UNIVERSITY OF MARYLAND GLOBAL CAMPUS

LDT 640 9040 Advanced Practicum in Learning Design
Project 3: Updated Design Document

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1. Course Overview

Problem Identification

The Timesheet Manager Application (TMA) is a critical system that feeds an external system that creates employees' bi-weekly pay. Since its launch in February 2023, the District of Columbia Metropolitan Police Department (MPD) has encountered numerous timecard errors that continue to put undue stress on its IT staff to quickly resolve the errors so as not to disrupt an employee's pay cycle. To minimize the risk of missing an employee's pay cycle, the Instructional Designer and the client agreed that a minimum viable product that focuses on a quick business return is to develop How-To videos that concentrate on the top three timecard errors which are as follows:

1. **Overlap Errors** – occur when a time entry overlaps with an already reported time entry. The TMA clerk should be able to resolve this issue with minimum support.

2. **Time-Entry Errors** – occur when a time entry is not entered in chronological order. The TMA clerk should be able to resolve this issue with minimum support.

3. **Schedule Errors** – occur when the hours recorded do not align with the employee's scheduled work hours. This type of error requires the TMA clerk to understand the hours being entered and be familiar with the employee's work schedule. When discrepancies are encountered, the TMA clerk needs to understand what actionable steps can be taken to resolve the issue. The TMA clerk may require assistance from the employee's supervisor to help resolve the issue.

Name/Title of Learning Course

Timesheet Management Application (TMA) Error Resolution Training Course

Target Audience

TMA Clerks who are responsible for recording employee work hours in the Timesheet Manager Application

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Learner Analysis

Learner Analysis and Competencies:	The learners are TMA clerks who are responsible for entering employee time daily. The learners can be described as low-level learners who are unenthusiastic about their additional role as a TMA clerk. This is evident in the numerous timecards that continue to be submitted (with errors) at the end of the bi-weekly payroll closing. Rather than take the time needed to daily review errors, the learners are allowing the errors to flow through to payroll closing so that the IT staff can resolve the errors.
Learning Theories Applied	The Instructional Designer attempts to include adaptive learning techniques to engage a range of learners with different learning styles. With an emphasis on personalized learning, the goal is to help learners recognize and resolve timecard errors promptly. Providing simple and intuitive How-To videos for error resolution is one way to accomplish this goal.

2. Instructional Goals, Competencies and Objectives	
Instructional Goals	1. Improve TMA usage and reduce timecard errors by providing learner-centered "How-To" interactive and adaptive training videos. 2. Use adaptive learning to help improve the learners' experience.
Competencies.	1. Learners understand the importance of TMA and the need to accurately record employee time. 2. Learners can identify common TMA user errors. 3. Learners can demonstrate the ability to correct common TMA user errors. 4. Learners can create timecards with no user errors. If errors arise, the Learner can quickly resolve the errors.

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Terminal Objective 1. Evaluate Your Knowledge (Pre-Assessment). If the learner scores 90% or higher, they can opt out of the training course and receive a certificate of completion)		
Terminal Objective 2: Upon successful completion of this module, the learner will be able to demonstrate how to resolve overlap timecard errors.		
Enabling Objective 2.1: **Define** Overlap Errors **Enabling Objective 2.2:** **Explain** the importance of resolving overlap errors. **Enabling Objective 2.3:** **Analyze** timecards with overlap errors. **Enabling Objective 2.4:** **Resolve** timecards with overlap errors. **Enabling Objective 2.5:** **Create** timecards with no overlap errors.	**Discussion** 2.1 Use images and practice assessments to describe overlap errors. 2.2 Using images and practice assessments to describe resolving the errors is important. **EO2 Practice Assessment** 2.3 Practice Assessment: Learner practice analyzing timecards with overlap errors. **EO2 Formative Assessment** 2.4 Formative Assessment **EO2 Summative Assessment** 2.5 Summative Assessment	**Alignment** is achieved based on a learning activity that includes reading material and practice assessments that informs the importance of resolving overlap errors. The learner demonstrates understanding by analyzing and resolving overlap errors. The use of Formative and Summative assessments moves the learner towards success in meeting the objective.
Terminal Objective 3: Upon successful completion of this module, the learner will be able to demonstrate how to resolve time-entry timecard errors.		
Enabling Objective 3.1: **Define** Time-entry errors.	**Discussion** 3.1 Use images and practice assessments to describe overlap errors. 3.2 Using images and practice assessments to describe with resolving the errors are important.	**Alignment** is achieved based on a learning activity that includes reading material and practice assessments that informs the importance of resolving overlap errors. The learner demonstrates understanding by

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Enabling Objective 3.2: **Explain** the importance of resolving Time-entry errors. **Enabling Objective 3.3:** **Analyze** timecards with time-entry errors. **Enabling Objective 3.4:** **Resolve** timecards with time-entry errors. **Enabling Objective 3.5:** **Create** timecards with no time-entry errors.	**EO2 Practice Assessment** 3.3 Practice Assessment: Learner practice analyzing timecards with overlap errors. **EO2 Formative Assessment** 3.4 Formative Assessment **EO2 Summative Assessment** 3.5 Summative Assessment	analyzing and resolving overlap errors. The use of Formative and Summative assessments moves the learner towards success in meeting the objective.
Terminal Objective 4: Upon successful completion of this module, the learner will be able to demonstrate how to resolve overlap timecard errors.		
Enabling Objective 4.1: **Define** schedule Hours. **Enabling Objective 4.2:** **Explain** the importance of resolving schedule errors. **Enabling Objective 4.3:** **Analyze** examples of timecards with schedule errors. **Enabling Objective 4.4:** **Resolve** timecards with schedule errors. **Enabling Objective 4.5:** **Create** timecards with no schedule errors.	**Discussion** 4.1 Use images and practice assessments to describe overlap errors. 4.2 Using images and practice assessments to describe with resolving the errors are important. **EO2 Practice Assessment** 4.3 Practice Assessment: Learner practice analyzing timecards with overlap errors. **EO2 Formative Assessment** 4.4 Formative Assessment	**Alignment** is achieved based on a learning activity that includes reading material and practice assessments that informs the importance of resolving overlap errors. The learner demonstrates understanding by analyzing and resolving overlap errors. The use of Formative and Summative assessments moves the learner towards success in meeting the objective.

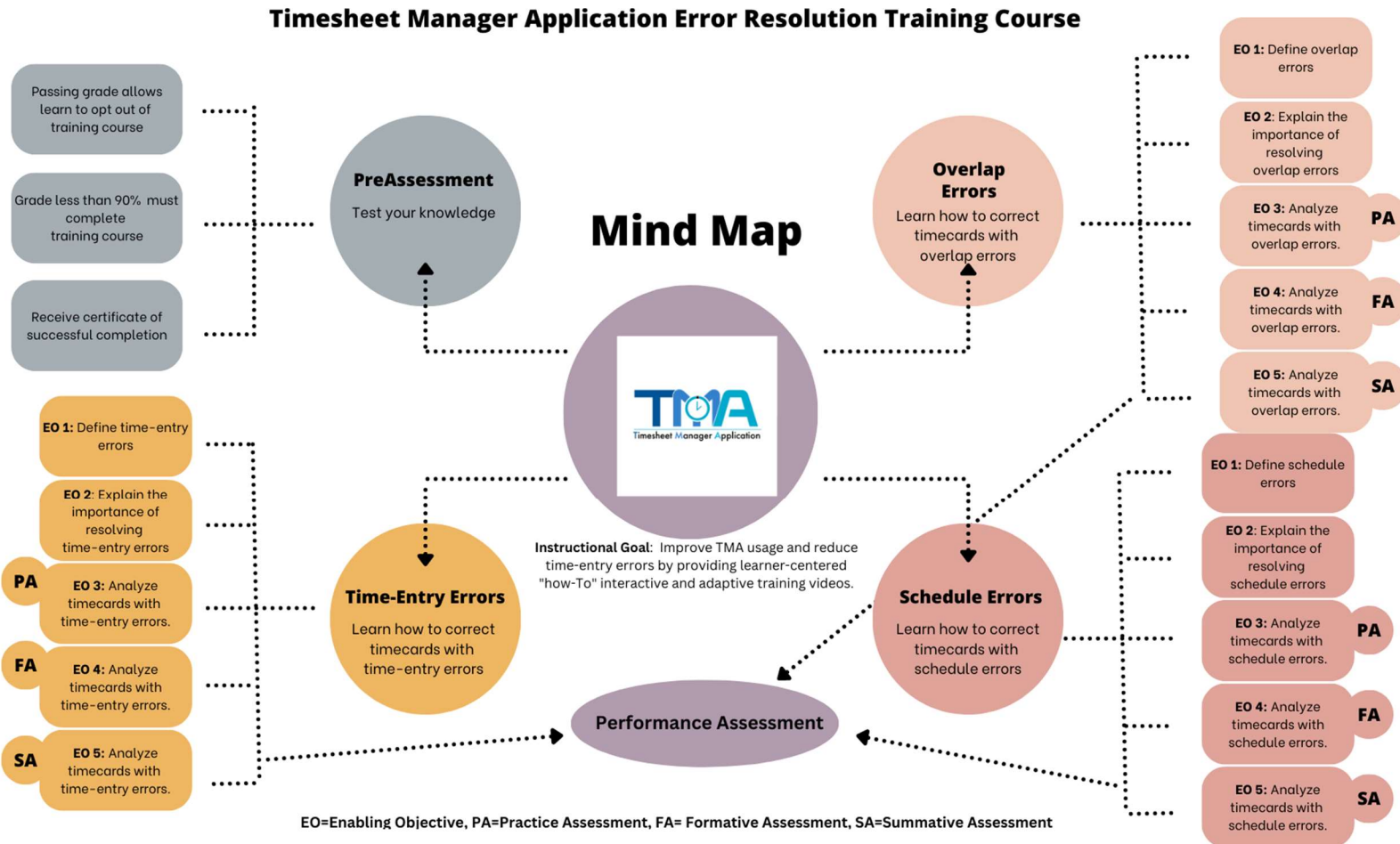|	EO2 Summative Assessment	
	4.5 Summative Assessment	

3. Learning (Instructional Design Models)

Choose/State the model(s) that you believe best fits your training/learning situation.	**Chosen/State Model(s):** Successive Approximation Model (SAM)
Evaluate the learning/instructional design model and provide a rationale/reason to **justify** what led you to choose the model (e.g., strengths and weaknesses)	Model Evaluation: SAM is a simplified version of the ADDIE Model designed specifically to elicit feedback and build working models earlier in the process. It is an iterative model that allows for brainstorming, sketching, and prototyping repeatedly throughout the design process, but can be time-consuming.
Discuss the anticipated impact on the design of learning experiences.	**Anticipated Impact:** This training module provides efficient, effective, and adaptive learning paths to engage each learner. It dynamically adjusts to student interactions and performance levels.

3.1 Applied Gagne's Nine Events of Learning

1. Gain Attention	Open the learning instruction by presenting an animated video that depicts the day-in-the-life of an MPD TMA clerk.
2. Present Objectives – Inform Learners	Personalize the learning by capturing their name and using it to present the layout of the training course and to describe the course learning objectives.
3. Activate Prior Learning - Stimulate recall	Allow learners an opportunity to opt-out of the training course by receiving a passing score of at least 90% on the Pre-Assessment
4. Present Learning Content	Present learning content via relevant reading material and interactive content.
5. Provide Guidance	Provide guidance by demonstrating learning instruction via short videos.
6. Practice - Elicit Performance	Learner demonstrates understanding by performing the learning instructions described in the practice and formative assessments.
7. Provide Feedback	Provide detailed feedback when the learner provides an incorrect response on practice, formative and summative assessments.
8. Assessment -Evaluate Performance	The learner demonstrates understanding by securing a score of at least 80% on the final assessment.
9. Enhance Retention	Provide practice, formative and summative assessments, and detailed feedback to help increase the likelihood that learning instructions will be retained over time.

4. Course Concept (Mind) Map

Timesheet Manager Application Error Resolution Training Course

Mind Map

Passing grade allows learn to opt out of training course

Grade less than 90% must complete training course

Receive certificate of successful completion

PreAssessment
Test your knowledge

Overlap Errors
Learn how to correct timecards with overlap errors

EO 1: Define overlap errors
EO 2: Explain the importance of resolving overlap errors
EO 3: Analyze timecards with overlap errors — PA
EO 4: Analyze timecards with overlap errors. — FA
EO 5: Analyze timecards with overlap errors. — SA

Instructional Goal: Improve TMA usage and reduce time-entry errors by providing learner-centered "how-To" interactive and adaptive training videos.

EO 1: Define time-entry errors
EO 2: Explain the importance of resolving time-entry errors
PA — EO 3: Analyze timecards with time-entry errors.
FA — EO 4: Analyze timecards with time-entry errors.
SA — EO 5: Analyze timecards with time-entry errors.

Time-Entry Errors
Learn how to correct timecards with time-entry errors

Schedule Errors
Learn how to correct timecards with schedule errors

EO 1: Define schedule errors
EO 2: Explain the importance of resolving schedule errors
EO 3: Analyze timecards with schedule errors. — PA
EO 4: Analyze timecards with schedule errors. — FA
EO 5: Analyze timecards with schedule errors. — SA

Performance Assessment

EO=Enabling Objective, PA=Practice Assessment, FA= Formative Assessment, SA=Summative Assessment

5. Learning Design Tools

	Name of Tool Selected	Tool URL	Where positioned in OLE	Rationale for Tool Selection
Tool #1	Articulate 360	https://articulate.com/	This tool integrates with MPD's Learning Management System	This is a learner-centered tool that engages the learner and provides capabilities to tailor the learning to meet the needs of the student. It is easy to use and provides real-time practice, formative and summative assessment capabilities that enable the teacher to customize learning to meet the needs of the student. This tool also integrates with other tools which helps to improve the learning experience.
Tool #2	H5p	https://h5p.com/	This tool is used to support interactive and adaptive branching scenarios	This is an instructional designer-centered tool that engages the learner by providing easy-to-use quizzes and tests which help increase the learners' knowledge. This tool also integrates with other tools which helps to improve the learning experience.

Tool #3	Camtasia	https://www.techsmith.com/video-editor.html	This tool is used to create short videos.	This is an instructional designer-centered tool that engages the learner by providing easy-to-use videos and screen captures which help increase the learners' knowledge. This tool also integrates with other tools which helps to improve the learning experience.
Tool #4	Canva	https://www.canva.com	This tool is used to create short videos.	This is an instructional designer-centered tool that engages the learner by providing easy-to-use videos and screen captures which help increase the learners' knowledge. This tool also integrates with other tools which helps to improve the learning experience.
Tool #5	Storyline 360	https://articulate.com/	This tool is used storyboard design of the proposed solution.	This is an instructional designer-centered tool that engages the learner by providing detailed design of the prototype which can be easily reviewed and updated as the prior. It also establishes a baseline for an agreement between the client and the supplier.
Tool #6	Review 360	https://articulate.com/	This tool is used to allow others to review the proposed solution and provide feedback	This is an instructional designer-centered tool that engages the learner by providing detailed design of the prototype which can be easily reviewed and updated as the prior. It also establishes a baseline for an agreement between the client and the supplier.

Tool #7	PowToon	https://powtoon.com/	This tool is used to create animated videos.	This is an instructional designer-centered tool that engages the learner by providing easy-to-use videos and screen captures which help increase the learners' knowledge. This tool also integrates with other tools which helps to improve the learning experience.
Tool #8	Vimeo	Videos on Vimeo	This website is used to host the videos created in support of this training course.	This is an instructional designer-centered tool that engages the learner by hosting animated and short videos.

6. Ethical and Legal Implications Related to Learning Design

Legal and ethical considerations are required to help ensure learners professionally oversee employee information. For example:

- Learners have a responsibility to accurately reflect employee hours worked. This requires Learners to adhere to a code of standards and code of ethics for properly recording employee hours into TMA.

- Learners also have access to employee personal and sensitive information such as home address, date of birth, and social security numbers. This is why Learners are required to sign a disclosure statement indicating they will be responsible and accountable for protecting employees' personal and sensitive information.

There are different tools available to assist with the creation of interactive videos such as Camtasia, iMovie, Vimeo, Canva, PlayPosit, Edpuzzle, Toontastic 3D, and WeVideo. Discussions with the client will be required to help select the best tools which align with corporate budgets and architectural designs.

7. Supporting Media

Step 1: Images

The images used in this course are provided by Articulate Content Library 360. Images of MPD employee timecards are provided by IT Staff.

Step 2: OER

There is no content from https://www.oercommons.org/ included in this learning course.

Step 3: Designing an Image

The images used in this course are provided by Articulate Content Library 360. Images of MPD employee timecards are provided by IT Staff.

Step 4: Designing an Audio Product

Audio content is provided by Towtoon, and screencasts include audio content from MPD IT staff members.

Step 5: Designing Video

The videos used in this course were created using Storyline 360 Screen capture. MPD IT staff logged into TMA to capture screen activity of step-by-step instructions for resolving timecard errors.
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Step 6: Designing Interactives

The interactive content used in this course was developed using Storyline 360 objects such as states, triggers, and variables. Additional interactive content was developed using a trial license of H5p. A link to the H5p interactive content is available via this link:

7.1 Other Support Documentation

The link to other supporting documentation that contributed to the learning design is provided below. This information can be useful to the instructional designers that will support the Phase 2 design.

- **Framing Analysis** - Present the background, identify the stakeholders, discuss previous attempts at solving the problem while critically evaluating why those attempts are insufficient, and describe known potential legal and ethical considerations.
  - https://docs.google.com/document/d/1LrMVHaI9kxtNrDFnLopHQloLJwkCI7dE/edit?usp=share_link&ouid=105725351453994569395&rtpof=true&sd=true

- **Learning and Consulting Services Statement of Work (SOW)** – Establishes the contractual agreement between the client and the instructional designer to implement the proposed solution. It also includes the terms and conditions.
  - https://docs.google.com/document/d/1Hvoxrdel3GRNF1xWvo4xefk16f4Km1nO/edit?usp=share_link&ouid=105725351453994569395&rtpof=true&sd=true

- **Instructional Objectives and Assessment** - A document that describes the learning goal, terminal, and enabling objectives for the course.
  - https://docs.google.com/document/d/1gq6JVNhLXiJC2DuQtvhbOPqyWBohlZ8u/edit?usp=share_link&ouid=105725351453994569395&rtpof=true&sd=true

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- **_Storyboard_** – A detailed design of the proposed solution which will serve as the basis for creating the prototype.
  - **Initial Draft**
    - Published version of the storyboard: [TMA Error Resolution Training Course DRAFT | Review 360 (articulate.com)](#)
    - MS Word version of the storyboard: https://docs.google.com/document/d/1nsRzdl_x9B1PX1WI9d-jcAgjP_qhHkJ2/edit?usp=share_link&ouid=105725351453994569395&rtpof=true&sd=true

  - **Calibrated version**
    - MS Word version of the storyboard: https://docs.google.com/document/d/16nD1iMRzTGApIzUh_FraMKhAesbWoYSA/edit?usp=drive_link&ouid=105725351453994569395&rtpof=true&sd=true

    - Pre-Assessment and Module 1 – Answer Key to support testing is available via this link: https://docs.google.com/document/d/1HvxCIeT5ZlbqsTi3XBsKbbohbIZzjvfe/edit?usp=drive_link&ouid=105725351453994569395&rtpof=true&sd=true

- **_Prototype_** – https://360.articulate.com/review/content/c49bf782-cfd8-41e1-bbb1-da59ee979a95/review

8. Usability Testing

The client requested multiple iterations of usability testing with the IT Staff and then with a small group of TMA Clerks. The first round of testing is performed by the MPD IT Staff members to help ensure the prototype meets the minimum requirements based on prior experience gained from the initial rollout of TMA. The feedback from this testing is available via this link:

- **Review 360 Feedback:**
  https://docs.google.com/spreadsheets/d/1JCOVLM1cgHgK5_hBjNldPm00e5bxR5jG/edit?usp=drive_link&ouid=105725351453994569395&rtpof=true&sd=true

- **Additional screenshots**: https://docs.google.com/document/d/1gnQkzLkfP-avttA3OHQilrpE7HEStBli/edit?usp=drive_link&ouid=105725351453994569395&rtpof=true&sd=true

Feedback from the IT staff includes two major concerns as described below:

1). On the pre-assessment, the images and the questions must appear on the same screen to keep the learner from going back-and-forth between slides.

2). To force the learners to start with the pre-assessment, this should be the only option enabled on the main menu at the start of the training course. Once the pre-assessment is complete, learning modules 1, 2 and 3 should be enabled. Once the learner completes modules 1, 2, and 3, the final assessment option should be enabled.

The second round of user testing is performed by up to five (5) TMA clerks. The feedback from this round of testing is captured via a Google Form which is available via this link:

https://drive.google.com/file/d/1U0pb8UGP9VaJO4RJKBQaoz2nweWtqdBz/view?usp=drive_link

Note, the results from the second round of testing will be conducted prior to the completion of the implementation phase. Additional feedback from this round of testing will be reflected in the design document as needed.

Once the TMA testing is complete, implementation of the final solution will commence.

9. Adaptive Learning

Giving learners the ability to opt out of the training course with a minimum score of 90% is one form of adaptive learning that has been incorporated into the course. Using Articulate Storyline 360 objects such as states, triggers, and variables, it is possible to design branching scenarios suitable for the learner. If the learner receives a minimum score of 90%, they will receive course credit in the form of a completion certificate. Conversely, scores less than 90% require the learner to participate in the complete training course. A successful completion certificate is awarded upon completion of the course and receiving a minimum score of 80% on the Final Assessment.

10. Change Management Model - Rollout, Adoption and Sustainability

To be defined.