MIL-HDBK-29612 Series

How to Meet Requirements 4 of 8

Planning | Analysis | **Design** | Development | Implementation | Evaluation

Design follows the completion of the Analysis Phase & the creation of the Training Analysis Statements.

Step 1

Develop Learning Objectives (LOs)

MIL-HDBK Requires

Decompose Tasks that require training into Knowledge, Skills & Attitudes (KSAs) & develop the Learning Objectives (LOs) needed to support them. LO statements should clearly reflect the performance that learners are expected to demonstrate at the completion of training, the condition under which it is to be exhibited, & the standard of acceptable performance.

ADVISOR Added Value

- ✓ Prompts users for the Behavior, Standards & Conditions needed to generate LOs in line with MIL-HDBK 29612-2A requirements

Step 2

Categorize Learning Objectives (LOS)

MIL-HDBK Requires

Identify the learning outcome of each LO (i.e. Knowledge, Skill or Attitude) and & Learning Level - i.e., Fact, Rule, Procedure, Discrimination, Problem Solving, and so forth.

ADVISOR Added Value

- ✓ Automatically establishes links between LOs and Knowledge, Skills & Attitudes within each Task
- ✓ Minimizes the analysis time while preserving integrity by leveraging taxonomy (learning levels) to automatically group LOs with similar characteristics

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Step 3

Construct Learning Analysis Hierarchies

MIL-HDBK Requires

Organize & sequence LOs into a structured hierarchy to produce the most effective & efficient training, & classify LOs as follows:

- Terminal Learning Objectives (TLOs): LOs at highest learning levels. Indicates what learners are expected to perform after successful completion of training. In other words, primary LOs or Courses
- Enabling Learning Objectives (ELO): LOs that students must attain in order to accomplish a TLO. In other words, secondary/supporting/subordinate LOs or Topics

Although 2 classifications (TLOs & ELOs) are provided to LOs, LO hierarchy can have multiple levels.

ADVISOR Added Value

- ✓ Generates LO hierarchy structure (i.e., TLOs & ELOs) based on Tasks & Sub Tasks that require training with the click of a button
- ✓ Quickly reorganize TLOs & ELOs using drag & drop functions that preserve the relationships to Tasks, Sub Tasks, Steps & KSAs
- ✓ Generates an audit trail that maps LOs to Tasks with the click of a button
- ✓ Generates scalar diagrams with the click of a button

Step 4

Identify Target Population Prerequisites

MIL-HDBK Requires

Identify entry level of KSAs - i.e., KSAs that learners should have to enter the training program.

ADVISOR Added Value

- ✓ Prompts users for key target audience characteristics including skillset, location, attitude, access to technology, compensation, throughput, etc., needed to identify viable training delivery media/methodology & support learner centric design

Step 5

Review Existing Materials

MIL-HDBK Requires

Review existing training materials to determine if a course is already available to support the LOs. Sometimes existing materials are available but require modification to fit the need. Using existing materials saves development time, human resources, materials & money.

ADVISOR Added Value

- ✓ Minimizes duplication by automatically creating a repository of Tasks & KSAs to facilitate the identification of Courses that support similar Tasks and KSAs. By tracking Tasks & KSAs common among multiple Jobs, ADVISOR facilitates the development of highly efficient curriculum

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Step 6

Develop Test Items

MIL-HDBK Requires

Create test items that assess students' attainment of the LOs. Ensure test items adequately measure the LOs, by matching the performance required in the test item to the performance required in the LO.

ADVISOR Added Value

✓ Facilitates the development of Test items for each Learning Objective including Question Type (i.e., multiple choice, matching, etc.) & Assessment Type (i.e., formative or summative)

Step 7

Determine Instructional Strategies

MIL-HDBK Requires

Define instructional strategies to manage the design of training activities & learning process. The instructional strategy should:

- Comply with DoD policy on ADL
- Maintain consistency with prior LOs hierarchy decisions
- Support instructional goals & overall instructional concept

In most cases the instructional strategy should reflect the job task environment.

The instructional strategy should outline:

- Strategy for student participation
- Student feedback strategies
- Student pacing strategies
- Instructional sequence

ADVISOR Added Value

✓ Minimizes the analysis time while preserving integrity by leveraging taxonomy to automatically group LOs with similar characteristics

Step 8

Select Instructional Methods

MIL-HDBK Requires

Select instructional methods - i.e. process, to deliver training content & help students retain knowledge & skills imparted. Decision should consider constraints, cost efficiency & content. Notable instructional methods include:

- **Presentation:** lecture, demonstration, exhibit, etc.
- **Student Interaction**: questioning, seminar, discussion, etc.
- **Knowledge Application:** performance, case study, etc.

ADVISOR Added Value

✓ Quickly forecasts & compares budget & resource requirements of viable delivery options while preserving quality control by storing common measures such as hourly rates of developers, instructors & support staff; per diem & travel costs; equipment start-up & operation cost, etc., in Templates

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Step 9

Select Instructional Media

MIL-HDBK Requires

Select instructional media - i.e. delivery vehicles used to present content & ensure training is presented to students in the most cost effective & efficient means. Decision should be based on following process:

- Identify instructional concept, course strategy & lesson strategy
- Identify sensory stimulus requirements for each LO
- Identify sensory stimulus features for all available media
- Match sensory stimulus requirements of each LO to the sensory stimulus features of available media to identify viable options
- Select the delivery media based on resources constraints, costs, time & other relevant considerations

ADVISOR Added Value

✓ Minimizes costly errors by assessing the viability of 40+ delivery options through a rigours decision matrix that maps instructional requirements to the capabilities of each media

✓ Conduct multiple "what-if" scenarios in seconds. Assess the impact of an increase in throughput, changes to instructor/trainees ratios, use of alternate blends of delivery options, build versus buy, use of internal versus external personnel & so forth on budget, personnel & resources

Step 10

Analyze Resource Requirements & Constraints

MIL-HDBK Requires

Identify & forecast resources required to design, develop, support, operate & maintain the training program - since required resources may not be readily available. Resources for an instructional system fall into five major areas:

- Equipment
- Facilities
- Funding
- Human Resources
- Time

ADVISOR Added Value

✓ Quickly & accurately forecasts budget, time, personnel, facilities & equipment needed to develop, deliver, support & maintain each course using various blends of delivery options within any time period based on throughput, course length & so forth

✓ Assesses personnel & resources availability by tracking their utilization time/rates across all courses

✓ Optimizes personnel/resource utilization & improves personnel/ resource allocation by identifying shortfalls & excess capabilities

Step 11

Design Lessons

MIL-HDBK Requires

Specify content, training strategies & learning activities using the following activities:

- Identify learning types
- Determine instructional methods
- Determine course & lesson strategies
- Develop instructional guidelines

ADVISOR Added Value

✓ Quickly set-up lessons. Allocate & sequence LOs within each lesson using drag & drop functions

- Develop lesson overview
- Develop lesson components
- Develop lesson flow diagrams
- Develop lesson resource requirements matrix
- Design instructional support materials

Output: Designed Instruction

✓ Generate Lesson Plan that includes training media, methods, personnel & resource requirements with the click of a button. Easily export Plan to MS Excel

Step 12

Update ISD/SAT Evaluation Plan

MIL-HDBK Requires

Update the ISD/SAT Evaluation Plan with current information to provide effective tool for evaluating development phase processes & products. This includes:

- Revisions to plan
- Revisions to evaluation schedule
- Results of design phase
- Rational for changes made to ISD/SAT evaluation plan
- Lesson learned during evaluation of the design process & products

Output: Updated Evaluation Plan

ADVISOR Added Value

✓ Provides top down & bottom up audit trail to ensure that all identified Learning Objectives (LOs) have been addressed; & all LOs within the course are aligned to specific Tasks

✓ Facilitates collaboration, sharing & reuse of data. Stores all data in centralized database accessible anytime & from anywhere with a browser

✓ Automatically tracks all changes including who performed the change, when & why

Step 13

Update Management Strategies

MIL-HDBK Requires

Update Management Strategies based on current information & latest project status. This includes:

- Changes to overall management strategy for instructional system & process
- Changes to refine definition of project
- Revisions to resource requirements
- Changes in resource constraints
- New or revised milestones
- Addition or deletion of tasking

Output: Updated Management Strategies

ADVISOR Added Value

✓ Automatically updates cost, personnel & resource requirements & constraints based on latest inputs

✓ Automatically updates project plan & communicates results to project manager

✓ Facilitates collaboration, sharing & reuse of data. Stores all data in centralized database accessible anytime & from anywhere with a browser

✓ Automatically tracks all changes including who performed the change, when & why

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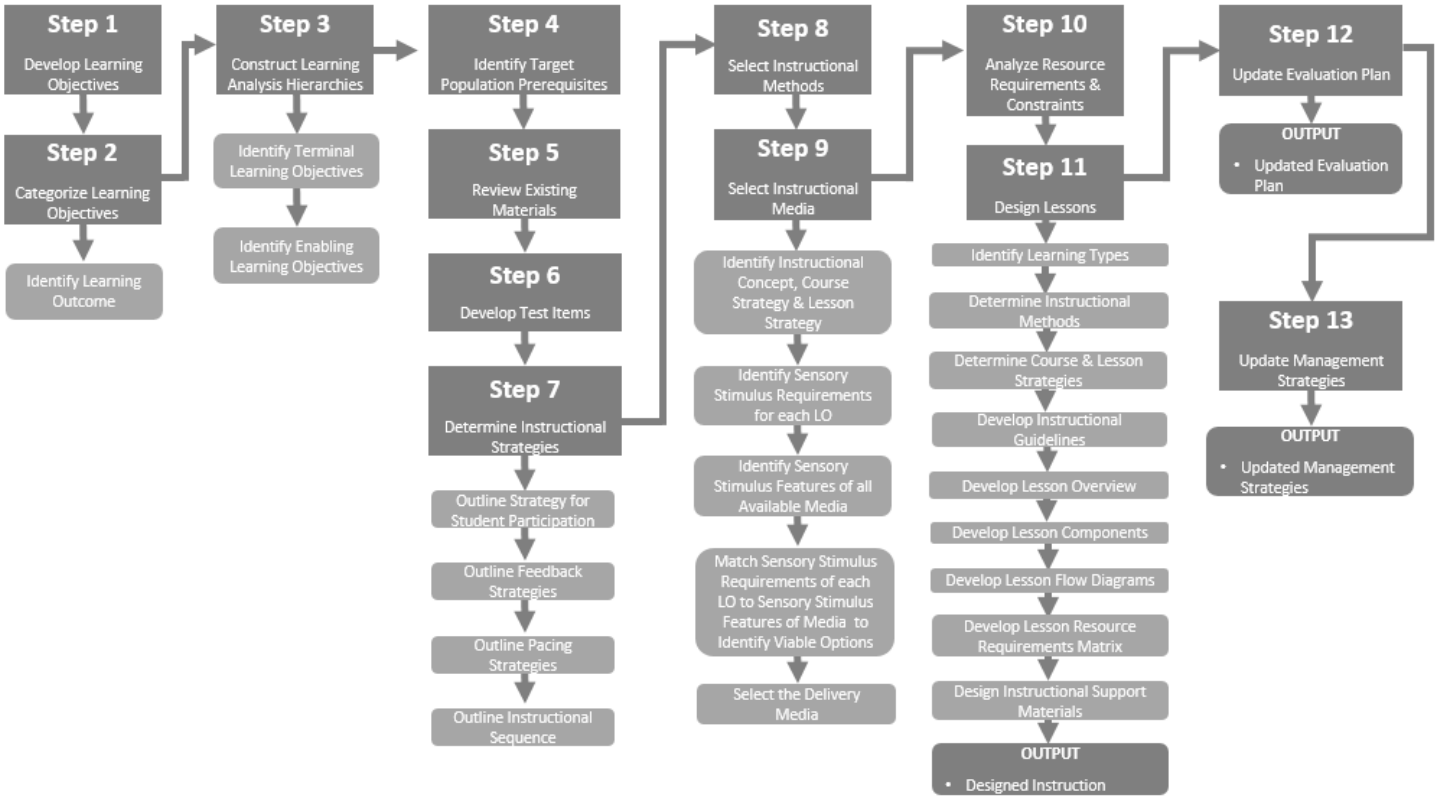

Contact us today to find out how we can assist you in meeting MIL-HDBK requirements and drive training efficiency.

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