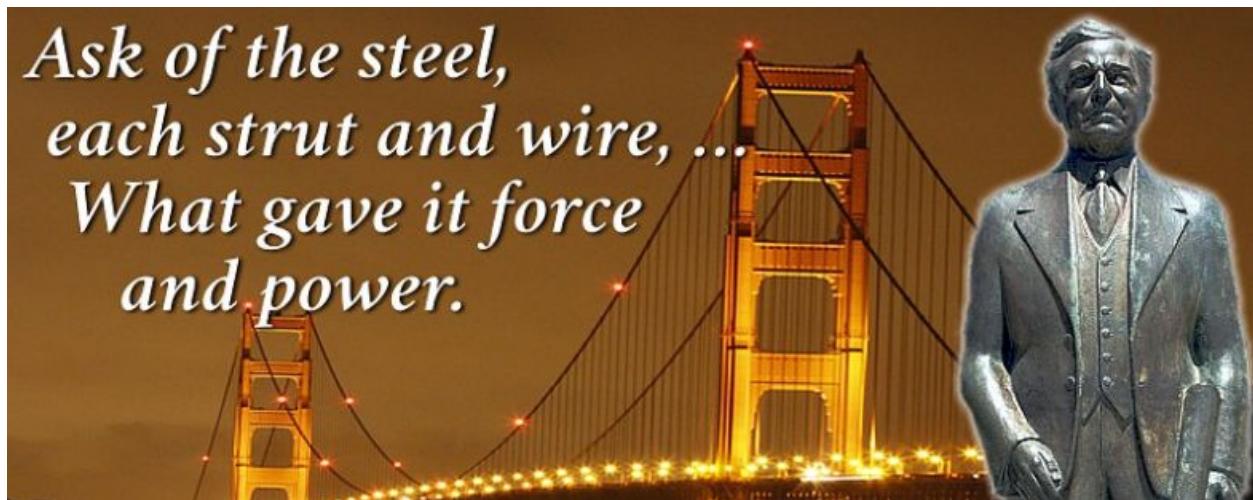


Being a Civil Engineer



A Career Research Paper submitted to the faculty of Senior High School Department of APEC Schools-Pateros in fulfillment to the requirements of Practical Research 1 in Grade 11.

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11PM-1

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Abstract

In doing this research paper, the researcher choose a topic that he really wants to become in the future. He made a foundation on his research paper he perceive on the possible things that he wanted to know more about his topic. When he decide to become a Civil Engineer, he did his introduction that contains how he come up in his career job he shared the history of him in how he change his job, how he did he start in his ambition, what he consider.

Then he did his scope and limitation that contains the main purpose of his research paper and other topics related in his chosen career, furthermore he put the non related topic or which is not included in his topic.

The research paper did the Review of Related Literature (RRL) by doing the RRL he look for the valid and reliable sources. And researcher paraphrase the data that he gathered. After doing the RRL, he also search for his respondents for his primary data. He did his survey using Google Forms and the data that he gathered he put in primary source tracker to summarize all the answer of his respondent.

Finally, when his done doing the methods and results, he did the conclusion to share what he discover in his topic

Introduction

In this research paper the researcher's goal and objectives is to create and finish a valid research paper, because it will help him decide what career he is going to pursue.

As a child his hobbies are drawing and coloring cartoon characters and his favorite toy guns. In Every time that he is going to play his toy guns it gives him good feeling and that's the time he started to dreamed to be a policeman. One of his dream job is to be an artist, because when he is studying in tenth grade he really love arts he is always joining school contest related to arts like poster making contest. That's why to be an artist is one of the researchers dream job.

When he grew up Culinary Chef is one of his chosen dream job, because he also had subject that need skills in cooking and baking. When he is performing cooking food, baking breads he feels happy and that feeling he started to dream to be Chef, even he is not really good in cooking or baking he really wants to be a Chef, because if you love something you will try to do it.

When he is in younger age the researcher's love playing computer and video games. He really want to know what new computer games is going to release so that he is updated in games. The researcher saw testing a new release game so that Game Tester is one of his dream job.

Being Civil Engineer is his final dream job, because when he is in tenth grade he had a subject need skills in drawing and measuring and he love creating drafts of buildings and bridge so that he want to be Civil Engineer someday.

He remember 3 jobs that fits his hobbies and skills. Culinary, Game Tester, and App Developer. The researcher finally chose Civil Engineer because on what he experience in tenth grade.

Scope and Limitation

The main purpose of this research paper is to discover and get knowledge, interesting facts all about Civil Engineer, such as what does Civil Engineer usually do? In this research we will know more about Civil Engineer in their work even in their daily lives¹.

The data he gathered in this research paper, collected from surveys answered by the respondent through email. And the other information/data he gathered is collected from internet which is secondary data. The researcher sourcing for valid sites so that the data he gathered is trusted.

Other responsibilities of being a Civil Engineer are designing structures, planning, maintaining and construction of subjects such as buildings, large scales working, drainage and roads. Civil Engineer has a large impact on modern society, as it dictates how lots of process and services work together.

The beneficiary in this research paper are those students who are interesting in constructing and designing objects, but not only the students who are studying but also those people who are willing to take Civil Engineer.

The job not related to Civil Engineering is the professional who are not connected to constructing, designing structures.

¹

Review Of Related Literature

In this research paper, the researcher found out that there are no related research paper of being a public Civil Engineer but they have information in educational site regards the opportunities that Civil Engineer experience in their daily lives.

History

Civil Engineering is the mirror of the history of human beings in this earth. Man used the old shelter caves to protect themselves of weather and harsh environment, and used a tree trunk to cross the river, which being the demonstration of ancient age civil engineering.

Challenges

Here are the common challenges/problems does Civil Engineer usually encountered.

- If there's any problem happened in one site such as collapsed bridge. Engineer will only alert whenever problem is happened at site; and problem is unable to resolve it by contractor. Contractor will like to build it without interruption of engineer.
- Even though Civil Engineer aware about the construction work, some of un-responsible contractor will try to do some work in the time that engineer is unable to present such as contractor carry out the concreting work after office hour especially in the evening, nighttime and public holiday. Once concreted, engineer is unable to inspect it.

- Whenever construction started, un-experience contractor will do work by referring to Civil Engineering drawings without read in-conjunction with other professional drawing such as architecture, mechanical and electrical drawings. After the constructing structure the result will be an arguments.
- Even though an inexperienced contractor is read engineering drawings, somehow contractor is build to their own knowledge; especially from contractor previous project.
- Some irresponsible contractors are not listening to Engineer instruction. Contractor will build base on his own knowledge. Contractor will always persuade client that contractor is builder. Contractor tells client that he has a lot of knowledge than the Civil Engineer.

Goals and of being Civil Engineer

- Goal of being a Civil Engineer is to design or plan to construct projects such as collapsed buildings, collapsed bridge. And as we all know we need to have some knowledge about math, because Civil Engineering is measuring and designing projects.

Education

Top 10 University prioritize Civil Engineer

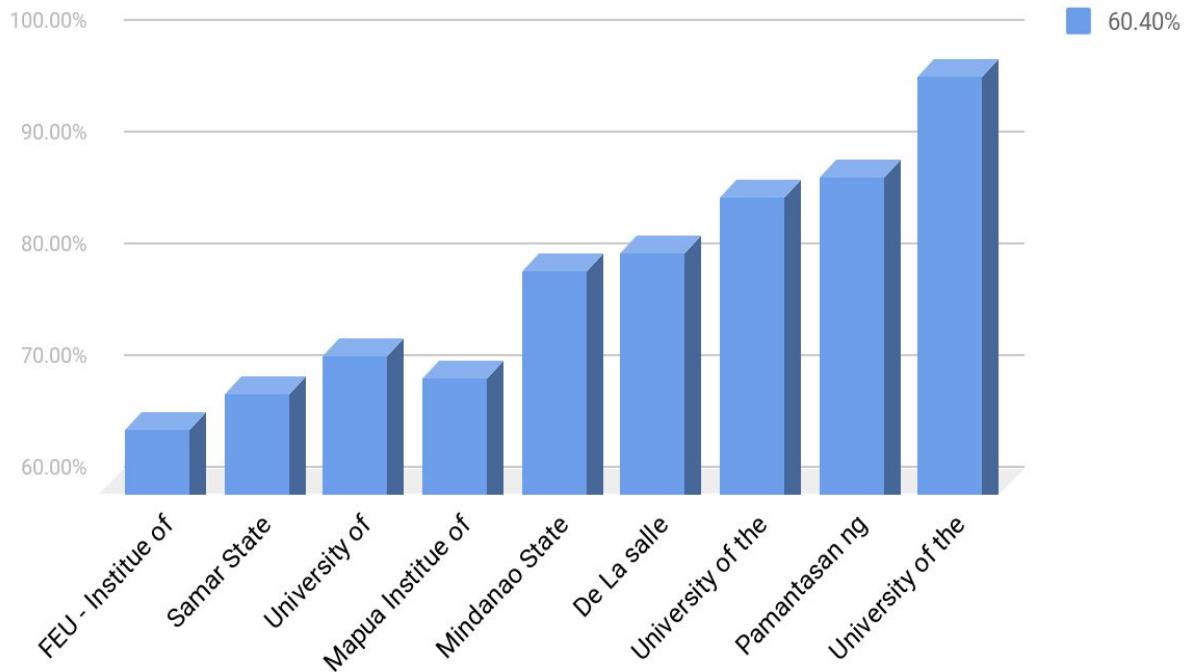


Figure 1:

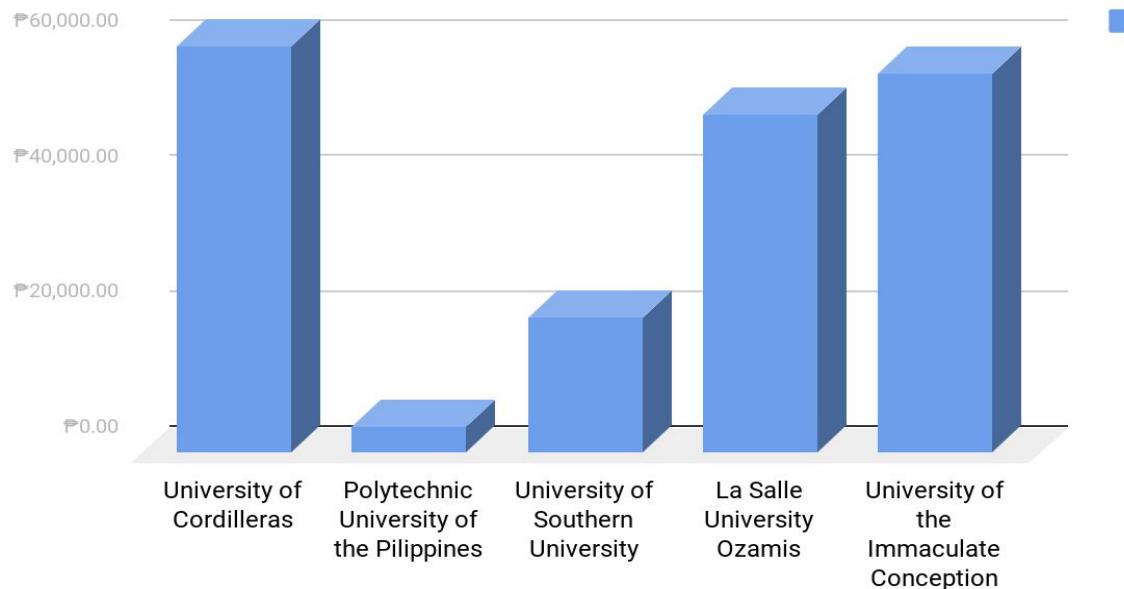
Graph of top 10 University prioritize Civil Engineer

I can say that in University of the Philippines in Los Banos most prioritize Civil Engineer base on their percentage. Perhaps some people who wants to be a Civil Engineer someday lives or near in Los Banos.

Figure 2

Schools and tuition fee

Schools and tuition fee need to pay just to get Civil Engineer



I can say that in University of Cordilleras has a higher tuition fee perhaps the students in this University has enough money to pay tuition fee. But in Polytechnic University has a lower tuition fee i think there's no comparison in every schools even in standards, so maybe the tuition fee in University of Cordilleras is high because of the benefits that students get.

Academic Requirements to be a Civil Engineer

Here are the academic requirements needs to get Civil Engineer

- Bachelor's degree in Civil Engineering
- Master degree
- Accreditation Board of Engineering and Technology
- Non-governmental, non-profit agency ABET accredited degree

Career opportunities

Here are the career opportunities when you get Civil Engineer

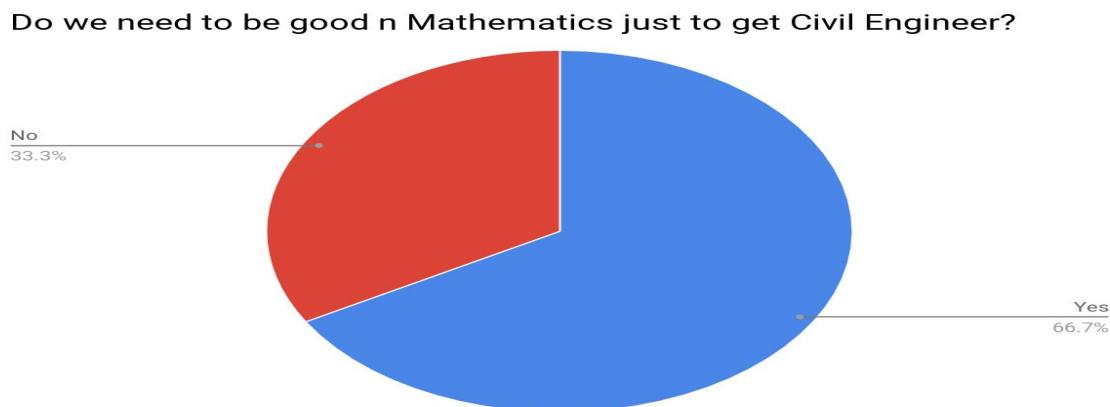
- Analyzing range plans, survey reports, maps and other data that Civil Engineer plan to design.
- During planning and risk analysis stages of project Civil Engineer considering government regulations, potential environmental hazards, and other factors.
- Compiling and submitting permit applications and verifying projects.
- Analyzing the result of projects they finished.
- Analyzing result of tested building materials such as concrete, wood, asphalt or steel.
- Preparing costs estimate for materials or equipment.
- Perform or surveying project in site layout.

METHODS AND RESULTS

To get other informations about Civil Engineer, the researcher conducted a survey through email. He use google forms and send the link to his respondents through email. He had a hard time and effort to find respondent, and he got only 3 respondents and the researcher is glad because the 3 respondents cooperate in his survey.

Figure 3:

Do we need to be good in to be good in Mathematics just to get Civil Engineer?



I have 3 respondents and 2 of them answered yes and 1 respondent answered no. I can say that the 2 respondent who answered yes they want to be a good and professional Civil Engineer that's

why they answer yes. While the 1 respondent who answer no perhaps we don't need to be good but we need to study math to get Civil Engineer

What are the things need to avoid in workfield

Respondent 1 - Bad interpersonal relationship with workmates.

Respondent 2 - Don't let your workers perform their duties without the safety first attitude.

Respondent 3 - Did not attending project management courses.

The things need to avoid in workfield base on the respondents. Do not have resentment to your fellow workers so that you can do all your jobs and without missed. And when you are in higher position do not let your workers perform without safety first and tell them to always be careful doing their duties. And always attend meeting so that the workers are updated and know what are they supposed to do in workfield.

Figure 4:

How much is the monthly salary of public Civil Engineer in philippines.



I have 3 respondents 2 of them answer that their salary a month is 40,000 above, and the 1 respondent answer 20,000. I can say that the 2 respondent whose salary is 40,000 above perhaps

they have long been in that job, and the 1 respondent answer 20,000 as his salary perhaps he is new in that job.

What are the responsibilities does Civil Engineer usually do in workfield.

Respondent 1 (N/A) - Design, inspect, supervise, and coordinate.

Respondent 2 (Structural steel Detailer - Make sure all the specifications based on code and plans are all being allowed.

Respondent 3 (HSE Supervisor) - Computation of load, designing, planning, analyze maps, reports, site inspection, progress monitoring, estimation and provide technical advice

Base on the respondents the task or responsibilities they usually encountered in workfield are designing structures, inspecting site, supervising other workers, and coordinating to finish their duties. And making sure that your duties is based on what is the code or the supervisor plans for your project. Based on 3rd respondents being Supervisor has hard time to finish their duties because they are computing load, designing structures or objects, planning how to do or finish their tasks, analyzing maps that need their help, they also reporting or updating what projects did they finished, and advising his conquest.

Conclusion

In doing this research paper, the researcher learned a lot in this topic. He discover that being Civil Engineer is not easy. The data that he gathered that being Civil Engineer is glee-ful, even though Civil Engineer encounter different trials, yet they can overcome those challenges because they have the fondness on their job.

The advantage of being Civil Engineer is you can get a higher salary in a month. And this chance is hard to find. Mainly, being Civil Engineer contribute a huge impact in our society, if we perceive that we don't have Civil Engineer in this world, who will build a buildings, who will build collapsed bridge.

The disadvantage that the researcher discover is being Civil Engineer is when they spend a lot of time in their job rather than spending time with their family.

For him, the most interesting that he discover is when Civil Engineer build the bridge and some people commend them, the researcher he's interest develop more because of what he witness about his topic.

Bibliography

(News n.d.)

“Civil Engineers : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics.” 2018.

April 13, 2018.

<https://www.bls.gov/ooh/architecture-and-engineering/civil-engineers.htm#tab-2>.

“Educational Requirements for Civil Engineers.” n.d. Accessed May 6, 2018.

<http://work.chron.com/educational-requirements-civil-engineers-6592.html>.

“Engineering Goals & Objectives.” n.d. Accessed May 6, 2018.

<http://work.chron.com/engineering-goals-objectives-28055.html>.

News, Abs-Cbn. n.d. “LIST: Best Performing Civil Engineering Schools in the Philippines.”

Accessed May 6, 2018.

<http://news.abs-cbn.com/lifestyle/v2/05/07/16/list-best-performing-civil-engineering-schools-in-the-philippines>.

“Pricing and Costs of Civil Engineer Education and Training.” n.d. Business.com. Accessed May 6, 2018.

<https://www.business.com/articles/pricing-and-costs-of-civil-engineer-education-and-training/>.

“What Are the Common Problems for Civil and Structural Engineer Faces on Project Management Work.” n.d. Accessed May 6, 2018.

<http://www.civilstructural.com.my/072007/ArWhatAreTheCommonProblemsForCivilEngineerFacesOnProjectManagementWork.aspx>.

(“What Are the Common Problems for Civil and Structural Engineer Faces on Project Management Work” n.d.)

(“Educational Requirements for Civil Engineers” n.d.)

(“Civil Engineers : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics” 2018)

(“Engineering Goals & Objectives” n.d.)

(“Pricing and Costs of Civil Engineer Education and Training” n.d.)