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The Image Preference for The Development of The Application for the Gas Safety field workers[1]

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Abstract: This study deduces an essential image which ultimately enhances the working conditions as well as the quality of the application for the Gas Safety laborers. In order to do this we have closely researched Gas Safety working conditions and also the characteristics of the laborer. Furthermore, we have analyzed the requirements for the development of this study and conducted a survey based on the preference of the primary images.

Keywords: Gas Safety related Application, UI/UX, Design Image Preference, Labors

1 Introduction

This research aims for the deduction of the preference of the image needed for the development of the Gas Safety laborer via mobile application. As such laborers are relatively vulnerable in the digital field, we have carefully considered our research by making the application as simple as possible. Such actions could be shown through the use of the ubiquitous image and through the construction of the serviceability.

This is really significant for the enhancement of the application for the Gas field work. As there is no precedent research in this area, we strongly expect the effective development of the application, solely based on the fundamental image preference.

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2 The analysis on the requirement of the Gas work related application development based on the characteristic

2.1 Analysis on the requirement of the Gas workers according to their traits

According to Holland's classification, high-pressured gas facility workers are generally allocated as manual workers. Thereby such workers prefer to do manual works such as fixing, creating and repairing. However this does not mean they enjoy all of the attention, rather they enjoy interaction with others. Also because they are exposed and working in a place full of constant noise, light, high humidity, disproportionate temperature and toxic materials as well as unpleasant odor they are more likely to have high stress than general workers.In this case, there is precedent research showing that workers tend to prioritize Color 1 or Color 2 which are designed simply. Thus, we have outlined the requirements of the digital users based on their digital, social and interactive skills.

1) Gas field workers are likely to be under average when it comes to experience and interactivity with electronic equipment. Also, as they are manual workers, using both hands continuously, it needs to be convenient for them to use.
2) These conservative middle aged males would prefer designs that are simple and clear.
3) There should be a direct application icon that can be inferred as a gas related application.

2.2 The analysis on the requirement of the gas work field based on the characteristic

Korean Gas Safety Corporation (KSG) classifies potential gas accidents as 6 kinds. If we reclassify we get gas leaks which may lead to addiction and suffocation, conflagration and detonation. The requirements of the application reflect such facts.

1) There should be a clear and concise image that indicates Gas leak, Explosion, Conflagration.
2) The need of eidetic color that represents 'danger.'
3) There should be research on the indication that manifests the level of the urgency.

Whilst working, there are common accidents such as gas leak, detonation and other various big accidents. The majority of them are 'slipping' and 'falling.' These are constant and perhaps inevitable dangers that workers risk daily. Furthermore, large industrial facilities often tend to have 'danger areas' that not only prevent workers from entering but also distinguish the safe zone and the danger zone. There are accidents caused by the carelessness of the workers therefore we have drawn some

conclusions.

1) The need of indicating with an image the places that slipping and falling often occur.
2) There should be an image that conveys a clear difference between 'careful places' and also 'very dangerous places.'
3) The need of constant signage of 'careful' during the working hours.
4) The need of a sign that announces 'operating safely.'

3 Survey Results

During the survey we had 60 laborers working in the Gas related facilities and the consequences are shown down below.

1) They preferred the color red for the indication sign for "Danger."
2) They preferred a kinetic image for "Urgency."
3) They preferred a gas mask image for "Gas Leak situation."
4) They preferred the "Okay Sign" on the "Operating safely" sign.
5) For "Careful" they preferred the "Exclamation Mark" image.
6) For "safety orders" they preferred the basic safety images.
7) They preferred colored images for "Fall, Slip, Careful" which indicates danger.
8) For the "Safety" program images they preferred existing pictures and textual images.
9) They preferred "Gas Safety" pictures that are related to each individual's company characters.
10) For the "initial mobile phone page" picture they preferred images that were most simple.

4 Conclusion

From this study the deductions are as followings. Initially, the most popular image that gas work related workers prefer is very conservative. Namely, they prefer images that are simple, concise and precise rather than images that are new, innovative and complicated. Therefore conclusively this research shows that when creating a Gas work application, it is preferable to make slight changes based on the existing images rather than creating new images.

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