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DESIGNING SELF-LEARNING MODULES ON PROJECT MANAGEMENT FOR THE SANGGUNIANG KABATAAN COUNCIL OF BARANGAY SAPANGBATO

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Acceptance Page

This special/capstone project prepared by **AIKO MARIE J. FUJINO** with the title: **"Designing Self-Learning Modules on Project Management for the Sangguniang Kabataan Council of Barangay Sapangbato"** is hereby accepted by the Faculty of Education, U.P. Open University, in partial fulfillment of the requirements for the degree of Bachelor of Education Studies.

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Biographical Sketch

Aiko Marie J. Fujino is from Angeles City, Pampanga. She graduated Junior High School from Sapangbato National High School in 2018 with Honors. In 2020, she completed her Senior High School at the same institution under the track Technical-Vocational-Livelihood from which she gained a National Certification II for Bread and Pastry Production and Food and Beverage Services. She also served as the editor-in-chief of the school newspaper “The Riverside Echo” and secretary of SBNHS’ Supreme Student Government for three years.

In 2020, Aiko was accepted into the University of the Philippines Open University where she is currently taking the Bachelor of Education Studies program. She has participated in community engagement activities that educate people on advocacies such as waste management and chronic kidney disease awareness. Additionally, Aiko enrolled in Massive Open Online Courses to expand her knowledge in gender sensitivity and digital marketing. She is expected to complete her program in 2025. After graduation, she plans on obtaining a teaching license and pursuing her interest in instructional design.

Acknowledgment

First and foremost, I would like to express my gratitude to my project adviser, Mr. Leynard Gripal, for guiding me throughout my journey in EDS 199. Without his expertise and assistance, this project would not reach completion and success. My experience in my special project has become less intimidating with his guidance and endless support.

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Lastly, to my friends and family, especially my parents who constantly assured me when days were harsher and did everything they could to help me complete my project, I dedicate my success to you all wholeheartedly. Your faith in me is a source of incredible strength I will forever cherish.

TABLE OF CONTENTS

List of Figures

List of Tables

List of Appendices

Abstract

Project management is a vital part of the public sector whose fundamental function is to develop projects that create effective services and enhance the existing ones (Selepe, 2023)—making project management skills a core competency for public officials like the Sangguniang Kabataan Council. In an initial assessment with the SK Council of Barangay Sapangbato, Angeles City, Pampanga, weak project management skills were revealed to be the council's most pressing issue, specifically in time management and task division areas. This paper seeks to address this problem through instructional design by developing three (3) digital Self-Learning Modules on project management developed using instructional and multimedia design principles, theories of learning, learning objectives development, methods of assessment, Open Education concepts, and Online Learning models. A synchronous online class was conducted to pilot-test the first SLM. The summative assessment revealed the learners' understanding of basic project management concepts such as project characteristics, life cycles, constraints, and relevant intrapersonal and interpersonal skills. The skills and knowledge that the learners can gain from the SLMs will enable them to design and conduct projects that aid in the holistic development of their members. Moreover, the SLMs can be a significant addition to the limited number of project management materials specially designed for the SK Council.

Keywords: Sangguniang Kabataan Council; SK Council; Project Management; Time Management; Task Division; Instructional Design; Self-Learning Modules

I. INTRODUCTION

Rationale

Project management is a major part of the activities of the Sangguniang Kabataan Council of Barangay Sapangbato, Angeles City, Pampanga. To fulfill their duties, there are particular skill requirements they need to possess to successfully develop their initiatives. However, it was revealed through a needs assessment that the Council struggles in this area, particularly in time management and task division. Despite the abundant amount of project management materials available online that they can use as educational resources ranging from online courses e.g. “The Ultimate Project Management PMP Prep Course” (McLachlan, 2024) to Open Educational Resource textbooks e.g. "Project Management - Second Edition" (Watt, n.d.), the number of materials designed specifically for the Sangguniang Kabataan Council remains small.

This instructional design project aims to produce Self-Learning Modules that can help improve the existing knowledge and skills of the target learners in project management. The production of such materials can have a significant effect on the availability and accessibility of project management resources tailored for the SK Council. Moreover, the self-directed nature of the modules promotes the practice of independent learning (Syahroni et al, 2016), self-efficacy, and motivation (Delita, 2022)— skills that the target learners can apply in their service as SK Council members.

Statement of the Problem

Project management is a salient aspect of public service. However, the Sangguniang Kabataan Council of Barangay Sapangbato, Angeles City, Pampanga struggles in this area. Although there are previous efforts to provide training to SK Officials in this area of knowledge, as well as the abundance of project management learning materials available on the Web, there is still a need to provide the SK Council with accessible project management materials tailored to their needs and duties.

This issue requires an innovative approach. One example may be through instructional design that will produce well-designed learning materials to address the weak project management skills of the target learners. This project will explore instructional design concepts to develop SLMs on project management designed particularly for the SK Council of Barangay Sapangbato.

Objectives

The goals of this instructional design project are divided into two categories, each with its own objectives.

Goal 1: Contribute to the youth development in Barangay Sapangbato.

1. Assist in providing solutions to the council's pressing issues.

2. Build rapport with the youth leaders in the community through effective communication and collaboration.
3. Expand personal awareness of the council's and the community's youth issues.

Goal 2: Apply what is learned from the BES curriculum.

1. Use concepts from EDS 112 Principles of Instructional Design, EDS 151 Instructional Media Resources, and EDS 153 Design of Educational Multimedia Materials in the design and development of the instructional plan.
2. Utilize Open Educational Resources from EDS 160 Open Education
3. Use lessons from EDS 157 Online Teaching and Learning to model teacher-student, student-student, and student-content interactions.
4. Apply educational theories e.g. Constructivism in the instructional design from EDS 103 Theories of Learning.
5. Create assessment methods using Bloom's Taxonomy of Learning Objectives from EDS 113 Principles and Methods of Assessment.

Significance of the Study

Through this instructional design project, the issues and needs of the SK Council will be tackled and met to optimize the performance of their duties as youth leaders in the community. Moreover, the findings and outputs from this project may provide institutions with information relating to the effective utilization of instructional design to manage the educational issues and needs of public officials.

Scope and Limitations of the Study

The scope of the project will focus on the design and development of three (3) SLMs on project management for the SK Council of Barangay Sapangbato, Angeles City, Pampanga. The project will specifically use instructional and multimedia design principles, theories of learning, learning objectives development, methods of assessment, Open Education concepts, and Online Learning models as foundations of the SLM's design and development.

However, the project is subject to limitations. The design and development of the instructional design, and therefore the SLMs, were written in English— a language that the target learners i.e. Barangay Sapangbato's SK Council, can speak to make it more all-inclusive for future users beyond the project locale. Therefore, although they are designed particularly for Barangay Sapangbato's SK Council, the SLMs lack localization in terms of language use. Future developers may consider using the local language or Mother Tongue of their target learners to design a more contextualized instructional design plan or material.

Executive Summary

The public sector activities are mostly concerned with initiating different projects to create effective services and improve existing ones. Therefore, certain specialized skills are necessary to successfully embark on tasks such as sound budgeting and

scheduling skills, dealing with resources, quality evaluation, and more (Selepe, 2023). This shows the connection between public service and project management.

An in-person interview was conducted to construct the background of the SK Council and assess their needs. Weak project management skills in terms of time and task management were identified as the most pressing issue of the Sangguniang Kabataan Council of Barangay Sapangbato in Angeles City, Pampanga. This paper discusses the use of instructional design to address this issue through the design and development of Self-Learning Modules that the target learners can use as resources to strengthen their project management skills.

An online learner analysis survey was later disseminated to the SK Council members to identify their learner characteristics, technological access, and prior knowledge of project management. The results showed that the SK Council members' learning preferences are diverse but they primarily lean more towards visual learning styles. The findings from the needs assessment and learner analysis were used to tailor the instructional design plan. SLMs can meet the needs and preferences of the target learners due to their unique features.

Instructional Material Development

The design and development of the three SLMs were underpinned by the concepts and principles acquired from instructional and multimedia design principles, theories of learning, learning objectives development, methods of assessment, Open Education concepts, and Online Learning models.

The SLMs underwent evaluation by a content expert, a secondary school teacher who served as a former SK Council chairperson. The first SLM “Introduction to Project Management” was pilot-tested in a 2-hour synchronous online class. The summative assessment showed the understanding of the learners of the basics of project management. Additionally, the feedback from the learners is positive, citing the module and the class as “informative” and “engaging.”

Recommendations and Conclusion

After concluding the instructional design project, this paper recommends the following:

- Contextualize and localize the instructional design plan/ technology/ material based on the project locale.
- Take into account all possible threats to the project, including external dependencies that could interfere with on-site activities.
- Consider using other learning modalities aside from online learning for the pilot testing to reduce connectivity and device issues.

Instructional design requires not only theoretical knowledge about the development of an instructional plan and materials. The understanding of the target learners’ needs, backgrounds, and characteristics is also a key aspect in formulating a solution to their educational problems. Therefore, sound data collection tools and clear communication between the learners and the developer should be treated as some of the most critical aspects of instructional design.

II. REVIEW OF RELATED LITERATURE

This chapter reviews literature on existing educational efforts on project management training for the Sangguniang Kabataan and SLMs and other concepts interrelated with them. Therefore, this chapter will focus on project management in public service, Open Education concepts, Online Learning models, instructional and multimedia design principles, theories of learning, learning objectives development, and methods of assessment as foundations of SLMs' design and development.

Project Management Training for SK

The public sector and project management are interconnected as the public sector initiates different projects to create effective services for the people and improve their existing ones. To accomplish this, there are certain specialized skills that people in the public sector have to possess that relate to effective project management. This includes sound budgeting and scheduling skills, dealing with resources, quality evaluation, and more (Selepe, 2023). As public officials, learning and acquiring these skill sets is crucial for the Sangguniang Kabataan Council.

There is an abundance of available materials on project management on the Internet ranging from online courses e.g. "The Ultimate Project Management PMP Prep Course" (McLachlan, 2024) to Open Educational Resource textbooks e.g. "Project Management - Second Edition" (Watt, n.d.). OERs are learning materials in various online formats e.g. textbooks, YouTube videos, lectures, graphics,

presentations, etc. that are freely available for educational purposes (Bates, 2015). OERs are underpinned by five (5) core principles namely “Reuse, Redistribute, Revise, Remix, and Retain” (Hilton et al., 2010). However, the number of materials designed specifically and specially for the Sangguniang Kabataan Council’s roles and responsibilities remains small.

Although there are existing educational efforts to provide project management training to SK Officials like the Development Academy of the Philippines’ three-day 3-day course in Pasig City participated by 35 SK Officials from 23 different barangays (DAP Conducts Course, 2024), it is still inaccessible to the rest who cannot attend. A learning material on project management that SK Officials can use on their own, anytime, and anywhere would be a great contribution to the repository of resources on project management designed according to their roles.

Online Learning

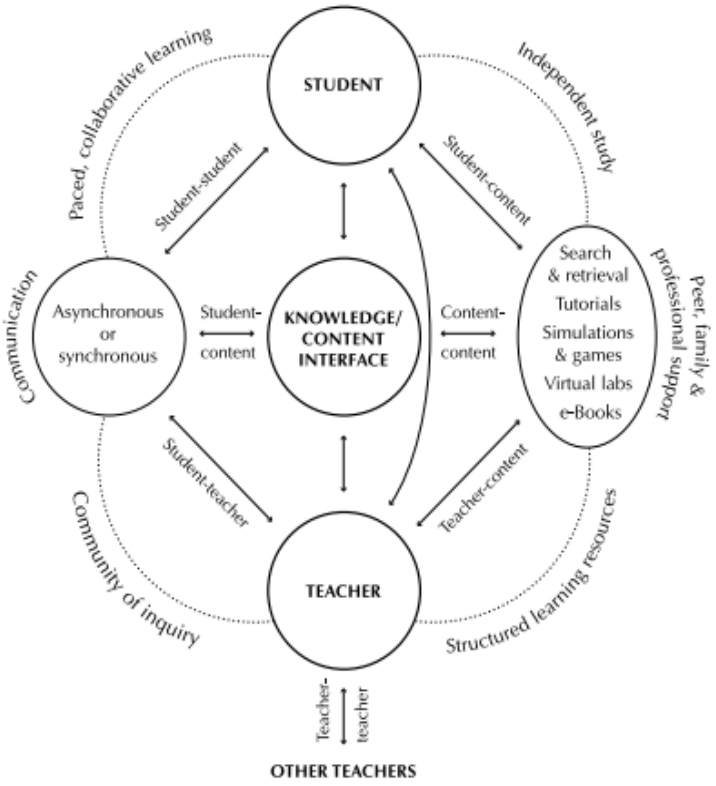
An appropriate learning modality for this need is online learning. It is a familiar concept to learners in the Philippines as it was largely utilized during the COVID-19 Pandemic (Dayagbil et al, 2021). Interactions are fundamental to online learning environments. A known model illustrating this is Anderson’s Model of Online Learning which includes two major human actors in online learning; the teacher and the student. The model shows student-student, teacher-student, and student-content interactions.

The students can interact spontaneously with any content, especially those they find on the web. They can also directly choose how they want to interact with it. Still, many choose to have their learning managed with a teacher assisting them in a formal educational setting.

This teacher-student interaction can occur in a Community of Inquiry (another online learning model that emphasizes teacher presence, social presence, and cognitive presence) through different synchronous and asynchronous interactions e.g. video, audio, chat, and conferencing (Anderson, 2008) as seen on the left side of the model.

Figure 1

An Online Learning Model



Note: This figure was created to illustrate the two major modes of online learning. From "Towards a Theory of Online Learning," by Anderson, T., in Anderson, T. (ed.), *Theory and Practice of Online Learning* (4, 45-74), 2008, Edmonton: AU Press. Copyright 2008 by Terry Anderson.

Self-Learning Modules

Similarly, SLMs are not a foreign concept in Philippine education. They were used primarily in basic education during the new normal of learning in the Philippines (Bacomo et al., 2022), and can be in either print or non-print format (Department of Education, 2019). Electronic modules have a positive impact on "self-efficacy, motivation, and learning outcomes in an online learning environment," more so if used collaboratively by learners (Delita et al., 2022).

Due to their nature of being self-instructional and stand-alone, learners can study at their own pace. As a result, it promotes effective and independent learning (Syahroni et al., 2016). The unique features of SLMs, especially their self-directed learning feature, can supplement the need for a learning material format that learners can access anytime and anywhere without an instructor present.

Self-directed learning has been historically tied to Constructivist principles which puts great emphasis on the involvement of the learner in the active learning process, where meaning-making takes place by interacting with both prior and new

knowledge. In a Constructivist learning environment, learners practice finding solutions to real-world problems, issues, and questions (Morris, 2024).

Moreover, Alternative Assessments, which give educators a broader and more genuine look at learners' understanding and how they apply the concepts they learned to a particular context (Kwako, 2003), are based on a Constructivist view of learning where learners are treated as constructors of knowledge (Janisch et al., 2007). Student writing, open-ended problems, journals, group collaborations, and more are examples of Alternative Assessment methods.

Effective assessment of the learners' mastery of knowledge and skills also requires that they are aligned with the learning objectives, which serve as guidelines for learning practices and assessments (Orr et al., 2021), of the lesson or unit to successfully measure if the learners achieved the expected learning outcomes (Prince, 2014). These aspects and the Constructivism principles supporting them are suitable for developing a learning material that fits the issues and needs of the SK Council.

Theoretical Framework

Mayer's Cognitive Theory of Multimedia Learning was chosen as the project's theoretical framework due to its suitability for the rich visual properties of SLMs. They support multimedia integration by presenting information not only in text but also through videos, audio, and more (Herawati, 2017; Kismiati, 2018 as cited in Delita et

al., 2022). According to Mayer's Cognitive Theory of Multimedia Learning, well-designed multimedia messages can promote deeper learning. This can be achieved by combining words and pictures instead of using the more traditional text-heavy approach alone (Mayer, 2003). There are 12 Multimedia Learning Principles under this theory (Mayer, 2009):

1. **Coherence** - removing distracting, extraneous material and only keeping relevant words and visuals
2. **Signaling** - using cues and highlights to highlight significant information and to guide readers' attention
3. **Redundancy** - combining narration and visuals to present information instead of narration, visuals, and words to avoid redundancy
4. **Spatial Contiguity** - placing related words and visuals physically close together for easier information processing
5. **Temporal Contiguity** - synching corresponding words and visuals instead of in succession
6. **Segmenting** - presenting information in smaller chunks instead of a long, continuous stream
7. **Pre-training** - introducing the basics key elements before the learning experience e.g., terms, definitions, characteristics
8. **Modality** - utilizing narration and visuals for deeper learning rather than visuals and words
9. **Multimedia** - using visuals and words as opposed to words alone for enhanced learning

10. **Personalization** – using less complex language in a conversational tone to convey information instead of a formal voice
11. **Voice** - opting for a spoken human voice in narration instead of an automated, computer voice
12. **Image** – incorporating more relevant visuals as opposed to talking head videos as they do not necessarily promote deeper learning

Designing content that is relevant to the target learners' backgrounds makes them more likely to participate and contribute to the learning process. This is because they see the content as relevant to themselves, encourage personal expression, and pique their interest (Heritage et al., 2015). This instructional design project aims to develop SLMs on project management specifically for the needs and characteristics of the SK Council of Barangay Sapangbato. This could improve their project management skills, greatly impact the availability and ease of access to project management resources designed for the SK Council, and increase their participation in the learning process.

Conceptual Framework

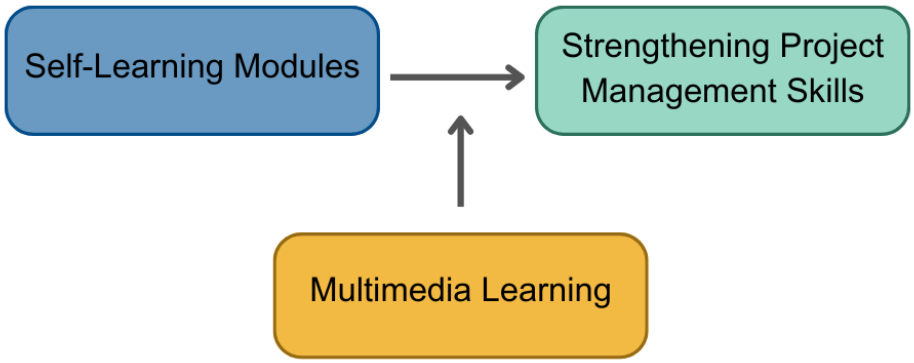
The project aims to produce SLMs to strengthen the project management skills of Barangay Sapangbato's SK Council with the help of Multimedia Learning. Figure 2 illustrates the relationship between the three variables. SLMs can impact the strengthening of the target learners' project management skills with their unique self-paced and self-directed nature which allows them to access the project management

learning material anytime and anywhere even with a minimized physical presence of an instructor.

With the addition of Multimedia Learning, it can enhance the effect that SLMs have on the skill improvement of the target learners. Moreover, it complements the rich visual properties of SLMs and can provide a theoretical guideline for the proper use of text and pictures in the material for deeper learning. Therefore, the goal of improving the weak project management skills of Barangay Sapangbato's SK Council can be achieved.

Figure 2

Conceptual Framework



Operational Definition of Terms

Below are the key concepts and terms operationally defined in the project:

1. **Self-Learning Module (SLM)** - a type of learning material designed for an independent and flexible approach to learning where learners can choose what, how, when, and where to learn (Sequeira, 2012).

2. **Target Learners/ Learners** - refers to Barangay Sapangbato's Sangguniang Kabataan Council

3. **Project Locale** - refers to Barangay Sapangbato, Angeles City, Pampanga

4. **Instructional Design** - a method of providing a solution to an instructional problem through a systematic analysis of learning conditions and designing learning experiences according to this analysis (Molenda et al., 2003).

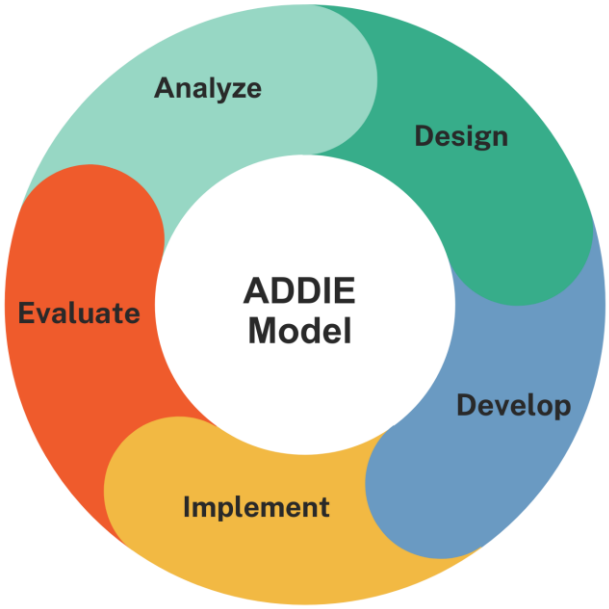
III. METHODOLOGY

Instructional Design Model

The ADDIE Model for instructional design was used as a framework for the project. The acronym stands for the five (5) components of a systematic process of instructional design namely "Analysis, Design, Development, Implementation, and Evaluation" (Aldoobie, 2015). Each component is related and interacts with each other. The needs assessment and the learner analysis conducted beforehand serve as the Analysis phase of the project. Therefore, the information gathered from them will be relevant and used for the rest of the model's components.

Figure 3

ADDIE Model of Instructional Design



Locale of the Study

The project was conducted in Barangay Sapangbato, a community located in Angeles City, Pampanga, Philippines with a population of 13,912 as per the 2020 Philippines Statistics Authority Census (Pampanga Provincial Statistical Office, 2021). The barangay was chosen as the project locale due to the active role of its local institutions in community-building. Its current Sangguniang Kabataan Council were elected into office in 2023 and their notable projects so far include education initiatives aimed at providing low-income students with the means to copy and print their assignments and projects through the SK Council's printing hub. Today, they are continuing to serve the community with their various programs in education (learning

materials access and ALS), health, and sports that are planned in their annual program**.**

Respondents of the Study

The respondents of the project are the current Sangguniang Kabataan Council members of Barangay Sapangbato, Angeles City, Pampanga elected last 2023. The Council is made up of 10 members consisting of the chairperson, the seven (7) Kagawad, the secretary, and the treasurer. The 10 respondents are comprised of 3 males, 5 females, and 2 who prefer not to disclose their sex. Their age ranges from 20-23 years old and they can speak Filipino, English, and Kapampangan. Most of them have no employment outside their positions as SK council members and all learners are currently undergraduate students in engineering, accounting, hospitality management, education, and criminology. All learners are non-indigenous.

Data Gathering Procedure

Needs Assessment

The instructional design project began with an interview with the SK Council chairperson to assess the background needs of the institution. A set of questions (see Appendix A) designed to guide the flow of the interview was used to identify the issues that the SK Council faces, the reasons they persist, and the countermeasures done. Through this qualitative data collection method, the interviewer and interviewee are given more flexibility to elaborate on the topic of conversation in greater detail (Alamri, 2019).

Learner Analysis

To gain a deeper understanding of the SK Council as the project's target learners, an online learner analysis survey was distributed to the ten (10) members of the SK Council through Google Forms (see Appendix B). The questionnaire has 4 categories. First, the "Background" category seeks to understand the identity of the target learners by gathering personal information such as age, sex, language fluency, employment, educational attainment, and Indigenous belonging.

The second category "Learner Characteristics" is designed following the "Perceptual Learning Style Preference Questionnaire" developed by Reid (1984) where each question is constructed to determine the learning style preference (visual, auditory, tactile, group, kinesthetic, or individual) of the respondent in which they learn best.

Meanwhile, the third category explores the "Prior Knowledge" of the target learners on project management-related concepts such as the writing of a project outline, proposal, risk assessment, and more. This set of Likert scale questions was inspired by the questionnaire developed by the Mind Tools Content Team (n.d.) and is rated from "Not at All," "Rarely," "Sometimes," "Often," to "Very Often."

Lastly, the category "Technological Access" follows the Likert scale questionnaire created by Das and Mishra (2016). This category asks the respondents to rate their skills in various learning technology tools such as media learning, use of word processing software, search engines, Digital Collaboration Tools, and Web 2.0.

This is rated from “I can’t use it,” “I can use it to a small extent,” “I can use it satisfactorily,” “I can use it well,” to “I can use it very well.” Additionally, this category explores the opinion of the respondents on the usefulness of learning tools and concepts such as discussion forums, multimedia learning materials, instant messaging apps for collaboration, e-portfolios, and assessment methods. The learners may express their answers by rating each aspect “Not at All Useful,” “Useful to a Limited Extent,” “Neutral,” “Useful,” or “Very Useful.”

Post-Pilot Testing Survey

After finalizing the design and content of the SLMs, a synchronous online class will be held to pilot-test one of them to observe its practical application in an actual learning session. An online survey will be distributed to the learners after the class to gather feedback on the class and the SLM and examine their learning experiences.

Data Analysis

The data gathered from the needs assessment and learner analysis will be analyzed by finding recurring themes in the respondents’ answers. The information that will be derived from this analysis will be used to inform the design and development of the project. On the other hand, the data from the post pilot-testing survey will be analyzed by determining the recurring patterns from the learners’

answers. These patterns will be categorized into different themes to provide a more vivid understanding of the learners' feedback.

IV. RESULTS AND DISCUSSION

Needs Assessment Findings

The SK chairperson listed the two most relevant issues the council currently has. First, deadlines are not often met and they struggle with task division. Second, the lackluster participation of the barangay's youth in the programs made for them by the SK. According to the chairperson, it is difficult to motivate youths to engage in community activities especially if there are no rewards in exchange.

There are different countermeasures that they take for each issue. For the first one, the chairperson takes on more workload to make up for the deadlines and task division challenges. This issue persists largely due to the tight schedule of the members as all SK Council members are currently enrolled in school which adds to their responsibilities.

Meanwhile, they use reward systems to address the issue of weak participation from youths in youth-centered programs. To encourage them to participate, the barangay's SK council implements raffle events. However, even with this solution and the encouragement of youth purok leaders to make them attend, participation is still low. Out of the two issues, the SK chairperson ranked "weak time and task management skills" as the most pressing problem of the council.

Learner Analysis Findings

The findings discussed below are information gathered and interpreted from the previous online survey conducted to analyze the instructional design project's target learners— the Barangay Sapangbato SK Council.

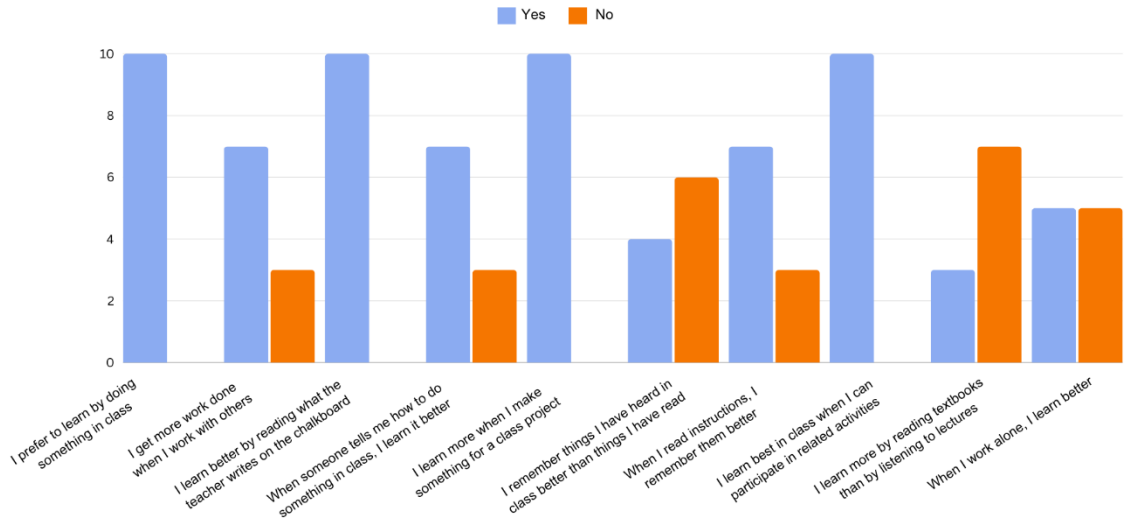
Learner Characteristics

The results showed that all learners prefer learning by doing something e.g. projects (Kinesthetic and Tactile), when they read writings on the board (Visual), and when there are activities in which they can participate (Kinesthetic). However, they seem divided in terms of group and individual tasks. Five learners said they learn better by working alone (Individual) and five answered the opposite.

However, most (7) agreed they get more work done by collaborating with others (Group) and learn best when they listen in class and are taught what to do (Auditory). Seven learners also answered that they remember instructions better by reading (Visual). Similarly, the learners lean more toward reading than listening when remembering information (Visual). The same goes for their preference for reading textbooks rather than listening to lectures (Visual).

Figure 4

Learner Characteristics Findings



These findings reveal that the learning styles of the learners are diverse, with visual learning styles being the most prominent. There is a divided preference for group work but the learners admit they finish more tasks by working with others.

Prior Knowledge

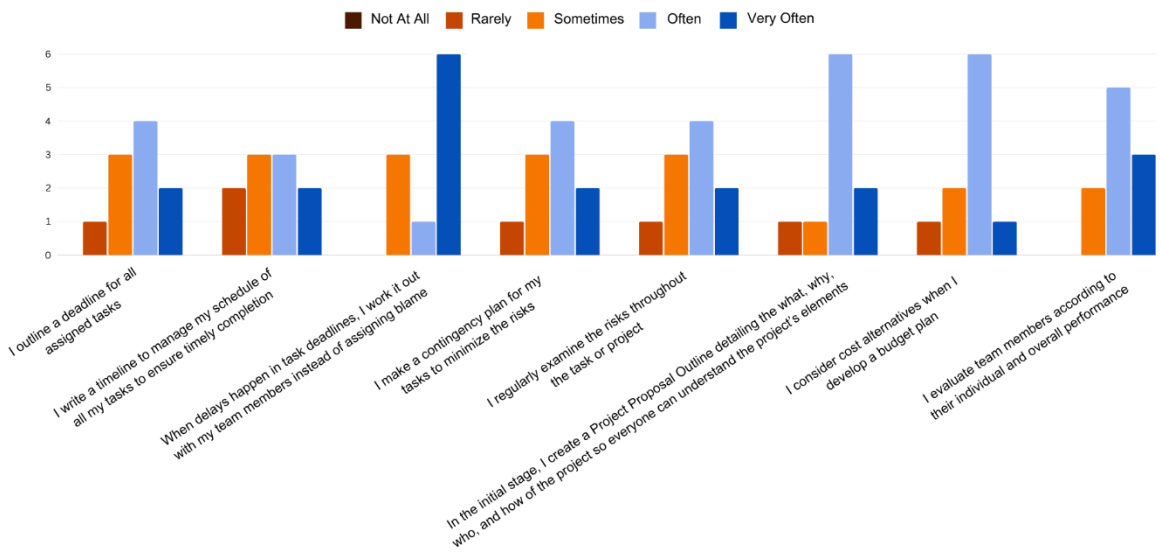
The third set of questions revolved around the target learners' prior knowledge of project management. The questions tackle the management of a project's scope, schedule, quality, cost, people, risks, communication, and other general project management skills. This set is inspired by the questionnaire developed by the Mind Tools Content Team (n.d.) where the degree of the behavior is rated from "Not at All," "Rarely," "Sometimes," "Often," and "Very Often."

The data shows that although the learners sometimes (and often) outline a deadline and create a schedule for their tasks, there are still learners who rarely do so. Meanwhile, there is a high number of learners who answered they very often work it out with their teammates when delays happen instead of assigning blame. However, in terms of risk assessment, their answers are divided. Some devise a contingency plan and conduct risk assessments. However, there are still those who answered they rarely do so.

On a positive note, the majority of learners answered they often write a project proposal detailing their project elements and come up with cost alternatives when developing their budget plan. The majority of them also answered that they often (and very often) evaluate their members by their individual and overall performance.

Figure 5

Learners' Prior Knowledge Findings



The gathered information shows us that the learners already have existing knowledge about some elements of project management e.g. project proposal, budget plan, and evaluation. However, there are still aspects that they need to catch up on such as time management.

Technological Access

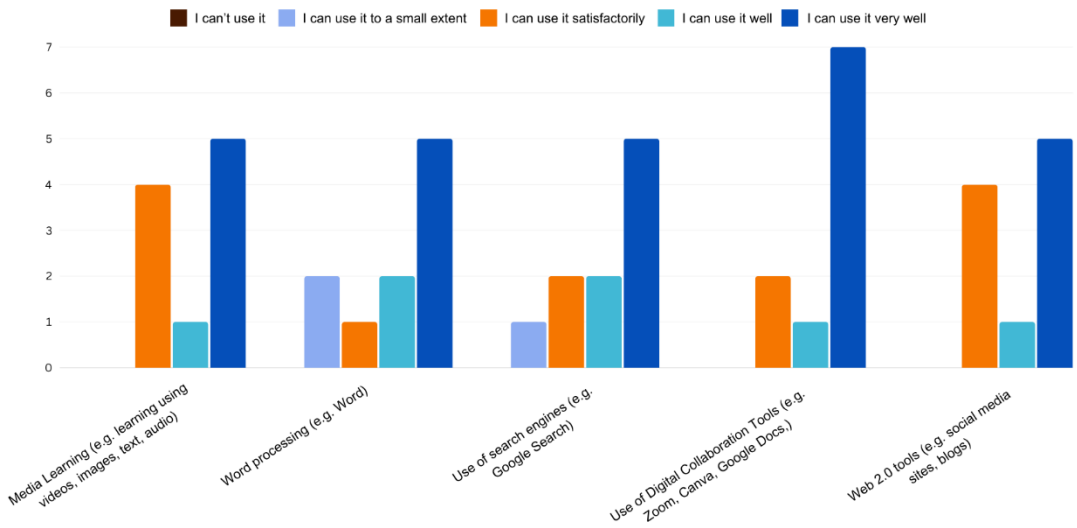
Meanwhile, the last set of questions examines the technological access and skills of the target learners. Its structure is inspired by the questionnaire designed by Das and Mishra (2016) for the "Technology-Enabled Learning Implementation Handbook." The survey revealed that all learners do not have any physical or learning disabilities that would require assistive technologies. The learners are in traditional face-to-face and blended learning setups. They own and use desktop computers, laptops, and smartphones that support their learning in these modalities. In addition, all learners except one answered they have a reliable internet connection and experience in online learning. The majority of them spend more than five (5) hours on the Internet daily.

On the other hand, most of the learners rate their skills in using media learning (learning using videos, text, and images) as "Satisfactory" and "Very Well." The majority of them rated "Very Well" on using word processing software and search engines. There is also a high number of learners rating their skills in using Digital Collaboration tools like Google Docs and Canva as "Very Well." Meanwhile, the

majority seems divided on their skills in utilizing Web 2.0 tools in their learning like social media and blog sites, and rated it “Satisfactory” and “Very Well.”

Figure 6

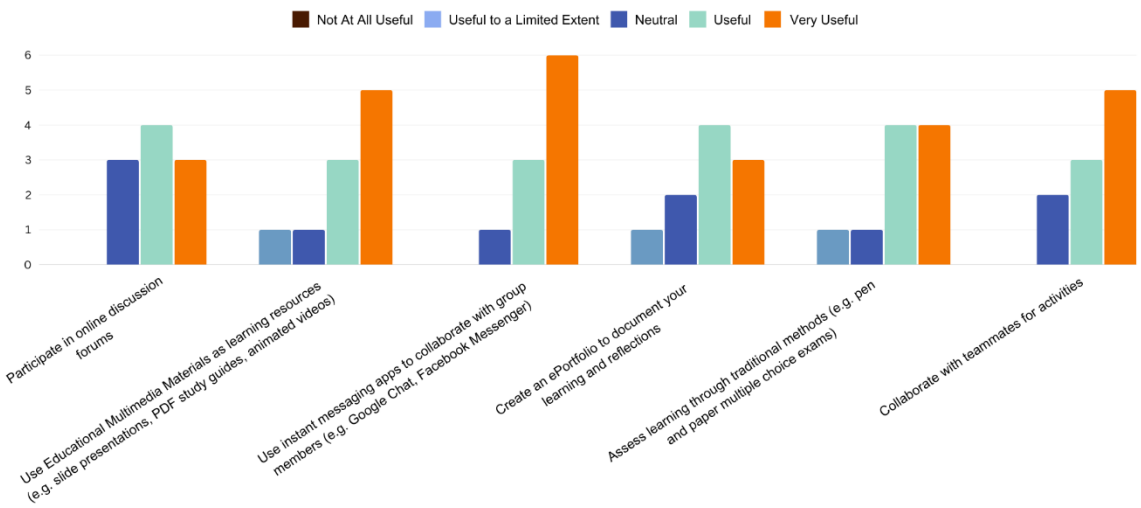
Learners’ Self-Assessment Findings



In another part of the questionnaire, most of them described participation in online discussion forums as “Useful” in their learning while rating the use of multimedia learning materials e.g. slide presentations and videos as “Very Useful.” Similarly, they are partial to using instant messaging apps for collaboration with group members—describing it as “Very Useful.” Creating ePortfolios for reflections is also described as “Useful” and “Very Useful” in their learning.

Figure 7

Learners’ Assessment of Learning Tools Findings



On the other hand, the learners lean more towards traditional assessment methods—rating them as “Useful” and group collaboration—describing it as “Very Useful.” The results tell us that the learners have the access and capacity to use technology, and are open to integrating technology into their learning.

Content Expert Evaluation

A former SK Council chairperson and currently an Araling Panlipunan teacher at the Sapangbato National High School acted as the content expert of the instructional design project and evaluated the SLMs for quality assurance. A checklist was constructed to efficiently assess the SLMs’ content and design (see Appendix C).

This checklist’s criteria are divided into four categories: Content, Multimedia Use and Appeal, Learning Activities and Assessment, and Ease of Use. One of the checklist’s bases is the Learning Object Review Instrument (LORI). It is used to

evaluate learning objects using nine criteria: “content quality, learning goal alignment, feedback and adaptation, motivation, presentation design, interaction usability, accessibility, reusability, and standards compliance” (Leacock and Nesbit, 2007).

Multimedia Learning Principles were also used as a basis for the checklist. This includes Coherence, Signaling, Spatial Contiguity, Multimedia, and Personalization principles. Moreover, the criteria include standards for evaluating the quality of instructional materials by teachers as described by Bugler et al (2017) such as “Accuracy, Visual Appeal, Alignment to Standards, Depth of Knowledge, Ease of Use, Support, Engagement, and Ability to Meet Student Needs.”

Instructional Design Development

Multiple factors guide the design of SLMs for project management. First, create a distinction among other project management courses available for free on the Internet by strongly connecting its content to the target learners i.e. the SK Council. Second, design the enrichment activities with elements of Constructivism, emphasizing learner-centeredness and learner-learner interactions. Third, lay out the SLMs following Lamb’s (2005) guidelines on designing and developing printed instructional materials (proper use of headings and subheadings, typography, and visuals) and Mayer’s (2009) Principles of Multimedia Learning.

Self-Learning Module 1

The three (3) SLMs are sized 8.5 x 11 inches. SLM 1 discusses a project's characteristics, its life cycles, types of constraints, and the inter- and intrapersonal skills necessary to facilitate and manage a project (see Appendix D). The primary reference material for this module is an Open Educational Resource titled "Project Management - Second Edition" by Watt (n.d.).

The OER is licensed under CC BY 4.0 International which gives open access to redistribute and remix the material provided that the original author is attributed and no additional restrictions are applied that interfere with others' use of it ("Attribution 4.0 International," n.d.). Remixing and Redistribution are parts of the five (5) core principles of OERs described by Hilton et al (2010).

The learning objectives were clearly stated to convey the module's purpose, expectations, and activities to the learners. They also serve as pillars of the module's design as they provide structure to the practices and assessments (Orr et al., 2021). In terms of layout, headings and subheadings were used and highlighted to guide the attention of the learners and divide the content in an organized manner. This is according to Mayer's (2009) Signaling and Segmenting principle of Multimedia Learning where cues and highlights direct reader attention and segments are used to present information in smaller units.

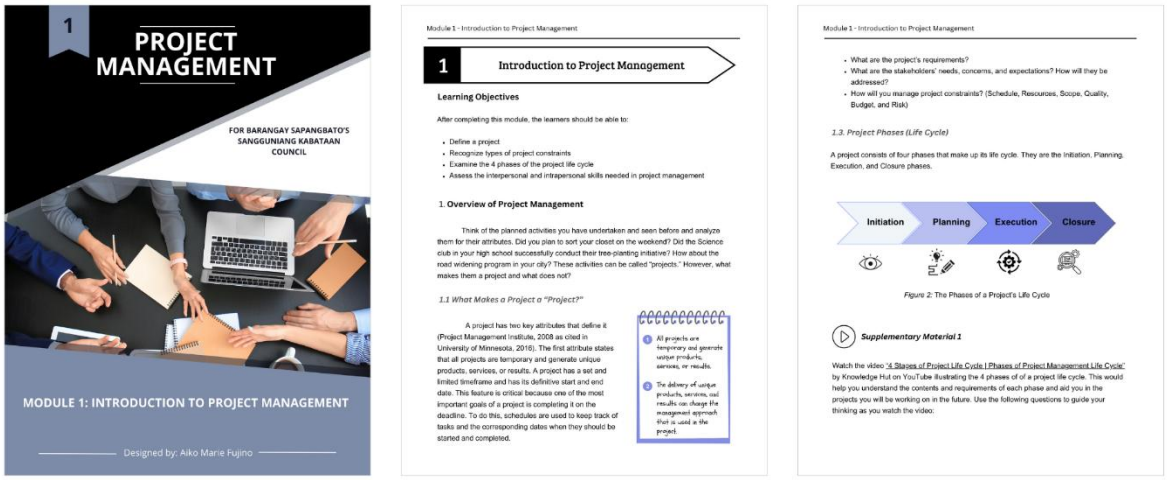
A single font family i.e. Sans Serif (Arial) was used throughout the module for consistency, while the font size of the body of the text is at 12pt to ensure readability. Moreover, the pages include white spaces to let textual and graphic elements "breathe" and reduce clutter as per Lamb's (2005) guidelines.

Additionally, visuals like diagrams and videos were used to support the textual discussion. This is to address the inclination of the learners toward visual learning as revealed in the learner analysis. Graphics were carefully selected and placed according to their relevance and usefulness so as not to cause distraction from the actual purpose of the material. They are intentionally placed near the text bodies related to them as per the Spatial Contiguity principle where corresponding text and pictures are placed near each other (Mayer, 2009).

Pull quotes were also included as another form of graphics that direct readers' attention to a page. There are several of them in the module which holds bite-sized texts taken from the body. This follows the Coherence and Multimedia principles where extraneous material is removed to avoid distraction and information is presented through a combination of words and pictures for deeper learning (Mayer).

Figure 8

Self-Learning Module 1



Furthermore, to meet their preference for both individual and group tasks, the activities inside the module are a combination of both. For instance, Enrichment Activity 1 probes for individual answers to the questions, while Enrichment Activity 4 is a discussion forum activity done in groups. This is to allow the learners to take the lead in the discussion and provide them with opportunities to work collaboratively.

On the other hand, a pre-test with a combination of multiple-choice and True or False questions was added to measure the learners' prior knowledge of the module's topic. Meanwhile, the summative assessment takes on a more alternative assessment approach with the addition of written answers and a brief essay that encourages learners to reflect on what they have learned. They are also provided a rubric for the essay to guide them in their writing and an answer key for self-checking.

These methods of Alternative Assessment allow the learners to effectively express their thoughts and understanding which could provide a more vivid picture of their mastery of knowledge (Kwako, 2003). Subsequently, the learning process is driven by the learners themselves— a promotion of learners as constructors of knowledge in a Constructivist lens (Janisch et al, 2007).

Self-Learning Module 2

The second module follows the same format as the previous one with a brief introduction of the topic and explicitly stated learning objectives. The objectives are derived from Bloom’s taxonomy, falling under the Understanding, Application, and

Analysis categories (Armstrong, 2010). This module discusses the history of project management, the two most common project management methodologies, their phases, and their pros and cons (see Appendix E).

The primary reference materials for this module are Open Educational Resources titled "Management Methods for Complex Projects" by Reaiche and Papavasiliou (n.d.) and "Project Management for Today and Tomorrow" by Szwed (2023). The former is licensed under CC BY 4.0 International which permits users to redistribute and remix the material with proper attribution to the original author and no additional restrictions are added that may affect the material's usage by others ("Attribution 4.0 International," n.d.).

Meanwhile, the latter is licensed under CC BY NC SA, meaning the user is granted open access to redistribute and remix the material. However, the user must also abide by the terms that state proper attribution must be made to the original author, the material cannot be used commercially, the remixed material must be licensed under CC BY NC SA as well, and no additional restrictions are applied ("Attribution-NonCommercial-ShareAlike 4.0 International," n.d.). These types of open access are under the five (5) core principles of OERs (Hilton et al, 2010).

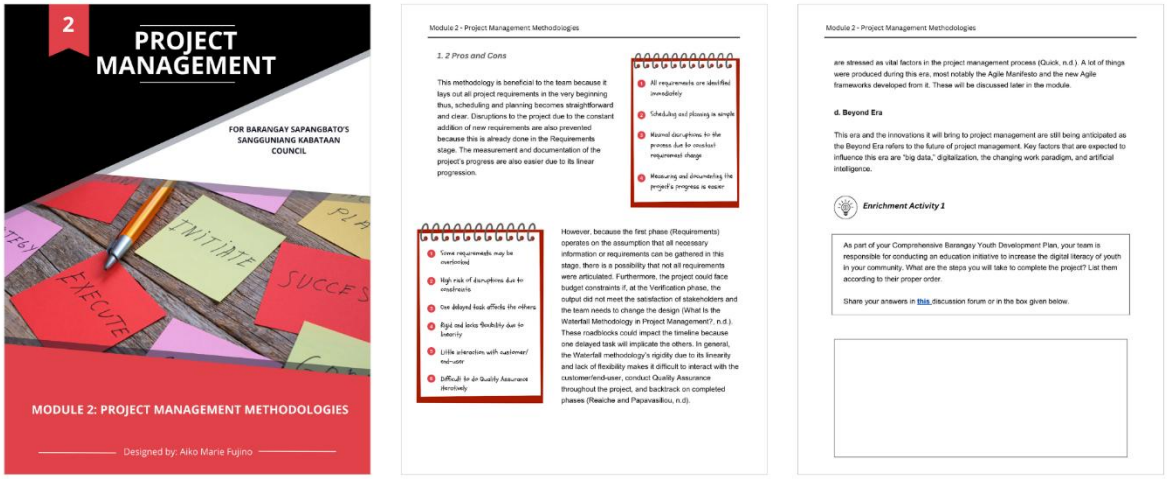
Similar to Module 1, pull quotes are utilized to emphasize bite-sized text taken from the main body. In this module, they were used to list the pros and cons of each project management methodology discussed in the module i.e. Waterfall and Agile. Other relevant graphical elements, such as diagrams, are also incorporated into the

SLM for an enriched multimedia learning experience, following Mayer's (2009) Coherence and Multimedia principles.

Moreover, a situational analysis task is included to immerse the learners in the experience of planning a project. The situation provided in the activity is deeply connected to their roles as Sangguniang Kabatan council members to make the activity relevant and related to the learners. This is to increase their participation as learners engage more in the learning process if they deem the content relevant to them (Heritage et al., 2015).

Figure 9

Self-Learning Module 2



The subsequent enrichment activities build on this situational analysis task and can be done either in collaboration with peers or individually to meet the preference of the learners on group and individual learning styles.

Self-Learning Module 3

Like the two previous modules, the third (and final) module was developed according to similar guidelines. After a brief introduction of the module's topic, the learning objectives were stated in bullet form to relay to the learners the expected outcomes after learning the material. Bloom's Taxonomy of Learning Objectives was used to construct them, falling under the Understanding, Application, and Creation categories (Armstrong, 2010). Constructivism principles, specifically learners as knowledge constructors (Janisch et al, 2007), were also taken into account when developing the objectives (see Appendix F).

The primary reference material for this module is an Open Educational Resource titled "Project Management Basics" by Blanchard (n.d.). Like the two previous OERs from Module 1 and 2, this material is licensed under CC BY 4.0 International. Therefore, the user is given open access to redistribute and remix the OER as long as there is proper attribution to the original author and no additional restrictions are applied that may interfere with the usage of the material by others (Attribution 4.0 International, n.d.). This type of permission is under the five (5) core principles of OERs (Hilton et al, 2010).

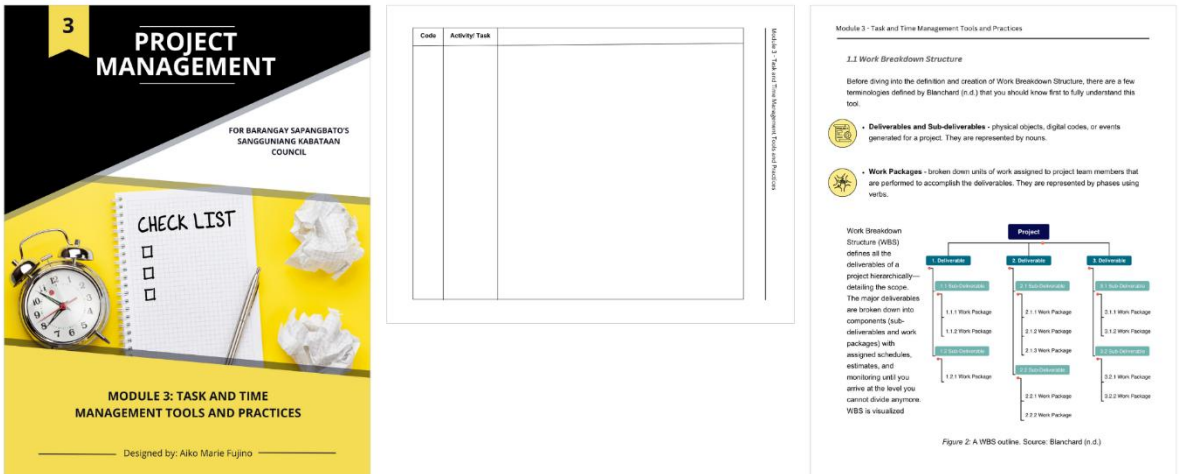
Graphics are the most crucial parts of this module as it discusses time and task management tools like Gantt charts and a Work Breakdown Structure. In order to fully convey their ideas to the learners, a good diagram of them should be provided as Gantt charts are bar graphs and a WBS is a flowchart. The enrichment activities were also aligned with the stated learning objectives to effectively measure the learners'

achievement of the expected learning outcomes (Prince, 2014). For the first activity, they are tasked to create a WBS document for a youth-relevant project they want to initiate as SK council members now or in the future.

The second activity aims to test the learners' understanding of Gantt charts. They are required to develop one by plotting all the essential activities of the project they outlined in the WBS they created for the first activity. These activities can be done either individually or in collaboration with peers to meet the group and individual learning preferences of the learners as determined in the learner analysis. Supplementary materials in video formats were also provided to cater to learners who prefer audiovisual learning instead of reading texts with graphics.

Figure 10

Self-Learning Module 3



Pilot-Testing

After finalizing the design and content of the SLMs, the project proceeded to pilot testing. The first module titled “Introduction to Project Management” was used as the primary learning material in a 2-hour synchronous class held on Google Meet. There were 7 SK council member learners in total. A teacher of Media and Information Literacy at the Angeles City National High School - Senior High School and an instructor from City College of Angeles facilitated the class.

In the 10-item Pre-Test, the highest score is ten (10) while the lowest is (4). Most of their incorrect answers fall on the items about types of project constraints and the relevant inter- and intrapersonal skills in project management. This shows the weak knowledge of the learners in these areas.

On the other hand, the enrichment activities completed through an online discussion forum and bulletin board provided the learners with an opportunity to express their individual insights more freely. Their outputs reflect their own experiences in project management before and during their service as SK Council members.

Through a collaborative group task that fosters student-student interactions, the learners were also able to share their thoughts on the skills relevant to the projects and activities they have completed starting from their campaign period to being elected SK council members. These skills include communication and decision-making skills.

Throughout the whole session, the instructor’s voice stayed friendly and non-aggressive which helped foster a comfortable atmosphere. This follows the

Personalization principle of Mayer's Cognitive Theory of Multimedia Learning where simple language is used in a conversational tone to convey information instead of a formal one (Mayer, 2009).

Although the instructor facilitated the discussion and posed questions for learner reflection, learner-centered instruction was maintained by participating in the discussion and communicating their thoughts rather than being passive receivers of information. In addition, they shared their insights and displayed a positive attitude and behavior toward the instructor. In return, the instructor provides feedback on their answers which increases teacher-student interactions.

Meanwhile, the summative assessment revealed a more detailed picture of learner understanding. They related and discussed the connection between project constraints e.g. budget and time, and the issues they encountered in their projects. Additionally, they were able to assess the discrepancies between their past performance in managing their projects and the proper processes discussed in the SLM.

Throughout the session, the SLM served as the primary resource material for the learners. Enclosed in it are the complete lessons and activities on basic project management elements. This helped cultivate student-content interactions. Moreover, there is also rich student-student and teacher-student interaction through collaborative activities and instructor feedback. These significant interactions reflect Anderson's Model of Online Learning where the teacher and students play the role of two major human actors in an online learning environment (Anderson, 2008).

Post-Pilot Testing Survey

An online survey was distributed to the learners as part of the instructional design project's evaluation. The questions are designed to have them reflect on their experience with the online class, their impression of the instructor's teaching methods, and the SLM (see Appendix G). In the survey, all of the learners agreed that the class and module's objectives were successfully achieved with elaborate discussion, relevant topics, and real-life examples cited as prominent factors that contributed to this achievement as shown in Table 1.

Table 1

Learner Responses on Online Class' Goal

Do you think the online class effectively discussed the basics of project management with the Sangguniang Kabataan Council by relating project management concepts to the functions of the council?		
Yes or No	Written Explanation	Theme
Yes	The basic project management was properly discussed with examples to further elaborate and much easier to understand. The class was able to effectively introduce basic PM concepts and the examples used made them easier to understand from an SK member's perspective.	Relevant Examples
	Yes, the online class successfully bridged the gap between theoretical project management concepts and the practical application within the council's role.	Bridged the gap
	It helped us acquire new knowledge and skills that can help us in managing our projects in the barangay The activities helped me understand project management better which could help me as an SK	Help fulfill SK duties

It helped the SK be more equipped to succeed

Additionally, all learners agreed that they had achieved the learning objectives for Module 1 (Define a project, Recognize the types of project constraints, Examine the 4 phases of the project life cycle, and Assess the interpersonal and intrapersonal skills needed in project management) as shown in Table 2.

Table 2

Learner Self-Assessment on Learning Objective Achievement

Do you think you achieved the learning objectives of the SLM?		
Yes or No	Written Explanation	Theme
Yes	All the objectives are properly discussed with definition and real-life scenarios which helped to further understand the module The objectives are introduced beforehand which gave guided me on the lesson's progression. This helped me know I am achieving them as we go through them	Clearly Defined
	The objectives gave a roadmap for us	Guide
	The activities helped me understand the topics better Using the activity questions and tests	Through learning activities
	The module effectively covered the foundational aspects of project management. The concept of a project was clearly defined, distinguishing it from ongoing operations. The significance of project constraints, particularly time, cost, and scope, was	Discussed foundational aspects

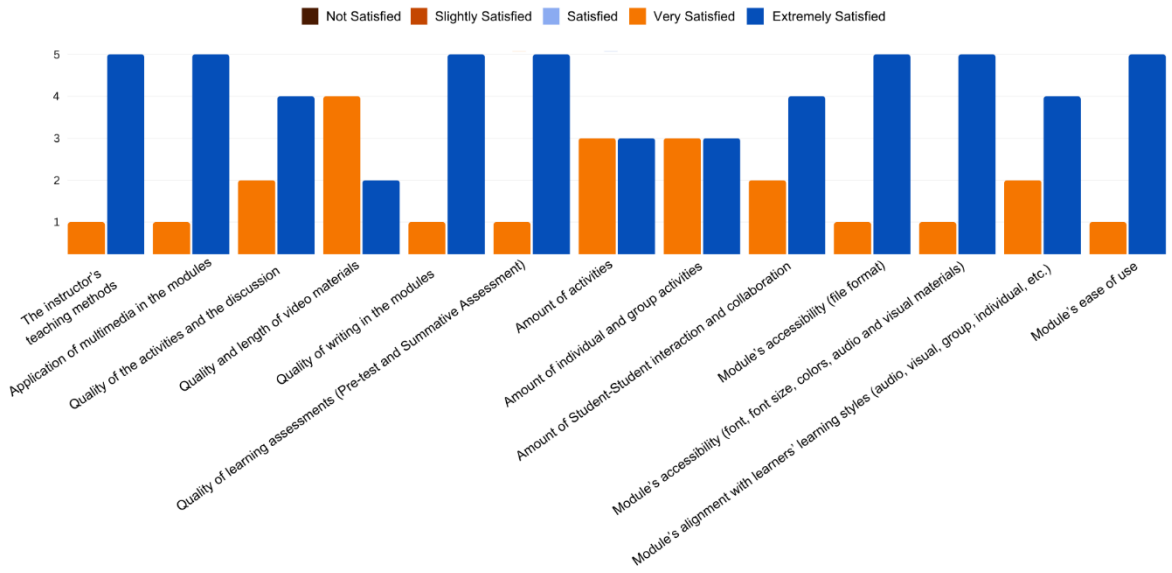
emphasized, providing a practical understanding of their impact on project success.

Similarly, all learners agreed that the activities and discussions were suited to their literacy level and prior knowledge of project management and were relevant to their roles as SK Council members. In addition, all answers were positive when asked if the activities, discussions, and module content were free from bias. All learners also agreed the length of the online class is adequate to cover the entire module.

On the other hand, the satisfaction rate among the learners was high in aspects like the teaching method, the module's design, the module' content, the module's ease of use and accessibility, interactions, and alignment with the learners' learning styles as shown in Figure 10.

Figure 11

Learner Satisfaction Rate



Their highlights of the class vary, pointing out different areas of the class like the use of real-life scenarios, providing guidelines to apply the concepts in practical situations, the online activities, and the discussion of project constraints.

Table 3

Learners' Personal Highlights

What is the highlight of the class for you?	
Answer	Theme
The highlight for me is the discussion of project constraints because it helped me understand better the problems we face during our projects The highlight of the class was the practical application of project management concepts to the role of a Sangguniang Kabataan council member. It provided a clear guideline for transforming abstract theories into actionable plans for our youth development initiatives.	Relevance with SK roles and projects
Learning something new and being part of a project management topic.	Newly acquired knowledge
The padlet discussion forum by group The highlight for me is the part where we share our experiences and also the part where real-life scenarios was discussed. Working with others and speaking with the teacher during Q and A parts.	Student-student and teacher-student interactions

Meanwhile, their least favorite part of the class is the late attendance of others as the meeting has to be pushed back as shown in Table 4.

Table 4

Learners' Least Favorite Part of the Class

What is your least favorite part of the class?	
Answer	Theme
Other members being late	Late attendees
Late attendees	
None. The online class was truly engaging	
None	None
None	
None	

On the other hand, the learners' issues are mostly technical due to QR code scanning and an unstable Internet connection. In the future, QR code scanning can be switched to providing links instead to accommodate individuals who do not have/do not know how to use a scanner. Furthermore, other learning modalities may be considered as an alternative to synchronous online learning to accommodate learners who do not have a stable Internet connection.

Table 5

Issues Encountered During the Class

What are the issues you encountered during the class?

Answer	Theme
I think one issue I've encountered is the qr code scanning. It is kind of challenging to scan it since I need a scanner for it. Nevertheless, the link of the site was also provided to access the website easier. QR code scanning because it's hard to use it while in a meeting. I'm using one phone.	QR code scanning
The primary issue I personally encountered during the online class was my inconsistent internet connectivity. This posed challenges in terms of audio and video quality, leading to difficulties in following some parts of the discussions and participating actively. Weak Signal Unstable Wi-Fi Signal	Connectivity issues
Since it's online class, there are some learners having technical problem.	Technical issues of other learners

The learners were also asked to share their recommendations to improve the SLMs as shown in Table 6. This includes incorporating more activities that involve direct practical experience and collaborative tasks.

Table 6

Recommendations on SLM Improvement

How do you think the modules can be improved?	
Recommendation	Theme
I think the module is well-designed which enables the learner's to assess their knowledge. Reviewing the module, I can say that it is well thought None	N/A
To enhance the project management module for SK members, I suggest to incorporate more hands-on activities, case studies, or simulations to allow learners to apply learned concepts directly to potential youth devl projects.	Incorporate more direct practical experience activities
More group works The modules are already good but I think more activities where we have to work together and simultaneously will contribute to its improvement.	Additional collaborative tasks

Furthermore, they recommended solutions on how to further improve the synchronous online class as shown in Table 7. These recommendations include increased peer engagement and online activities.

Table 7

Recommendations on Synchronous Online Class Improvement

How do you think the modules can be improved?	
Recommendation	Theme
I think the class is also good since the instructor is interactive and was able to communicate properly with the learners	N/A
None	
To improve the effectiveness of the project management class for SK council members, maybe in the future we can try to promote peer learning by encouraging group discussions and interactive knowledge sharing among learners to foster collaboration and problem-solving skills.	Increased student-student interactions and engagement
Encourage student engagement	
More group works	
More online activities	Additional online learning activities

To conclude the evaluation survey, the learners were asked to share their overall thoughts on the synchronous online class and SLM. The learners expressed their positive opinion of the class and modules, citing well discussion of topics and interconnected information as their perceptions. The terms “helpful” “informative” and “beneficial” were also mentioned particularly.

Table 8

Overall Thoughts on the Synchronous Online Class and SLM

What are your overall thoughts on the class and modules?

Response	Theme
Overall, the class and modules were helpful for us. The topics are well discussed and the information in the modules are sufficient and were all interconnected. They are very helpful to me and gave me more knowledge on project management The class and module is helpful to our organization because of the many youth projects we conduct	Helpful to self and the council
The project management class was informative and beneficial. The module provided a solid foundation for understanding the project lifecycle and its application to SK initiatives/projects. I found the discussions on time management, budgeting, and teamwork particularly helpful. Congrats! They are informative and introduced me to topics I am unfamiliar with before	Informative and beneficial
Successful	Successful

The post-pilot testing survey revealed the feedback and experiences of the learners in the synchronous online class and in the use of the SLM. The findings from this evaluation can be used to inform future projects in instructional design.

V. SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary and Conclusions

This paper provides a clear discussion and example of the use of instructional design to address weak project management skills within the SK Council of Barangay Sapangbato, Angeles City, Pampanga. This is underpinned by instructional and multimedia design principles, theories of learning, learning objectives development, methods of assessment, Open Education concepts, and Online Learning models. This paper begins by determining and analyzing the SK Council's issue of weak project management skills— their most pressing concern, and the target learners' background, characteristics, and prior knowledge.

This is consequently followed by designing and developing SLMs tailored for the Council that address the issue and meet their needs as learners. The SLMs were pilot-tested through a synchronous online class where the learners used and engaged with the material. The summative assessment and the post-pilot testing evaluation showed positive results of learner understanding and feedback on the use of SLMs to discuss project management elements.

Instructional design has shown great effectiveness in addressing weak project management skills among the SK Council members of Barangay Sapangbato. The public sector must consider using instructional design to help public servants acquire new skills and improve their existing ones. By strengthening their foundations, they

will be equipped with specialized skills necessary to fulfill their duties and functions in their communities and constituents.

Recommendations

The usage of these SLMs is not limited to Barangay Sapangbato's SK Council alone. Although the design is tailored to meet needs and learning preferences, the materials can be used as learning materials by other Sangguniang Kabataan councils in the country. However, future developers and researchers may consider contextualizing and localizing their instructional plan/ technology/ material on their specific project locale. This includes writing the project according to the lingua franca of the project locale and designing its elements e.g. activities, assessments, and graphics, based specifically on their activities in the community.

This paper also recommends that similar future projects include a strong risk assessment before proceeding into the initiation phase. This involves taking into account all possible threats to the project, including external dependencies that could interfere with on-site activities. Moreover, future developers and researchers may also consider using other learning modalities aside from online learning for pilot testing to reduce connectivity and device issues that occurred during the synchronous online class for the SLMs' pilot testing.

REFERENCES

Alamri, W.F. (2019). Effectiveness of Qualitative Research Methods: Interviews and Diaries. *International Journal of English and Cultural Studies, 2*(1), 65-70. https://doi.org/10.11114/ijecs.v2i1.4302

Aldoobie, A. (2015). ADDIE Model. *American International Journal of Contemporary Research*, *5*(6), 68-72. https://www.aijcrnet.com/journals/Vol_5_No_6_December_2015/10.pdf

Anderson, T. (2008). Towards A Theory Of Online Learning. In Anderson, T. (ed.). *Theory and Practice of Online Learning* (4, 45-74). Edmonton: AU Press. https://www.aupress.ca/books/120146-the-theory-and-practice-of-online-learning/

Armstrong, P. (2010). *Bloom's Taxonomy*. Vanderbilt University Center for Teaching. https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/

Attribution 4.0 International. (n.d.). Creative Commons. https://creativecommons.org/licenses/by/4.0/

Attribution-NonCommercial-ShareAlike 4.0 International. (n.d.). Creative Commons. https://creativecommons.org/licenses/by-nc-sa/4.0/deed.en

Bacomo, A. C. C., Daculap, L. P., Ocampo, M. G. O., Paguia, C. D., Pentang, J., & Bautista, R. M. (2022). Modular Learning Efficiency: Learner's Attitude And Performance Towards Self-Learning Modules. *IOER International Multidisciplinary Research Journal*, *4*(2), 60-72. https://philpapers.org/archive/BACMLE.pdf

Bates, A.W. (2015). *Teaching in a Digital Age*. BC Campus. https://opentextbc.ca/teachinginadigitalage/chapter/oer/

Blanchard, S. (n.d.). *Project Management Basics*. Kirkwood Community College. https://kirkwood.pressbooks.pub/projectmanagementbasics/front-matter/introduction/

Bugler, D., Marple, S., Burr, E., Chen-Gaddini, M., & Finkelstein, N. (2017). *How Teachers Judge The Quality Of Instructional Materials*. San Francisco, CA: WestEd. https://www.wested.org/wp-content/uploads/2017/03/resource-selecting-instructional-materials-brief-1-quality.pdf

Dap Conducts Course On Basic Project Management For Sangguniang Kabataan Officials. (2024, September 26). Development Academy of the Philippines. https://dap.edu.ph/dap-conducts-course-on-basic-project-management-for-sangguniang-kabataan-officials/

Das, A. & Mishra, S. (2016). Questionnaire on Learner Use of Technology. *Technology-Enabled Learning Implementation Handbook. Commonwealth of*

Learning, 59-68. https://www.researchgate.net/publication/305650994_Questionnaire_on_Learner_Use_of_Technology

Dayagbil, F. T., Palompon, D. R., Garcia, L. L., & Olvido, M. M. (2021). Teaching and Learning Continuity Amid and Beyond the Pandemic. *Frontiers in Education*, *6*, 678-692. https://doi.org/10.3389/feduc.2021.678692

Delıta, F., Berutu, N., & Nofrıon, N. (2022). Online Learning: The Effects Of Using E-Modules On Self-Efficacy, Motivation And Learning Outcomes. *Turkish Online Journal of Distance Education, 23*(4), 93-107. https://dergipark.org.tr/en/download/article-file/2682025

Department of Education. (2019). *ALS-EST Handbook Chapter 5*. DepEd. https://www.deped.gov.ph/als-est/PDF/ALS-EST_Handbook_Chapter05.pdf

Heritage, M., Jones, B., Tobiason, G., Chang, S., & Herman, J. (2015). Fundamentals of Learning. From the College and Career Ready Standards to Teaching and Learning in the Classroom: A Series of Resources for Teachers. Center on Standards and Assessments Implementation. https://files.eric.ed.gov/fulltext/ED565344.pdf

Hilton, J., Wiley, D., Stein, J., & Johnson, A. (2010). The four R's of openness and ALMS Analysis: Frameworks For Open Educational Resources. Open

Learning: *The Journal of Open and Distance Learning*, *25*(1), 37–44. https://doi.org/10.1080/02680510903482132

Janisch, C., Liu, X., & Akrofi, A. (2007). Implementing Alternative Assessment: Opportunities and Obstacles. *The Educational Forum, 71*, 221-230. https://files.eric.ed.gov/fulltext/EJ763213.pdf

Kwako, J. (2003). A Brief Summary Of Traditional And Alternative Assessment In The College Classroom. Unpublished manuscript, Madison, WI.

Lamb, A. (2005). Designing & Developing Resources: Print Materials (Chap 7). *In Building Tree Houses For Learning: Technology In Today's Classrooms,* 243 – 272

Leacock, T. L., & Nesbit, J. C. (2007). A Framework For Evaluating The Quality Of Multimedia Learning Resources. *Journal of Educational Technology & Society, 10*(2), 44-59. https://www.jstor.org/stable/jeductechsoci.10.2.44

Mayer, R. E. (2003). The Promise Of Multimedia Learning: Using The Same Instructional Design Methods Across Different Media. *Learning and instruction, 13*(2), 125-139

Mayer, R. E. (2009). *Multimedia Learning*. New York: Cambridge University Press

McLachlan, D.(2024). *The Ultimate Project Management PMP Prep Course (35 PDUs)* [Online Course]. Udemy. https://www.udemy.com/course/ultimate-project-management-pmp-35-pdus/?couponCode=ST8MT101424

Mind Tools Content Team. (n.d.). *How Good Are Your Project Management Skills?* Mind Tools. https://www.mindtools.com/a29u54f/how-good-are-your-project-management-skills

Molenda, M., Reigeluth, C. M., & Nelson, L. M. Instructional Design. https://doi.org/10.1002/0470018860.s00683

Morris, T. H. (2024). Four Dimensions of Self-Directed Learning: A Fundamental Meta-Competence in a Changing World. *Adult Education Quarterly, 74*(3), 236-254. https://doi.org/10.1177/07417136231217453

Orr, R. B., Csikari, M. M., Freeman, S., & Rodriguez, M. C. (2021). Writing and Using Learning Objectives. *CBE Life Sciences Education, 21*(3). https://doi.org/10.1187/cbe.22-04-0073

Pampanga Provincial Statistical Office. (2021). 2020 Census of Population and Housing Angeles City Result. Philippine Statistics Authority. https://tinyurl.com/mwpa6dts

Prince, G. (2014). *Assessments that Align with Learning Objectives*. Oklahoma City Community College. https://www.occc.edu/wp-content/legacy/c4lt/pdf/Align%20Assessments%20with%20Objectives.pdf

Reaiche, C. & Papavasiliou, S. (n.d.). *Management Methods for Complex Projects.* James Cook University Pressbooks. https://jcu.pressbooks.pub/pmmethods/chapter/the-agile-family-group-1/

Reid, J. M. (1984). Perceptual Learning Style Preference Questionnaire. *Learning Styles In The Esl/Efl Classroom*, 202-204.

Selepe, M.M. (2023). The Role Of Public Sector Project Management Within The South African Public Sector Environment. *Social Sciences and Education Research Review, 10*(2), 205-211. https://doi.org/10.5281/zenodo.#

Sequeira, A.. (2012). Self-Learning is the Future: A New Paradigm for the 21st Century. SSRN Electronic Journal. https://dx.doi.org/10.2139/ssrn.2111057

Syahroni, M. W., Dewi, N. R., & Kasmui. (2016). The Effect Of Using Digimon (Science Digital Module) With Scientific Approach At The Visualization Of Students' Independence And Learning Results. *Jurnal Pendidikan IPA Indonesia, 5*(1), 116–122. https://dx.doi.org/10.15294/jpii.v5i1.5800

Szwed, P. (2023). *Project Management for Today and Tomorrow*. OER Commons. https://oercommons.org/courseware/lesson/115161/student/?section=2

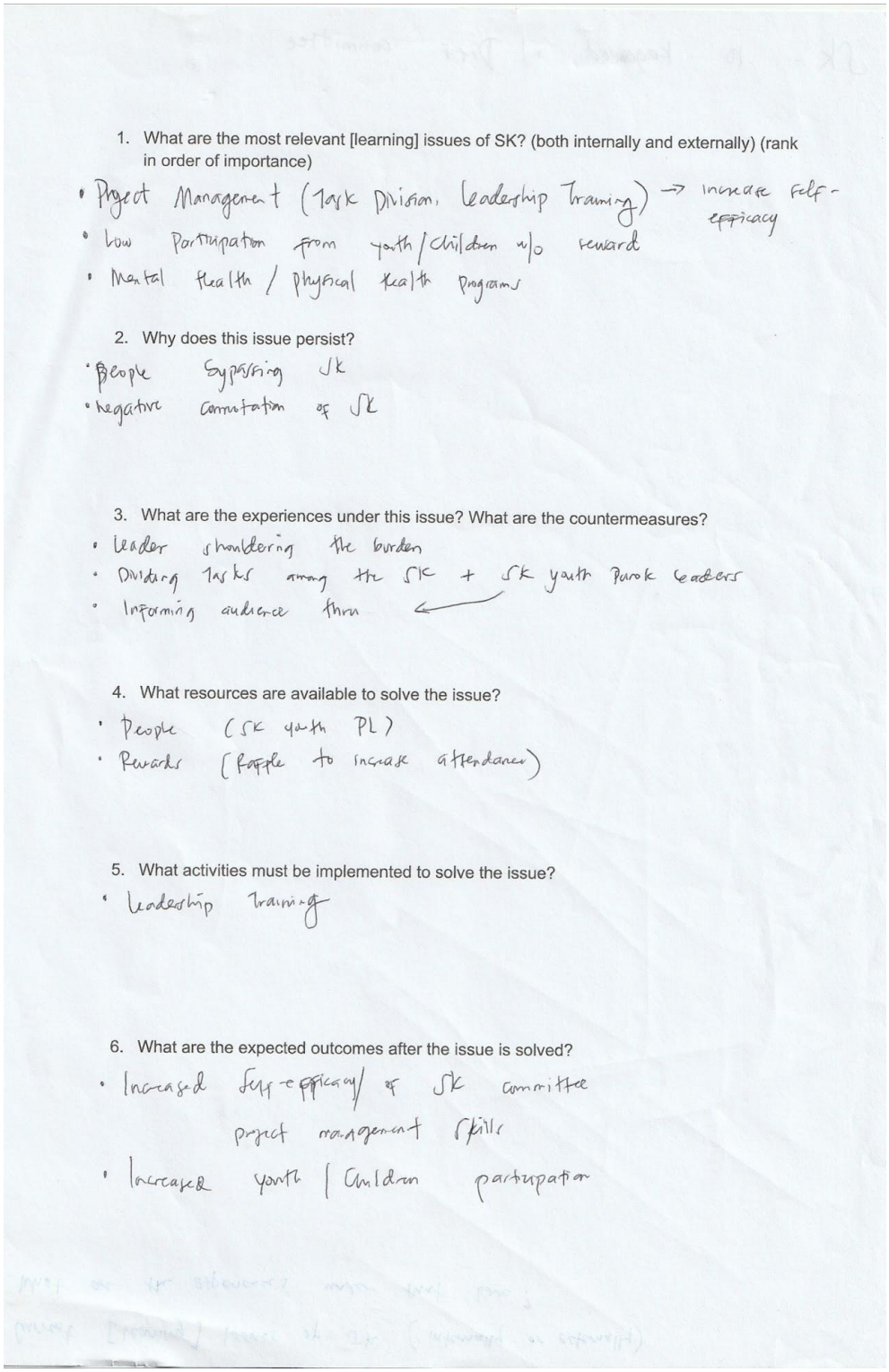
Watt, A. (n.d.). *Project Management - 2nd Edition*. BC Campus.

https://opentextbc.ca/projectmanagement/

Appendices

APPENDIX A

Needs Assessment In-Person Interview Guide Questions and Transcript



1. What are the most relevant [learning] issues of SK? (both internally and externally) (rank in order of importance)

- Project Management (Task Division, Leadership Training) → Increase Self-efficacy
- Low participation from youth/children w/o reward
- Mental Health / Physical Health Programs

2. Why does this issue persist?

- People bypassing SK
- negative connotation of SK

3. What are the experiences under this issue? What are the countermeasures?

- Leader shouldering the burden
- Dividing tasks among the SK + SK youth Purok Leaders
- Informing audience thru

4. What resources are available to solve the issue?

- People (SK youth PL)
- Rewards (Raffle to increase attendance)

5. What activities must be implemented to solve the issue?

- Leadership Training

6. What are the expected outcomes after the issue is solved?

- Increased self-efficacy of SK committee
  project management skills
- Increased youth / Children participation

APPENDIX B

Learner Analysis Online Questionnaire

Instructional Design Learner Analysis

By completing this questionnaire, you are agreeing to participate in the learner and context analysis of the instructional design project designed by Aiko Marie Fujino for the Sangguniang Kabataan of Barangay Sapangbato. The information you provide will be used solely for the project and will be treated in strict confidence. Should you want to withdraw from the project, you are free to do so. If you have further inquiries, please contact the instructional designer at ajfujino@up.edu.ph

Email*
Valid email

I voluntarily participate in this questionnaire and give full consent to use the information I will provide solely for the instructional design project.

- ☐ Yes
- ☐ No

Personal Information*

Full Name (First Name, Middle Initial, Surname)*

Age*

Sex*

- ☐ Female
- ☐ Male

- ☐ Intersex
- ☐ Prefer not to say

Language/s Spoken*

_____

Employment Status (Write N/A otherwise)*

_____

Are you part of an indigenous group?*

- ☐ Yes
- ☐ No

If you answered "Yes" to the question above, please state the name of the indigenous group you belong to.

_____

Current Education Level*

_____

Area of Study

_____

Hobbies and Interests

_____

Learner Characteristics*

	Yes	No
I prefer to learn by doing something in class.		
I get more work done when I work with others.		
I learn better by reading what the teacher writes on the chalkboard.		
When someone tells me how to do something in class, I learn it better.		
I learn more when I make something for a class project.		
I remember things I have heard in class better than things I have read.		
When I read instructions, I remember them better.		
I learn best in class when I can participate in related activities.		
I learn more by reading textbooks than by listening to lectures.		
When I work alone, I learn better.		

Prior Knowledge*

	Not at All	Rarely	Sometimes	Often	Very Often
I outline a deadline for all assigned tasks.					

I write a timeline to manage my schedule of all my tasks to ensure timely completion.					
When delays happen in task deadlines, I work it out with my team members instead of assigning blame.					
I make a contingency plan for my tasks to minimize the risks.					
I regularly examine the risks throughout the task or project.					
In the initial stage, I create a Project Proposal Outline detailing the what, why, who, and how of the project so everyone can understand the project's elements.					

I consider cost alternatives when I develop a budget plan.					
I evaluate team members according to their individual and overall performance.					

Access to Technology*

Do you have a physical or learning disability that would require assistive technologies for your studies?*

- ☐ No
- ☐ Yes, I have one or more physical disabilities that require accessible or adaptive technologies
- ☐ Yes, I have one or more learning disabilities that require accessible or adaptive technologies
- ☐ Yes, I have both physical and learning disabilities that require accessible or adaptive technologies
- ☐ Prefer not to say

What is your current learning modality?*

- ☐ Traditional Face-to-Face
- ☐ Online Learning
- ☐ Blended Learning
- ☐ Not Applicable

Which devices do you own and use for studying?*

- ☐ Desktop Computer
- ☐ Laptop
- ☐ Smartphone
- ☐ Tablet
- ☐ Other:

Do you have reliable access to the Internet?*

- ☐ Yes
- ☐ No

How much time do you spend on the Internet on average daily?*

- ☐ <1 hour
- ☐ 1-2 hours
- ☐ 3-5 hours
- ☐ >5 hours
- ☐ Do not use daily

Have you taken an online course before?*

- ☐ Yes
- ☐ No

How would you rate your skills in the following areas?*

	I can't use it	I can use it to a small extent	I can use it satisfactorily	I can use it well	I can use it very well
Media Learning (e.g. learning using videos, images, text, audio)					
Word processing (e.g. Word)					
Use of search engines (e.g. Google Search)					
Use of Digital					

Collaboration Tools (e.g. Zoom, Canva, Google Docs,)					
Web 2.0 tools (e.g. social media sites, blogs)					

How efficient would it be to use the following in your learning?*

	Not at All Useful	Useful to a Limited Extent	Neutral	Useful	Very Useful
Participate in online discussion forums.					
Use Educational Multimedia Materials as learning resources (e.g. slide presentations, PDF study guides, animated videos).					
Use instant messaging apps to collaborate with group members (e.g. Google Chat, Facebook Messenger).					
Create an ePortfolio to document your learning and reflections.					
Assess learning through traditional methods (e.g. pen and paper multiple choice exams).					
Collaborate with teammates for activities.					

APPENDIX C

Content Expert Checklist

EVALUATION CHECKLIST

Criteria	Yes	No
Content		
The content is aligned with the stated learning objectives.		
The content is clear, unbiased, and accurate.		
The content is aligned with the modules' target learners (SK council).		
The content is interesting and engaging, sparking curiosity and deeper learning.		
The information about project management is relevant to the SK council.		
The information presented is understandable and age-appropriate for the SK council.		
The information is presented in multiple formats (e.g. text, graphics, audiovisual) for different learning styles.		
Multimedia Use and Appeal		
The module covers are visually appealing and represent the content accurately.		
The information is presented in multiple formats (e.g., a combination of text and pictures)		
The modules are written in a friendly and conversational tone.		
The modules are written at the appropriate reading level for the learners.		
The modules' format has a strong visual appeal.		
The visuals used are relevant to the content and assist in the achievement of the learning objectives.		
Cues, bullets, highlights, and headings are used to draw attention to vital information.		
Related visuals and text are placed close together for easier understanding.		
The supplementary video materials are at an appropriate length for attention retention.		
Learning Activities and Assessment		
The activities and assessments align with the stated learning objectives.		
The modules contain a variety of learning activities, both for individual and group work.		
The modules contain active learning activities where learners discuss, analyze, and create.		
The activities promote peer interaction and collaboration.		
Formative and summative assessments are included to measure learning.		
The learning assessments encourage learners to connect their prior knowledge to their new ones.		
The learning assessments promote reflective thinking.		
Use and Accessibility		
The modules are in an accessible document format.		
The modules are easy for teachers and learners to use.		
The modules are accessible to all types of learners with different learning styles or impairments.		
The modules can be reused by instructors in different contexts (e.g. learning activities,		

class discussion, curriculum basis)		

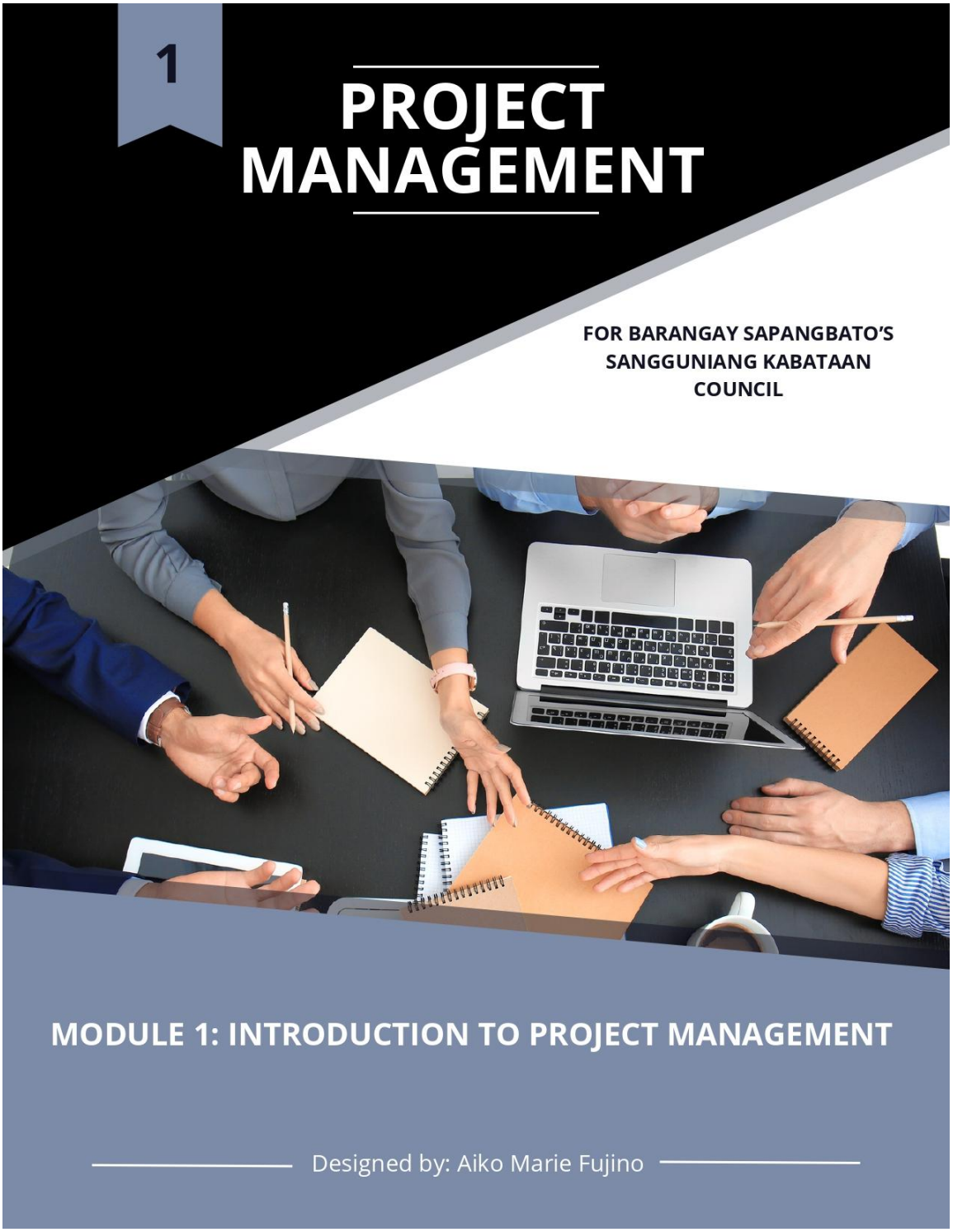
Additional Comments:

Evaluated by:

_____
Signature Over Printed Name

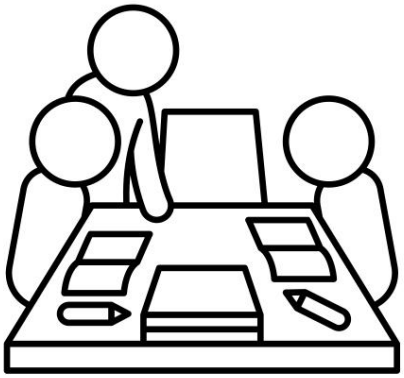
APPENDIX D

Self-Learning Module 1



Module 1

Introduction to Project Management



It is necessary to know the basic concepts of project management to conduct a successful project. This is especially important at the institutional level where projects that concern the welfare of the people are the central focus. In the local government, the Sangguniang Kabataan council has numerous functions and powers aimed toward accomplishing the objectives of the youth in the barangay. This includes designing and conducting projects and programs that “enhance the social, political, economic, cultural, moral, spiritual, and physical development of the members” (ISKOLAR-BOS Technical Writers Group, 2011). This shows that SK council members carry the responsibility of developing holistic programs that address the needs of youth in their communities. Therefore, council members should possess the ability to initiate and manage projects to successfully fulfill their responsibilities.

Pre-test

I. Encircle the letter of the BEST answer

1. What is a key trait of a project?

a. It is temporary
b. It generates unique products, services, or results
c. The delivery of said unique products, services, or results can influence the project's management approach
d. All of the above

2. Which phase of a project puts the plan into action, divides tasks among team members, and maintains active communication with team members and stakeholders to provide updates?

a. Initiation Phase
b. Planning Phase
c. Execution Phase
d. Phase

3. A constraint that refers to the coverage of the project, as well as all the project deliverables and the activities required to accomplish them.

a. Cost
b. Resources
c. Scope
d. Triple Constraints

4. What are the primary constraints that a project faces?

a. Quality, Risk, and Cost
b. Scope, Risk, Time
c. Time, Cost, And Scope
d. Time, Resources, Scope

5. Which skill equips you with the ability to communicate with relevant parties to come up with a joint and mutually acceptable decision for an issue you both share?

a. Communication Skills
b. Leadership Skills
c. Negotiation Skills
d. Problem-Solving Skills

II. On the given line before the number, write TRUE if the statement is correct, and FALSE if the statement is wrong.

_____1.A project has a set and limited timeframe and has its definitive start and end date.

_____2. The Planning Phase is where the project's timelines, workflow documents, and financial budget plans are created.

_____3. Project management is the act of exclusively planning and executing a project only through one specific method.

_____4. The Triple Constraints is represented by a triangle diagram where each corner holds one constraint. These constraints are dependent on each other.

_____5. Examining both the cause and effect of a problem in a project will hinder the project's timeline and progress.

1 Introduction to Project Management

Learning Objectives

After completing this module, the learners should be able to:

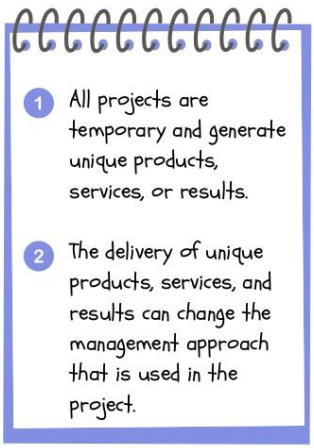
- Define a project
- Recognize types of project constraints
- Examine the 4 phases of the project life cycle
- Assess the interpersonal and intrapersonal skills needed in project management

1. Overview of Project Management

Think of the planned activities you have undertaken and seen before and analyze them for their attributes. Did you plan to sort your closet on the weekend? Did the Science club in your high school successfully conduct their tree-planting initiative? How about the road widening program in your city? These activities can be called “projects.” However, what makes them a project and what does not?

1.1 What Makes a Project a “Project?”

A project has two key attributes that define it (Project Management Institute, 2008 as cited in University of Minnesota, 2016). The first attribute states that all projects are temporary and generate unique products, services, or results. A project has a set and limited timeframe and has its definitive start and end date. This feature is critical because one of the most important goals of a project is completing it on the deadline. To do this, schedules are used to keep track of tasks and the corresponding dates when they should be started and completed.



Projects can also have different durations from minutes to even years! In addition, unique products, services, or results are those that have never been done before. There may be projects that were done similarly but never the same exactly (Watt, n.d.).

The Sangguniang Kabataan undertakes many projects to fulfill their function. An example of these projects is the establishment of youth learning hubs, a place equipped with gadgets for youths with no space for study in their own homes (Letigio, 2020), in every barangay in Cebu City headed by the Sangguniang Kabataan Federation.

As of now, there are only 13 barangays left without a learning hub out of 80. The SFK aims and vows to complete the project within three years of their current term (Magsumbol, 2023). The uniqueness of the service as well as the deadline set for its completion is evident. Therefore, it is a project.

Figure 1. A learning hub in one of the barangays in Cebu, Philippines. (Source: Letigio, 2020)

The second key attribute emphasizes that the delivery of unique products, services, and results can change the management approach that is used in the project. The head of a project should also possess a clear understanding of the project's expected product, service, or result (deliverables), devise a plan to complete them according to the schedule, and then proceed to the implementation stage (University of Minnesota, 2016).

Enrichment Activity 1

Recall the projects you have participated in as a proponent, either before you are elected as an SK council member or after. What kind of project is it? What makes it a project? What type of unique product, service, or result did your project generate? How did you deliver them?

Share your answers with the class or in the box provided below.

1.2 Project Management

In the previous section, we have defined what a project is. The next step is determining the process that the project management goes through to ensure that it is successful. Do you usually dive head-first into a new project? What initial steps do you take? Project management helps reduce the risks of your project. Although it cannot erase all of it, project management can help you establish a standard process for dealing with problems and risks.

Project management is the act of planning, executing, and evaluating a project through the application of knowledge, skills, tools, and techniques. This is done to achieve the project goals. The process begins with the following questions to consider:

- What are the project's requirements?
- What are the stakeholders' needs, concerns, and expectations? How will they be addressed?
- How will you manage project constraints? (Schedule, Resources, Scope, Quality, Budget, and Risk)

1.3. Project Phases (Life Cycle)

A project consists of four phases that make up its life cycle. They are the Initiation, Planning, Execution, and Closure phases.

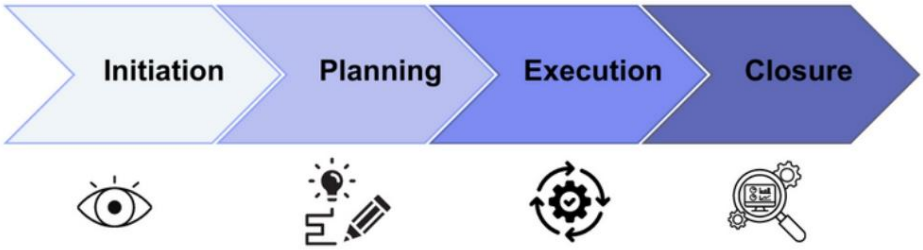


Figure 2: The Phases of a Project's Life Cycle

Supplementary Material 1

Watch the video "4 Stages of Project Life Cycle | Phases of Project Management Life Cycle" by Knowledge Hut on YouTube illustrating the 4 phases of of a project life cycle. This would help you understand the contents and requirements of each phase and aid you in the projects you will be working on in the future. Use the following questions to guide your thinking as you watch the video:

- What are the 4 phases of a project life cycle?
- What are the factors that should be considered in every phase?
- Do you think a project's process could be done alone or with a team?
- What are your overall thoughts on the phases?

Initiation Phase

In this phase, the project's needs, problems, and opportunities to seize are identified. Objectives and major deliverables i.e. the product, service, or result to be generated, are formulated after careful examination of the abovementioned factors. Questions about the project's feasibility are raised through a feasibility study: "Is the project doable?" "Should we do it?" (Watt et al, n.d.).

The scope and stakeholders of the project are also determined. After all of these aspects are identified, a project initiation document will be prepared that details all the groundwork of the project plan. This includes all of the major deliverables, activities, and timetables.

Planning Phase

After the project is approved, teams are formed and tasks are broken down into smaller sizes with corresponding schedules. During this phase, the project's timelines, workflow documents, and financial budget plans are built to further solidify the project. Your knowledge of project constraints will also be needed in this phase as project risks will have to be identified.

Execution Stage

It is time to put the plan into action. The project manager plays a crucial role in this phase as they will be responsible for ensuring that everything is going according to plan. In addition, tasks are divided and assigned to team members suited for them. Communication with team members and other stakeholders is also an important part of this phase to monitor progress and provide updates.

Closure Phase

At last, the project's deliverables are provided and resources are released. This is also where the evaluation of the project takes place. Were the goals successfully met? How did the team perform? Are there any aspects of the project that were overlooked? A report should be submitted to key stakeholders regarding the overall performance of the project. Moreover, a summative analysis of the project will be helpful to future projects in the same discipline. This should contain the lessons that the team learned from the whole course of the project.

Budget

This is the funding approved to be used for all the expenses for the project. For project managers, it is important to be cautious about going over the budget and underspending. At the local government unit, the barangay's budget goes through due process (as shown in the diagram below).

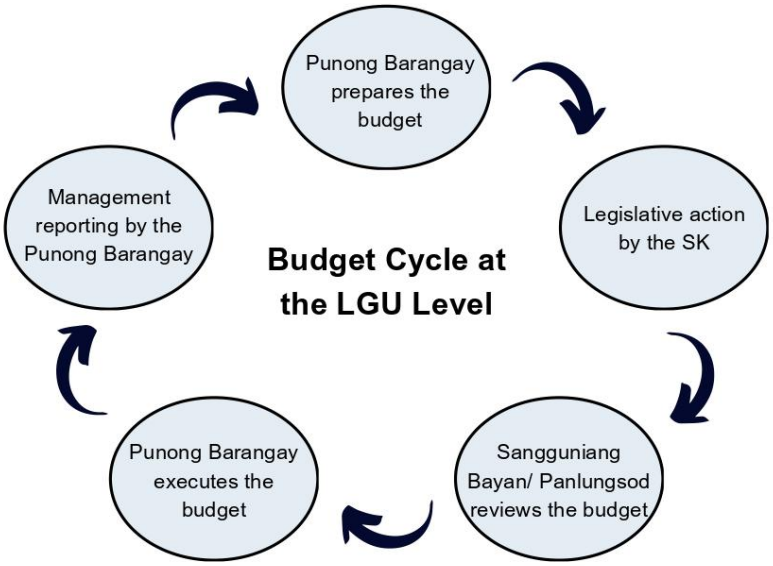


Figure 3: The Budget Cycle at the LGU Level. (Source: DBM, 2008).

From this, 10% of the barangay's general fund is reserved for the SK council which may be used for projects that enhance the holistic development of the youth. The SK council is required to formulate and submit a budget plan detailing its projects and activities and the corresponding expenditure for them (Joint Memorandum Circular No. 1, 2019).

Enrichment Activity 2

Recall the issues you encountered in your previous project management experiences before becoming SK council members and during your term. Choose one issue and analyze it using the questions below:

- What category of constraint does the issue fall into?
- How did you address and resolve the issue?
- What could have been done in advance to prevent the issue from occurring?

Please share your answers on the **bulletin board** or in the box given below.

Risk

Analyzing the external factors or events that may negatively affect the project is an important part of project management. Contingency plans must be created to counter the probability of the risks occurring to disrupt the project to mitigate damage.

Triple Constraints

There are primary constraints that a project encounters namely time, cost, and scope. They are represented in a triangle-shaped model to visualize the connection between each of the three constraints to quality. Each side of the triangle represents one constraint and ideally, the triangle should be balanced. However, this might pose a challenge because one change in any side of the triangle leads to changes in other sides as well— they are dependent on each other (Watt, n.d.).

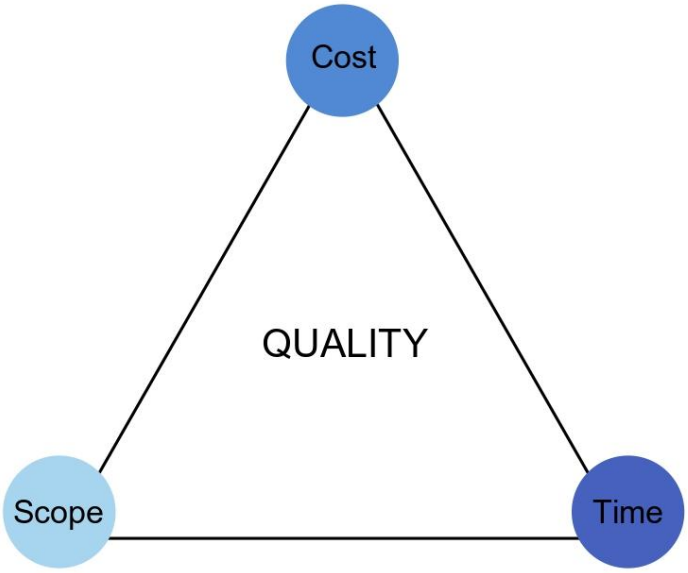


Figure 4: The Triple Constraint Triangle. (Source: Watt, n.d.).

2. Interpersonal and Intrapersonal Skills

Figure 5: A graphic illustration of a team. Source: Canva

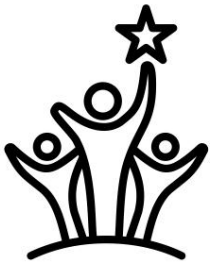
As Sangguniang Kabataan council members, knowing project management concepts is vital in your role as youth leaders to provide your constituents with quality projects that address their needs. However, merely possessing this knowledge without good character and skills will stay a potential. Other skills and characteristics should also be paid attention to.

Enrichment Activity 3

The learners will be divided into 2 groups. Each group will recall the projects and activities they have completed starting from their campaign period to being elected SK council members. The groups will brainstorm answers to the following questions.

- What are the skills and characteristics that were vital in the completion and success of those projects and activities?
- How did these skills and characteristics help you in achieving your goals?
- What areas do you think should be improved?

The groups will post their answers on **this board** or in the box below and briefly discuss their answers afterward.



Summative Assessment

1. What is a key trait of a project? (1 Point)

a. It is temporary
b. It generates unique products, services, or results
c. The delivery of said unique products, services, or results can influence the project's management approach
d. All of the above

2. Choose any one (1) of the project constraints discussed in the module. Provide a sample situation where this constraint exists in 2-3 sentences. (2 points)

3. Choose any one (1) of the inter- or intrapersonal skills discussed in the module. Provide a sample situation where this skill can be applied in the context of project management in 2-3 sentences. (2 points)

4. Provide an example of a project you have conducted previously. Briefly describe its nature according to the key traits of a project in 2-5 sentences. (5 points)

II. Reflection Point

In a 150-word essay, write your reflections on this module using the guide questions and criteria below.

- What are the differences between your performance on those past projects and the topics you have learned in this module?
- Did your project follow the 4 project phases?
- Consider the types of constraints and skills in project management. Did you know about them before? If not, how do you think these new learnings would help you as SK council members—pioneers of youth development programs?

Criteria	Needs Improvement (5)	Satisfactory (10)	Outstanding (15)
Content	• Content is not substantive enough but follows the theme • Key points are addressed but underdeveloped	• Content is meaningful and follows the theme • Key points are stated and explained	• Content is substantive, meaningful, and comprehensive and follows the theme

	• Examples to support ideas are lacking	• Examples to support ideas are adequate	• Key points are stated, explained, and supported • Examples to support ideas are specific and accurate
Organization of Ideas	• The essay's structure is confusing • Lacks transition and use of Cohesive Devices	• The essay's structure is easy to follow • Transitions flow well with minimal use of Cohesive Devices • Conclusion summarizes key points	• The essay's structure is clear and easy to follow • Transitions are used excellently using Cohesive Devices which maintain a great flow of ideas • Conclusion synthesizes key points
Grammar, Punctuation, and Spelling	• The essay contains few errors in grammar, punctuation, and spelling	• The essay contains minor errors in grammar • The essay contains no errors in punctuation and spelling	• The essay contains **NO** errors in grammar, punctuation, and spelling

Total:

Essay rubrics adapted from Zapanta (2022)

Answers Key

Pre-test

I.	II.
1.D	1.TRUE
2.C	2.TRUE
3.C	3.FALSE
4.C	4.TRUE
5.C	5.FALSE

Summative Assessment

I.

1.D

2.To be checked by the instructor

3.To be checked by the instructor

4.To be checked by the instructor

5.To be checked by the instructor

II. (Essay) To be checked by the instructor using the criteria.

Primary Reference Material:

Watt, A. (n.d.). Project Management - 2nd Edition. BC Campus. https://opentextbc.ca/projectmanagement/

References:

Department of Budget and Management. (2008). The Barangay Budget and the Budget Process. DBM. https://www.dbm.gov.ph/wp-content/uploads/2012/03/BB-4.pdf

Englund, R. L. (2010). Negotiating for success: are you prepared? Paper presented at PMI® Global Congress 2010—EMEA, Milan, Italy. Newtown Square, PA: Project Management Institute. https://www.pmi.org/learning/library/negotiating-project-outcomes-develop-skills-6781

ISKOLAR-BOS Technical Writers Group. (2011). Back to Basics: The Revitalized ISKOLAR-BOS Trainer's Manual. DILG. https://www.dilg.gov.ph/PDF_File/reports_resources/DILG-Resources-2012531-6e0d91a8bf.pdf

Joint Memorandum Circular No. 1. (2019). Department of Budget and Management. https://www.dbm.gov.ph/wp-content/uploads/Issuances/2019/Joint-Memorandum-Circular/DBM-DILG-NYC-JOINT-MEMORANDUM-CIRCULAR-NO-2019-1.pdf

Letigio, D.D. (2020). Learning hubs in Cebu City get tablets. Cebu Daily News. https://cebudailynews.inquirer.net/354421/learning-hubs-in-cebu-city-get-tablets

Magsumbol, C.N. (2023). New SKF President vows to continue existing projects. Philstar. https://www.philstar.com/the-freeman/cebu-news/2023/11/18/2312411/new-skf-president-vows-continue-existing-projects

University of Minnesota Libraries Publishing. (2016). Project Management from Simple to Complex. https://doi.org/10.24926/8668.2101

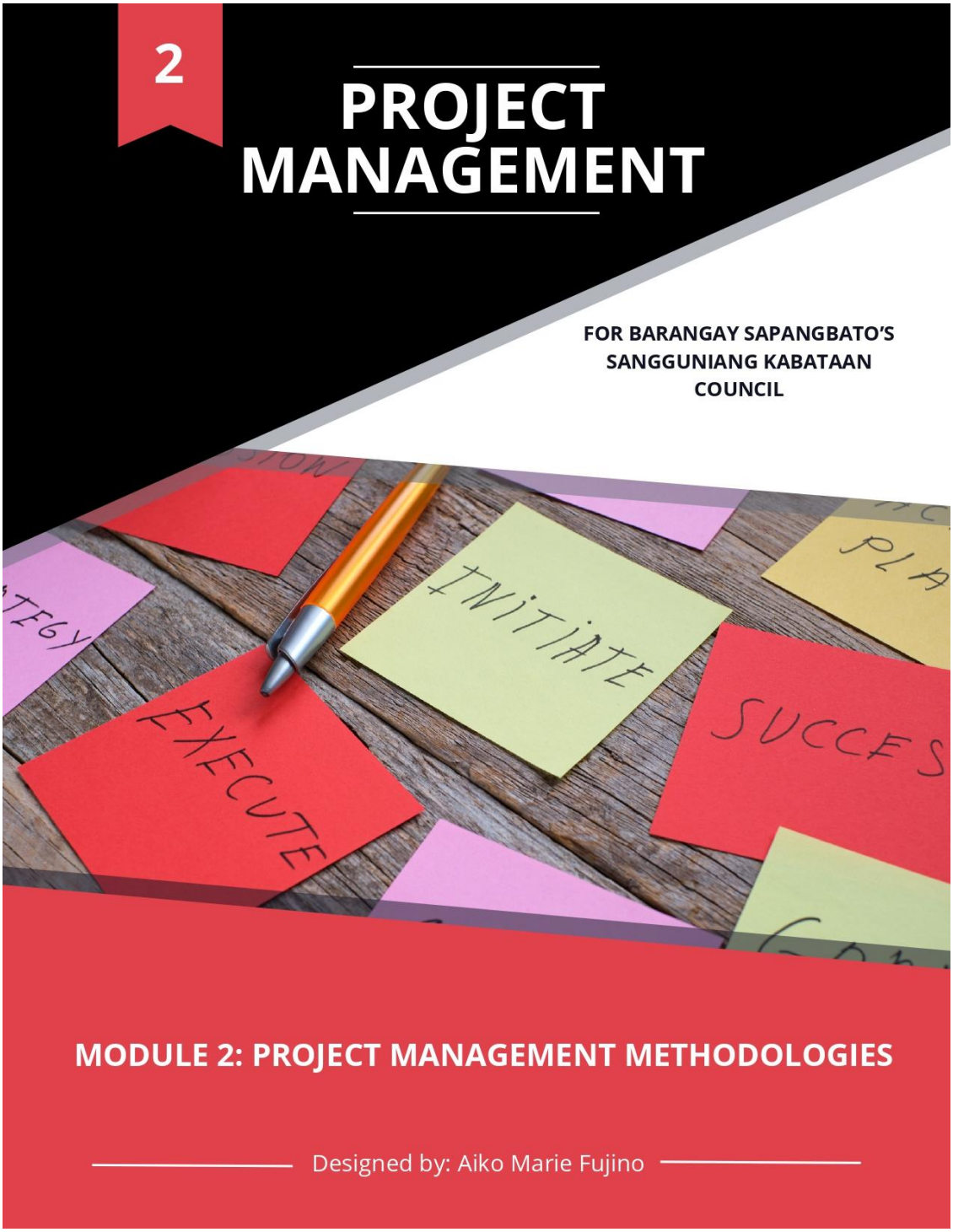
Watt, A. (n.d.). 2. Project Management Overview. Project Management - 2nd Edition. BC Campus. https://opentextbc.ca/projectmanagement/chapter/chapter-2-what-is-a-project-project-management/

Watt, A., Barron, M., Barron, A. (n.d.). 3. The Project Life Cycle (Phases). Project Management - 2nd Edition. BC Campus. https://opentextbc.ca/projectmanagement/chapter/chapter-3-the-project-life-cycle-phases-project-management/

Zapanta, A. (2022). Essay Rubrics. Slide Share. https://www.slideshare.net/slideshow/essay-rubrics/251096381

APPENDIX E

Self-Learning Module 2



Module 2 - Project Management Methodologies

Pre-test

I. Encircle the letter of the BEST answer

1. What is the Waterfall methodology?

a. A linear approach to project management where one stage begins when the previous one finishes.
b. An iterative approach to project management where outputs are released in increments and changes are open for accommodation regardless of the stage.
c. A dynamic approach to project management where all stages are done in parallel.
d. None of the above.

2. What is the Agile methodology?

a. A linear approach to project management where one stage begins when the previous one finishes.
b. An iterative approach to project management where outputs are released in increments and changes are open for accommodation regardless of the stage.
c. A dynamic approach to project management where all stages are done in parallel.
d. None of the above.

3. All _____ including project scope, stakeholders' expectations, and research is conducted in the first stage of the Waterfall methodology.

a. Project Design
b. Evaluation Criteria
c. Requirements
d. All of the above

4. What is one of the core values of the Agile methodology?

a. Individuals and interactions over processes and tools
b. Meeting deadlines according to the schedule
c. No changes can be made during the later stages of the project
d. Team members working independently

5. Which methodology takes on a more traditional approach?

a. Waterfall Methodology
b. Agile Methodology
c. Both
d. Neither

II. On the given line before the number, write TRUE if the statement is correct, and FALSE if the statement is wrong.

_____1.Henry Gantt, the inventor of Gantt charts, is an influential figure in the Emergent Era of project management.

_____2. The “Beyond Era” of project management refers to the future where things like big data and AI are huge influencing factors.

_____3. The Waterfall methodology requires front-heavy planning that emphasizes the initial stages of the project process

_____4. Agile promotes delivering big completed outputs frequently.

_____5. One of Agile’s principles is valuing grandeur and complexity over simplicity.

2 Project Management Methodologies

Learning Objectives

After completing this module, the learners should be able to:

- Discuss the history of project management
- Analyze the principles of Waterfall and Agile methodologies
- Demonstrate the application of the methodologies in project planning

Overview of the History of Project Management

Think of the majestic and historical structures that have withstood the passage of time. Did you imagine the Great Wall of China? How about the Barasoain Church? It is safe to assume that project management has existed since time immemorial. Surely, without careful planning and management of all relevant affairs of these projects, they would not be completed for multiple generations to see.

The 19th Century marks the period when modern project management frameworks and techniques we utilize today were developed. They can be divided into 4 separate eras.

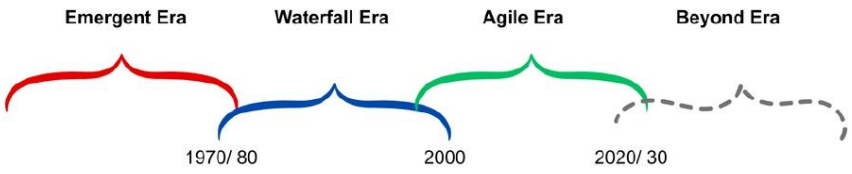


Figure 1: Timeline of Project Management History. Source: Szwed (2023)

a. Emergent Era

This is when new theories and practices on project management emerged due to the need of organizations to meet their needs and manage their projects better. An influential figure in this era was Henry Gantt, an American mechanical engineer, who developed the Gantt chart in the 1910s. It is a scheduling diagram in the form of a bar chart that is still used and relevant today (Szwed, 2023). This project management tool was an invaluable factor in the completion of massive infrastructure projects in the US such as the Hoover Dam and the interstate highway system (Watt et al, n.d.).

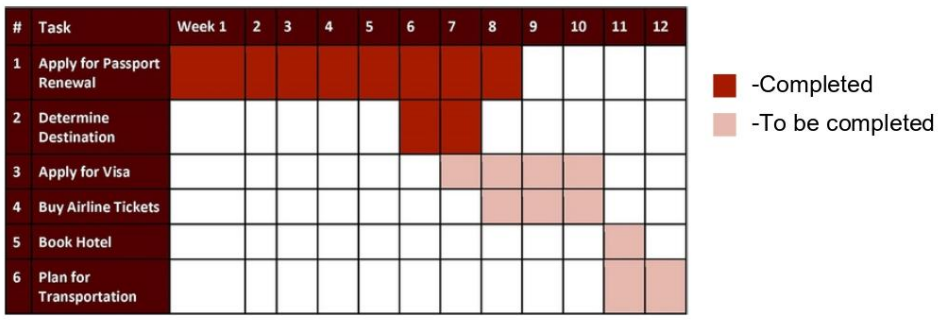


Figure 2: Example of a Simple Gantt Chart. Source: Last et al (2022)

b. Waterfall Era

This era holds the collection of methods that were developed during the emergent era and where a “unified system of project management” was formed. This era is represented by a waterfall diagram that depicts a serial process of project phases. This means that one phase does not begin until the previous phase before it is completed. We will elaborate on this era in the next section of the module.

c. Agile Era.

This era was popularized due to software development. It is a methodology that emphasizes an iterative and incremental development process where interaction and feedback

are stressed as vital factors in the project management process (Quick, n.d.). A lot of things were produced during this era, most notably the Agile Manifesto and the new Agile frameworks developed from it. These will be discussed later in the module.

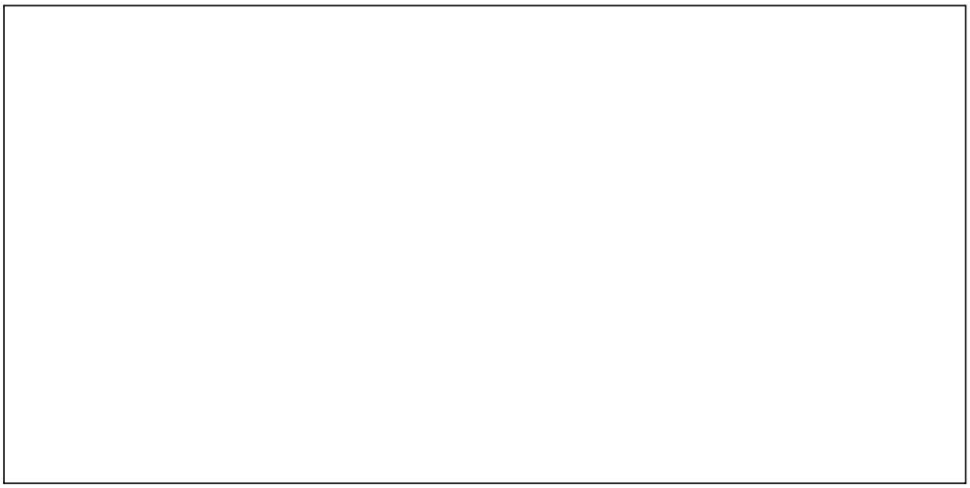
d. Beyond Era

This era and the innovations it will bring to project management are still being anticipated as the Beyond Era refers to the future of project management. Key factors that are expected to influence this era are “big data,” digitalization, the changing work paradigm, and artificial intelligence.

Enrichment Activity 1

As part of your Comprehensive Barangay Youth Development Plan, your team is responsible for conducting an education initiative to increase the digital literacy of youth in your community. What are the steps you will take to complete the project? List them according to their proper order.

Share your answers in **this** discussion forum or in the box given below.



1. Waterfall Methodology

When it comes to this methodology, the project process follows a linear approach where one does not start until the stage before it reaches completion and acceptance- resembling a waterfall hence the name. It also requires front-heavy planning that emphasizes the initial stages of the project process (Reaiche and Papavasiliou, n.d.) and is a straightforward and traditional approach to project management that has been here for a long time, usually used in software development (What Is the Waterfall Methodology in Project Management?, n.d.). Gantt charts are frequently used in this methodology where all tasks are mapped to track the phase of the project. In addition, the Waterfall methodology is best used when your project has long and detailed plans implemented in a single timeline (What is Waterfall Project Management?, n.d.). Five stages commonly constitute this methodology.

11 Five Stages of Waterfall Methodology

a. Requirements

All requirements are analyzed and collected in this phase of the methodology. This includes determining the project's scope, aligning the scope with the stakeholders' expectations, conducting research, and assembling your team.

b. Design

This phase has two subphases: logical design where the team brainstorms and theorizes possible solutions, and physical design where the brainstormed ideas are transformed into actual requirements of the project. Activities under this phase include listing the tasks you need to complete and creating a schedule that details the estimated time for each task. Tools that may assist you in this phase are the Work Breakdown Structure and Gantt Chart.

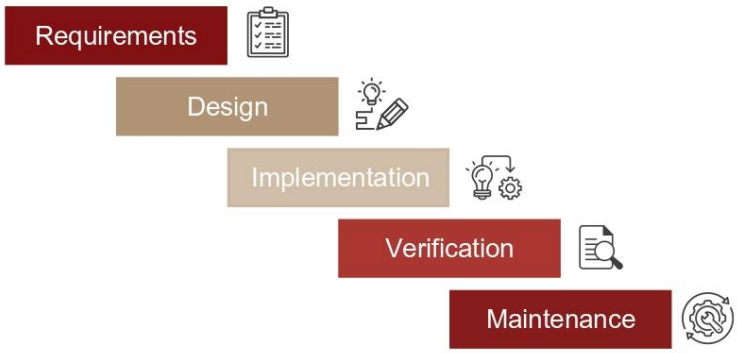


Figure 3: The Waterfall Methodology

c. Implementation

The team kickstarts the groundwork and the design is put into practice. Task division is crucial in this phase where each team member has an assigned role they will fulfill. On the other hand, the project manager will monitor the team's progress on their tasks and manage the project's resources and workload. Additionally, the stakeholders should receive project updates throughout the project.

d. Verification

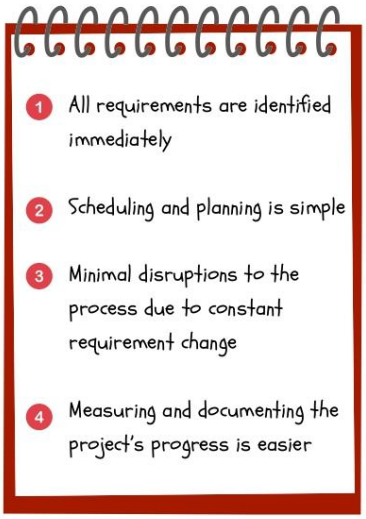
This phase is where the output is presented for testing. All necessary elements of the output or service will be reviewed to see if it meets the requirements laid out in the 1st phase.

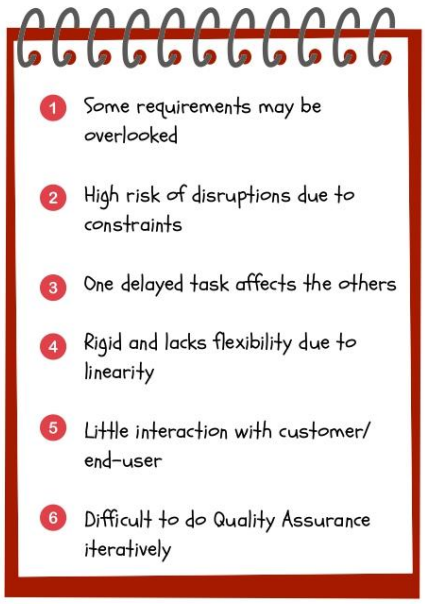
e. Maintenance

The feedback that the team receives in the Verification phase is addressed and integrated into the output or service.

1. 2 Pros and Cons

This methodology is beneficial to the team because it lays out all project requirements in the very beginning thus, scheduling and planning becomes straightforward and clear. Disruptions to the project due to the constant addition of new requirements are also prevented because this is already done in the Requirements stage. The measurement and documentation of the project's progress are also easier due to its linear progression.





However, because the first phase (Requirements) operates on the assumption that all necessary information or requirements can be gathered in this stage, there is a possibility that not all requirements were articulated. Furthermore, the project could face budget constraints if, at the Verification phase, the output did not meet the satisfaction of stakeholders and the team needs to change the design (What Is the Waterfall Methodology in Project Management?, n.d.). These roadblocks could impact the timeline because one delayed task will implicate the others. In general, the Waterfall methodology's rigidity due to its linearity and lack of flexibility makes it difficult to interact with the customer/end-user, conduct Quality Assurance throughout the project, and backtrack on completed phases (Reaiche and Papavasiliou, n.d).

Enrichment Activity 2

Recall the digital literacy project you planned out earlier. Now that you have learned about the Waterfall methodology, how would you plan the project using its 5 stages as guidelines? Take note of the important aspects of this methodology and include them in your planning

Share your answers in **this** discussion forum or in the box given below.

2. Agile Methodology

Unlike the Waterfall methodology, the Agile methodology adopts an iterative and faster (more agile) approach to project management. Outputs are released continuously and incrementally (broken down into manageable tasks called sprints) which allows more room for feedback and changes in the project elements like plan, scope, and design. Additionally, collaboration and building interpersonal relationships are key factors in this methodology (Reaiche and Papavasiliou, n.d.). A common progression of Agile methodology is comprised of 5 stages as shown below.

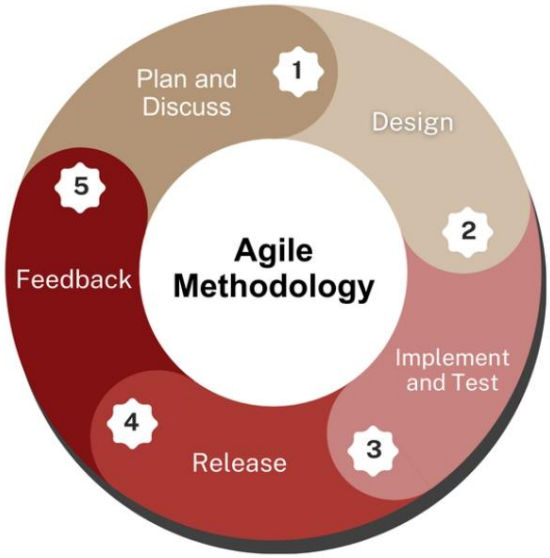


Figure 4: The Agile Methodology. Source: Reaiche and Papavasiliou (n.d.)

An Agile Manifesto was created by 17 software engineers and has 4 core values influenced by their discipline (Agile Manifesto, 2001).

2. 1 Four Core Values of Agile

1. **Individuals and interactions over processes and tools:** Working collaboratively and teamwork are valued more than working independently.
2. **Working software over comprehensive documentation:** Developing good software is the priority.
3. Customer collaboration over contract negotiation: Agile teams place great importance on the customers who guide the output's direction.

4 **Responding to change over following a plan:** Flexibility is one of the pros of Agile methodology as it allows the team to make necessary changes in their strategies and workflows without delaying the project.

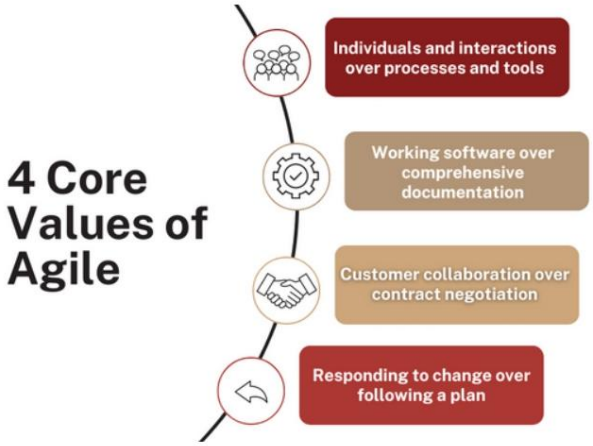


Figure 5: 4 Core Values of Agile

2.2 Agile's 12 Principles

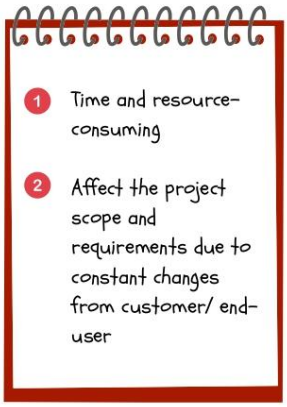
12 core principles of the Agile methodology were developed out of its 4 core values (Agile Manifesto, 2001). These principles can be adapted to suit the needs of a team.

1. Prioritize satisfying the customer through "early and continuous delivery" of outputs
2. Be open to changes in requirements, even late in the development
3. Deliver working and completed outputs frequently, preferably ones with shorter timescales
4. Practice collaborative work between business owners and the project team
5. Build a team of individuals with drive. Provide them with the appropriate environment, support, and trust
6. Communicate with the team in person

7. Measure the project's progress using the completed output/s
8. Promote and maintain a sustainable development and working pace
9. Maintain technical excellence and good design to enhance agility
10. Value simplicity
11. Pro-active teams are valuable assets
12. Reflect on the team's performance and adapt behaviors accordingly

2.3 Pros and Cons

The Agile methodology empowers the team members to innovate ideas and solve problems. The methodology is adaptable and flexible, taking into consideration the possible change of priorities and requirements of the projects based on the feedback loop between the stakeholders and the project team. This also paves the way for increased collaboration and customer/end-user satisfaction due to their heavy involvement in the process (Reaiche and Papavasiliou, n.d.). The Agile methodology best works in projects that require iterative outcomes because the tasks are divided into manageable and smaller chunks.



However, due to the continuous feedback loop between the team and the customer/end-user, it consumes more time and resources. It may also implicate the scope and requirements of the project because of the demands that customer/end-users may have during their collaboration and communication with the project team (The Pros And Cons Of Agile Methodologies, 2017).

Enrichment Activity 2

In the previous section, you applied a Waterfall approach when planning a digital literacy project for youth. In this activity, you are tasked to employ an Agile methodology to project planning using its key principles. Take note of the important aspects of this methodology and include them in your planning.

Share your answers in the given box below.

Supplementary Video Material 1

Now that you have learned how to apply Waterfall and Agile methodologies in a situational project, access the video titled **"Agile vs Waterfall: Choosing Your Methodology"** by OeLean (2020) to serve as a supplementary resource to expand your knowledge of the said methodologies. Use the guide questions below to guide your thinking through watching the video.

- What are the highlights of the Waterfall methodology? What about Agile?
- How do these two methodologies differ?
- What do these two methodologies say about customer interaction?

Summative Assessment

1. What is the Waterfall methodology? (1 point)

a. A linear approach to project management where one stage begins when the previous one finishes.
b. An iterative approach to project management where outputs are released in increments and changes are open for accommodation regardless of the stage.
c. A dynamic approach to project management where all stages are done in parallel.
d. None of the above.

2. What is the Agile methodology? (1 point)

a. A linear approach to project management where one stage begins when the previous one finishes.
b. An iterative approach to project management where outputs are released in increments and changes are open for accommodation regardless of the stage.
c. A dynamic approach to project management where all stages are done in parallel.
d. None of the above.

3. Choose 1 pro of using the Waterfall methodology and describe it in 2 sentences. (3 points)

4. Choose 1 pro of using the Agile methodology and describe it in 2 sentences. (3 points)

5. List the major differences between Waterfall and Agile methodologies (2 points)

II. Reflection Point

Choose one (1) category from the list below and in a 150-word essay, provide your insights on your chosen topic. Use the lessons in this module and the criteria below to guide your reflection and writing.

1. The future of project management through the influence of big data, digitalization, the changing work paradigm, and artificial intelligence.
2. The suitability of Waterfall methodology for your project.
3. The suitability of Agile methodology for your project.

Criteria	Needs Improvement (5)	Satisfactory (10)	Outstanding (15)
Content	• Content is not substantive enough but follows the theme • Key points are addressed but underdeveloped	• Content is meaningful and follows the theme • Key points are stated and explained	• Content is substantive, meaningful, and comprehensive and follows the theme

	• Examples to support ideas are lacking	• Examples to support ideas are adequate	• Key points are stated, explained, and supported • Examples to support ideas are specific and accurate
Organization of Ideas	• The essay's structure is confusing • Lacks transition and use of Cohesive Devices	• The essay's structure is easy to follow • Transitions flow well with minimal use of Cohesive Devices • Conclusion summarizes key points	• The essay's structure is clear and easy to follow • Transitions are used excellently using Cohesive Devices which maintain a great flow of ideas • Conclusion synthesizes key points
Grammar, Punctuation, and Spelling	• The essay contains few errors in grammar, punctuation, and spelling	• The essay contains minor errors in grammar • The essay contains no errors in punctuation and spelling	• The essay contains **NO** errors in grammar, punctuation, and spelling

Total:

Essay rubrics adapted from Zapanta (2022)

Conclusion

Figure 6: Group of People Writing on Sticky Notes. Source: Canva

In this module, you were introduced to the two basic methodologies used in project management. Their existence can be traced back to history and they were used as valuable frameworks to complete large-scale projects. The timeline can be divided into 4 separate periods namely the Emergent era, the Traditional (Waterfall) era, the Agile era, and the Beyond era. You learned about the Waterfall methodology and its 5 stages that follow a linear progression i.e. Requirements, Design, Implementation, Verification, and Maintenance. The methodology's pros and cons were also discussed to give you a wider perspective. Furthermore, the Agile methodology that operates on an iterative process was also discussed, along with its 4 core values and 12 principles derived from the Agile Manifesto. Its pros and cons were also presented.

Possessing the knowledge and skills to apply these methodologies into practice can assist you in your roles as Sangguniang Kabataan council members. They will serve as guidelines for the careful, detailed planning and implementation of your projects for youth development.

Answers Key

Pre-test

I.	II.
1.A	1.TRUE
2.B	2.TRUE
3.C	3.TRUE
4.A	4.FALSE
5.B	5.FALSE

Summative Assessment

I.
1.A
2.B
3.To be checked by the instructor
4.To be checked by the instructor
5.To be checked by the instructor

II. (Essay) To be checked by the instructor using the criteria.

Primary Reference Materials:

Reaiche, C. and Papavasiliou, S. (n.d.). The Agile Family: Group I. Management Methods for Complex Projects. James Cook University Pressbooks. https://jcu.pressbooks.pub/pmmethods/chapter/the-agile-family-group-1/

Szwed, P. (2023). Project Management for Today and Tomorrow. OER Commons. https://oercommons.org/courseware/lesson/115161/student/?section=2

Supplementary Materials (Optional):

Totem Consulting. (2017). What is a Gantt Chart. Youtube [Video]. https://www.youtube.com/watch?v=zwseLrxkKKE

Wrike. (2021). Agile vs. Waterfall Project Management - Wrike. Youtube [Video]. https://www.youtube.com/watch?v=x2LE3FKGEkA

References:

Agile Manifesto (2001) 'Principles behind the Agile manifesto', Agile Manifesto, accessed 3 August 2022. http://agilemanifesto.org/principles.html

Last, S., Hagstrom-Schmidt, N., Pattison, K., Mckinney, M. And Francis, J. Jr. (2022). Designing And Formatting Proposals. Howdy Or Hello? Technical And Professional Communication. Pressbooks. https://oer.pressbooks.pub/howdyorhello/chapter/designing-and-formatting-proposals/

OeLean. (2020). Agile vs Waterfall: Choosing Your Methodology [Video file]. YouTube. https://www.youtube.com/watch?v=5RocT_OdQcA

Quick, L. (2024). History of Agile Methodology: How it was Developed. Knowledge Hut. https://www.knowledgehut.com/blog/agile/history-of-agile

Reaiche, C. and Papavasiliou, S. (n.d.). The Agile Family: Group I. Management Methods for Complex Projects. James Cook University Pressbooks. https://jcu.pressbooks.pub/pmmethods/chapter/the-agile-family-group-1/

Szwed, P. (2023). Project Management for Today and Tomorrow. OER Commons. https://oercommons.org/courseware/lesson/115161/student/?section=2

The Pros And Cons Of Agile Methodologies. (2017). Qualium. https://www.qualium-systems.com/blog/business/the-pros-and-cons-of-agile-methodologies/

Watt, A., Barron, M., Barron, A. (n.d.). 4. Framework for Project Management. Project Management - 2nd Edition. BC Campus. https://opentextbc.ca/projectmanagement/chapter/chapter-4-framework-for-project-management-project-management/

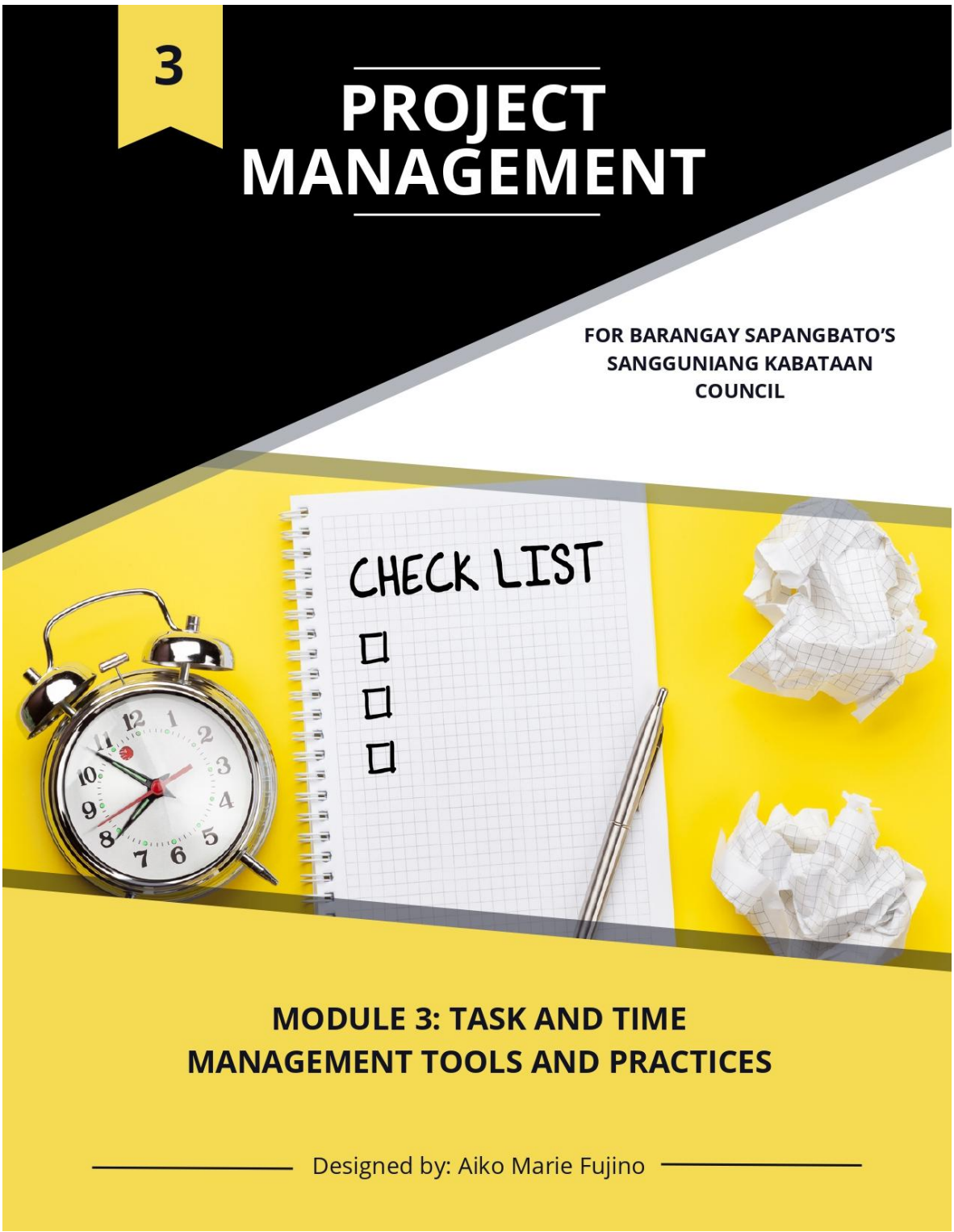
What Is the Waterfall Methodology in Project Management? (n.d.). Project Manager. https://www.projectmanager.com/guides/waterfall-methodology

What is Waterfall Project Management? (n.d.). Wrike. https://www.wrike.com/project-management-guide/faq/what-is-waterfall-project-management/

Zapanta, A. (2022). Essay Rubrics. Slide Share. https://www.slideshare.net/slideshow/essay-rubrics/251096381

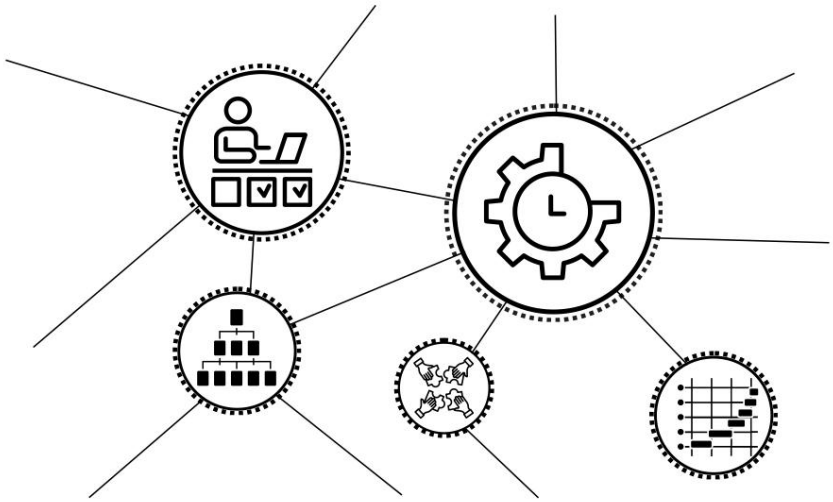
APPENDIX F

Self-Learning Module 3



Module 3

Task and Time Management Tools and Practices



In the previous module, you were introduced to two (2) well-known project management methodologies. You learned about the history of project management divided into four (4) different eras namely Emergent, Waterfall, Agile, and Beyond. The Waterfall methodology characterizes a linear and traditional approach to project management where the next stage does not begin until the previous one is completed. Meanwhile, the Agile methodology embodies an iterative process of completing outputs that are broken down into manageable sizes. In this module, you will learn about the tools and practices that may help you in your project's task and time management, specifically the use of Work Breakdown Structure and Gantt Chart. As Sangguniang Kabataan council members, it's imperative that you are competent in these areas as one of your biggest and heaviest duties is to carry out your barangay's youths' objectives. This includes initiating programs and activities for youth development (ISKOLAR-BOS Technical Writers Group, 2011).

Pre-test

I. Encircle the letter of the BEST answer

1. What is the function of a Work Breakdown Structure?

a. It details the specific and accurate duration of each project task and activity using a flowchart.
b. It outlines the project methodology that will be used.
c. It decomposes all the outputs and activities of a project into manageable units.
d. None of the above.

2. What is a deliverable?

a. Output generated from a project
b. Method used to deliver a project
c. A type of a project methodology
d. All of the above.

3. What is the “100% rule”?

a. All activities must account for 100% of the financial resources.
b. All or 100% of the project personnel must have assigned tasks
c. Each WBS sub-level must represent 100% of the work applicable to the next higher element.
d. The project should be 100% free of risk.

4. What does a Gantt chart do?

a. Computes the project budget
b. Estimates the project success rate
c. Organizes all project activities and dependencies with an estimated duration
d. None of the above.

5. A Gantt chart is a type of a ____ graph.

a. Bar
b. Line
c. Pie
d. All of the above

II. On the given line before the number, write TRUE if the statement is correct, and FALSE if the statement is wrong.

_____1.A Work Breakdown Structure is limited to 10 levels only.

_____2. A Work Breakdown Structure is a tool for task division and resource, time, and cost estimates.

_____3. Henry Gantt, an American software engineer, invented the Gantt chart.

_____4. Slack in project management means the time allotted for team members to take a break.

_____5. Preferential Dependencies are imposed by relevant project stakeholders but are not required for project completion.

3 Task and Time Management Tools and Practices

Learning Objectives

After completing this module, the learners should be able to:

- Describe the Work Breakdown Structure
- Discuss the parts of a Gantt chart
- Demonstrate the use of WBS
- Design a Gantt chart

1.Task Management

Your roles as SK council members entail immense exposure to numerous and diverse types of projects focused on youth and their development. These may be in the form of sports and esports competitions, mental health initiatives, out-of-school youth assistance, and more. Regardless of the kind of project you conduct, effectively managing tasks for a successful project is a constant and crucial factor. There are various ways you can execute this e.g., by writing a checklist, setting reminders, or using a timetable. A project management tool that can supplement you with these ways is the Work Breakdown Structure.

Figure 1: Scrum Task Board. Source: Canva

1.1 Work Breakdown Structure

Before diving into the definition and creation of Work Breakdown Structure, there are a few terminologies defined by Blanchard (n.d.) that you should know first to fully understand this tool.

- **Deliverables and Sub-deliverables** - physical objects, digital codes, or events generated for a project. They are represented by nouns.

- **Work Packages** - broken down units of work assigned to project team members that are performed to accomplish the deliverables. They are represented by phases using verbs.

Work Breakdown Structure (WBS) defines all the deliverables of a project hierarchically—detailing the scope. The major deliverables are broken down into components (sub-deliverables and work packages) with assigned schedules, estimates, and monitoring until you arrive at the level you cannot divide anymore. WBS is visualized

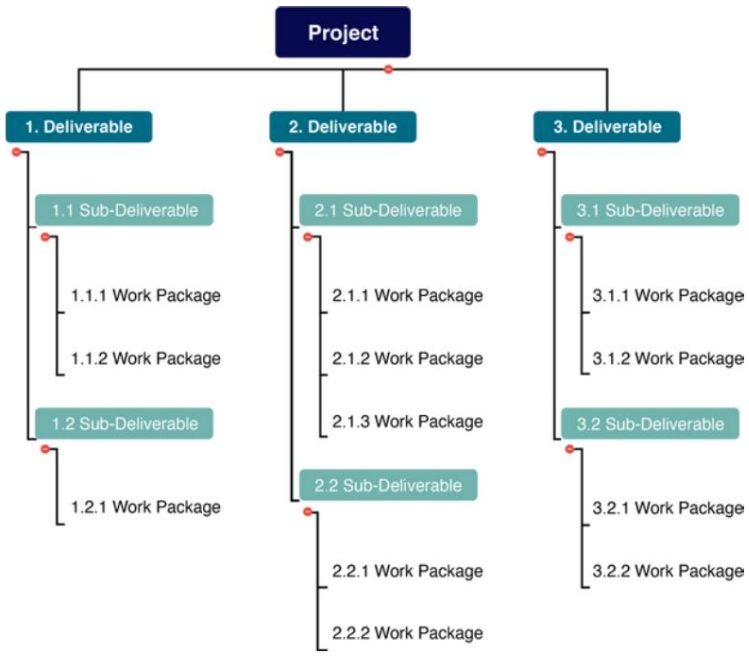


Figure 2: A WBS outline. Source: Blanchard (n.d.)

using a flowchart that can have multiple levels and multiple nodes where Level 1 represents the overall project, Level 2 holds the deliverables, and Level 3 where sub-deliverables are detailed. Work packages are also under Level 3.

There are five usual steps needed to develop a WBS. **First**, all project outputs (deliverables) are listed. **Second**, all activities needed to be done to accomplish the outputs are identified. **Third**, these activities are broken down into subactivities and tasks. **Fourth**, the expected output or milestone(s) of the divided tasks are determined. **Finally**, the time needed by all resources (manpower or material) to complete the tasks is identified.

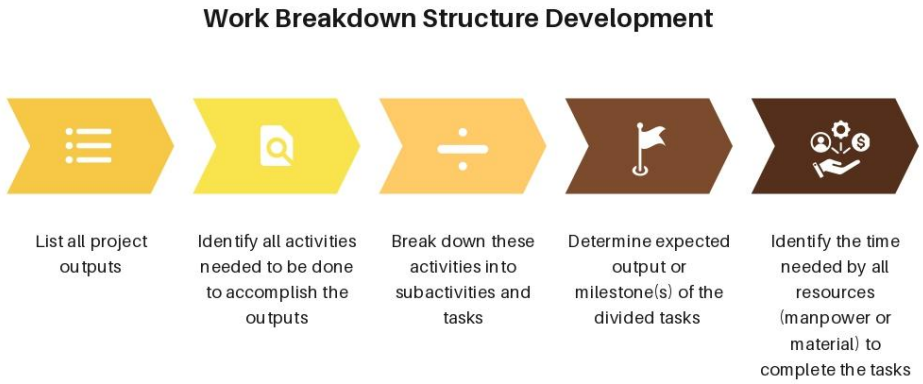


Figure 3: Development steps of a Work Breakdown Structure

A WBS can help the project and project team manage the divided components or tasks more easily, accurately estimate resources, time, and cost, easily allocate tasks among team members, and effectively assign responsibility for each activity (Blanchard, n.d.). Furthermore, a WBS is often a document done in the Waterfall methodology to help manage the scope of the project (Szwed, 2023).

1.2 What does a filled-out WBS look like?

The diagram below shows a sample WBS for a youth-centered mental health symposium. It details the project's major deliverables, sub-deliverables, and work packages.

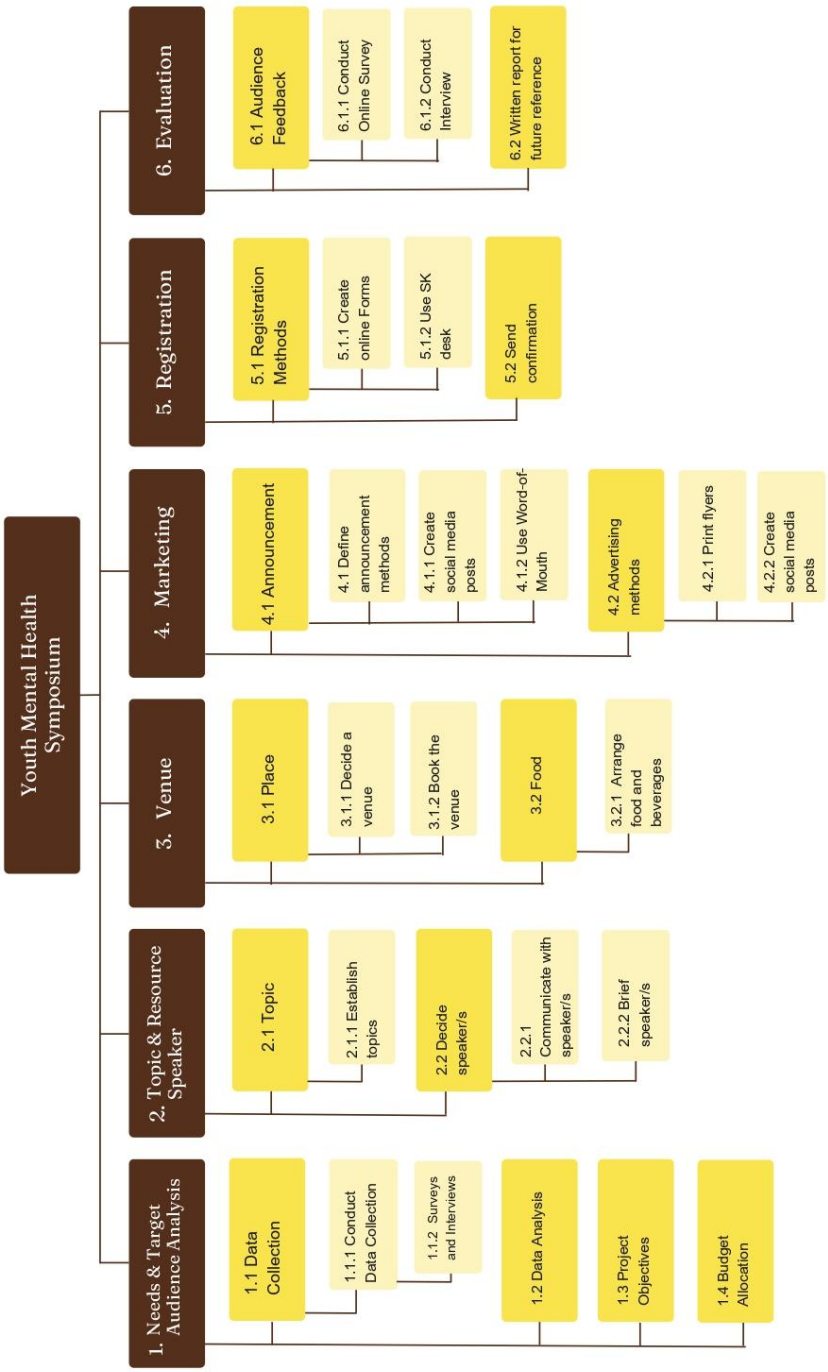


Figure 4: Example of a WBS on youth mental health symposium.

A crucial factor to remember when doing a WBS is that the sequence of performing the tasks is not as rigid as it looks. Instead, it is the schedule that you will develop that will determine this. The main purpose of WBS is to decompose or lay out all the tasks you need to complete regardless of their order.

Supplementary Material 1

Szwed (2012) talks in detail about the Work Breakdown Structure, the process of decomposing the project scope and deliverables, the project levels, and the WBS dictionary. Access the video material titled "**Work Breakdown Structure (WBS)**" to know more about the task management tool. Use the guide questions below to guide you through watching the video.

- What is a WBS?
- What activities do you do in the decomposition process?
- What is MECE? Why is it important in the project management process?
- What are the levels of a WBS?
- What does a WBS dictionary contain?

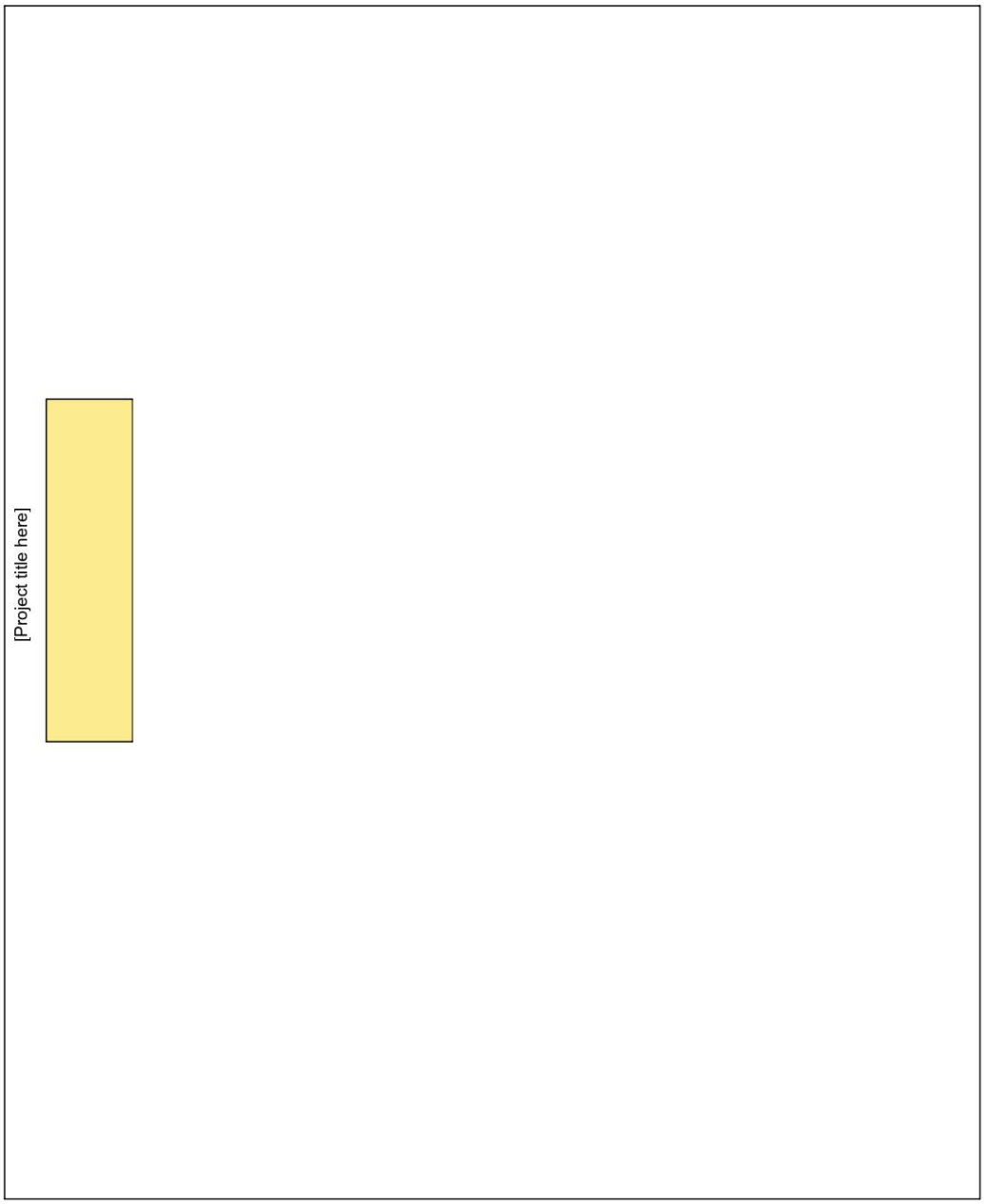
1.3 100% Rule

This rule is one of the most important factors in the development and evaluation of a WBS. It states that "each decomposed level must represent 100 percent of the work applicable to the next higher element." This means that the sum of work in sub-components like tasks must be 100% equal to the effort required on its main component. This applies to all levels of the WBS. Additionally, this rule ensures that all essential elements of the project are accounted for starting from the levels down to the activities.

Enrichment Activity 1

Think of a youth-relevant project you want to initiate as SK council members. It could be one you are currently beginning to plan or a project you aim to implement in the future. Create a WBS document for the project you visualized. Follow the 5 steps of WBS development as follows:

1. List all project outputs or deliverables
2. Identify all activities needed to be done to accomplish the listed outputs
3. Break down your identified activities into sub-activities and tasks.
4. Determine the expected output or milestone(s) of the divided tasks
5. Identify or estimate the time needed by all resources (manpower or material) to complete the tasks


[Project title here]

2. Time Management

Assigning deadlines for your tasks and projects is a factor that always comes along with project management. Whether these deadlines are followed and met is a matter of your effective time management practices. How did you fare with deadlines as an SK council member? How does your council usually manage your time? What practices do you apply? If you are having trouble in this area, a Gantt chart might be helpful.

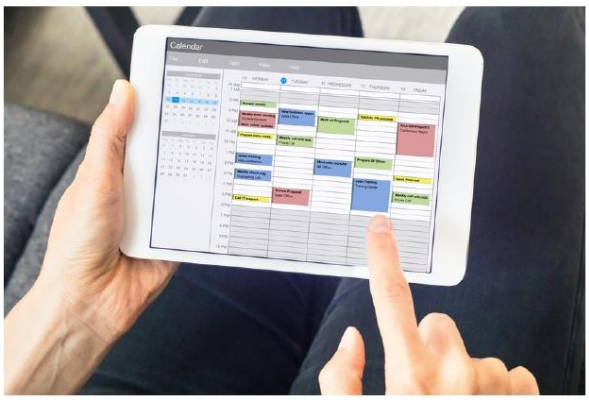


Figure 5: Time Management. Source: Canva

Before we discuss what a Gantt chart is, below are the key terms you need to know regarding scheduling.

Term	Definition
Milestone	"A significant point or event in the project" (Project Management Glossary of Terms, 2012)
Duration	"The number of work periods (not including holidays or other nonworking periods) required to complete a schedule activity or work breakdown structure component" (Project Management Glossary of Terms, 2012).
Slack / Float	"The amount of time a task can fall behind, be delayed, or slip, and not affect other tasks in the project schedule" (Scheid, n.d.).

Table 1: Time Management Key Terms

A Gantt chart was developed by Henry Gantt, an American mechanical engineer, in the 1910s (Szwed, 2023). It uses bar graphs to visualize a schedule and duration of activities from start to finish dates. A time scale e.g. weeks or months, is seen across the top section of the chart that will be used to estimate the duration of each activity. Aside from the rough estimate of activities' duration, dependencies are also identified through a Gantt chart. Dependencies are tasks that rely on other tasks' completion. You might encounter multiple types of dependencies in your project.

2.1 Types of Dependencies

Logical (Casual) Dependency - inherent and logical aspects of a project and project completion. It requires the output from the previous tasks as its input hence, it cannot be conducted at the same time.

Resource Dependency - a dependency rooted in project constraints that relates to the availability or lack of project resources.

Preferential Dependency - imposed by relevant project stakeholders but are not required for project completion e.g. the team leader requiring a one final review of the output.

External Dependency - factors that are outside of your team's control e.g. weather delays. A contingency plan is recommended to counter this.

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External Dependency	Factors that are outside of your team's control e.g. weather delays. A contingency plan is recommended to counter this.

Table 2: Type of Dependencies

A Gantt chart is usually created after all of the project's main objectives are determined and it's useful to start scheduling with the set deadline for the project's completion to gauge if the time scale is too short or long (Blanchard, n.d.). A simple Gantt chart can be easily drawn by hand but others use software to develop their chart for more convenient monitoring and updating.

2.2 Type of Task Dependencies

Aside from the dependencies discussed above, it is also essential to learn about the dependencies unique between two tasks.

1. **Finish to Start (FtS**) - Task B can only begin when Task A is completed.
2. **Finish to Finish (FtF)** - Task B can only be completed when Task A is completed.
3. **Start to Start (StS)** - Task B can only begin when Task A has started.
4. **Start to Finish (StF)** - Task B can only be completed when Task A has started.

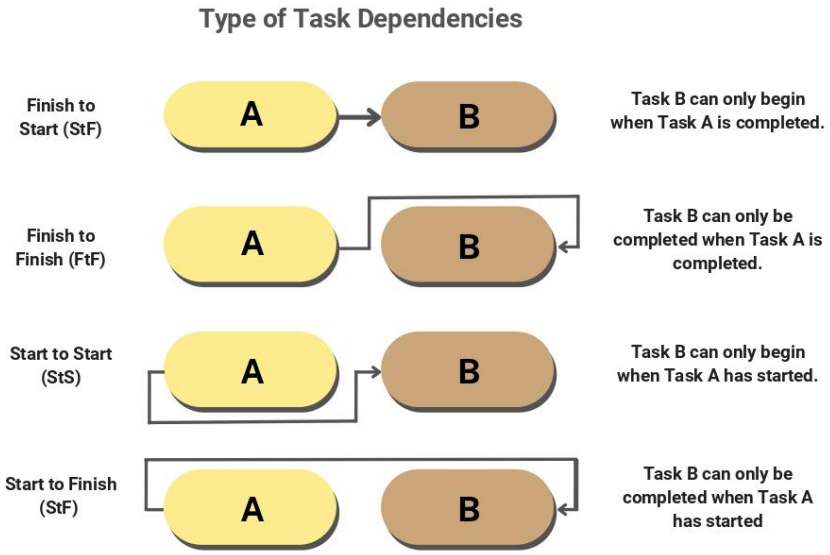


Figure 5: Type of Task Dependencies

2.3 Example of a Gantt Chart

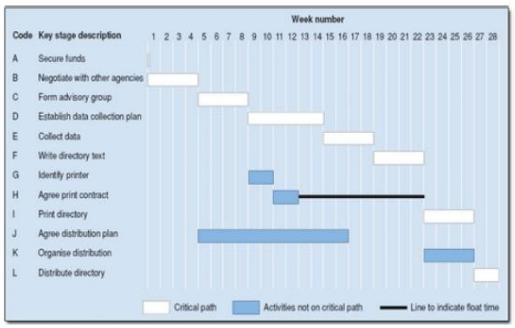


Figure 6: Example of a Gantt chart. Source: Blanchard (n.d.).

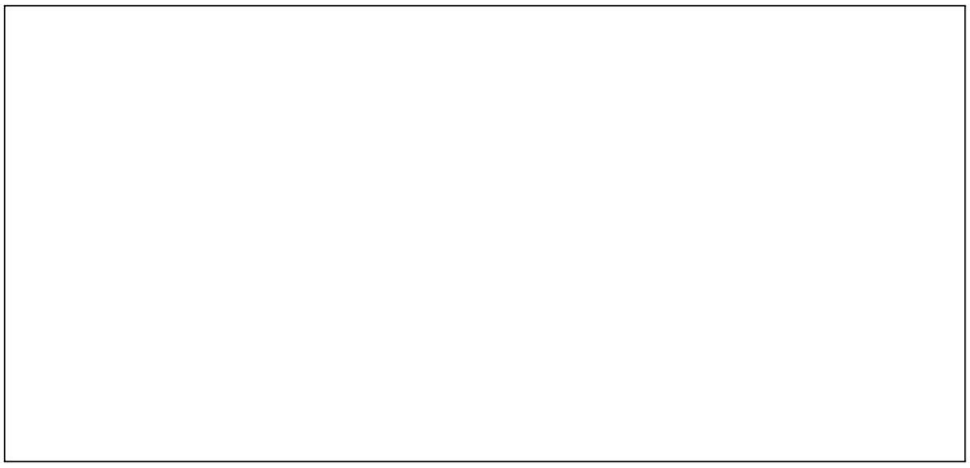
The Gantt chart above shows a timeline for directory production. On the left side, all project activities are listed and labeled with their corresponding code e.g. A, B, C, etc. The chart also shows when a particular activity starts and ends through the bar graphs that stretch across the time scale. For example, it can be seen that B (Negotiate with Other Agencies) begins on Week 1 and ends on Week 4.

Moreover, some activities coincide with each other. For example, K's (Organize distribution) end date coincides with L's starting schedule. K could have also started in Week 17 after J (Agree distribution plan) was completed. This gap in time is called "slack." On the other hand, notice the black line on H (Agree print contract). This indicated a "float time" wherein it indicated H's latest possible end date (Week 23) despite H being scheduled to end at Week 12.

Supplementary Material 2

Softwares are mostly used to create and update a Gantt chart for convenience reasons. However, you can still develop one by simply drawing and plotting your activities with the time scale you need. The video **"How to Draw a Gantt Chart"** by Engineer4Free (2014) summarizes the act of sketching a Gantt chart with task dependencies in a beginner-friendly format. Use the guide questions below to guide you through watching the video.

- How did the Gantt chart creation start? Did it begin with plotting or listing the essential activities first?
- What type of task dependency/ dependencies were shown in the video?
- How did the duration of activities plotted?



Enrichment Activity 2

Using the WBS you outlined in Enrichment Activity 1, plot all the essential activities required to complete your project in a Gantt chart using the template below. Evaluate the time scale that your project needs and make adjustments in the chart as needed.

Activity/ Task	
Code	

Summative Assessment

1. What does a Work Breakdown Structure define hierarchically? (1 point)

a. Project Methodology
b. Project Schedule
c. Project Deliverables
d. All of the above

2. (Choose the BEST answer) A Gantt chart lays out not only the rough estimate of project activities' duration but also the _____. (1 point)

a. Dependencies
b. Deliverables
c. Time
d. Risk

3. Select one (1) type of dependency and explain it in your own words in 2-3 sentences WITH an example. (3 points)

4. Synthesize the purpose of the 100% rule into 2-3 sentences. (3 points)

5. Differentiate 'Deliverables' and 'Work Packages' into two (2) sentences. (2 points)

II. Reflection Point

Write a 150-word essay about your insights from the topics you have learned in this module. Use the questions and the criteria below to guide your writing.

1. How did you find the Work Breakdown Structure? Did you find it convenient to use or complicated?
2. How was your experience creating your own Gantt chart?
3. Do you think they are helpful to you in task and time management?
4. Would you recommend creating these project documents in your future programs as SK council members? Why or why not?

Criteria	Needs Improvement (5)	Satisfactory (10)	Outstanding (15)
Content	• Content is not substantive enough but follows the theme • Key points are addressed but underdeveloped	• Content is meaningful and follows the theme • Key points are stated and explained	• Content is substantive, meaningful, and comprehensive and follows the theme

	• Examples to support ideas are lacking	• Examples to support ideas are adequate	• Key points are stated, explained, and supported • Examples to support ideas are specific and accurate
Organization of Ideas	• The essay's structure is confusing • Lacks transition and use of Cohesive Devices	• The essay's structure is easy to follow • Transitions flow well with minimal use of Cohesive Devices • Conclusion summarizes key points	• The essay's structure is clear and easy to follow • Transitions are used excellently using Cohesive Devices which maintain a great flow of ideas • Conclusion synthesizes key points
Grammar, Punctuation, and Spelling	• The essay contains few errors in grammar, punctuation, and spelling	• The essay contains minor errors in grammar • The essay contains no errors in punctuation and spelling	• The essay contains **NO** errors in grammar, punctuation, and spelling

Total:

Essay rubrics adapted from Zapanta (2022)

Conclusion

Figure 7: Task and Time Management Graphic. Source: Canva

In this module, you have learned about the methods or tools you can use in task and time management. The Work Breakdown Structure provided you with ideas on how to efficiently decompose tasks, transforming seemingly intimidating projects into broken-down and manageable activities. It showed you the importance of taking into account all project deliverables that would prevent you from overlooking necessary outputs and steps. On the other hand, the Gantt chart showed you an effective way to schedule your tasks and activities, allowing you to see the dependencies between them. You also learned through the different task dependencies that although the project deliverables and steps seem to be different from each other, they are interconnected in their own unique ways. Some cannot start until the other finishes, while some can run in parallel. These pieces of knowledge you gained in this module can assist you in improving your duties to provide youth-centered programs as Sangguniang Kabataan council members. With these project management concepts in mind and practice, you can better serve your community's youth with the projects, training, and welfare they rightfully deserve.

Answers Key

Pre-test

I.	II.
1.C	1.FALSE
2.A	2.TRUE
3.C	3.FALSE
4.C	4.FALSE
5.A	5.TRUE

Summative Assessment

I.

1.C
2.A
3.To be checked by the instructor
4.To be checked by the instructor
5.To be checked by the instructor

II. (Essay) To be checked by the instructor using the criteria.

References:

Blanchard, S. (n.d.). Project Management Basics. Kirkwood Community College. https://kirkwood.pressbooks.pub/projectmanagementbasics/front-matter/introduction/

Engineer4Free. (2014). How to draw a gantt chart [Video file]. YouTube. https://youtu.be/NcOmJSrXYoQ

ISKOLAR-BOS Technical Writers Group. (2011). Back to Basics: The Revitalized ISKOLAR-BOS Trainer's Manual. DILG. https://www.dilg.gov.ph/PDF_File/reports_resources/DILG-Resources-2012531-6e0d91a8bf.pdf

Project Management Glossary of Terms. (2012). https://www.wsdot.wa.gov/publications/fulltext/ProjectMgmt/PMOG/PM_Glossary.pdf

Scheid, J. (n.d.). Free Glossary of Project Management Terms and Definitions. Bright Hub. brighthubpm.com/methods-strategies/2413-view-download-and-print-this-free-project-management-glossary/

Szwed, P. (2012). Work Breakdown Structure [Video file]. Panopto. https://mma.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=766907ed-fbb4-4b0f-9fb0-a91b0125d73e&start=8.978971

Szwed, P. (2023). Project Management for Today and Tomorrow. OER Commons. https://oercommons.org/courseware/lesson/115161/student/?section=2

Zapanta, A. (2022). Essay Rubrics. Slide Share. https://www.slideshare.net/slideshow/essay-rubrics/251096381

APPENDIX G

Post-Pilot Testing Survey

By completing this questionnaire, you agree to participate in the survey to evaluate the online class "Introduction to Project Management for Sangguniang Kabataan Council" as part of the instructional design project designed by Aiko Marie Fujino for the SK Council of Barangay Sapangbato. The information you provide will be used solely for the project and will be treated in strict confidence. For further inquiries, please contact the instructional designer at ajfujino@up.edu.ph

Valid email address:

I voluntarily participate in this questionnaire and give full consent to use the information I will provide solely for the instructional design project.

1. **The goal of the online class is to effectively discuss the basics of project management with the Sangguniang Kabataan Council by relating project management concepts to the functions of the council. Do you think this goal was achieved?**

YES
NO

2. **In relation to the question above, please elaborate on your answer.**

_____

3. **The learning objectives of the module are explicitly stated on page 5. Do you think you achieved them?**

YES
NO

4. **In relation to the question above, please elaborate on your answer.**

_____

5. **Were the activities and discussions suited to your literacy level and prior knowledge of project management?**

YES

NO

6. **Were the activities and discussions relevant to your roles as SK Council members?**

YES
NO

7. **Were the activities, discussions, and module content free from bias?**

YES
NO

8. **Do you think the length of the online class is adequate to cover the entire module?**

YES
NO

NEXT PAGE

On the scale on the right side, please rate your satisfaction with the following factors:

1. The instructor's teaching methods
2. Application of multimedia in the modules (e.g. text, illustrations, symbols, images, videos)
3. Quality of the activities and the discussion
4. Quality and length of video materials
5. Quality of writing in the modules
6. Quality of learning assessments (Pre-test and Summative Assessment)
7. Amount of activities
8. Amount of individual and group activities
9. Amount of Student-Student interaction and collaboration
10. Module's accessibility (file format)

11. Module's accessibility (font, font size, colors, audio and visual materials)
12. Module's alignment with learners' learning styles (audio, visual, group, individual, etc.)
13. Module's ease of use

NEXT PAGE

1. What is the highlight of the class for you?
2. What is your least favorite part of the class?
3. What are the issues you encountered during the class?
4. How do you think the modules can be improved?
5. How do you think the class can be improved?
6. What are your overall thoughts on the class and modules?