GRADUATE GUIDE TO CIVIL PROJECT MANAGEMENT

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INTRODUCTION

The Civil Construction industry is an industry where you need to be an on-your-feet problem solver, a forward planner and have great communication skills.

I have found that during my time at Otago Polytechnic, the base of knowledge that you gain throughout your Diploma/Degree help you with the technical aspect of a civil construction managerial role. But, like in many instances, there are a whole lot of skills that you need to develop while also performing your role as a civil construction manager.

This poster will cover my findings while working as a civil construction project manager and the tips and tricks that will help a graduate with their new role.

ENGINEERING PROBLEM

Graduate civil engineering students that are working in management where support is lacking.

FINDINGS

INITIAL RESEARCH: During the initial stages of research to find out if there was already something similar that would aid graduates during there early career to become competent and to excel their career as fast as possible, it turned out there was little to no resources available that would be easy to use and easily accessible.

SOLUTION: As myself personally was in this category myself, from recently graduating my NZDE (New Zealand Diploma in Engineering Civil) in 2017, I decided to use my own experiences to create a easily accessible, easy to use, simple guide to project management in the civil construction industry.

This guide would ideally have the following features;
- Be easy to navigate to find help on a specific issue,
- Be of low cost to produce,
- Be of little or no cost to people that are in need or wanting to access the document,
- Have and electronic and hard copy available

DESIGN SOLUTION 1:

iOS and Android App Start up cost anywhere up to $10,000 for a simple interactive app. This instantly ruled out developing an app, as I personally do not have the skill set to develop one myself, meaning that I would have to invest time in-to someone else programming it for me. This would could against the feature that I want to have this resource to have, which was a low cost.
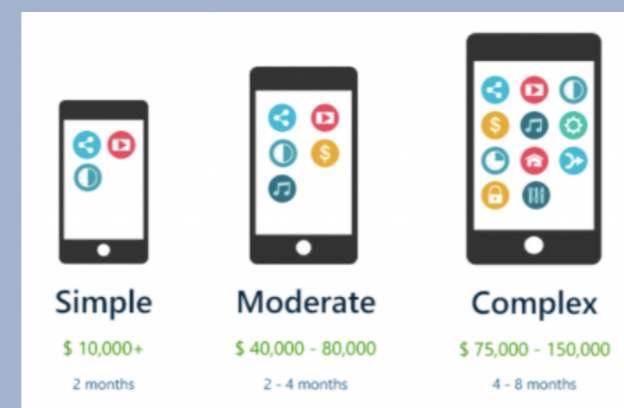
(How much does it cost to make an app, 2018)

DESIGN SOLUTION 2:

The next solution that I looked in to was, developing A PDF version of this resource. There were a few pros and cons of this method. The major con that made me not continue with this method is that it would require an internet connection to download. A lot of civil work can be remote so this would be of no use.
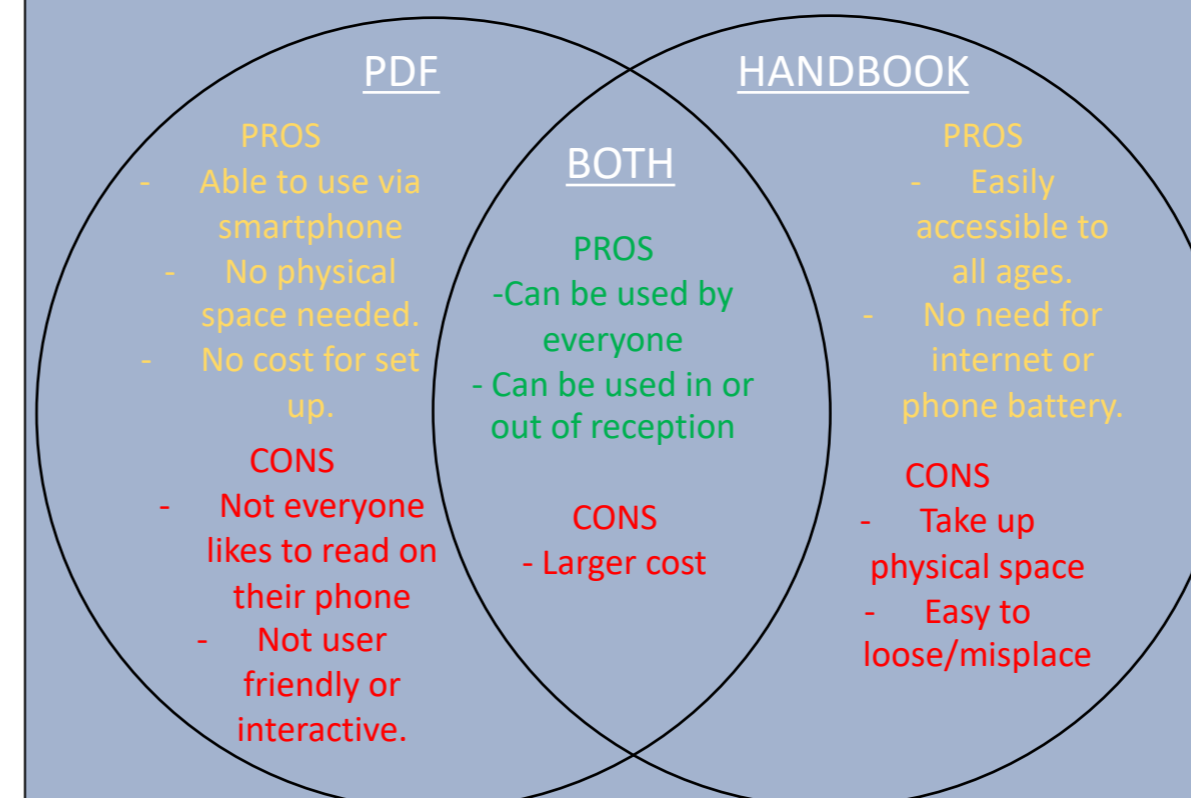

(PDF File Icon, 2020)

DESIGN SOLUTION 3:

After looking at the pros and cons of both the PDF version and Design solution three this is what I produced;

Comparison of PDF version VS Physical Handbook

The final solution that thought about was a pocket-sized physical handbook, with easy flappable pages. Something that you could keep in your pocket, your vehicle or on your desk at work that wouldn't take up too much space.

CONCLUSION

In conclusion, I decided to produce both Design Solution 2 and 3.

I felt that this was going be able to give graduates access to the information that they need when struggling for support.

By producing both versions, this will satisfy different types or learning. Kinesthetic and Visual being the main target.

The total cost to produce one PDF is only man hours and can be accessible via the internet. Where the total cost of the handbook will be $12.00 per unit.

This resources will be able to help graduate engineers exceed in their career as a manager from learning from the mistakes that I made during my experiences as a graduate engineer (civil).

REFERENCES

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