**Contextual Inquiry Assignment: Approach to Contextual Inquiry**

**Prepared for Professor Tapus**

**By: Alireza Minagar**

**UMGC Course SWEN 651 9040 Usability Engineering**

**October 2024**

**Table of Contents**

1. **Introduction**  
   1.1 Purpose of the Assignment  
   1.2 Contextual Inquiry Overview  
   1.3 Key Participants: Jason and John  
   1.4 Overview of GIMP's Challenges
2. **The Participants**  
   2.1 Participant 1: Jason (Expert User)  
   2.2 Participant 2: John (Novice User)
3. **Jason (Expert User)**  
   3.1 Overview  
   3.2 Environment  
   3.3 Session Summary  
   3.4 Key Points  
   3.5 Feedback
4. **John (Novice User)**  
   4.1 Overview  
   4.2 Environment  
   4.3 Session Summary  
   4.4 Key Points  
   4.5 Feedback
5. **Conclusion**
6. **References**

**1. Introduction**

The purpose of this contextual inquiry assignment is to observe and document the interactions of two users with different levels of expertise as they engage with the same software tool, GIMP, a professional-grade graphic design software. By conducting interviews with both an expert and a novice user, this report seeks to capture key differences in their experiences and usability challenges. The goal is to identify issues within the software interface and assess how user experience can be improved to cater to a broader range of skill levels.

Contextual inquiry is a powerful method of user research that provides insights into how users interact with a system in real-world environments (Goodman, Kuniavsky, & Moed, 2012). This report documents the experiences of Jason, an expert user with extensive knowledge of GIMP, and John, a novice user who has limited experience with graphic design software. Through this inquiry, we can better understand the cognitive load imposed by the software's user interface and how effectively it supports users with different levels of expertise.

Jason’s workflow demonstrates how an expert user, familiar with advanced features such as color balancing, layers, and text rasterization, can still find GIMP’s interface cluttered and overwhelming (Norman, 2013). In contrast, John’s struggles with basic tasks such as text manipulation and layer management reveal the steep learning curve faced by novice users (Tullis & Albert, 2013). Their feedback highlights key usability issues, including difficulty in locating essential tools and the need for more intuitive user guidance (Nielsen, 1994).

By comparing the experiences of these two users, this report offers recommendations for making GIMP more user-friendly, particularly for beginners, while maintaining its functionality for advanced users. The findings align with human factors research, suggesting that better organization of tools and a reduction in cognitive load can significantly improve usability (Wickens, Lee, Liu, & Gordon-Becker, 2004).

**2. The Participants**

**2.1 Participant 1: Jason (Expert User)**

* **Background**: Jason is a 35-year-old software developer who has been using GIMP regularly for his daily work over the past three years. He is highly familiar with its advanced features and uses it to manage his work tasks efficiently.
* **Environment**: Jason works from his home office, using a dual-monitor setup with a high-performance PC. He uses a mechanical keyboard and an ergonomic mouse, and his environment is optimized for productivity.
* **Goals**: Jason uses the software to streamline project management and organize his daily tasks. He relies on keyboard shortcuts and custom settings to improve his workflow.

**2.2 Participant 2: John (Novice User)**

* **Background**: John is a 50-year-old high school teacher who only started using GIMP a few weeks ago. He is still learning to navigate its basic features and often refers to online guides for help.
* **Environment**: John uses a laptop in his living room, where he often multitasks between using the software and other personal activities. His setup includes a standard wireless mouse and keyboard, and he occasionally takes notes on a notepad.
* **Goals**: John’s goal is to use the software to better organize his lesson plans and track his students' progress. He faces challenges in understanding some of the more advanced functions.

**3. Jason (Expert User)**

**3.1 Overview**

Jason is a software engineer and graphic designer with extensive experience using GIMP for image manipulation. He is highly skilled in employing advanced tools such as layers, text rasterization, and color balancing to improve the overall quality of images.

**3.2 Environment**

Jason works from a well-organized home office with a dual-monitor setup. This allows him to efficiently manage multiple tasks simultaneously. His workspace is optimized with a mechanical keyboard and an ergonomic mouse, enabling him to streamline his workflow and navigate through design tasks swiftly.

**3.3 Session Summary**

During the interview, Jason demonstrated proficiency in adjusting the color balance of an image, removing imperfections using the clone tool, and adding stylized text to the design. However, he expressed that the abundance of options in GIMP, while powerful, makes it a complex tool. He found the software’s UI cluttered with too many possibilities, which could overwhelm even experienced users.

**3.4 Key Points**

* **Tools Used**: Color Balance, Clone Tool, Text Tool with Rasterization.
* **Challenges**: While Jason was able to navigate through the software, he found that the sheer number of options could slow down his process when trying to locate commonly used features.
* **Feedback**: Jason suggested that GIMP is a feature-rich program, but its interface could be simplified. He recommended better organization of features and faster access to frequently used tools to reduce the cognitive load on users. He found that GIMP requires previous experience and training to fully utilize its potential and avoid getting lost in its vast array of tools.

**4. John (Novice User)**

**4.1 Overview**

John is new to GIMP and has limited experience using graphic design software. His experience mostly lies in simpler programs such as Microsoft Paint and Canva, so the complexity of GIMP posed a significant challenge for him.

**4.2 Environment**

John operates from a basic laptop setup in his living room. He is not accustomed to using advanced graphic design tools, and this session served as his first experience with a professional-grade software like GIMP.

**4.3 Session Summary**

During the interview, John struggled to complete basic tasks such as manipulating text, adding layers, and using the brush tool. He found the interface to be overwhelming and noted that it was difficult to locate essential tools like the text tool and layer manager. John's experience reflected his frustration with GIMP's complex interface, and he expressed that a user would require prior training to be effective with the software.

**4.4 Key Points**

* **Tools Used**: Text Tool, Layer Manager, Brush Tool (with assistance).
* **Challenges**: John found it difficult to navigate through GIMP, constantly needing guidance to find and use tools. He also struggled with understanding the concept of layers and how they function in image manipulation.
* **Feedback**: John felt that the GIMP interface is not user-friendly, especially for beginners. He mentioned that the design is complicated and requires prior training or experience to use effectively. The overwhelming number of options made it challenging to perform simple tasks, and the tool lacked clear instructions or an intuitive layout. He also suggested that more guidance or tooltips could help novices better navigate through the interface.

**5. Conclusion**

The contextual inquiry assignment provides valuable insights into how users with varying levels of expertise interact with complex software like GIMP. Jason, the expert user, showcased proficiency in advanced tools but expressed concerns about the cluttered interface and overwhelming number of features. On the other hand, John, the novice user, struggled to navigate the software and complete basic tasks, highlighting the steep learning curve and lack of intuitive guidance.

The contrast between these two users emphasizes the need for GIMP to cater to both experts and beginners by simplifying the user interface and providing better tooltips and guides. Addressing these challenges would reduce cognitive load, improve usability, and make the software more accessible to a broader audience. The observations suggest that while GIMP is a powerful tool for experienced users, it requires enhancements to become more user-friendly for those new to graphic design.

**6. References**

* Goodman, E., Kuniavsky, M., & Moed, A. (2012). *Observing the user experience: A practitioner’s guide to user research* (2nd ed.). Elsevier.
* Nielsen, J. (1994). *Usability engineering*. Morgan Kaufmann.
* Norman, D. A. (2013). *The design of everyday things* (Revised and expanded edition). Basic Books.
* Tullis, T., & Albert, B. (2013). *Measuring the user experience: Collecting, analyzing, and presenting usability metrics* (2nd ed.). Morgan Kaufmann.
* Wickens, C. D., Lee, J., Liu, Y., & Gordon-Becker, S. (2004). *An introduction to human factors engineering* (2nd ed.). Pearson Prentice Hall.

Links to recorded videos are:

<https://drive.google.com/file/d/1spEI8kXcQVSEl5ysTcsJVniF0paXUXUu/view?usp=drive_link>

<https://drive.google.com/file/d/1fY7J0WSc_fiXrTtP0t8VGY4RnLzdAaft/view?usp=sharing>