

ASSIGNMENT 2 FRONT SHEET

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Student declaration I certify that the assignment submission is entirely my own work and I fully understand the consequences of plagiarism. I understand that making a false declaration is a form of malpractice.			
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Grading grid

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I. Introduction

As we know in the ASM 1, technology is fast growing at the moment, and technical concerns are continually altering. Living in the 4.0 technology era necessitates learning and learning about current technological development concerns. In this study, we will be able to see a major concern in the 4.0 age, which is e-waste. Please read on to discover more about e-waste, the difficulties it creates, and the advantages it has on our life. So, in this ASM 2, after do the research, we will show you the reflection of the research.

II. Reflection of the research

1. Research proposal

At first, before the ASM1, we have no idea about the problem call E-waste, we could say that this definition about e-waste is new to us. So, when the research started, we can have a chance to face with a new data and how to go on with our research for this new data. This part is a research proposal which according to Jansen, 2020, a research proposal is essentially an organized, formal document that outlines what you intend to explore (i.e. your research subject), why it is worthwhile to examine (i.e. your justification), and how you intend to investigate it (i.e. your practical approach). The aim (or duty) of the research proposal is to persuade your research supervisor, committee, or university that your study is appropriate (for the requirements of the degree program) and doable (given the time and resource constraints you will face). In this research proposal, we will show you why we choose to do research about the e-waste. At first, it's new to us and we want to challenge ourself by face with the problem. In class, we are given excellent reading materials and various real-life examples, one of which is very fascinating. The instance from the publications piqued our interest in learning more about the challenge we confront. It's about e-waste and how it affects the environment, as well as the amount of people affected by e-waste. To look about e-waste definition, e-waste is described as undesired electronic goods that are no longer working and are reaching or have reached the end of their "useful life," such as computers, televisions, VCRs, stereos, copiers, and fax machines.

2. Literature review

In second part, we will show the literature review for readers to know through about e-waste and what e-waste could impact in the ASM 1 with the shortest as we can. To go in detail, we have to know that literature review is a piece of academic writing that demonstrates knowledge and grasp of the academic

literature on a particular topic in context. A literature review involves a critical evaluation of the content, which is why it is called a review rather than a report (University of Edinburgh, 2022). In this part, here is some critical contents that we talk about in the ASM 1:

- E-waste is described as undesired electronic goods that are no longer working and are reaching or have reached the end of their "useful life," such as computers, televisions, VCRs, stereos, copiers, and fax machines.
- When e-waste is heated, harmful compounds are discharged into the air, harming the ecosystem; this is one of the most serious environmental effects of e-waste. Toxic pollutants can then leach into groundwater, hurting both land and sea species.
- E-waste is dangerous because the components used to build electronics like computers, mobile phones, and televisions include metals and chemicals that are known to be harmful to human health. Children are particularly exposed to the consequences of e-waste because they frequently work, reside, and play in or near e-waste recycling centers.
- Home appliances, refrigerators, office furniture, playground equipment, lawn chairs, automobile components, containers, and anything else created from recycled plastics are some of the applications in certain businesses. This is one of the most extensively reused materials found in electronics, and it might be the next commodity sold by small businesses.

We had developed a literature review based on the information he had obtained. According to the tutor's guidance, this is a vital portion of the project since the major research topic will be answered in this section. The hypothesis is vital in this section, and we will need to verify it by gathering relevant verified evidence, such as research respondents. We may use references from the web and books if we need additional knowledge and data to support the project process. By changing the project plan and research information three times each week to keep up with the times, the reason we need to update it carelessly is due to the deadline and the research data has to be current and reliable.

3. Research methods

The tactics, procedures, or techniques used in the collecting of data or evidence for analysis in order to reveal new knowledge or generate a better understanding of a topic are referred to as research

methodologies. There are several research approaches that employ various data gathering instruments (University of Newcastle, 2022).

Primary research entails collecting data that has never been collected before. Methods of collection may include interviews, questionnaires, observations, or any other sort of research that you do yourself (University of Southampton, 2022). In the primary research, we have to prepare bunch of interview questions for the participant and the observation method to finding result of our hypothesis.

Secondary research, often known as desk research, is a research process that entails gathering existing data from several sources. This covers both internal sources (such as internal research) and, more typically, external sources (such as government statistics, organizational bodies, and the internet) (qualtrics, 2022). So, in this report, we will have to do a lot of research on articles, have to make survey questions and have to find the number around the problem of e-waste.

Using primary research, which is a survey, and secondary research, which is an interview, we learned how to conduct a research study by creating some questions about the project objectives and identifying the hypothesis, as well as having an interview with the participants to declare the questions more specifically. We pick participants for a variety of reasons, including the fact that students have a wealth of knowledge about current events and technology, as demonstrated by their age and knowledge of e-waste. This is significant since the survey is aimed at the proper people who are aware of the e-waste problem and want to learn more about it; this will provide us with the necessary data to support the hypothesis stated in the assignment. We created the survey using Google Forms to collect data from 20 students from four universities in Hanoi, and we saved the data in Google Drive to analyze. The information of students in university provides us with the data we require; data from students who understand e-waste and its impact provide benefits in obtaining data for the hypothesis; this will take the survey have the proper data to use to prove the objective we have set. Furthermore, by combining our viewpoint with observation study, we may be able to prove the target we have established. We placed ourselves in an area that may be impacted by e-waste in order to gather information or data that could assist us substantiate the facts we were given. We eventually could compile all the information and data we have from three techniques we use are interview, survey, and observation to prove three key hypotheses about the problem known as e-waste by utilizing the video we gathered on the internet from proven sources.

4. Project plan and presentation of result

To begin, I must study a large number of e-waste articles in order to understand what e-waste is, what it may influence, and how it can do so. To address such issues, we must conduct extensive research, not only by reading publications from others, but also by interviewing professionals about the problems encountered throughout the research. Second, after we have a good understanding of e-waste, we will go into greater depth on what the e-waste problem is in Vietnam and how e-waste might affect HCM City. After doing extensive study, we discovered three hypotheses on the impact of e-waste on health, the environment, and small businesses. To test those three hypotheses, we go to the third phase, which involves employing survey and interview questions that we have written. We also utilize the observation approach to form our own opinions on these theories. These three procedures greatly aided us in proving three hypotheses, and the results were astounding. According to the ASM1, the finding result is step 4, and that step revealed that the number of persons who followed our hypothesis was roughly 90%. That's a large number, and we may draw the conclusion that our hypothesis was effectively tested. The results of primary and secondary research from the project have been shown in the assignment; the results will define the project objective and hypothesis of us, by gathering data, analyzing it, and proving it through data; we also have research on the internet and book for more ideas and more specific define, using many data from the internet which helps us write the report more easily and specifically.

5. The role of tutor in research

For the study, we must sit with our tutor for 40 slots, or days every week, and our tutor is quite helpful in our research. First, the teacher shows us how to build a nicer and cleaner word form than we used to. Second, the instructor advises us on research methodologies, which is one of the most essential tools that we have utilized in the ASM 1. Third, the study could not have an aim if our tutor did not provide us with the major question to verify. In the fourth reason, our tutor assisted us with our research techniques, which we did not approve of. It assists us in creating questions for interviews, surveys, and even the observation technique. We owe appreciation to our teacher for the knowledge we have obtained and for his assistance with our research.

III. Lesson learnt, mistake and improvement

1. Lesson learnt and mistake

We learnt a lot about gathering and analyzing information from the project. Following the assignment, we investigated the advantages of working remotely, such as utilizing Google Forms to conduct a survey. We also studied the aim of the research, its experience, and how to enhance it. We learned how to conduct a research project and how to get the right data from reliable references and books and analyze it using reference material, with all of the research experience and gain new skills, learn more about new knowledge about e-waste, and discover the power and interest to test the dynamics of our learning. The defects of the study are characteristics of the design or process that shaped or inhibited interpretation of the results. The capacity to generalize, extend to reality, and the efficacy of the results that arise from the forms in which you first select to design the analysis or the technique used to examine the internal and external validity of the outcomes of unanticipated test challenges have limits.

Survey data is scarce: To conduct this study, we asked students who could reply to e-waste questions in a variety of ways. We administered surveys and conducted interviews with participants, however the information we gathered was restricted to a few students in Hanoi. We acknowledge the project's flaws here, because youngsters in each region will be influenced by the surroundings, which has its own way of living. Our research, however, is confined to pupils in the Hanoi area.

Previous citations and references will serve as the research basis for our paper and project, supplying us with the underlying theory for the question. However, scholarly papers on this topic are limited or not publicly available, demanding a significant fee for a document. As a result, we have limited data and basis for this issue.

Time Limit: Our project lasts one month from start to finish, and we make the product available to users for two weeks. Although it is still difficult, now is the time for users to acknowledge their distinctions from the past. We need extra time to track and survey changes in user behavior.

2. Improvement

While investigating, we anticipated the project's limits and established remedial procedures to assure the project's correctness. In the surveyed region, we conduct student surveys at several of the schools listed

above. We conducted a poll of students using the application at the four schools listed above while in Hanoi to check the impartiality of the survey. The universities in the Hanoi metropolitan region are not concentrated in one location, but rather spread around the city. We interviewed different universities in diverse fields, vocations, and training environments to ensure neutrality. The data is then examined to generate the most logical results. Second, due to the lack of research in this field, the subjects we are working on are available on the internet for a fee or for free. That is why we need mentor support in contacting us and directing us to relevant citation sources. Third, owing to time restrictions, the research timetable must be maintained. Rather of speeding up the operations, we execute them in parallel to guarantee that the research time is sufficient to collect the most trustworthy data.

Aside from progress in the scientific process. To continue improving the project, we will make the following changes in the future:

Extending the scope of the research: As specified in the restricted paragraph, the focus of our research is students in the Hanoi area. Only students from the Hanoi region can comment objectively about e-waste and its repercussions. In order to gather correct study data, we will expand the project to further cities like as Ho Chi Minh, Da Nang, Can Tho, and others.

Currently, our study includes three basic data gathering methods: survey, interview, and observation. If the study is expanded in the future, we would like to include other methods of gathering information, such as surveys and focus groups, to offer a more comprehensive picture of user answers. The result is a rich output that is simple to examine and uncover new ideas.

Extending project implementation time:

We consider that one month is inadequate time to execute the project. If the proposal is approved, we will conduct research for 4-6 months. The length of the study has a significant impact on both the volume of research and the quality of the time required to see the results. That is why we want to teach people about e-waste and what it can accomplish. They will have a more complete answer and a broader perspective on this issue after learning more about e-waste.

IV. Conclusion

We have written the report of limitation and reflection structure, which will assist us in detecting the strong and weak points in the assignment, the importance of the report, and having the proper report to know the limitations in project study. Furthermore, we have learned the competence and gained the necessary expertise in creating surveys, report assignments, and evaluating data from interviews based on the information we have.

Reference

- Jansen, D. (2020) What Is A Research Proposal? Simple Definition + Examples - Grad Coach, Grad Coach. Available at: <https://gradcoach.com/what-is-a-research-proposal-dissertation-thesis/> (Accessed: 3 November 2022).
- Literature review (2022). Available at: <https://www.ed.ac.uk/institute-academic-development/study-hub/learning-resources/literature-review> (Accessed: 3 November 2022).
- LibGuides: Research Methods: What are research methods? (2022). Available at: <https://libguides.newcastle.edu.au/researchmethods> (Accessed: 3 November 2022).
- LibGuides@Southampton: Primary research: Home (2022). Available at: <https://library.soton.ac.uk/sash/primary-research> (Accessed: 5 November 2022).
- Secondary Research: Definition, methods, & examples (2022). Available at: <https://www.qualtrics.com/experience-management/research/secondary-research/> (Accessed: 5 November 2022).