

END-TO END (E2E) PROCESS

TRAINEE GUIDE

NAME _____

TERMINAL OBJECTIVES

1. (U) GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DESCRIBE AND PROVIDE AN OVERVIEW OF THE END-TO-END (E2E) PROCESS
2. (U) GIVEN EXISTING COURSE MATERIALS AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DETERMINE TRAINING REQUIREMENTS USING THE END-TO-END (E2E) PROCESS
3. (U) GIVEN EXISTING COURSE MATERIALS, JDTA DATA, AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, COMPLETE JDTA USING THE END-TO-END (E2E) PROCESS
4. (U) GIVEN CPM SOFTWARE AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, CONSTRUCT LEARNING OBJECTIVES USING THE END-TO-END (E2E) PROCESS
5. (U) GIVEN CPM AND LOM SOFTWARE, AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DEVELOP ASSESSMENTS TO EVALUATE TRAINING EFFECTIVENESS IN FOSTERING LEARNING MASTERY OF THE CONTENT USING THE END-TO-END (E2E) PROCESS
6. (U) GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, PERFORM ALL STEPS OF A FRONT-END ANALYSIS (FEA) USING THE END-TO-END (E2E) PROCESS
7. (U) GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS AND APPROVED FEA OUTPUT, COMPLETE BUSINESS CASE ANALYSIS (BCA) USING THE END-TO-END (E2E) PROCESS
8. (U) GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS AND CPM SOFTWARE, DEVELOP AN INSTRUCTIONAL MEDIA DESIGN PACKAGE (IMDP) USING THE END-TO-END (E2E) PROCESS
9. (U) GIVEN LOM SOFTWARE AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DEVELOP TRAINING MATERIAL USING THE END-TO-END (E2E) PROCESS

INFORMATION SHEET 1-1-1-1

(U) ACRONYMS

A. INTRODUCTION

This Information Sheet provides common acronyms to Navy training.

B. REFERENCES

1. (U) NAVEDTRA (series)
2. (U) NETCINST 1500.19

C. INFORMATION

AIM	Authoring Instructional Materials (software)
BCA	Business Case Analysis
CANTRAC	Catalog of Navy Training Courses
CBT	Computer Based Training
CCA	Curriculum Control Authority
CCMM	Course Curriculum Model Manager
CIN	Course Identification Number
COI	Curriculum Outline of Instruction
CPM	Content Planning Module (Software)
CTTL	Course Training Task List
DID	Data Item Description
DOT	Director of Training
EO	Enabling Objective
FEA	Front End Analysis
IETM	Interactive Equipment Technical Manual
ILS	Integrated Logistics Support
IMDP	Instructional Media Design Package
IMI	Interactive Multimedia Instruction (Self-paced)
IMM	Interactive Multimedia Material
IMP	Integrated Master Plan
IMRD	Instructional Media Requirements Document
IMS	Integrated Master Schedule
IPRD	Instructional Performance Requirement Document
ISD	Instructional System Designer
JDTA	Job Duty Task Analysis
KPL	Knowledge Proficiency Level
KSATR	Knowledge, Skills, Abilities, Tools, Resources
LC	Learning Center
LOM	Learning Object Module (Software)

UNCLASSIFIED

LP	Lesson Plan
LSO	Learning Standards Office(r)
MIP	Maintenance Index Pages
MRC	Maintenance Requirement Cards
NETC	Naval Education and Training Command
NTSP	Navy Training System Plan
OCCSTD	Occupational Standards
PPP	Personnel Performance Profile
RFA	Request for Analysis
RFT	Ready For Training
ROM	Rough Order of Magnitude
RRL	Resource Requirements List (AIM and NAVEDTRA)
RRL	Ready Relevant Learning (Sailor 2025)
SCORM	Shareable Content Object Reference Model
SME	Subject Matter Expert
SOP	Standard Operating Procedure
SPL	Skill Proficiency Level
TCCD	Training Course Control Document
TG	Trainee Guide
TO	Terminal Objective
ToS	Table of Specifications
TP	Test Package
TPP	Training Project Plan
TRR	Training Requirements Review
TSD	Training Situation Document
TTA	Training Task Analysis
TTE	Technical Training Equipment
WBT	Web Based Training

OUTLINE SHEET 1-1-1-2

(U)E2E PROCESS FOR COURSE DEVELOPMENT/REVISION

A. INTRODUCTION

Welcome to the NETC Content Development and Life-Cycle End to End (E2E) Course.

B. OBJECTIVE

AFTER A TRIGGER EVENT DETERMINE NETC END-TO-END (E2E) PROCESS OBJECTIVES IN ACCORDANCE WITH NETC POLICIES AND INSTRUCTIONS

C. SECTION OUTLINE

1. Introduction to the End-to-End Process
 - a. This course has eight lessons:
 - 1) Training Requirements
 - 2) Job Duty Task Analysis (JDTA)
 - 3) Learning Objectives
 - 4) Assessments
 - 5) Front End Analysis (FEA)
 - 6) Business Case Analysis (BCA)
 - 7) Content Planning Module (CPM) and Instructional Media Design Package (IMDP)
 - 8) Learning Object Module (LOM)
2. About the E2E Process... It requires the use of AIM CPM and LOM until CDS is approved.
3. Where Does AIM Fit in?
 - a. Required per NETCINST 1500.10A
4. PADDIE + M

- a. What is PADDIE-M?
 - b. Is the PADDIE Model Linear?
5. Sailor 2025 Overview

Suggested Reading for the next lesson:

- a. NETCINST 1500.19

Resources/References

- 1. NAVEDTRA 130B, Vol 1, Task Based Developer's Guide
- 2. NAVEDTRA 131B, Vol 1, Personnel Performance Profile Based Dev. Guide
- 3. NAVEDTRA 132, Navy School Testing Program Management Manual
- 4. NAVEDTRA 135D, Navy School Management Manual
- 5. NAVEDTRA 136, ILE Course Development & Life-Cycle Maintenance Manual
- 6. NAVEDTRA 137A, Job Duty Task Analysis (JDTA) Manual
- 7. NAVEDTRA 138, NETC Front End Analysis (NETC-FEA) Manual

Additional augmented NETC FEA resources include:

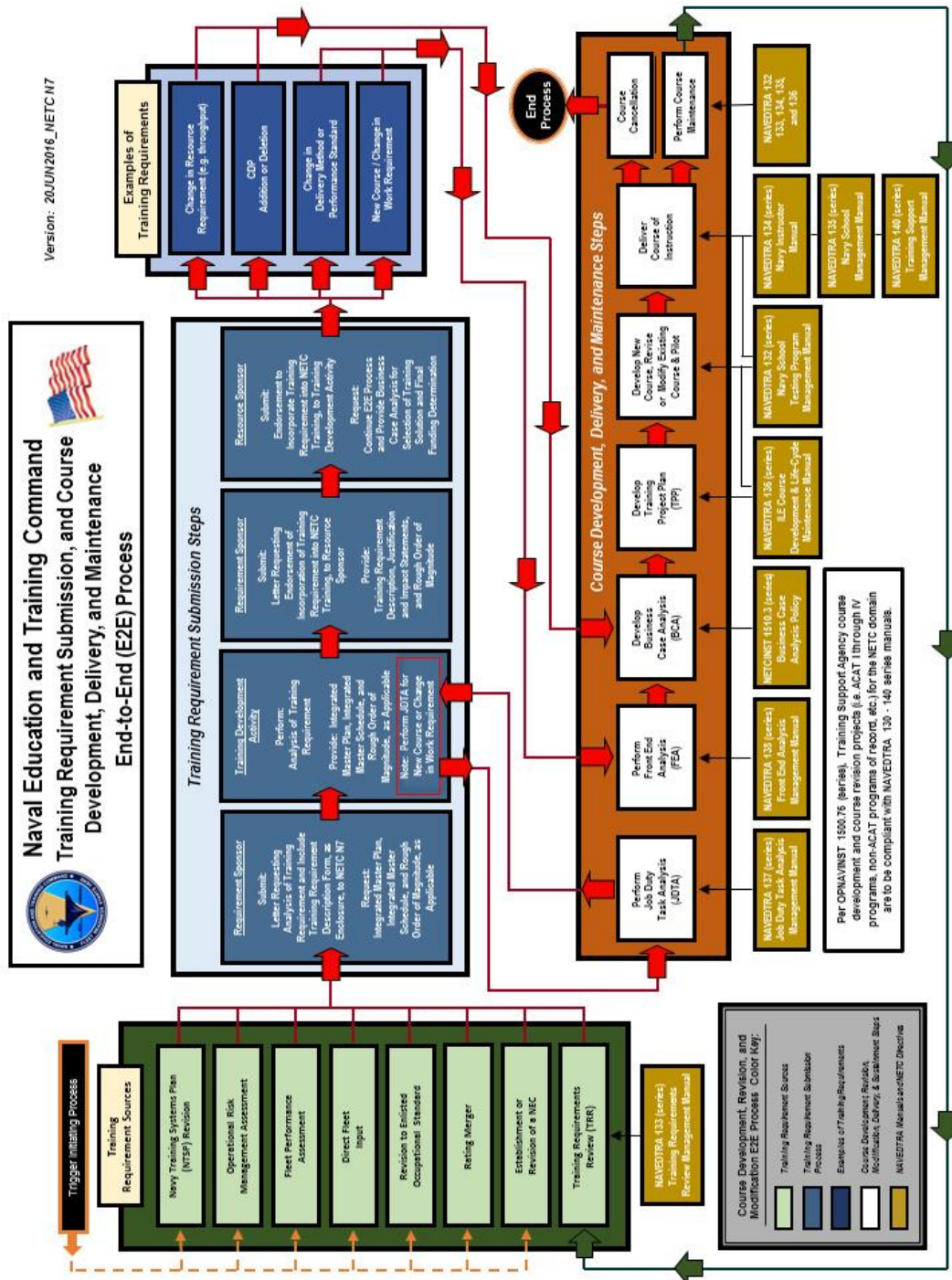
- 1. DI-SESS-81517C Data Item Description, Training Situation Document
- 2. DI-SESS-81518C Data Item Description, Instructional Performance Requirements Document
- 3. DI-SESS-81519C Data Item Description, Instructional Media Requirements Document

For additional guidance on how to use the NAVEDTRAs and DiDs, review the NETC End to End Process SOP located in aimguidance.com.

NOTE: Use of the SOP is mandatory when revising/developing NETC courses.

DIAGRAM SHEET 1-1-1-3

(U)TRAINING REQUIREMENT SUBMISSION, AND COURSE DEVELOPMENT, DELIVERY, AND MAINTENANCE END-TO-END (E2E) PROCESS



OUTLINE SHEET 1-2-1-1

(U)TRAINING REQUIREMENTS

A. INTRODUCTION

Once the End-to-End process has been triggered, the first step is to define the training requirements and secure funding for the analysis, and then development of new or updated training.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

USING EXISTING COURSE MATERIALS AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DETERMINE TRAINING REQUIREMENTS USING NETC END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

1. NETC 1500.19 Summary of Instruction
2. Data Item Descriptions (DiDs)
 - a. DI-SESS-81517C - Training Situation Document (TSD)
 - b. DI-SESS-81518BC - Instructional Performance Requirements Document (IPRD)
 - c. DI-SESS-81519C - Instructional Media Requirements Document (IMRD)
3. Re-engineering or Conversion
 - a. Based on the trigger event
 - b. Conversion versus Re-engineering
 - c. The Process – no Easy button
 - d. Comparisons of existing courses to CPM/LOM courses
 - e. Aligning existing data

Suggested Reading for the next lesson:

- a. NAVEDTRA 137
 - 1) What is TTA, and Why is it Needed?
 - 2) What are KSATRs?

Resources/References

- 1. Training Situation Document, DI-SESS-81517C
- 2. Instructional Media Requirements Document, DI-SESS-81519C
- 3. Instructional Performance Requirements Document, DISESS-81518C
- 4. NETC Course Development, Revision, and Modification End-to-End (E2E) Process Standard Operating Procedures (SOP), SOP July 2014
- 5. Training Requirement Submission, and Course Development, Delivery, and Maintenance End-to-End (E2E) Process (20 Jun 2016), NETCINST 1500.19 (series)

INFORMATION SHEET 1-2-1-2

(U)TSD, IPRD, IMRD DATA ITEM DESCRIPTION BASICS

A. INTRODUCTION

The three Data Item Descriptions (DiDs) we discuss in this section are the Training Situation Document (TSD), DI-SESS-81517C; the Instructional Performance Requirements Document (IPRD), DI-SESS-81518C, and the Instructional Media Requirements Document (IMRD), DI-SESS-81519C.

DiDs are incorporated into most of NETC's Statements of Work (SOW), and are in the SOP. They should provide you with amplifying information to use as you progress through the steps of the FEA. They should be considered tools to help you with the analysis process. NETC requests the appropriately completed DiDs before approving the FEA.

B. REFERENCES

1. (U) Training Situation Document, DI-SESS-81517C Refer to as needed
2. (U) Instructional Performance Requirements Document, DI-SESS-81518C Refer to as needed
3. (U) Instructional Media Requirements Document, DI-SESS-81519C Refer to as needed

C. INFORMATION

The Training Situation Document (TSD):

The TSD is a key analysis piece of the E2E process with data being used to support the JDTA, FEA, BCA, TPP and IMRD. The E2E process is not linear and if the TSD is performed correctly it will identify for the project management team areas that require additional resources, items that can be re-used and any additional support required by the requirements sponsor. The TSD not only puts the current training into context by looking at the existing situation, but also supports the FEA "As-Is, helps identify the gaps, R3 and any training resource issues. The TSD also provides a solid basis to perform a Rough Order of Magnitude (ROM) that can be communicated and discussed with the requirements and resource sponsors. Many of the documents created during the E2E process will use the data found in the TSD. NETC recommends that sections 1A, 2-2 - 2.2.4.3, 2.2.4.6 - 2.2.4.8 be completed, with sections 2.2.4.4 and 2.2.4.5 optional or as required, depending on the project.

The Instructional Performance Requirements Document (IPRD):

The IPRD is performed in phases, before, during and after a JDTA with the results being integrated with the FEA. Like the TSD, the IPRD is an analysis of the work, it takes that analysis and puts the work into context that can be translated into the FEA 'to-be' state. The IPRD is performed at different times during the E2E process. Mission, Collective and Individual task data

are completed before the JDTA, and if the JDTA workshop is conducted properly, the Training Task Data compared with the TSD defines what JDTA items are being taught and how. This is important in developing performance based assessments, so that all key items can be captured and assessed. The JDTA workshop has the SMEs define the work, put it in context, explain types and numbers of problems required to reach desired proficiency levels, while bouncing this off resources available for the current training. After the JDTA workshop the IPRD is used to create performance based learning objectives to define the FEA 'To-be' state. The mission and individual training standards are based on the previous SME input and should be used to create problems, scenarios and assessment strategy that will be used in the ISD considerations field of step 7 (Recommendations and Solutions) of the FEA. NETC recommends that sections 2.4.2, 2.5 - 2.6; Optional or as required - 2.3.1, 2.7 and 2.8, be completed.

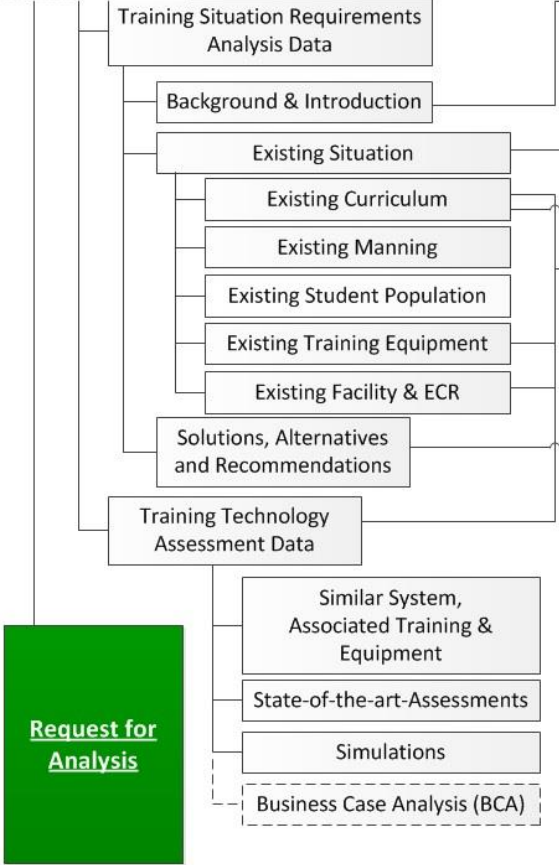
The Instructional Media Requirements Document (IMRD):

The IMRD is more detailed analysis of all media requirements to support a training program. It is based on issues identified by the TSD or IPRD, or it can be used just to provide a look at training deficiencies that are media related by a media analysis. It is important to understand that media includes slides, instructional sheets, TTE and any other instructional item being used by the instructor or student to get a point across, but sometimes higher end media is not the appropriate instructional method. The IMRD looks at training, focused on just media analysis and delivery methods. While an IMRD will not be required for every project, parts maybe used to support the FEA or BCA. The IMRD supports different parts of the FEA, in some cases training material may look like it can be re-used or re-purposed, but when the IMRD is used to analyze the software it helps to determine if the file size is too large, or raises issues with current software requirements, or analyzes if the existing training was developed in a method that would be more expensive then to re-create it using modern techniques. The main focus of the IMRD is to ensure that the TTE or other training equipment being used supports the training requirements and provides a method to communicate any deficiencies to the requirements sponsor or training support activity (TSA). NETC recommends that sections 1A, 2-2 - 2.4.1, and 2.5 be completed; Sections that can be tailored and submitted to LC for approval are 2.4.2 - 2.4.4, and the appendix.

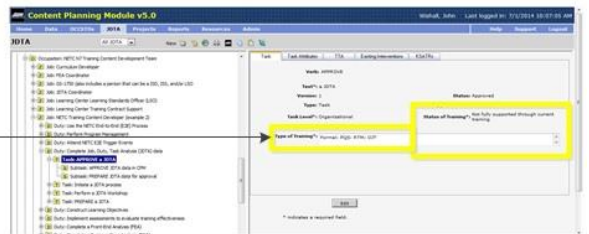
The flowcharts on the following pages show the relationship between the TSD and IPRD DiDs and the End-to-End Process.

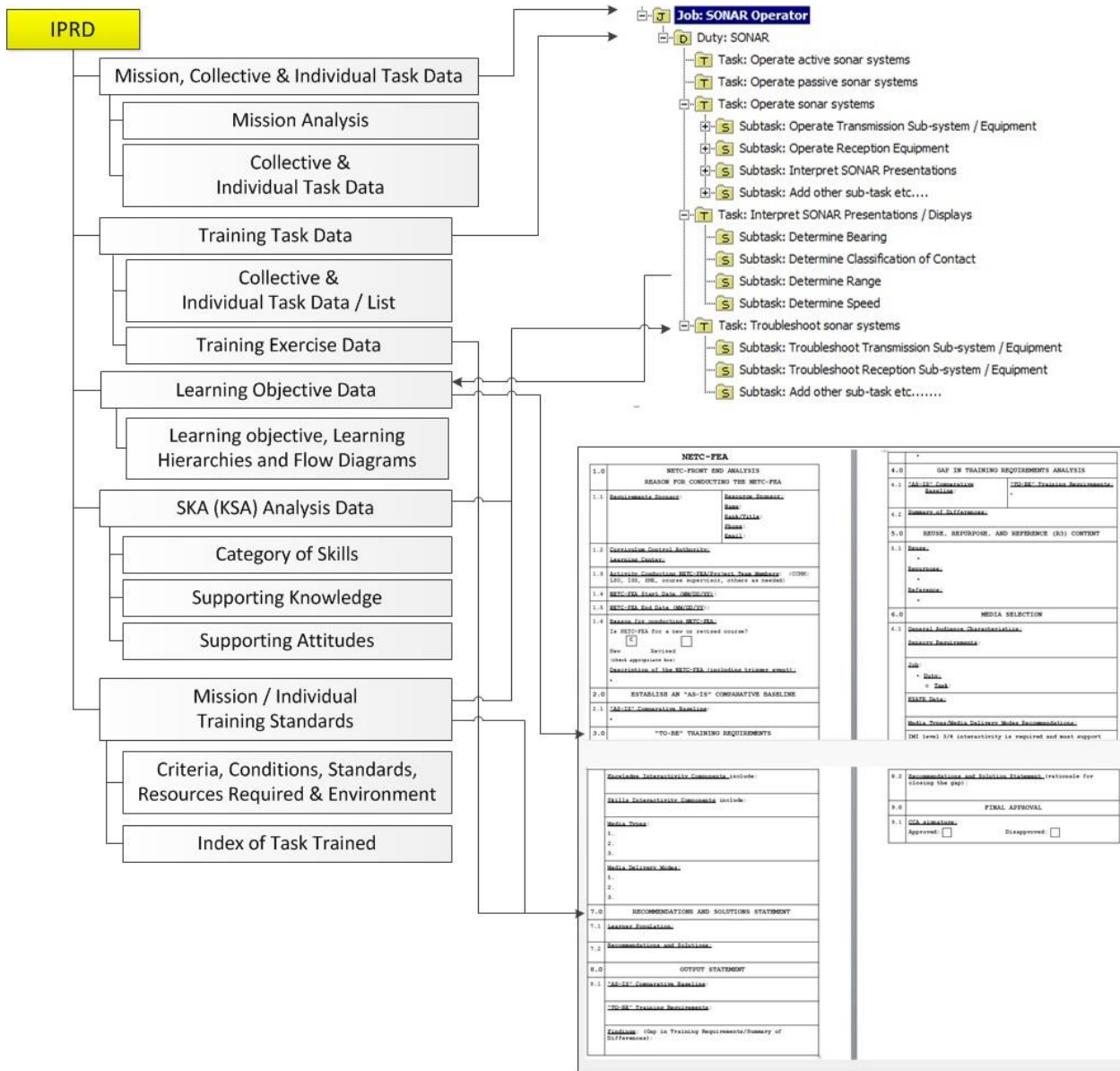
DATA ITEM DESCRIPTION

Version: 04-03-2015
Approved Date: 31 August 2015
...
The DTD contains the format, content, and intended use information for the data items...



NETC-PEA
NETC-FRONT END ANALYSIS
REASON FOR CONDUCTING THE NETC-PEA
1.1 Reasoning Summary
1.2 Conclusion/Current Pathways
1.3 Reasoning Summary
1.4 NETC-PEA Start Date
2.0 ESTABLISH AN "AS-IS" COMPARATIVE BASELINE
2.1 "AS-IS" Comparative Baseline
3.0 "TO-BE" TRAINING REQUIREMENTS
4.0 GAP IN TRAINING REQUIREMENTS ANALYSIS
4.1 "AS-IS" Comparative Baseline
4.2 Summary of Differences
5.0 REUSE, REFORMATION, AND REFINANCE (R3) CONTENT
5.1 Detail
5.2 General Instruction Characteristics
5.3 Security Requirements
6.0 MEDIA SELECTION
6.1 General Instruction Characteristics
6.2 Security Requirements
6.3 Job
6.4 Data
6.5 DATE Data
6.6 Media Type/Media Delivery Mode Recommendations
6.7 [MI Level] 3/4 interactivity is required and must support
7.0 RECOMMENDATIONS AND SOLUTIONS STATEMENT
7.1 Learning Foundation
7.2 Recommendations and Solutions
8.0 OUTPUT STATEMENT
8.1 "AS-IS" Comparative Baseline
8.2 "TO-BE" Training Requirements
9.0 FINAL APPROVAL
9.1 CCA Signature





OUTLINE SHEET 1-3-1-1

(U)JDTA PROCESS

A. INTRODUCTION

The Job Duty Task Analysis is the foundation on which Navy training is built.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN EXISTING COURSE MATERIALS, JDTA DATA, AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, COMPLETE JDTA USING THE NETC END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. Given a trigger event, initiate a JDTA using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions
2. Given a trigger event, prepare a JDTA using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions
3. During a JDTA conference perform a JDTA workshop, using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions
4. Given a completed and approved Job, Duty, Task Analysis (JDTA), approve a JDTA in Content Planning Module (CPM) with minimal assistance from the instructor

Lesson Outline

1. "Failing to Plan is Planning to Fail"
 - a. Extensive planning and preparation is required for the JDTA
 - b. A properly developed JDTA will help define training requirements
 - c. A JDTA is based on the WORK and not training.
2. JDTA Initiation
 - a. Review NAVEDTRA 137A, Job Duty Task Analysis Management Manual
 - b. Identify the trigger event
 - c. Follow the checklist in NAVEDTRA 137A, beginning on page 4-6

3. JDTA Preparation

- a. Preparing for a JDTA Workshop
- b. Preloading JDTA Information
- c. Organizing and Grouping JDTA Information
- d. Knowledge and Skill Levels
- e. Cognitive Domain
- f. Psychomotor Domain
- g. CPM Overview

4. JDTA Workshop

- a. Workshop Roles
- b. JDTA Recommendations
- c. Develop JDTA
- d. Review JDTA

5. JDTA Approval

- a. JDTA Approval Steps
- b. Approving a JDTA in CPM

Resources/References

- 1. Job Duty Task Analysis Management Manual, NAVEDTRA 137A
- 2. (U) NETC Front End Analysis (FEA) Management Manual, NAVEDTRA 138
- 3. (U) NETC Integrated Learning Environment Course Development and Life-Cycle Maintenance, NAVEDTRA 136
- 4. Task Based Curriculum Development Manual, NAVEDTRA 130B Vol I
- 5. NETC Course Development, Revision, and Modification End-to-End (E2E) Process Standard Operating Procedures (SOP), SOP July 2014
- 6. Training Requirement Submission, and Course Development, Delivery, and Maintenance End-to-End (E2E) Process (20 Jun 2016), NETCINST 1500.19 (series)

INFORMATION SHEET 1-3-2-1

(U)BEGINNING THE JDTA USING OCCSTDs DATA AND VERB SEQUENCING

A. INTRODUCTION

This Information Sheet provides information on grouping and organizing information, and illustrates how OCCSTDs information may be used for job and task information in a JDTA.

This is OCCSTDs information, presented in two different ways. Compare the first JDTA with the second JDTA. Which one is better?

B. REFERENCES

1. (U) Job Duty Task Analysis Management Manual, NAVEDTRA 137A

C. INFORMATION

The main purpose for grouping data is to speed up the process, focus on the important things being performed as work, and group items that belong together or are similarly performed. The key to determining what is appropriate depends on the planning and layout of the JDTA data on the spreadsheet.

According to NAVEDTRA 131 Skills sections, only two different skills exist: Operation and Maintenance. Operation can be sub-divided (task, sub-task or step as appropriate) into: perform normal, abnormal, and degraded operations. Maintenance can be divided into: perform corrective and preventive maintenance. Other options include coordinate or direct the operation or maintenance tasks if the job is at a higher level. This approach could be useful when looking across multiple pay grades doing the same work.

Some guidelines to consider:

- JDTA data should be linked or associated with source documents/data. The availability of data drives the approach used to start construction of preliminary JDTA in the JDTA spreadsheet.
- OCCSTDs associated to the given task should be identified and listed on the spreadsheet as source data.
- Work tasks identified by the NEC, Master Task List, Technical Manual, or PMS also provide an initial frame work.
- Identifying the work requirements for the source data is the first step. This data can then be discussed and reviewed by a select group of SMEs or verified during a visual review of the work being performed on the job.
- It is helpful to first construct this data on a spreadsheet to look at the organization and sequencing of the work.

- Redundant duties and tasks should be minimized.
- Each duty must have at least two tasks. If it does not, it is to be combined with a duty with like work. This could be an indicator the tasks are not specific enough to define the actual work.
- Performance Objectives that support the Duties and Tasks should be measurable and relate to a performance expectation of something that they would be expected to do/evaluated on for on the job.
- If there are many tasks or sub-tasks in one duty or task, you may want to review the current work structure breakdown in the JDTA. Maybe another duty should be created, or maybe tasks/sub-tasks need to move up or down a level in the JDTA.
- There is a fine line between too much information and not enough when conducting a JDTA. It is better as a Learning Center to have the data too specific and need to manipulate it to a higher level later in the process than to not collect enough data.

Example:

In most cases Sailors maintain, operate, repair, test, troubleshoot many systems used in the Navy. In some cases, they assemble, create, construct, disassemble, evaluate, and produce (others are possible) as well. Using these verbs, a hierarchy sequence of the work down to the smaller chunks of data is created.

Consider this example of an OCCSTDS task breakdown:

OCCSTDS: ET3 (Surface)

Functional Area: RADAR SYSTEMS

Functional Tasks:

- TROUBLESHOOT RADAR EQUIPMENT
- ADJUST AND ALIGN RADAR EQUIPMENT
- REPLACE COMPONENTS ON RADAR EQUIPMENT
- TEST AND OPERATE RADAR EQUIPMENT
- EVALUATE PERFORMANCE OF RADAR EQUIPMENT
- CLEAN AND INSPECT RADAR EQUIPMENT
- REPLACE COMPONENTS ON RADAR ANTENNA SYSTEMS

How might this data be translated into a JDTA? Here is an example:

Occupation: Radar Systems

Job: Radar Systems Technician / SPY-1 / SPS-64 / any other type of radar desired / or left as general if all jobs supporting this same requirement have identical requirements for performing the job.

Duty: Operate the Radar

Task: Operate Radar Equipment

Sub-task: Operate Display

Sub-task: Configure Radar

Sub-task: Set-up Radar operation parameters

Task: Operate the Radar Equipment in abnormal modes

Duty: Troubleshoot the Radar

Task: Troubleshoot Radar Equipment

Sub-task: Troubleshoot Transmitter

Sub-task: Troubleshoot Receiver

Sub-task: Troubleshoot Display

Task: Test Radar Equipment

Duty: Maintain the Radar

Task: Clean Radar Equipment

Task: Inspect Radar Equipment

Task: Align Radar Equipment

Duty: Repair the Radar

Task: Replace Components On Radar Equipment

Sub-task: Replace Transmitter Components

Sub-task: Replace Receiver Components

Sub-task: Replace Display Components

Task: Replace Components On Radar Antenna Systems

This approach requires very little input from a SME to at least start looking at the data that will probably be captured during interviews with a SME during a JDTA workshop.

Regular JDTA Example using the same data: OCCSTDs: ET3 (Surface)

Functional Area: RADAR SYSTEMS

Functional Tasks:

- TROUBLESHOOT RADAR EQUIPMENT
- ADJUST AND ALIGN RADAR EQUIPMENT
- REPLACE COMPONENTS ON RADAR EQUIPMENT
- TEST AND OPERATE RADAR EQUIPMENT

- EVALUATE PERFORMANCE OF RADAR EQUIPMENT
- CLEAN AND INSPECT RADAR EQUIPMENT
- REPLACE COMPONENTS ON RADAR ANTENNA SYSTEMS

This data could be translated into a JDTA as:

Occupation: ET (Surface)

Job: ET3

Duty: Radar Systems

Task: Troubleshoot Radar Equipment

Sub-task: Troubleshoot Transmitter

Sub-task: Troubleshoot Receiver

Sub-task: Troubleshoot Display

Task: Adjust Radar Equipment

Task: Replace Components On Radar Equipment

Task: Test Radar Equipment

Task: Evaluate Performance Of Radar Equipment

Task: Clean Radar Equipment

Task: Replace Components On Radar Antenna Systems

Duty: Navigation Systems

The main problem with this approach is the vast number of tasks that will be created requiring JDTA data to be fully populated. Grouping them into logical families of related duties and tasks makes the overall task more manageable.

PROBLEM SHEET 1-3-2-2

(U)FIXING JDTA DATA

A. INTRODUCTION

Imagine someone gave you the data below, and asked you to review it prior to entering it in CPM.

B. EQUIPMENT

1. Computers

C. REFERENCES

1. (U) Job Duty Task Analysis Management Manual, NAVEDTRA 137A

D. DIRECTION

Working in groups or individually:

1. Review the data below. What is wrong with this JDTA? List the problems you find.
2. Regroup this data in a JDTA. (You do not have to use all of the entries, but you should be able to group and organize the information much better.)

E. PROBLEM

Duty: Demonstrate Operating the Oscilloscope

Task:: Characterize Amplitude Measurements

Task:: Characterize Complex Waves

Task:: Characterize Constellation Diagrams

Task:: Characterize Differential Signals

Task:: Characterize Eye Patterns

Task:: Characterize Frequency and Period

Task:: Characterize Periodic and Non-periodic Signals

Task:: Characterize Phase Measurements

Task:: Characterize Sawtooth and Triangle Waves

Task:: Characterize Sine Waves

Task: Characterize Square and Rectangular Waves

Task: Characterize Step and Pulse Shapes

Task: Characterize Synchronous and Asynchronous Signals

Task: Characterize Types of Measurements

Task: Characterize Voltage Measurements

Task: Characterize Waveform Measurements

Task: Demonstrate Interfacing the Oscilloscope (Connectivity)

- Task: Demonstrate Measurement Techniques
- Task: Demonstrate Phase Shift Measurements
- Task: Demonstrate Pulse Width and Rise Time Measurements
- Task: Demonstrate Pulse Width Measurements
- Task: Demonstrate Rise Time Measurements
- Task: Demonstrate Time and Frequency Measurements
- Task: Demonstrate Voltage Measurements
- Task: Demonstrate Waveforms & Waveform Measurements
- Task: Describe How to Expand the Oscilloscope Capabilities
- Task: Differentiate Types of Waves
- Task: Interpret Bandwidth
- Task: Interpret Frequency Response
- Task: Interpret Methods to Gain Accuracy
- Task: Interpret Methods to Horizontal Accuracy (Time Base)
- Task: Interpret Methods to Vertical Resolution (Analog-to-Digital Converter)
- Task: Interpret Record Length
- Task: Interpret Sweep Speed
- Task: Interpret Triggering Capabilities
- Task: Interpret Vertical Sensitivity
- Task: Interpret Waveform Capture Rate
- Task: Operate an Oscilloscope
- Task: Operate Digital Oscilloscopes
- Task: Perform Vertical System and Controls
- Task: Perform Waveform Measurements

INFORMATION SHEET 1-3-2-3

(U)COGNITIVE, PSYCHOMOTOR, AND AFFECTIVE DOMAINS

A. INTRODUCTION

To develop effective training, it behooves the developer to consider the objectives in terms of their level of difficulty, for both cognition and skill. It is also helpful to consider the behavior of the learner, which is the affective domain.

B. REFERENCES

1. (U) NETC Front End Analysis (FEA) Management Manual, NAVEDTRA 138
2. (U) NETC Integrated Learning Environment Course Development and Life-Cycle Maintenance, NAVEDTRA 136

C. INFORMATION

The word 'Cognitive' is an adjective. Its definition is: of, relating to, or involving conscious mental activities (such as thinking, understanding, learning, and remembering). In training, the cognitive level is the level of mental difficulty of the task. Bloom's Taxonomy, developed in 1956, is often used to assign cognitive levels to tasks, from tasks that don't require thinking beyond remembering them, to those that require analysis and evaluation. Similarly, the CPM currently uses 'Remember' and 'Apply' to indicate the cognitive level of an objective. 'Remember' means the task requires simple recall information, while 'Apply' requires the learner to take the information and use it.

In addition to Remember and Apply, the new NETC Instruction governing LOM development states that each objective should have its own proficiency level. These skill levels are based on Bloom's Taxonomy, which has six cognitive knowledge levels (recall, comprehension, application, analysis, synthesis and evaluation). Rather than just using 'Remember' for the knowledge domain, NETC uses an abbreviated form of Bloom's Taxonomy as their guidance for developing knowledge-based objectives. They reduce Bloom's six levels to a three level domain, referred to as Knowledge Proficiency Levels (KPLs) 1-3:

- KPL 1 – is the knowledge (recall)/comprehension level of cognitive learning. This is the lowest level of learning, but supports foundational learning of facts, rules, basic concepts, and procedures. At this level of instruction the action verbs of a learning objective might include state, identify, describe, define, list and recall.
- KPL 2 – is the application/analysis level of the cognitive domain. This is the target for most formal training development since it teaches the learner application and analysis level problem-solving, critical thinking and discrimination of tasks. Verbs at this level might include operate, troubleshoot, repair, and maintain. This level teaches the knowledge related to the procedures, principles and processes.
- KPL 3 – is the synthesis/evaluation level. If formal training requires undocumented procedures or evaluation to determine the proper course of action, this level of training is appropriate. Normally this training will be most appropriate to Journeyman and Master Level

Sailors with experience. At this level of instruction, the action verbs of a learning objective include create, evaluate and hypothesize.

NETC also assigns skill proficiency levels that are considered part of the psychomotor domain rather than the cognitive domain. Whereas the cognitive domain is about knowledge, the psychomotor domain is about skills. The psychomotor domain taxonomy that NETC refers to is R. H. Dave's, which has five skill levels (Imitation, Manipulation, Precision, Articulation and Naturalization). NETC uses an abbreviated form of Dave's Taxonomy as their guidance for developing skill-based objectives at the appropriate level. They reduce Dave's six levels to a three level domain, referred to as Skill Proficiency Levels (SPLs) 1-3:

- SPL 1 – Observing and patterning behavior after someone else. Performance may be of low quality.
- SPL 2 – Refining, becoming more exact. Performing a skill with precision without the presence of the teacher.
- SPL 3 – Mastering a high level performance consistently and with ease.

KPLs and SPLs will be applied to objectives in the upcoming versioning of CPM. The choice of KPL or SPL will dictate the type of testing that should be performed for the objective, either knowledge-based or skills-based.

There is a third domain related to training and learning, and that is the affective domain, although it is not a priority of NETC training since it is hard to develop, difficult to measure and not discussed in the NAVEDTRAs. However, as NETC training now is based on the E2E process, it is recommended that the affective domain is considered and analyzed during this process and factored into the appropriate KPL and SPL levels, so that affective domain requirements can be captured to help develop a good assessment strategy. The affective domain (Krathwohl, Bloom, Masia, 1973) consists of five levels:

- Receiving Phenomena: Awareness, willingness to hear, selected attention.
- Responding to Phenomena: Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).
- Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's overt behavior and are often identifiable.
- Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system. The emphasis is on comparing, relating, and synthesizing values.
- Internalizing values (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).

PROBLEM SHEET 1-3-2-4

(U)KNOWLEDGE AND SKILL LEVELS

A. INTRODUCTION

NETC Instruction governing LO Module development states that each objective and JDTA task should have its own knowledge or skill proficiency level. Currently, these proficiency levels are limited to the Cognitive and Psychomotor Domains, although it is possible the Affective Domain will be added in the future. A task's proficiency level is important when considering how the task should be taught/learned, and at what level the task should be assessed.

B. EQUIPMENT

None

C. REFERENCES

1. (U) NETC Front End Analysis (FEA) Management Manual, NAVEDTRA 138

D. DIRECTION

For Part A and B, determine the proficiency level of each verb. If you get stuck, review the references provided.

For Part C, identify if the test item is a knowledge- or skill-based item, and what proficiency level is required to answer the item correctly.

E. PROBLEM

Part A: Knowledge Verbs

1. Debate
2. Determine
3. Discuss
4. Edit
5. Elaborate

6. Investigate
7. Manage
8. Organize
9. Recommend
10. Solve
11. Summarize
12. Support

Part B: Skill Verbs

1. Administer
2. Clean
3. Dismantle
4. Draw
5. Execute
6. Jump
7. Map
8. Operate
9. Organize
10. Reorganize
11. Separate
12. Service

Part C: Test Items

1. State the number of sustained firing rounds that a M60 Machine Gun can support?
2. In a combat situation when sustained firing is required, explain what problems you will experience with the M60 Machine Gun and how you will mitigate them?
3. Perform Cardiopulmonary Resuscitation (CPR) on an electrical shock victim, (dummy).
4. Compare and contrast the strengths and weaknesses of a ship's import watch standing policies.
5. Measure the currents of five different batteries using a multi-meter.

OUTLINE SHEET 1-4-1-1

(U)LEARNING OBJECTIVES

A. INTRODUCTION

The learning objectives for a course describe what the trainee will be able to do at the end of the training course.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN CPM SOFTWARE AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, CONSTRUCT LEARNING OBJECTIVES USING THE END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. Given a completed and approved Job, Duty, Task Analysis (JDTA), develop preliminary terminal and enabling learning objectives using a Trainee Guide Sheet in accordance with NETC policies and instructions
2. Given preliminary learning objectives, evaluate learning objectives (LO), using SMART criteria in accordance with NETC policies and instructions

Lesson Outline

1. Introduction to Learning Objectives
 - a. Where in the E2E Process is learning objective development started?
 - b. Where do Learning Objectives come from?
 - c. What are the functions of Learning Objectives...or, why are they so important?
2. Objectives Development
 - a. There are two types of LO
 - b. Behavior, Condition, Standard
 - c. Learning Objective Guidelines
 - d. Terminal Objectives
 - e. If it were easy...

- f. Enabling Objectives
- g. Building Learning Objectives
- 3. Objectives Evaluation
 - a. Evaluating Learning Objectives
 - b. Are these Good LOs?
 - c. Consider the Learning Domain
- 4. Suggested readings prior to the lesson on Assessments include:
 - a. Chapters 3, 4, and 5 in NAVEDTRA 132 (Performance and Knowledge Test Design)

Resources/References

- 1. (U) Task Based Curriculum Development Manual, NAVEDTRA 130B
- 2. (U) NETC Integrated Learning Environment Course Development and Life-Cycle Maintenance, NAVEDTRA 136

INFORMATION SHEET 1-4-1-2

(U)CONTENT TYPING OF OBJECTIVES

Enabling learning objectives are required to be selected in AIM CPM as one of the following five content types:

1. Fact - A specific and unique data or instance.
 - Example:
 - o Air is comprised of Hydrogen and Oxygen.
2. Concept - A category that includes multiple examples
 - Example:
 - o The periodic table of elements.
3. Process - A flow of events or activities
 - Example:
 - o A performance appraisal process.
4. Procedure - Task performed with step-by-step actions
 - Example:
 - o How to logon computers.
5. Principle - Task performed by adapting guidelines
 - Example:
 - o How to close a sale.

INFORMATION SHEET 1-4-2-1

(U)SMART LEARNING OBJECTIVE ANALYSIS REVIEW WORKSHEET

A. INTRODUCTION

Review course objectives using this worksheet to ensure objectives are effective.

B. REFERENCES

1. (U) Task Based Curriculum Development Manual, NAVEDTRA 130B

C. INFORMATION

Using the data populated in the Learning Objective Analysis Worksheet, review answering Yes/No for each LO using the following criteria. For each No provide a comment and recommendation for resolution, and schedule a review with the appropriate project manager for action and resolution.

	YES	NO	Comments/Recommendations
Is the LO Specific – directly observable, based approved performance requirements			
Is the LO Measurable – based on approved performance standards			
Is the LO Attainable – for target audience within scheduled time and specified conditions, scalable to performance work requirements			
Is the LO Relevant and Results Oriented – focused on performance outcomes (product/process) error rates			
Is the LO Targeted - to the learner (e.g., apprentice/ journeyman/master and to the desired level of learning (i.e., KPL/SPL 1,2,3))			

OUTLINE SHEET 1-5-1-1

(U)ASSESSMENTS

A. INTRODUCTION

Assessments are the backbone of training, as they capture what the trainee has learned during the course of training.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

(U) GIVEN CPM SOFTWARE AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DEVELOP ASSESSMENTS TO EVALUATE TRAINING EFFECTIVENESS IN FOSTERING LEARNING MASTERY OF THE CONTENT USING THE END-TO-END (E2E) PROCESS.

C. SECTION OUTLINE

Lesson Objectives

1. Given completed learning objectives develop Test Plan using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions
2. Given completed learning objectives complete performance- and knowledge-based assessments aligned with objectives, using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions
3. Given completed assessments evaluate assessments for content and construct validity, using the NETC End-To-End (E2E) Process in accordance with NETC policies and instructions

Lesson Outline

1. Transition: Learning Objectives to Assessment
 - a. Learning Objectives
 - b. Assessment
 - c. Instructional Strategies
2. Test Plan
 - a. Requirements
 - b. Test Design
 - c. ToS Example

3. Assessment Development
 - a. What should be developed first?
 - b. Developing Performance Test Items
 - c. Developing Performance Tests
 - d. Knowledge Tests
4. Assessment Evaluation
 - a. Evaluating Assessments
 - b. Validating Assessments
 - c. Example Analytic Report from QM
 - d. Assessment Scenarios

Resources/References

1. Navy School Testing Program Management Manual, NAVEDTRA 132
2. Task Based Curriculum Development Manual, NAVEDTRA 130B

OUTLINE SHEET 1-6-1-1

(U)FRONT END ANALYSIS (FEA)

A. INTRODUCTION

The FEA identifies training gaps and describes how to close those gaps.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, PERFORM ALL STEPS OF A FRONT-END ANALYSIS (FEA) USING THE END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. Given AIM/LOM User's Manual, select the appropriate content type in accordance with NETC End-to-End (E2E) Process
2. Given completed analysis documents developed for the course, select the section delivery strategies, using instructional system design (ISD) considerations in accordance with NETC policies and instructions
3. Given completed analysis documents developed for the course, develop the FEA using the FEA template from NAVEDTRA 138, Appendix A in accordance with NETC policies and instructions

Lesson Outline

1. Introduction to Front End Analysis (FEA)
 - a. Why are FEAs required?
 - b. NAVEDTRA 138 outlines the steps
2. Content Types
 - a. Fact
 - b. Concept
 - c. Process
 - d. Procedure
 - e. Principle
 - f. Bold elements are required

- g. Additional elements can be added
- 3 Delivery Strategies
 - a. CPM Delivery Methods
 - b. Blended Learning Scenario
 - c. Ineffective Training
- 4. Front End Analysis (FEA)
 - a. FEA Template
 - b. FEA Steps
 - 1) Reason for Conducting NETC FEA
 - 2) Document Existing AS-IS Training Requirements
 - 3) Document TO-BE Training Requirements
 - 4) Identify Training Gaps
 - 5) R3
 - 6) Media Selection
 - 7) Recommendations and Solutions
 - 8) Output Statement
 - 9) Final Approval
 - c. Is the FEA Effective?

Resources/References

- 1. Naval Education and Training Command-Front End Analysis Management Manual, NAVEDTRA 138
- 2. Naval Education and Training Command Integrated Learning Environment Course Development and Life-Cycle Maintenance, NAVEDTRA 136
- 3. User's Manual for Authoring Instructional Materials (AIM)/Learning Object Module (LOM)
- 4. Training Situation Document, DI-SESS-81517C
- 5. Instructional Media Requirements Document, DI-SESS-81519C
- 6. Instructional Performance Requirements Document, DI-SESS-81518C

INFORMATION SHEET 1-6-1-2

(U) OVERVIEW OF CONTENT TYPES

A. INTRODUCTION

Ruth Colvin Clark developed an ISD Methodology to standardize the way technical training is developed, using M. David Merrill's Component Display Theory. Where Merrill's Component Display Theory had four content types: fact, concept, procedure, and principle, Clark's had five; she added process. Rather than writing these out, they are sometimes identified in writing as FCPPP, as they will be in this section.

The five content types include: Facts, Concepts, and Processes, Procedures and Principles. Understanding the difference between these content types is an important aspect of developing content in the Learning Object Module. This Information Sheet will go into more depth on these content types, and outline what elements need to be completed in LO Module based on the chosen content type.

B. REFERENCES

1. (U) Naval Education and Training Command Integrated Learning Environment Course Development and Life-Cycle Maintenance, NAVEDTRA 136 Page 4-3
2. (U) User's Manual for Authoring Instructional Materials (AIM)/Learning Object Module (LOM), Section 13.1

C. INFORMATION

- **Facts** are specific and unique data, for example, an individual's password.
- A **Concept** is a category that includes multiple examples, such as web page password.
- A **Process** is a flow of events or activities, for example, a performance evaluation process.
- A **Procedure** is a task performed with step-by-step actions, for example, how to log on to a computer.

There are two types of procedures:

1. Linear-Clearly observable steps generally completed in the same way each time.
2. Decision-Made up of two or more linear procedures, of which the participant chooses between to lead them along one path or another.

A procedure is a sequential set of steps that must be done the same way each time within a given situation.

- A **Principle** is a task performed by adapting guidelines, such as closing a sale. A principle is a general approach to performing a job task that is not solved the same way every time, similar to developing content for training, while following guidelines.

In LOM, the content type that was chosen in CPM dictates the element outline that will appear in LOM for that particular objective. The User's Manual for AIM contains a table that shows the required elements by content type.

ILE Guidance offers the following definitions and examples for content types, as well as Apply and Remember:

Any enabling objective statement, and therefore any section, can be classified into one of five content types (Clark & Mayer, 2002). The content types are concepts, facts, procedures, processes, and principles. The definitions for the content types are provided.

Note:

Although, the content type guidelines are oriented to IMI and ILT, this enabling learning object strategy can be applied to any instructional content, regardless of the delivery format. By using this classification scheme, templates and guidelines can be employed to help speed the development process of sections and produce sections that are designed for reuse.

Levels of use, or mastery levels, that may apply to the five content types:

Remember Use Level

The learner recognizes and recalls information. The instructional tactics used to convey the information require the learner to memorize information for short to long-term memory storage.

Apply Use Level

This level requires the learner apply information to accomplish some task or solve a novel problem. The learner must be given opportunities to practice applying the information properly or practice in solving similar and dissimilar problems that move the learner to higher levels of discrimination and problem solving ability. Thus, more complex tactics are appropriate and applicable to this use level. For example, this level may require hands-on interaction with technical training equipment. It may require the use of the actual piece of equipment or possibly a part task trainer, providing a real world model of the equipment in which learning involves physical movement, coordination, and use of motor skills. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution.

ASSIGNMENT SHEET 1-6-3-1

(U)FEA STEPS 1-5

A. INTRODUCTION

Using NAVEDTRA 138, FEA Template, and FEA CSS Final.xlsx, answer questions and review steps one through five of the FEA Process.

B. EQUIPMENT

1. Training Materials
 - a. FEA CSS Final.xlsx
 - a. FEA Template.pdf

C. REFERENCES

1. (U) Naval Education and Training Command-Front End Analysis Management Manual, NAVEDTRA 138

D. SAFETY PRECAUTIONS

E. SELF-TEST QUESTIONS

Step 1. The Reason for Conducting the FEA must include (Chapter 2):

Step 2. The requirements for the training are determined using information from (Chapter 3):

Step 3. There are several ways to identify “TO-BE” training requirements. What are they? (Chapter 4)

Step 4. The gap in training is determined by (Chapter 5):

Step 5. List some of the tools that support Step 5 (Chapter 6):

F. JOB STEPS

NOTE You are required to complete data for the “AS-IS” Training Situation, as per step 2.0		
STEP	DIRECTIONS	PAGE #
1.1 to 1.6	Fill in blocks 1.1 through 1.6 in the FEA Template, based on your project, following the model in NAVEDTRA 138	2-4 to 2-5
1.1-1.3	For 1.1 through 1.3, use the NETC and/or Learning Center for whom you develop content.	
1.4-1.5	For 1.4 and 1.5, enter today’s date for the starting date, and one year from today’s date for the end date.	
1.6	For 1.6, check the box to indicate it is a course revision, and then identify the trigger event leading to the FEA. Remember that the FEA is the bridge between the work and the training, so the reason for conducting the FEA is the training deficiency that must be addressed, and how that training deficiency was identified.	
2.0	Document the “AS-IS” Comparative Baseline, listing existing JDTA, FCR, CTTL or PPP table, and TCCD data.	3-3 to 3-6
	Create one TLO and two supporting ELOs from the ‘existing’ course. These learning objectives should be at a low level, or for old or unused equipment.	
2.1	Document the TLO and its supporting ELOs, including KPL or SPL and Content Type in section 2.1 of the FEA Template, using the model in NAVEDTRA 138 (The TLO and ELOs are at the bottom of Figure 8 in the model)	
3.0	The “TO-BE” process depicted in Step 3 will include all of the tasks selected and approved as formal training requirements by the Resource/Requirements Sponsor.	4.2 to 4-6

NOTE You are required to complete data for the “AS-IS” Training Situation, as per step 2.0		
STEP	DIRECTIONS	PAGE #
3.1	Following the model in Figure 11, complete section 3.1 of the template listing: 1. Your JDTA Job, Duties, and Tasks 2. KSATRs listed for the Duties and Tasks 3. Your TLOs and ELOs created from the JDTA Duties, including KPL and SPLs, as well as content types for ELOs.	
4.0	The Gap in Training Requirements Analysis (Figure 12), Step 4, determines the existing gap in training by comparing the “AS-IS” to the “TO-BE” learning objectives (LOs).	5-2 to 5-7
4.1	It is not necessary for this exercise to re-list both the “AS-IS” and “TO-BE” Objectives, however it is necessary to compare them to determine the gap.	
4.2	Complete the Summary of differences, outlining the Gap.	
5.0	The Reuse, Repurpose, and Reference (R3) (Step 5) (Figure 15) identifies and analyzes existing course content material that may be available.	6-2 to 6-7
5.1	In section 5.1 of the Template, indicate which TLOs and ELOs from the existing course, or data from other sources, may be reused, repurposed, or referenced for the “TO-BE” training. Assign a percentage rate of reuse.	

OUTLINE SHEET 1-7-1-1

(U) BUSINESS CASE ANALYSIS (BCA)

A. INTRODUCTION

The BCA provides a structured and consistent methodology that presents all the benefits and costs, both quantitative and qualitative, of planned training actions.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS AND APPROVED FEA OUTPUT, COMPLETE BUSINESS CASE ANALYSIS (BCA) USING THE END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. (U) Using the approved FEA output, develop BCA background, problem statement, and current situation, in accordance with NETC policies and instructions.
2. (U) Using the approved FEA output, ROM BCA Content Tool, and/or NTSP data develop a cost benefits analysis of the proposed solutions in accordance with NETC Policies and Instructions.
3. (U) Using the approved FEA output, perform a risk, probability and mitigation strategy assessment of the proposed solutions in accordance with NETC policies and instructions.
4. (U) Using the approved FEA output, analyze the proposed solutions to illustrate projected outcomes and measurable deliverables in accordance with NETC policies and instructions.
5. (U) Using the BCA data, develop the BCA report in preparation for final approval and resourcing in accordance with NETC POLICIES AND INSTRUCTIONS\

Lesson Outline

1. Introduction to BCA
2. Number of Alternatives
3. BCA Approval Process
4. Building the Background section
5. Building the Initiative Description

6. Introduction to Cost Analysis
 - a. Types
7. Cost Analysis Guidelines
8. Troubleshoot the Widget Example
 - a. ROM estimate based on initial data
 - b. Detailed estimate
9. Non-quantifiable Costs and Benefits
10. Introduction to Risk Analysis
11. What is risk?
 - a. Types of risks
 - b. Risks vs. Issues
12. Risk Management
 - a. Steps
13. Risks Management Strategies
14. Introduction to Analysis of Alternatives
15. How to conduct an Analysis of Alternatives
16. Guidelines for analyzing Alternatives
17. Introduction to BCA Reports
18. Building the Strategic Alignment section
19. Building the Conclusions and Recommendations section
20. Building the Implementation Strategy section
21. Executive Summary

Resources/References

1. (U) NETCINST 1510.3 BCA Policy
2. (U) NETC E2E SOP

OUTLINE SHEET 1-8-1-1

(U) IMDP

A. INTRODUCTION

The Instructional Media Design Package (IMDP) details the design of the course and is combined with a prototype lesson to provide decision makers with a good idea of how the course will be put together.

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, AND CPM SOFTWARE, DEVELOP AN INSTRUCTIONAL MEDIA DESIGN PACKAGE (IMDP) USING THE END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. Using approved BCA data, build project data in Content Planning Module (CPM) Projects Tab in accordance with NAVEDTRA 136 and other NETC policies and instructions
2. Using completed Projects tab data, develop the Instructional Media Design Package (IMDP) in Content Planning Module (CPM) in accordance with NAVEDTRA 136 and other NETC policies and instructions
3. Given a completed IMDP, evaluate the IMDP for completion of requirements in accordance with NAVEDTRA 136 and other NETC policies and instructions

Lesson Outline

1. Introduction to IMDP
 - a. Details the design for each lesson and section
 - b. Communicates decisions that impact quality and cost
 - c. Is a living document
 - d. Starts with the IMDP report from CPM
 - e. Data is added outside of CPM as needed

2. CPM Project
 - a. Before we get to the IMDP
 - b. Levels of Interactivity
 - c. Create a Project in CPM
 - d. Select Performance Requirements
 - e. Add Course Elements (Module, Lessons, Sections)
 - f. Add Skills
 - g. Edit/Create Learning Objectives
 - h. ISD Considerations
3. IMDP Development
 - a. IMDP from CPM, Plus...
 - c. IMDP Completion
4. IMDP Evaluation
 - a. Reviewing the IMDP
 - b. Approving the IMDP
 - c. Transferring the Project to Learning Object Module (LOM)

Resources/References

1. NAVEDTRA 136, NETC Course Development and Life-Cycle Maintenance
3. NETC End-to-End (E2E) SOP

OUTLINE SHEET 1-9-1-1
(U) Learning Object Module (LOM)

A. INTRODUCTION

Once the course is designed and the TPP/TCCD, and IMDP has been approved, development of the course takes place in AIM Learning Object Module (LOM).

B. OBJECTIVE

Upon successful completion of this section, you will be able to:

GIVEN LOM SOFTWARE AND NETC POLICIES, GUIDANCE, AND INSTRUCTIONS, DEVELOP TRAINING MATERIAL USING THE NETC END-TO-END (E2E) PROCESS

C. SECTION OUTLINE

Lesson Objectives

1. Using approved IMDP and imported CPM data, develop a section in LOM using the NETC E2E Process
2. Using existing AIM I/II content, map to CPM/LOM using the NETC E2E Process

Lesson Outline

1. Section Development in Learning Object Module (LOM)
 - a. LOM Course Structure
 - b. LOM Basics
 - c. Mapping Existing Content

Resources/References

1. NETC E2E SOP
2. LOM User's Manual
3. NAVEDTRA 136, NETC Course Development and Life-Cycle Maintenance