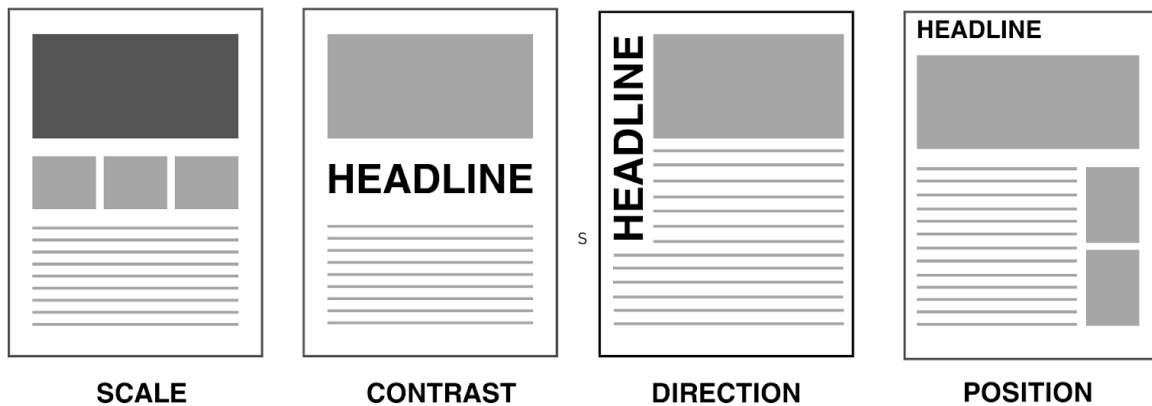nces the methodology, and more details can be accessed at https://sites.google.com/ssru.ac.th/watphumin as depicted in the figure 3 to figure 8.

Figure 2. Examples of Visual Hierarchy by Alvalyn Lundgren
From https://alvalyn.com/capture-attention-with-visual-hierarchy/

Scale
- Analyze the proportion of visual elements within Google Sites on Lanna Mural Paintings at Wat Phumin, Nan Province.
- Implement surveys and assessments to gather subjective feedback on the perceived impact of proportion in visual hierarchy.

Contrast
- Examine the positioning of key elements in Google Sites on Lanna Mural Paintings at Wat Phumin, Nan Province and their impact on visual hierarchy.

Direction
- Investigate the directional flow of visual elements in Google Sites on Lanna Mural Paintings at Wat Phumin, Nan Province and its role in establishing hierarchy.

Position
- Evaluate the contrast between different elements in Google Sites considering color, brightness, and texture.
- Conduct interviews and surveys to understand the subjective responses of SSRU university students to variations in contrast within the virtual environment.
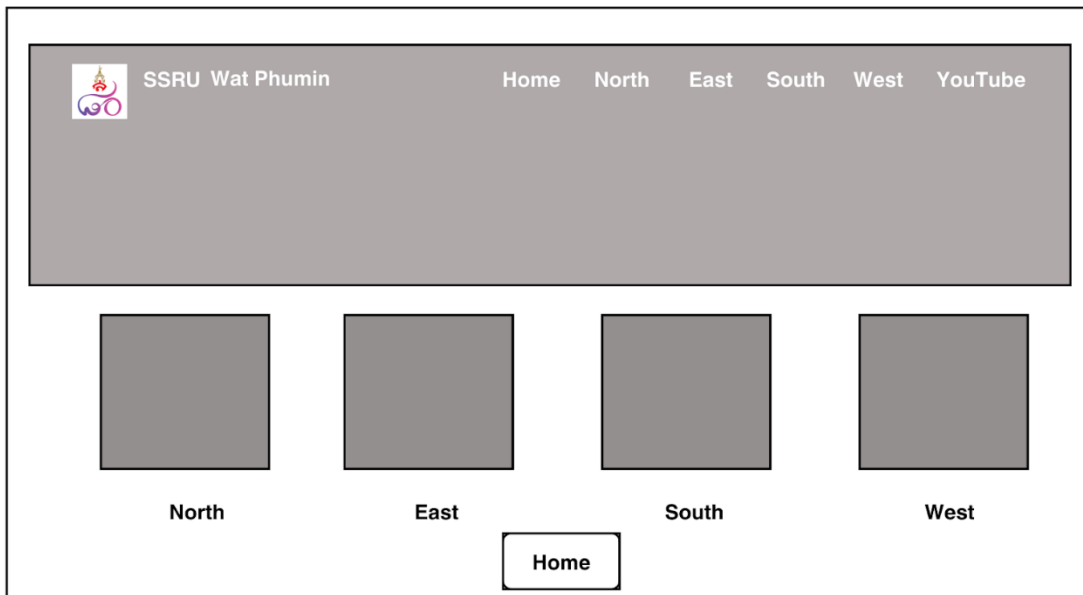
Figure 3. The Wireframe of Google Sites (Home)

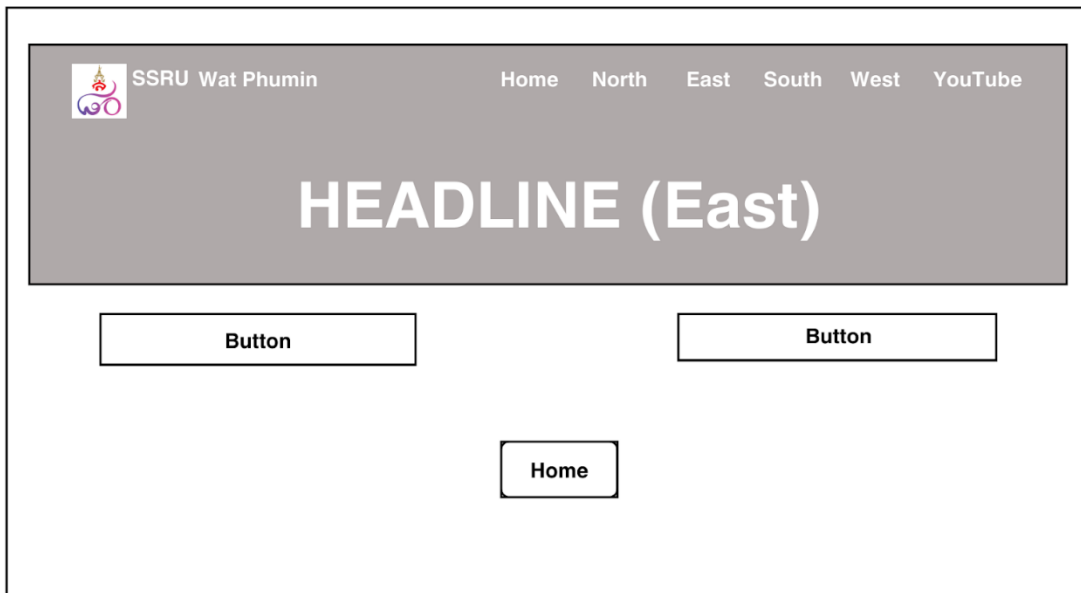Figure 4. The Wireframe of Google Sites (Home)

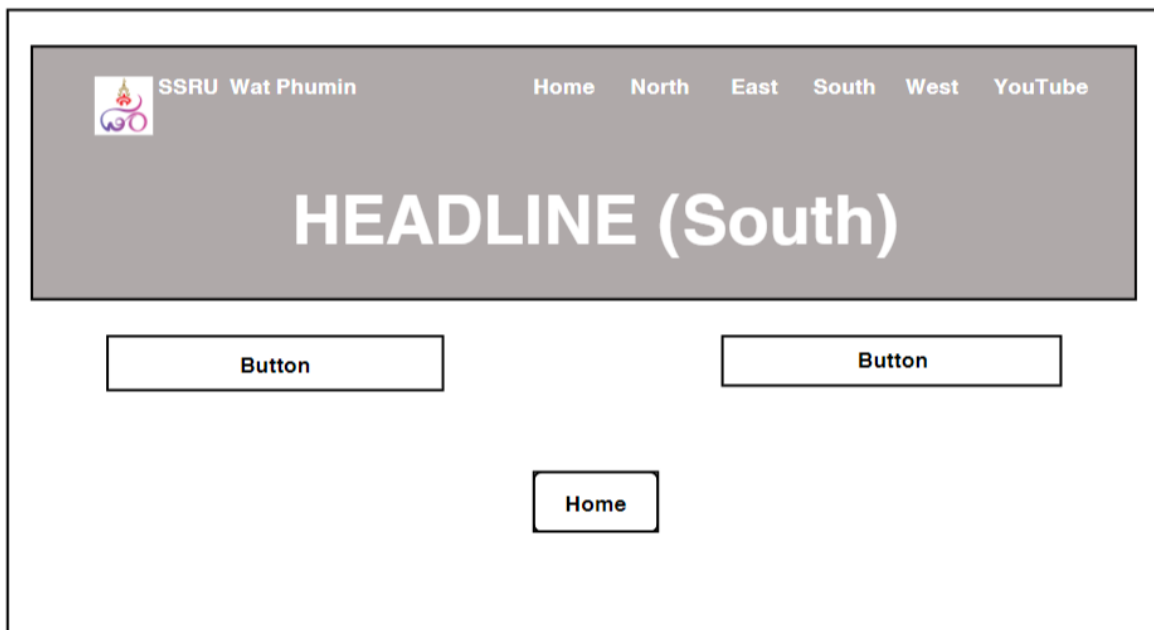Figure 5. The Wireframe of Google Sites (East)

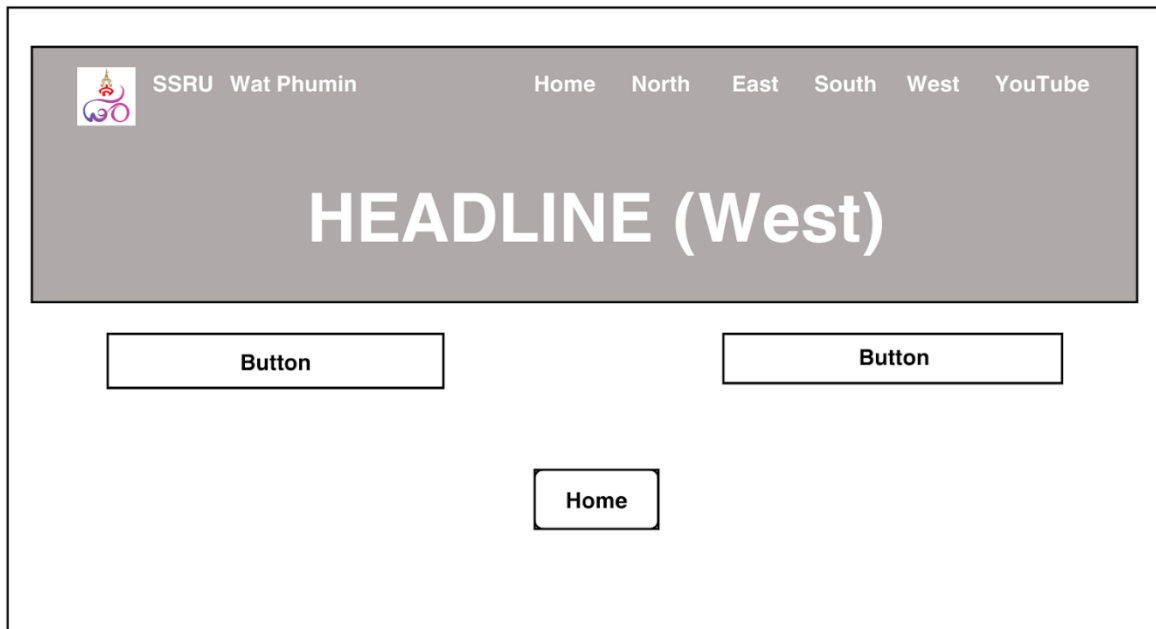Figure 6. The Wireframe of Google Sites (South)

Figure 7. The Wireframe of Google Sites (West)

Figure 8. The Wireframe of Google Sites (YouTube)

Discussion

The results of in-depth interviews with three SSRU university students have provided valuable insights into their perspectives and experiences with visual hierarchy in their projects on Google Sites as figure 9. The discussions centered around four key components of visual hierarchy: Scale, Contrast, Direction, and Position.

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Figure 9. Three university students from SSRU took part in semi-structured interviews on Google Sites using their smartphones

Source: Author's personal collection

Scale

      Three university students from SSRU (Suan Sunandha Rajabhat University) recently participated in semi-structured interviews to assess their experiences with Google Sites, focusing on scale and visual elements. The findings revealed overwhelmingly positive feedback, highlighting the user-friendly nature of the platform.

Contrast

      The results from semi-structured interviews involving three university students from SSRU (Suan Sunandha Rajabhat University) focused on contrasting the color schemes, particularly in the context of the logo of SSRU and the design elements within Google Sites as figure 9. Consequently, the participants were encouraged to share their valuable insights about the correlation between the color schemes of the SSRU logo and the visual elements on Google Sites.The findings revealed interesting observations and reflections on the use of color in both contexts.

Figure 9. Logo of Suan Sunandha Rajabhat University which is placed on the top left of Google Sites
From https://skm.ssru.ac.th/th/news/view/download-logo

Direction

From the interviews, the students engaged in a lively discussion about their firsthand experiences in strategically placing pivotal elements such as textual content, images, and interactive components on Google Sites. Moreover, the interviews brought attention to the collaborative nature of Google Sites in the element of positioning. The collaborative feature that enables multiple contributors to work on different website sections simultaneously greatly influenced the collective decision-making process regarding the arrangement of text, images, and interactive elements. This collaborative dynamic not only enhanced productivity but also contributed to a diverse and well-thought-out arrangement of key elements.

Position

As part of their research study, three university students from Suan Sunandha Rajabhat University (SSRU) were selected for semi-structured interviews, providing valuable insights into contrasting elements' evaluation within Google Sites. Color schemes as figure 10, including the hex codes #99792F, #EC2E22, #B94F9E, #7551A2, #5553A3, and #353997, as well as considerations of brightness and texture. In addition, the participants highlighted how these colors were strategically employed to create visual interest and hierarchy within their websites. The aim of this study was to delve into the captivating dynamic between warmer hues, exemplified by #99792F and #EC2E22, and cooler hues, such as #5553A3 and #353997. This captivating discussion revolved around their ability to captivate the viewer's attention and create a harmonious color palette. Brightness, as a key element of visual contrast, was carefully considered. The students spoke about adjusting the brightness levels of elements to ensure readability and visual appeal. Brighter elements can grab attention towards vital information, while a more subdued brightness can be utilized to establish a background or frame for the content. Texture, another dimension of contrast, was explored in terms of its role in enhancing the visual experience. The discussions highlighted a thoughtful exploration of different colors, their interactions, and the overall visual elements. This emphasized the significance of producing captivating, user-friendly, and thematically cohesive content on the platform.

| #99792F | #EC2E22 | #B94F9E | #7551A2 | #5553A3 | #353997 |

Figure 10. Color schemes of logo of Suan Sunandha Rajabhat University

Semi-structured interview reports on Google Site and Visual Hierarchy have been compiled from three university students at SSRU (Suan Sunandha Rajabhat University). The reports are outlined as follows:

Semi-structured Interviews Reports
Topic on Google Site (Scripts)
Researcher: Hello! I'm conducting a study on Google Site featuring Wat Phumin, Nan province's Lanna Mural Paintings. Have any of you had the chance to explore it on your smartphones?
Student 1 (S1): Yeah, I checked it out on my phone. The link is https://sites.google.com/ssru.ac.th/watphumin/, right?
R : That's the one! What was your experience like on your smartphone?
Student 2 (S2): It's surprisingly user-friendly. The site adapts well to the smaller screen, and the images look sharp.
Student 3 (S3): I haven't tried it on my phone yet. Is it easy to navigate?
S1 : Definitely. The menu and layout are intuitive. You can easily scroll through the mural paintings, and the navigation buttons work smoothly.
R : Great to hear. How about the interactive elements, like zooming in on the paintings?
S2 : That worked seamlessly on my phone. I could zoom in to see the details clearly without any lag.
S3 : And what about the virtual tour feature? Does that work on a smartphone?
S1 : Yeah, it does! I felt like I was actually moving through the temple. It's a cool addition.

Topic on Visual Hierarchy (Scripts)
R : Have any of you had the chance to explore it with a focus on visual hierarchy?
Student 1 (S1): Yeah, I've been looking into that. The link is https://sites.google.com/ssru.ac.th/watphumin/, right?
R : Exactly! What are your initial thoughts on the visual hierarchy?
Student 2 (S2): The site has a clear structure. Each mural has its own section, and the navigation makes it easy to move around. The visual elements guide you through the experience.
Student 3 (S3): I haven't paid much attention to that aspect. What do you mean by visual hierarchy?
S1 : Visual hierarchy is about how elements on a page are arranged to guide the viewer's attention. Like, what draws your eye first, second, and so on.
R : Spot on, S1. S2, you mentioned clear structure. Could you elaborate?
S2 : Certainly. Each mural has a prominent image at the top, and the menu makes it easy to jump between them. The titles and subtitles are distinct, creating a flow in how you explore each section.
R : That's a great observation. How about the use of colors and fonts? Do they contribute to the visual hierarchy?
S3 : I think so. The colors are vibrant but not overwhelming, and they've used a consistent font throughout. It keeps things cohesive and easy to follow.
S1 : The interactive elements, like the zoom feature, also play into the visual hierarchy. They make you focus on specific details of the paintings.
R : Interesting insights! Did any of you feel that certain elements could be improved for a better visual hierarchy?
S2 : Maybe they could enhance the contrast a bit more. Some sections felt a bit similar in terms of color, and a bit more contrast could help emphasize the important elements.
S3 : Yeah, I agree. And perhaps they could use more visual cues to indicate interactivity. Some elements weren't immediately obvious as clickable.

R   : Valuable suggestions! As part of the study, I'm looking to understand how the visual hierarchy influences your engagement. Would any of you be willing to provide more detailed feedback or thoughts on the visual hierarchy aspect?

S1   : Sure, I can share more insights. It's an interesting aspect to explore.

S3   : I'm up for it too. Understanding how visual hierarchy affects our engagement is crucial.

S2   : Count me in as well. I'd be curious to delve deeper into how design choices impact the way we interact with the cultural content.

Conclusions

In conclusion, the exploration of visual hierarchy in Google Sites with SSRU university students, focusing on Lanna Mural Paintings at Wat Phumin in Nan Province, has been a captivating journey into the intersection of technology, art, and education. Through this investigation, this study delved into the intricacies of presenting cultural heritage in a digital medium and the significance of visual hierarchy in conveying information effectively. The utilization of Google Sites provided a dynamic platform for the presentation of Lanna Mural Paintings, allowing for a seamless integration of multimedia elements and interactive features. By working collaboratively with SSRU university students, this study not only explored the technical aspects of web design but also fostered a deeper understanding of the historical and cultural context surrounding the murals. The incorporation of visual hierarchy proved to be a crucial element in enhancing the user experience and ensuring that the narrative of the Lanna Mural Paintings was conveyed with clarity and impact. Through thoughtful design choices, this study was able to guide the viewers' attention, highlight key details, and create a narrative flow that complemented the rich cultural significance of the artwork. This project not only contributed to the development of digital literacy skills among the SSRU students but also served as a means of preserving and promoting the cultural heritage of Nan Province. The collaboration between technology and cultural preservation showcased the potential of educational initiatives in bridging the past and the present. As this study concludes this investigation, it is evident that the exploration of visual hierarchy in the context of Lanna Mural Paintings at Wat Phumin has not only enriched the understanding of digital storytelling but has also underscored the importance of leveraging technology to preserve and share cultural treasures. This endeavor stands as a testament to the power of interdisciplinary collaboration and the potential for innovative educational approaches to bridge gaps between tradition and modernity.

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Reference

[1] Dede, C. (2010). Comparing Frameworks for 21st Century Skills. In J. Bellanca & R. Brandt (Eds.), 21st Century Skills: Rethinking How Students Learn (pp.51–76). Solution Tree Press.
[2] Gubrium, J. F., & Holstein, J. A. (2002). Handbook of Interview Research: Context and Method. SAGE Publications.
[3] Nielsen, J., & Loranger, H. (2006). Prioritizing Web Usability. New Riders.
[4] Smith, A. N. (2015). Cultural heritage in the age of new media. Routledge.
[5] Tondreau, B. (2018). Layout Essentials: 100 Design Principles for Using Grids. Rockport Publishers.
[6] Woodward, H. W. (2005). The Art and Architecture of Thailand: From Prehistoric Times through the thirteenth century (Vol. 14). Brill.
[7] Wyatt, D. K. (2004). Reading Thai murals. Silkworm.

Biography

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