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ISD 653-101
Finished Project- WBI Design Plan
Sanju Gharti Chhetri G C

Developing Program Theory/Theory of Change (ToC) - WBI Design

Introduction:

The course aims to equip learners with a clear understanding, definition, framework, and tools to develop and articulate a Program Theory, also known as Theory of Change, Conceptual Framework, Logic Model and more. A program theory is at the heart of any intervention/ program which theorizes how that intervention/project is understood to yield a chain of results/outcomes resulting in the intended impacts. It also serves as a framework for monitoring and evaluation of that program by determining program targets, indicators, and measuring outcomes against those targets.

Problem Analysis:

Working professionals in any organization (development organization, educational institutions, corporate industry, tech industry) find themselves working in one or multiple projects that are designed to achieve certain outcomes and results. Not all employees, however, are on the same page regarding their understanding of the program at the systemic level and how it is designed and operationalized to meet the set project goals and objectives. Their lack of understanding, articulation, and fluency in the **Program Logic Model** which guides the overall program operations and decisions can lead to serious performance gaps **(Problem Statement).**

Employees also lack fluency in understanding the parameters (targets, indicators, results, output, outcome, goal) set to monitor and evaluate the program which stems from the logic model. The reason behind not having a uniform understanding of program logic model also known as Theory of Change (ToC)/ logical framework/ results chain/ causal model/ intervention logic is due to lack of training for employees, especially at mid and lower levels, and meeting varied learning needs of employees who are new and/or lack experience in project management. **(Root Cause)**.

Rationale:

As employees come and go, with new recruitments and changes in the workforce, the learning needs of working professionals varies as some of them are well versed with the concept whereas some need a quick refresher on the key ideas while some need instruction on the content ranging from basic concepts all the way through the design and development of a logic model. A web based instructional design (WBID) solution is appropriate for the given problem context as online, asynchronous instruction is accessible to all interested professionals and caters to their diverse needs. WBID allows learners to take a flexible approach to learning whereby they can go through the learning materials at their desired pace, depth, and speed. WBID also allows learners to quickly locate resources which can act as job-aids when they need to refresh and recall their knowledge on program theory. Additionally, WBID is also time and cost efficient for organizations that aim to train their employees on the content.

Goal Statement:

Upon completing the training, working professionals will have a basic understanding of the Program Logic Model, how it operates, and how it can be designed/articulated within a given program or project context.

Instructional Context Analysis:

The instruction will be given to working professionals as well as aspiring students who seek to work in the industry- corporate, business, education, industry, non-profit, research organization, civil society, private sector etc. A program logic model is the blueprint for any intervention/program which summarizes how that intervention/project is understood to yield a chain of results/outcomes resulting in the intended impacts. It also serves as a framework for monitoring and evaluation of that program by determining program targets, indicators, and measuring outcomes against those targets. Given the applicability and cross-cutting nature of logic models across fields, it is highly relevant to working professionals or students who are on the lookout for employment within the industry. The instructional design will take place in any organization where project management is a vital part of their job. The instruction will be delivered via web (online) asynchronously to the learners. The course site will be curated with instruction and resources such as learning resources, lecture notes, videos, PowerPoint, Job-Aid to walk learners through the concept and design process.

Learner Analysis:

The learners for this course are graduate students who are currently enrolled at the University of South Alabama who aspire to seek a career in the industry upon graduation. The

students come from various disciplines such as engineering, education, business etc. The learners are motivated to learn about 'program logic model' and see how they can implement/apply the model within their discipline.

Instructional Content Analysis:

1. **Define the problem**
   1.1 Analyze the situation (baseline study/needs assessment/gap analysis)
   1.2 Determine causes
   1.3 Identify solutions/desired changes
2. **Develop Programs (Inputs):** Identify the specific activities that will be implemented to achieve the program's goals
   2.1 Formulate program goals that are SMART (specific, measurable, achievable, relevant, and time bound)
   2.2 Develop program activities to achieve the programmatic goals
3. **Determine Outputs (immediate result of an activity)**
   3.1 Activities
   3.2 Participation
4. **Determine Outcomes (long-term results of an activity)**
   4.1 Immediate
   4.2 Long-term
5. **Set target and develop indicators:** Set the target and specific indicators for each program activities to measure and monitor progress
6. **Assumptions & External Factors**

6.1 Identify any underlying assumptions about the program and its potential impact

6.2 Identify external factors that might hinder or pose risk to the program

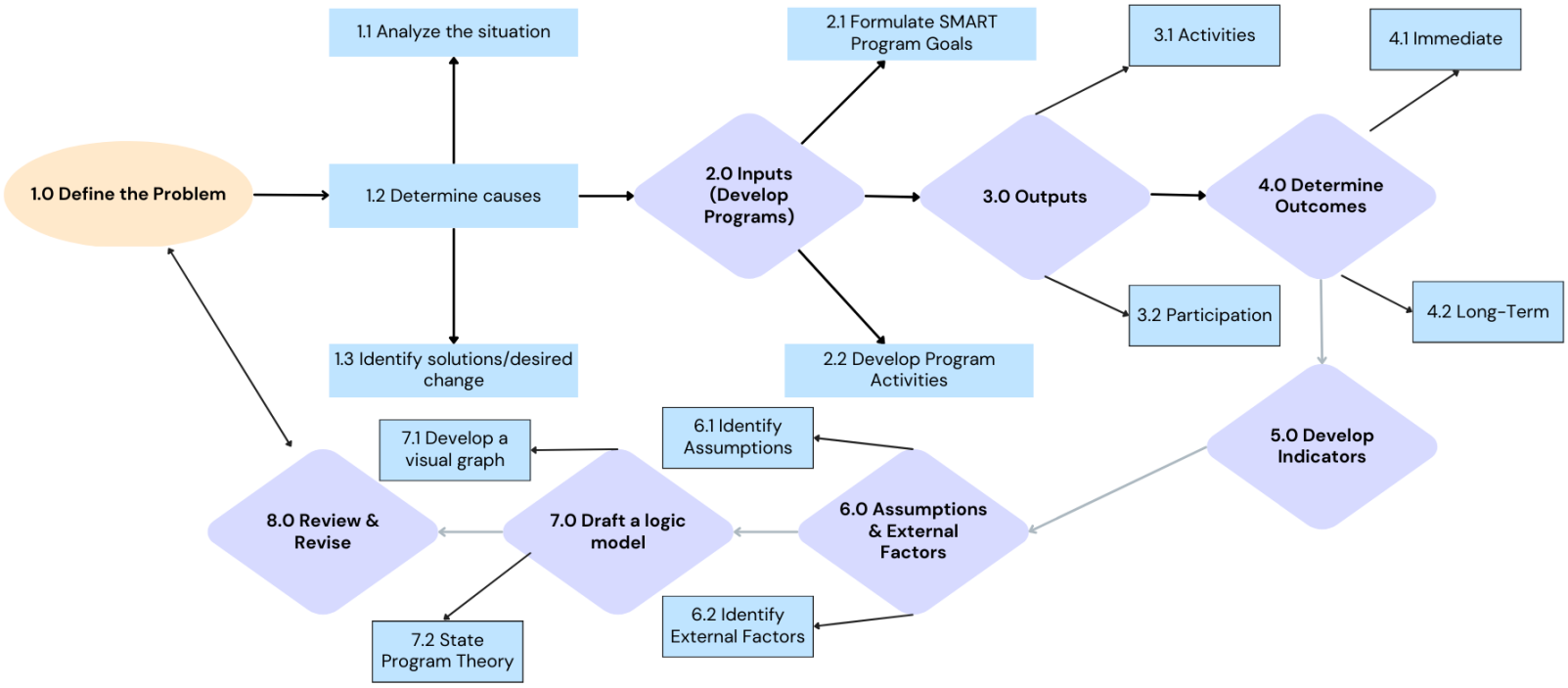
7. **Develop a logic model**

   7.1 Develop a visual representation of the program theory/logic depicting how the program is supposed to work

   7.2 State your program theory

8. **Adaptive Management:** Program Theory is iterative and adaptive in nature as it goes through constant review and revision to adapt to any change to the program.

Learning Task Map (LTM):



Cluster of Objectives:

1. Defining the Problem
2. Develop Programs (Inputs)
3. Determine Outputs (immediate result of an activity)
4. Determine Outcomes (long-term results of activities
5. Targets and Indicators
6. Assumptions, Risks, and External Factors
7. Developing Program Logic Model/Theory of Change (ToC)
8. Adaptive Management

Task-Objective-Assessment Blueprint (TOAB)

Learning Task Item	**Objective**	**Outcome Level**	**Assessment Item**
1.0	**Given the project context (CN), define the problem (B) in clear and succinct manner (CR)**	**Intellectual skill**	**Students will be assigned a case study based on which they will define and discuss the problem.**
1.1	Given the project context (CN), analyze the situation (baseline study/needs assessment/gap analysis) (B), identify and present existing gaps, needs, problems if any (CR)	Intellectual skill	Threaded Discussion: Based on the case study, students will identify and discuss the existing gaps and problems within the case.

1.2	Given the project context (CN), determine causes (B) for the identified gaps, needs, problems (CR)	Intellectual skill	Threaded Discussion: Based on the case study, students will determine the causes contributing to the existing gaps and problems in the given case.
1.3	Given the project problem (CN), identify solutions/desired changes (B) deemed essential and relevant to mitigating those problems (CR)	Intellectual skill	Threaded Discussion: Based on the case study, students will brainstorm solutions to the existing gaps and problems within the case.
2.0	**Given the project problem (CN), develop programs (project inputs) (B) that meet project goals (CR)**	Intellectual skill	**Written Assignment: Document submission**
2.1	Given the project problem (CN), formulate program goal and objectives (B) that are SMART (specific, measurable, achievable, relevant, and time bound) (CR)	Intellectual skill	Draft program goal and objectives.
2.2	Given the project problem (CN), develop program activities (B) that contribute in meeting programmatic goals (CR)	Intellectual skill	Develop program activities that contribute to stated program goal and objectives.
3.0	**Given the project activities (CN), determine outputs (immediate result of an activity) (B) that are SMART (specific, measurable, achievable, relevant, and time bound) (CR)**	**Intellectual skill**	**Written Assignment: Table submission**
3.1	Given the project (CN), determine the number of activities implemented (B) achieved within the project implementation cycle (CR)	Verbal Information	List the activities to be implemented and its frequency during the course of project implementation.
3.2	Given the project (CN), determine the anticipated number of participants in the	Verbal Information	List the anticipated number of participants for each activity.

	activities (B) achieved within the project implementation cycle (CR)		
4.0	**Given the project activities (CN), determine Outcomes (long-term results of an activity) (B) achieved within the project implementation cycle (CR)**	**Intellectual skill**	**Written Assignment: Document submission**
4.1	Given the project activities (CN), determine immediate results/outputs (B) that can be tracked back to project activities (CR)	Intellectual skill	List immediate results/outputs for each project activity type.
4.2	Given the project activities (CN), determine long-term results (B) that can be tracked back to project activities (CR)	Intellectual skill	List long-term results for each project activity.
5.0	**Given the project activities (CN), determine targets and develop specific indicators (B) for program activities aptly measuring activity progress (CR)**	Intellectual skill	**Written Assignment: Table submission**
6.0	**Given the project problem, goal, and activities (CN), identify Assumptions & External Factors (B) that hold true and are applicable within the project context (CR)**	**Intellectual skill**	**Threaded Discussion**
6.1	Given the project context (CN), identify any underlying assumptions about the program and its potential impact (B) that hold true and are applicable to the program (CR)	Intellectual skill	Threaded Discussion: Based on the case study, students will share underlying assumptions about the program with the class.
6.2	Given the project context (CN), identify external factors (B) that might hinder or pose risk to the program (CR)	Intellectual skill	Threaded Discussion: Based on the case study, students will share potential risks for the program with the class.

7.0	**Given the project context, problem, goal and activities (CN), develop a logic model (B) outlining the project intervention and how it is designed to work (CR)**	**Intellectual skill**	**Written Assignment: Graph submission & Narrative**
7.1	Given the project context, problem, goal and activities (CN), develop a visual representation of the program theory/logic (B) depicting how the program is supposed to work (CR)	Intellectual skill	Submit concept map/diagram outlining the program Theory of Change (ToC)
7.2	Given the project context, problem, goal and activities (CN), state your program theory narrative (B) explaining how the program is supposed to work (CR)	Intellectual skill	Narrative explanation of how Theory of Change (ToC) diagram works
8.0	**Given the iterative nature of program theory (CN), review and revise Program Theory (B) to adapt to any changes within the overall project cycle (CR)**	**Intellectual skill**	**Threaded Discussion: Students will discuss why iterations in Program Theory design are needed.**

WBI Instructional Strategies Worksheet:

This criterion is linked to a Learning Outcome6. WBI Instructional Strategies Worksheet

a. Orientation for each module

b. How instruction will be delivered

c. Assessments

d. Module wrap-up

Module 1: Defining the Problem
a. **Orientation:** This module aims to equip students with skills needed to clearly articulate a problem within any project context. As such, the module introduces students with tools such as needs analysis, gap analysis, and problem identification to get a clear understanding of an existing problem. b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course. c. **Assessments:** Students will be assigned a case study based on which they will define and discuss the problem with the class in threaded discussion. d. **Module wrap-up:** Review and summarize the threaded discussion and tie it back to the module by instructor. End the lesson with a preview of the next module or next task(s); ask orienting questions for the next lesson. Use text, video, or audio to wrap-up.
Module 2: Develop Programs (Inputs)
a. **Orientation:** This module is focused on developing programmatic solutions to the identified problem. As such, the module delves into effective program planning, design, and formulation strategies starting with project goal, objectives, and activities. b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course. c. **Assessments:** Submit written document based on the assigned case study stating program goal, objectives, and activities on your own. d. **Module wrap-up:** End module with a brief review and summary. End the lesson with a preview of the next module or next task(s); ask orienting questions for the next lesson. Use text, video, or audio to wrap-up.

Module 3: Determine Outputs (immediate results from activities)
a. Orientation: This module will focus on determining Outputs i.e., immediate results that are SMART (specific, measurable, achievable, relevant, and time bound) and visible upon implementing program activities. **b. How instruction will be delivered:** Direct instruction through lecture, audio/video, and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course. **c. Assessments:** **d. Module wrap-up:** End module with a brief review and summary. End the lesson with a preview of the next module or next task(s); ask orienting questions for the next lesson. Use text, video, or audio to wrap-up.
Module 4: Determine Outcomes (long-term results of activities)
a. **Orientation:** This module will focus on mapping the outcomes/long-term results stemming from program activities. As such, the students will learn to link activities and their results with the programmatic solutions they had envisioned for when identifying problems and programmatic solutions. b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course. c. **Assessments:** Written assignment submission- Table outlining program activities and corresponding outcomes. d. **Module wrap-up:** End module with a brief review and summary. End the lesson with a preview of the next module or next task(s); ask orienting question for the next lesson. Use text, video, or audio to wrap-up.
Module 5: Setting Targets and Indicators

a. **Orientation:** This module will focus on setting program activity targets and developing indicators for program activities to measure and monitor its implementation.

b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course.

c. **Assessments:** Written assignment submission- Table outlining program activities and corresponding outcomes.

d. **Module wrap-up:** End module with a brief review and summary. End the lesson with a preview of the next module or next task(s); ask orienting questions for the next lesson. Use text, video, or audio to wrap-up.

Module 6: Assumptions, Risks, & External Factors

a. **Orientation:** This module is focused on identifying underlying assumptions and risks about the program including external factors that could potentially impede or facilitate the project implementation process.
b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course.

c. **Assessments:** Students will be assigned a case study based on which they will list out the assumptions, risks, and external factors they think are applicable for the given case in threaded discussion.

d. **Module wrap-up:** Review and summarize the threaded discussion and tie it back to the module by instructor. End the lesson with a preview of the next module or next task(s); ask orienting question for the next lesson. Use text, video, or audio to wrap-up.

Module 7: Program Logic Model/Theory of Change (ToC)

a. **Orientation:** This module will focus on developing a theory-based program logic model outlining how the planned program activities are set to produce a chain of results that will ultimately address the problem and meet the set program goal and

objectives. The students will create a diagrammatic representation of Logic Model as we as the narrative expanding on the theory (of how the program works).

b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course.

c. **Assessments:** Written assignment submission- ToC Diagram & Theory Narrative submission.

d. **Module wrap-up:** End module with a brief review and summary. End the lesson with a preview of the next module or next task(s); ask orienting question for the next lesson. Use text, video, or audio to wrap-up.

Module 8: Adaptive Management

a. **Orientation:** This module will focus on iterations in program logic model and adaptive management within the project cycle. As such students will learn about agile practices, adaptive management, and the iterative nature of project cycle.

b. **How instruction will be delivered:** Direct instruction through lecture, audio/video and use of PowerPoint. Elaborate on the content by Case Studies. Students will be assigned reading content, informative videos, and case study to work with throughout the course.

c. **Assessments: Threaded discussion whereby s**tudents discuss the need, relevance, and examples of adaptive practices within the project cycle.

d. **Module wrap-up:** Review and summarize the threaded discussion and tie it back to the module by instructor. End class with reflection -asking students to think about ways where they can implement and develop Program Logic Model. Use text, video, or audio to wrap-up.

Motivational Strategies

The online course relies on Keller's ARCS model to facilitate learner motivation.

- **Attention:** The course will incorporate an eclectic mix of resources and learning contents in the form of audio/video lecture, reading materials, PowerPoint, case studies, videos, diagrams/charts where relevant to gain learner's attention and engage them with the course content.
- **Relevance:** The instructor will establish the relevance of the course for the students by outlining the contexts, disciplines, and industries where Program Logic Model have been integrated within their project cycle for varied purposes. By showcasing its immediate application within a real world context, students will resonate with the relevance and application of the course within their own fields.
- **Competence:** The course will nudge students towards Zone of Proximal Development (ZPD) by challenging them to the extent that is productive and manageable with assistance (either collaboration, job-aid, instructor's guidance) for students. Students are eventually competent and confident to perform the tasks such as designing the Program Logic Model without any assistance with time and practice.
- **Satisfaction:** Learners leave the course feeling satisfied and competent about the course content and their learning goals.

Learner control and navigation:

The course will be available in LMS whereby the user interface will have been tested prior to publishing the course ensuring it is user-friendly and easy to navigate for the

learners. The home page of the course has a welcome message for all students and includes the course syllabus including the tab to Modules.

Feedback:

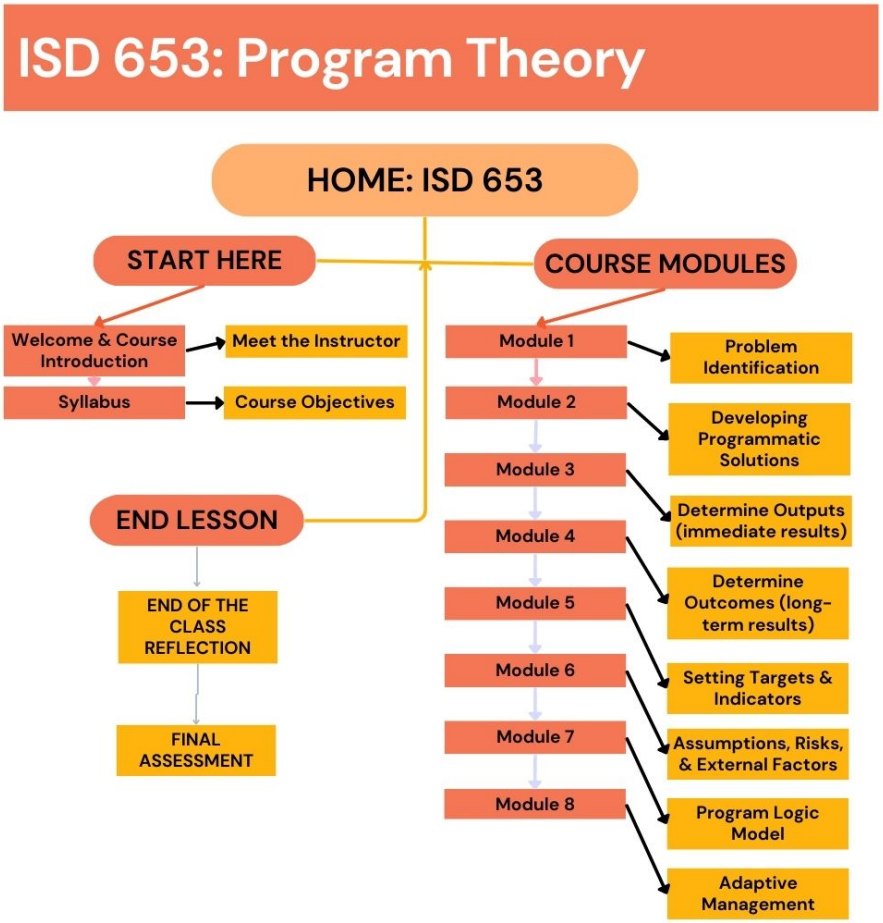
The instructor will provide timely feedback to all learners on their assignments, participation, and progress throughout the course. The instructor will monitor individual learners' performance and check-in accordingly to provide constructive feedback and/or positive feedback where relevant.

Site Development

Initial Interface and Flowchart:

The Initial user interface will comprise a Home page for ISD 653 Course on Program Theory. The Home page will consist of several tabs as follows:

- Welcome & Introduction to the Course
- Syllabus
- Announcements
- Modules
- People
- Media Requirements
- Discussions
- Assignments
- Grades


ISD 653: Program Theory
HOME: ISD 653
START HERE
COURSE MODULES
Welcome & Course Introduction
Meet the Instructor
Syllabus
Course Objectives
END LESSON
END OF THE CLASS REFLECTION
FINAL ASSESSMENT
Module 1
Module 2
Module 3
Module 4
Module 5
Module 6
Module 7
Module 8
Problem Identification
Developing Programmatic Solutions
Determine Outputs (immediate results)
Determine Outcomes (long-term results)
Setting Targets & Indicators
Assumptions, Risks, & External Factors
Program Logic Model
Adaptive Management

Course Organization:

As mentioned above, the course will be organized in the Canvas site where upon clicking the course, the students will be taken to a Home page. The Home page will have following tabs:

- **Welcome & Introduction to the Course:** This page will welcome the students, provide a brief course overview and course objectives. The course will also have information on the Instructor, their introduction, including contact information, office hours for course related communications.
- **Syllabus:** The course syllabus will outline the course content, modules, resources, and objectives.
- **Announcements:** Any announcements from the instructor, including welcome message will be available here.
- **Modules:** Classes will be organized into eight different Modules. Each module contains module overview and objectives, including reading materials, resources, and assignments for that module.
- **People:** Students are able to see their fellow peers and instructors enrolled in the same class.
- **Media Requirements:** Students should consider the basic computer skills needed to be successful in this course which include:

  ⇒ Reading and responding to emails

  ⇒ Software application skills (Google Suite, Microsoft Suite)

  ⇒ Internet and library database browsing

  ⇒ Saving files in different formats

  ⇒ Working with attachments

⇒ File management

- **Discussions:** Class discussions, group discussions, threaded discussions, including FAQ discussion board about the course will be available under this tab.
- **Assignments:** Overall assignments for the class, including rubric, instructions, and resources will be available under this tab.
- **Grades:** Students will be able to see their course progress and grades.
-

Sources of Media:

Apart from academic articles, the students will be given video lectures, powerpoint slides, and links to external resources and websites to study. Additionally, students will use whiteboarding websites such as Miro to create and collaborate with peers on Logic Model. Students will collaborate across Google Suite applications such as docs, slides for collaborative works. The instructor will share external resources with permission from the original source.

Technical Issues:

Students may face difficulty accessing Canvas site, resources, assignment submission owing to internet browser incompatibility, internet access, speed and potential technical contingencies. The instructor will pay attention to such issues and troubleshoot when possible.

Formative Evaluation:

As the site was developed, the instructor testedt the website with target members via one-to-one, and small group tryouts from the target student population. Furthermore, the instructor will also carry tryouts with expert reviewers, online designers, fellow instructors for feedback.

Formative evaluation as such will allow the instructors to identify any technical or non-technical (course content, organization etc.) issues and make necessary adjustments and revisions to the course.

Evaluation Plan

Evaluation Criteria:

The online course 'Developing Program Theory' will be evaluated based on following four criteria:

- **Effectiveness:** Is the course effective in equipping learners with knowledge and skills to gain mastery on designing and articulating a Program Theory? Is the course content designed to meet students' learning goals?
- **Efficiency:** Is the online course delivery time and cost efficient?
- **Appeal:** Does the course design appeal to and motivate learners? Is it able to capture the learner's attention and interest?
- **Usability:** Is the online instruction accessible and user friendly?

Table of Questions for Formative & Summative Evaluation:

Formative Evaluation	
Goals	Are the goals and objectives clear and achievable? Are goals and objectives aligned? Are goals relevant to participants? Are the goals and content appropriate for Web delivery?
Content	Is the information clearly and concisely presented? Is the information complete and accurate, covering the content properly? Are the objectives, instructional activities, and assessments aligned?

	Do the activities promote learning? Does the information reflect current views? Is the content interesting?
Technology	Do technology applications function? Are graphics linked correctly? Are there typographical errors? Spelling? Grammar? Punctuation? Does technology meet accessibility standards? Are there ways to collaborate and connect with the instructor and other learners? Is the web presence, LMS and supporting websites, appropriate for content and learners? Are copyright and intellectual property rules followed?
Message Design	Is the layout clear? Was the time frame of the course appropriate? Are directions clear? Do headings and guiding instructions lead learners through the instruction? Are the message and the media pleasing? Is the reading level and tone appropriate for the audience? Do the graphic devices function properly? Does it have good navigation design? Are the icons easy to use and clear as to their meaning?
Summative Evaluation	
Effectiveness	How effective was the course in meeting its goals and objectives? Do learners believe the instruction was effective?
Efficiency	How long did learners participate in the instruction per session or activity?
Appeal	Will learners sign up for similar WBID courses in the future?

Evaluation Plan (Formative):

i. **Who will conduct the evaluation?**

The web based instructional designer will conduct the evaluation and make necessary changes and adaptations to the course.

ii. **What products of the design and development will be reviewed and when?**

The designer will evaluate the overall instructional goal and objectives, content, technology, message design (aesthetics), as well as learners to gauge the effectiveness, efficiency, and appeal of the instruction.

iii. **Decide what methods and tools to use.**

The evaluation will use one-to-one, small group, and field-trials evaluation to gain feedback on the web-based instruction. Similarly, the evaluator will seek subject matter experts' feedback on content design and integration within the course.

iv. **If experts and end-users are to be used, identify who they are, in what capacity they will serve, and their qualifications.**

Experts in the field of Program Theory, Theory of Change will be consulted during the formative evaluation process as Subject Matter Experts (SMEs) as they possess content specific knowledge and can provide inputs on course content, message, design, and accuracy. The experts will be professionals such as Program Managers, Monitoring & Evaluation officers who have extensive experience and knowledge in the field. The end users are working professionals who are involved in project management and use Program Theory/Logic Model in their work.

v. **Explain how you will report the findings and to whom.**

The findings will be reported in narrative form outlining the overall evaluation process, the context in which it was carried out, its goal and objectives, method used, and results.

Based on the analysis of results, specific recommendations to improve, change, and revise will be made.

vi. Explain what you will do with the findings as they relate to WBI.

The findings will be reviewed and shared with concerned stakeholders. Decisions on the uptake of recommendations will be made after careful thought and consideration.

Evaluation Plan (Summative):

Summative Evaluation will be carried out once the course goes through full implementation to determine whether the course was effective in meeting its goal and was able to facilitate learning that resulted in transfer ensuing change in performance and knowledge levels. Preliminary plans to collect baseline data on learners and their existing knowledge levels on program logic model/program theory will be set for later comparison (i.e., changes in performance and knowledge levels before and after course completion). Opinion survey, interviews, observation, case studies, impact assessments are some of the methods that will be considered for summative evaluation. The study plans on using external evaluators to carry out this evaluation.

Reference

Davidson-Shivers, G. V., Rasmussen, K. L., & Lowenthal, P. R. (2018). *Web-based learning: Design, implementation, and evaluation (2nd Ed.)* Cham, CH: Springer International Publishing.