MOI Cost Estimation and Comparison Calculator EPSS Tool Usage Instructions

Introduction

This document provides usage instructions for the MOI Cost Estimation and Comparison Calculator EPSS tool. The EPSS tool allows the user to estimate the cost of creating a course as three methods of instruction (MOIs) – computer-managed, computer-assisted, and live – across the ADDIE process. The overall usage process for the EPSS tool follows these steps:

1. Enter shared data for all MOIs.
2. Enter MOI-specific data.
3. Observe calculated results.

The following sections provide an overview of the EPSS tool's features and detailed usage instructions.

EPSS Tool Features

This section explains the features of the EPSS tool, beginning with the two views available to the user and continuing to the data fields in the tool.
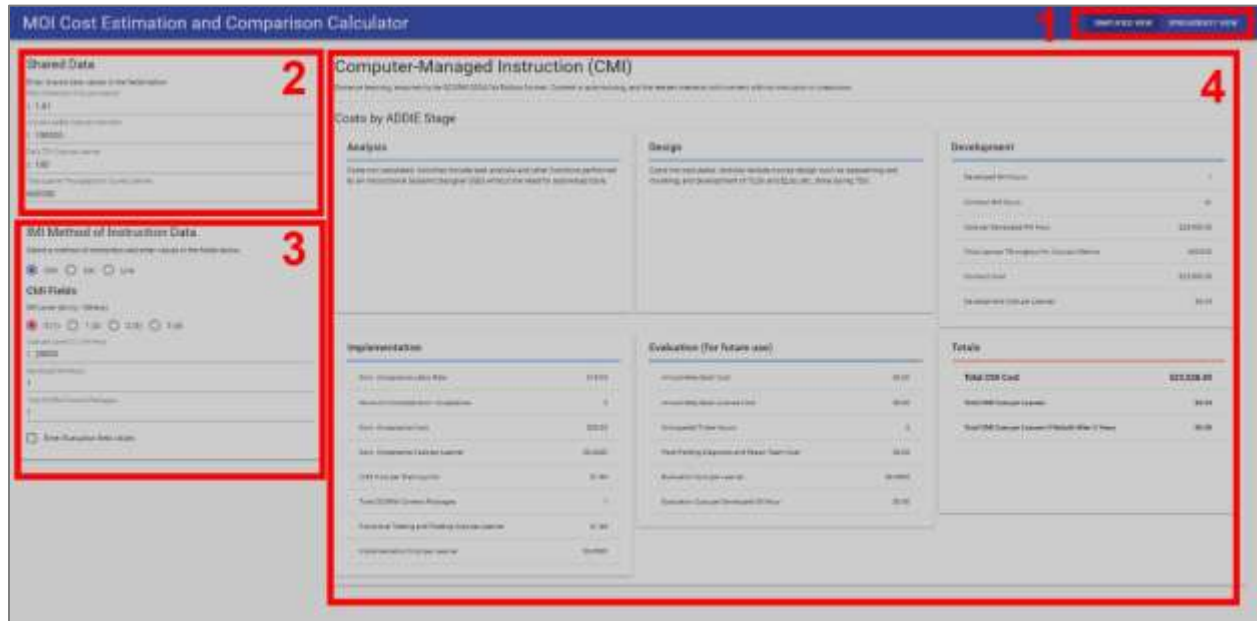
Views

The EPSS tool has two main views in which all of the features appear: Simplified and Spreadsheet. The user can switch between the two views at any point during usage without losing data.

The major features of the EPSS tool are displayed as three blocks:

- Shared Data fields for all MOIs.
- MOI Data fields for:
    - CMI
    - CAI
    - Live
- Calculated results by ADDIE process stage

The figures on the next two pages show where the major features appear on the screen. Afterward, the next section explains the shared data fields and MOI-specific data fields for CMI, CAI and Live instruction.

Figure 1 illustrates the overall features of the EPSS tool as they appear in the Simplified view. The items in the numbered list below correspond to their number shown in the figure.

Figure 1: EPSS Tool Features in Simplified View

1. The buttons to switch between the Simplified and Spreadsheet views are located on the right side title bar in the upper right corner of the screen.
2. The Shared Data fields are located in the upper left corner of the screen under the title bar.
3. The MOI Data fields are located in the left corner of the screen under the Shared Data fields.
4. The Simplified view MOI figures and calculations are located to the right of the data fields in the remaining portion of the screen.

Simplified view shows the data fields and calculations for one MOI at a time. The user can switch the MOI shown using the MOI selection radio buttons in the MOI Data area (shown as #3 in the figure).

Figure 2 illustrates the overall features of the EPSS tool as they appear in the Spreadsheet view. The items in the numbered list below correspond to their number shown in the figure.

Figure 2: EPSS Tool Features in Spreadsheet View

1. The buttons to switch between the Simplified and Spreadsheet views are located on the right side title bar in the upper right corner of the screen.
2. The Shared Data fields are located in the upper left corner of the screen under the title bar.
3. The MOI Data fields and calculations are shown in columns extending downward in the tool's body.

The Spreadsheet view shows all three MOIs in a columns similar to a spreadsheet. Instead of switching MOI type to enter specific data, all fields and all calculations are shown on the screen at once.

Data Fields

This section explains the data fields in the EPSS tool, beginning with shared data fields for all MOIs, and continuing to MOI-specific fields.

Shared Data Fields

The EPSS tool uses figures in the Shared Data fields for different calculations in each of the three MOIs. Shared data is not specific to one MOI. The Shared Data fields are:

Field Name	Field Explanation
Daily Classroom Cost per Learner	The cost per day of providing classroom instruction to one learner.
Annual Loaded Cost per Instructor	The loaded cost of an instructor, including salary and benefits, for one year.
Daily TDY Cost per Learner	The cost per day of sending one learner on TDY.
Total Learner Throughput for Course Lifetime	The total number of learners expected to receive instruction over the course's lifetime.

MOI-Specific Fields

Each MOI has specific data fields that the tool uses in its calculations. Note that Evaluation fields may be activated for each MOI if required. The Evaluation data fields are normally not considered in calculations as they do not always apply to the instruction. Evaluation fields are explained in the "Evaluation" section after the three MOI field sections.

CMI

Computer-Managed Instruction assumes that the instruction is provided as auto-scoring distributed content in the SCORM 2004 3rd Edition format.

Field Name	Field Explanation
IMI Level	The IMI level for the CMI course. Army levels of 0 through 3 are analogous with levels 1 through 4 seen elsewhere. The tool shows the Army level with the other level in parentheses.
Cost per Level 0 (1) IMI Hour	The base cost to create one hour of level 0 (1) IMI.
Developed IMI Hours	The total number of IMI hours developed for the course.
Total SCORM Content Packages	The number of SCORM Content Packages that comprise the course.

CAI

Computer-Assisted Instruction assumes that the instruction is provided as distributed content that is graded by an instructor who is in a separate classroom from the learner.

Field Name	Field Explanation
Hours of Instruction	The total number of hours of instruction for the course.
TDY Days Required	The average number of TDY days required for each learner.
Classrooms Required	The number of classrooms required to provide the course instruction.
Students per Classroom	The number of students that make up one classroom.

Live

Live instruction data assumes that instruction is provided through residency where the instructor and learner are in the same classroom.

Field Name	Field Explanation
Hours of Instruction	The total number of hours of instruction for the course.
TDY Days Required	The average number of TDY days required for each learner.
Classrooms Required	The number of classrooms required to provide the course instruction.
Students per Classroom	The number of students that make up one classroom.

Evaluation Fields

The Evaluation fields assume that the availability of one or more help desks to provide support to learners over the course's lifetime. Evaluation fields are not active by default.

Field Name	Field Explanation
Annual Help Desk Cost	The annual cost for the help desk(s) supporting the course.
Annual Help Desk License Cost	The annual cost for software licenses required for help desk operations.
Anticipated Ticket Hours	The anticipated number of help desk tickets that the course will generate.
Post-Fielding Diagnosis and Repair Team Cost (CMI only)	The annual cost of a team for performing post-fielding diagnosis and repair on CMI course.

Figures and Calculations

This section explains the calculated data types for each MOI across the ADDIE stages: Analysis, Design, Development, Implementation and Evaluation. A figure can be either a calculation, a constant, or an input corresponding to its data field.

CMI

Analysis

Analysis costs are not considered in calculations for CMI.

Design

Design costs are not considered in calculations for CMI.

Development

Figure	Figure Type
Developed IMI Hours	Input
Contract IMI Hours	Calculated
Cost per Developed IMI Hour	Calculated
Total Learner Throughput for Course Lifetime	Input
Contract Cost	Calculated
Development Cost per Learner	Calculated

Implementation

Figure	Figure Type
Govt. Acceptance Labor Rate	Constant
Hours to Complete Govt. Acceptance	Calculated
Govt. Acceptance Cost	Calculated
Govt. Acceptance Cost per Learner	Calculated
LMS Cost per Training Unit	Constant
Total SCORM Content Packages	Input
Functional Testing and Fielding Cost per Learner	Calculated
Implementation Cost per Learner	Calculated

Evaluation

Figure	Figure Type
Annual Help Desk Cost	Input
Annual Help Desk License Cost	Input
Anticipated Ticket Hours	Input
Post-Fielding Diagnosis and Repair Team Cost	Input
Evaluation Cost per Learner	Calculated
Evaluation Cost per Developed IMI Hour	Calculated

Totals

Figure	Figure Type
Total CMI Cost	Calculated
Total CMI Cost per Learner	Calculated
Total CMI Cost per Learner if Rebuilt After 3 Years	Calculated

CAI and Live

CAI and Live instruction share the same figure and calculation names, so each is listed once for brevity.

Analysis

Analysis costs are not considered in calculations for CAI and Live instruction.

Design

Design costs are not considered in calculations for CAI and Live instruction.

Development

Development costs are not considered in calculations for CAI and Live instruction.

Implementation

Figure	Figure Type
Instructors Required	Calculated
Instructors Teaching 40 Weeks per Year	Calculated
Instructors Required for Course Extended Across 3 Years	Calculated
Total Annual Instructor Cost	Calculated
Instructor Cost per Learner Extended Across 3 Years	Calculated
Total TDY Cost for All Learners	Calculated
Total TDY Cost per Learner	Calculated
Classroom Cost per Learner	Calculated
Implementation Cost per Learner	Calculated

Evaluation

Figure	Figure Type
Annual Help Desk Cost	Input
Annual Help Desk License Cost	Input
Anticipated Ticket Hours	Input
Evaluation Cost per Learner	Calculated

Totals

Figure	Figure Type
Total [CAI / Live] Cost	Calculated
Total [CAI / Live] Cost per Learner	Calculated