NETC Course Development, Revision, and Modification End-to-End (E2E) Process Standard Operating Procedures (SOP)

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VERSION/CHANGE PAGE

Matrix – SOP Version Change Sheet

PAGE #	CHANGES IMPLEMENTED	DATE	VERSION #

REFERENCES

1. DOD Integrated Master Plan (IMP)/Integrated Master Schedule (IMS) Preparation and Use Guide (October 2005): https://www.nko.navy.mil/documents/6540429/0/IMP_IMS_Guide_v9.pdf/40ed6e43-556e-4050-a003-aa611fe3026b
2. DOD Handbook 29612-1A Guidance for Acquisition of Training Data Products and Services: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000020
3. DOD Handbook 29612-2A Instructional Systems Development/Systems Approach to Training and Education: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000019
4. DOD Handbook 29612-3A Development of Interactive Multimedia Instruction (IMI): https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000018
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6. DOD Handbook 29612-5A Advanced Distributed Learning (ADL) Products and Systems: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000016
7. DI-MISC-81183A Integrated Master Schedule (IMS) https://www.nko.navy.mil/documents/6540429/0/DI-MISC-81183A.pdf/9103f57e-c2cb-4532-97d7-232e36a90878
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12. DOD DID 29612B (DI-SESS-81521B) Training Program Structure Document: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000027
13. DOD DID 29612B (DI-SESS-81524B) Training Evaluation Document: https://www.nko.navy.mil/gear/library/download?document_id=v4doc236100013
14. DOD DID 29612B (DI-SESS-81525B) Test Package: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000023
15. DOD DID 29612B (DI-SESS-81526B) Instructional Media Package: https://www.nko.navy.mil/gear/library/download?document_id=v4doc294000022
16. DOD DID 29612B (DI-MISC-81183A) Integrated Master Schedule (IMS) https://www.nko.navy.mil/documents/6540429/0/DI-MISC-81183A.pdf/9103f57e-c2cb-4532-97d7-232e36a90878
17. OPNAVINST 1500.76 (series) Naval Training Systems Requirements, Acquisition, and Management:
    a. http://doni.daps.dla.mil/Directives/01000%20Military%20Personnel%20Support/01-500%20Military%20Training%20and%20Education%20Services/1500.76C.pdf or
    b. https://www.nko.navy.mil/gear/library/download?document_id=v4doc316600122
18. NETC 1500.9 (series) Training Requirement Identification and Resource Sponsor Commitment:

https://www.nko.navy.mil/gear/library/download?document_id=v4doc134100339

19. NAVEDTRA 130B Vol. I-III (series) Task Based Curriculum Development Manual: https://www.nko.navy.mil/group/netc-n7-branches/n74-learning-standards
20. NAVEDTRA 131B Vol. I-III (series) Personal Performance Profile Based Curriculum Development Manual: https://www.nko.navy.mil/group/netc-n7-branches/n74-learning-standards
21. NAVEDTRA 132 (series) Navy School Testing Program Management Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc144800105
22. NAVEDTRA 133 (series) Human Performance Requirements Review: https://www.nko.navy.mil/gear/library/download?document_id=v4doc163700255
23. NAVEDTRA 134 (series) Navy Instructor Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc64300053
24. NAVEDTRA 135 (series) Navy School Management Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc101000891
25. NAVEDTRA 136 (series) Integrated Learning Environment Course Development and Maintenance: https://www.nko.navy.mil/gear/library/download?document_id=v4doc137300037
26. NAVEDTRA 137 (series) Job Duty Task Analysis Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc307600001
27. NAVEDTRA 138 (series) Front End Analysis Management Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc236100002
28. NAVEDTRA 140 (series) Training Support Management Manual: https://www.nko.navy.mil/gear/library/download?document_id=v4doc247600006
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31. Pre-AIM Project Management Entry Workbook, Worksheet FEA Steps 1-5 (under FEA Tools) https://www.nko.navy.mil/group/netc-n7-branches
32. Authoring Instructional Material (AIM) Content Planning Module (CPM) and Learning Object Module Operator's Manual: http://aim.aimertech.com/aim/

EXECUTIVE SUMMARY

This Standard Operating Procedure (SOP) serves as an Interim guidance associated with the overall E2E Process. It is meant to be is a supplement to current guidance available to the developer/user (NAVEDTRA 130 – 140 Series, DOD Handbook 29612A-2A thru 5A, DOD Data Item Descriptions 29612B, Authoring Instructional Material [AIM] Content Planning Module (CPM) and Learning Object [LO] Module Operator's Manual, and OPNAVINST 1500.76 [series]).

NETC Training Strategy is based on approved training requirements, using realistic training situations, student problem solving and critical thinking skills. This process works best if the developer starts with the performance requirement outcomes in mind. Only directly supporting knowledge and skills based on performance requirements will be developed in LO module.

This SOP provides the associated steps and additional information for developing content in CPM and LO Module. The intent is to use this document as a guide through the E2E process for the developer to follow to keep focused on more than just the task at hand, but also how doing one step in the process may affect another later on. This guidance is not intended to replace any training related documented listed herein; instead is meant to augment and link these documents and the process together.

INTRODUCTION

Purpose

The purpose of this SOP is to provide additional interim guidance to align NAVEDTRA 130 – 140, DOD Handbook 29612A-2A thru 5A (Guidance for Acquisition of Training Data Products and Services), DOD Data Item Descriptions 29612B, AIM/CPM Operator's Manual, and OPNAVINST 1500.76 (series) with content development efforts to support NETC Learning Centers (LC) and their contracted, organic and/or acquisition based content developers. This guidance relates to the development of instructional content using Authoring Instructional Materials (AIM) Content Planning Module (CPM) and Learning Object (LO) Module CPM/LO Module.

This SOP will be used in conjunction with each NAVEDTRA 130 – 140 (series) document to support not only NETC and LC content development but acquisition programs that are required to follow the OPNAVINST 1500.76 (series).

Background

The process of building training in CPM/LO Module is based on a performance based approach that requires development of critical thinking and problem solving by the student. The NAVEDTRA 130 standard does not translate well into meeting fleet requirements and focuses on out-of-date training techniques used for the past 40 years and are not properly assessed or evaluated to determine training effectiveness. This performance based approach specifically ties fleet work requirements identified during the Job Duty Task Analysis (JDTA) to instructional outcomes determined during the Front End Analysis (FEA) and Business Case Analysis (BCA) phases. These performance based instructional outcomes are assessed and evaluated to ensure the training requirements are met. LO Module is a more precise method to build training that supports performance requirements. In accordance with NETCINST 1500.10 (series) – AIM I and AIM II will no longer be used to develop content. Any AIM I or AIM II development requires a waiver from NETC N7. NETC N7 requires specific comments, questions, illustrations to be presented for discussion of why this content should still be developed in AIM I or AIM II. The method for this review includes demonstration using DCO or providing the material to NETC N7 using the AIM Central Website (CITRIX).

Scope

This interim guidance SOP applies to all NETC LC, Learning Sites (LS), contracted/organic content developers, and acquisition programs, etc. that desire to transition training to NETC at the Ready for Training (RFT) date. Personnel shall follow the guidance provided below, whenever developing a project using the NETC Course Development and Revision End-to-End (E2E) Process. To successfully develop or migrate content in LO Module the following rules shall be followed: In some instances, specific step-by-step suggestions will be included to support efforts in development or migration of training material. The following pages will provide the overall

requirements and a list of procedural steps to guide the developer through each of the related areas to a successful use of the E2E process.

Version Management

To ensure that this SOP is maintained up-to-date in a transparent, well-controlled manner the SOP includes a Version and Change Page. Each update will depict the date of the update and what the updates were in the new version. Once the changes have been made to the SOP and entered into the Table 1, the SOP is considered reapproved as of the entry date. No further signatures of concurrence and approval are required.

E2E PROCESS FOR COURSE DEVELOPMENT/REVISION

NETC Course Development, Revision, and Modification End-to-End (E2E) Process is the foundation for ensuring that training is created and assessed by NETC and the Learning Centers. This process will ensure that Fleet requirements are met and are defined and approved by the Requirement Sponsor during this effort. In the past, training from both the Acquisition programs and NETC has not optimally used the resources provided to fully meet the training requirements of the Fleet. In most cases, this is because insufficient resources are initially provided and/or an incomplete analysis of those Fleet requirements was performed. Figure 1 graphically illustrates the overall E2E Process. The major products from this process are listed below and further defined later in this SOP.

- E2E Process Triggers and NETCINST 1500.9 (series) (Training Requirement Submission Process) define the resource requirements to begin the E2E analysis. NETCINST 1500.9 (series) will be required, unless resourced by NETC.
- Work requirements are identified (Job Task Analysis [JTA] for Acquisition or JDTA process for NETC).
- Work requirements, regardless of origin (e.g., acquisition program or NETC), will follow a similar Instructional Systems Design (ISD)/Systematic Approach to Training (SAT) approach as defined in the 29612 series documents. NETC commands will have this augmented by the NAVEDTRA 130 – 140 series, as applicable. Each work item (job, duty, task, sub-task, step, or Knowledge, Skills, Abilities, Tools, and Resources [KSATR]) identified as a Fleet Requirement for training by the Requirements Sponsor and will be analyzed for delivery as a Non-Resident Training Course (NRTC), Formal Training or Personnel Qualification System (PQS). The NRTC and PQS will be developed outside of AIM CPM and LO Module, as this is not a capability within CPM or LO Module. Specific JTA/JDTA items that are identified for Formal Training will use the Acquisition FEA or the NETC FEA process, as appropriate. To develop a training product that will be acceptable to NETC at the RFT date or developed by a Learning Center it must be developed in CPM to allow its use in LO Module development in accordance with NETCINST 1500.10 (series). Acquisition programs that develop in AIM I or AIM II, after the OPNAV 1500.76 (series) was signed, run the risk of not being acceptable to be migrated for life-cycle maintenance to a Learning Center at RFT.

- The development of Learning Objectives (LO) is the transition point from performance based work requirements to performance based LO. The FEA process utilizes these performance based LOs as the basis for analysis and design of training solutions/interventions. The NETC FEA process identifies existing training gap(s) between the as-is and the to-be state. Additionally, existing training content is reviewed in order to identify content for potential reuse, repurpose, and reference (R3). The FEA process results in alternative courses of action (COA) and associated learning strategy, assessment strategy, media requirements, and instructional design recommendations allowing a thorough analysis of associated cost factors during the BCA. This process will enable Requirement Sponsors and Resource Sponsors to make decisions that will meet their desired end state.
- FEA recommendations are used as the basis for Content BCAs, providing data points for costing training alternative Course of Actions (COAs), allowing Resource and Requirement Sponsors to determine resource availability relative to training requirements. FEA does not apply to NRTC or PQS.
- CPM Projects tab is where the Training Project Plan (TPP), Course Outline of Instruction (COI), Instructional Media Design Package (IMDP), Training Course Control Document (TCCD), and the Course Master Schedule (CMS) are developed, based upon the approved FEA, BCA and the agreed upon COA are developed. The TPP will be submitted to OPNAV as the Resource Sponsor, via NETC and the Requirements Sponsor, as appropriate. Once the project is complete it can be exported from CPM into the Enterprise Data Environment (EDE) hosted with CPM on Naval Education and Training Professional Development and Technology Center (NETPDTC) Servers for content development in LO Module.
- Use of the EDE is the only method for transferring data from CPM to the LO Module. Conversion of legacy AIM I/II content is dependent on completion of either the above step or the analysis and design portion of the E2E process. Design requirements developed in CPM cannot be changed after the EDE export from CPM Projects into the LO Module.

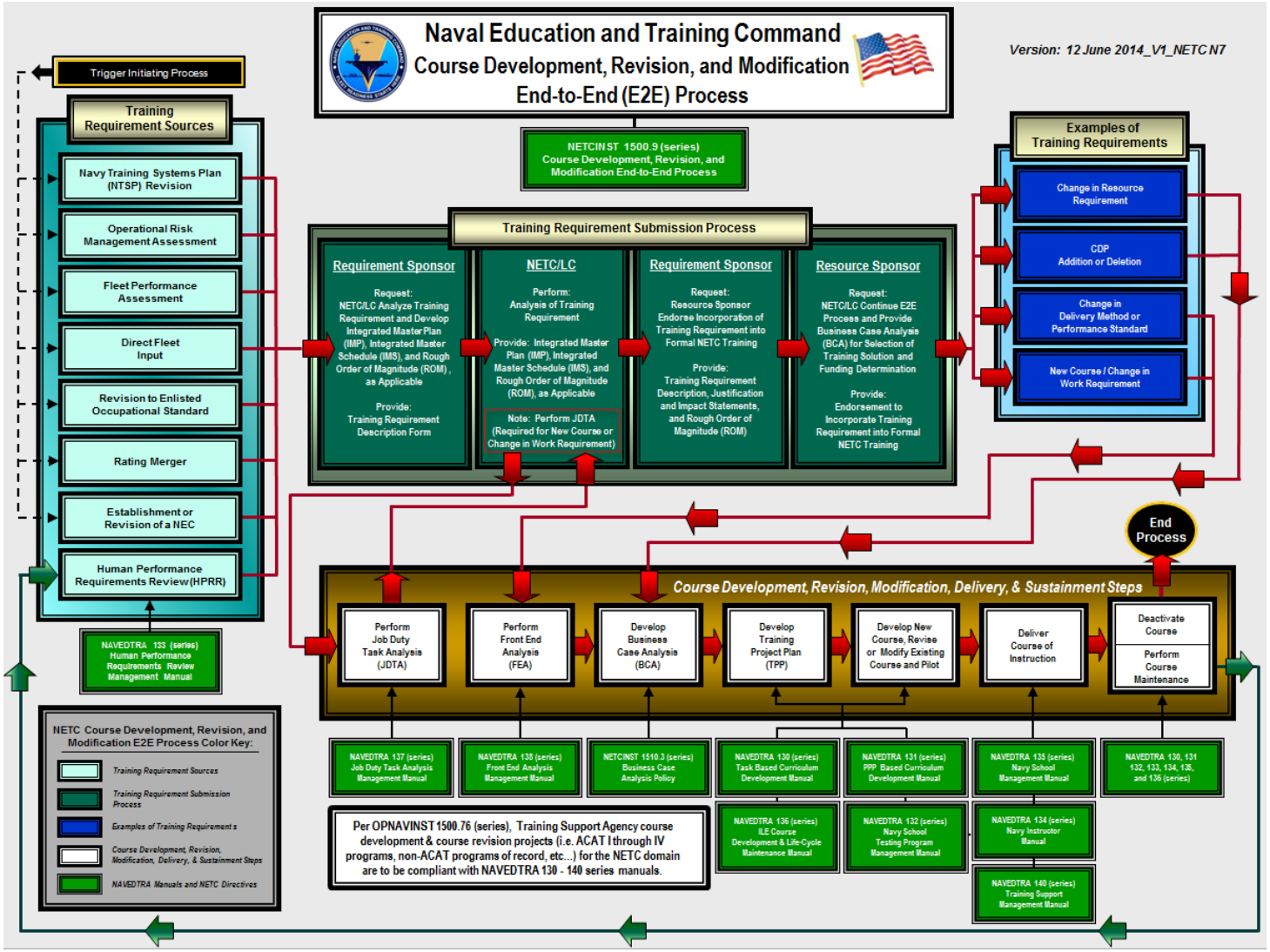


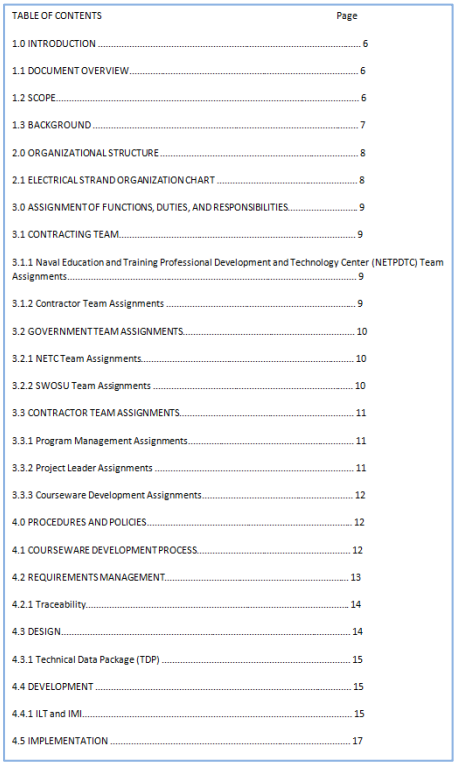
Figure 1 - NETC Course Development, Revision, and Modification End-to-End (E2E) Process Graphic

1. NETC 1500.9 (series) with E2E Triggers

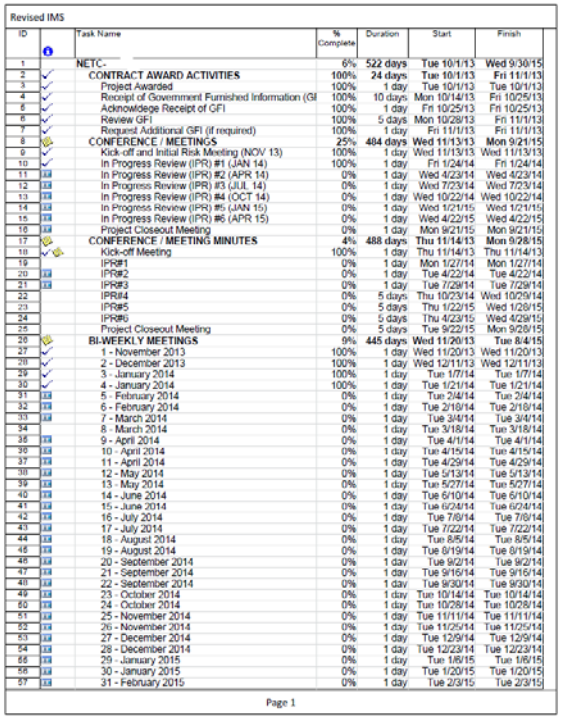
Specific Requirements and Steps

Triggers in the E2E Process define the provider of those resources. Resources will fall into two categories External or NETC directed. If the requirement is based on a Navy Training Systems Plan (NTSP), Rate Merger, Fleet Feedback, Safety Issue, Occupational Standards (OCCSTD) change, Human Performance Requirements Review (HPRR), Operational Risk Management (ORM) Factor or any change to a NETC requirement it requires a Request for Analysis from NETCINST 1500.9 (series). The Requirements Sponsor working with the LC will determine when the Request for Analysis is required to be signed to start or continue the process, depending on available resources and discussions with NETC. The Request for Analysis is a Letter of endorsement to resource the identified requirement. Final commitment of funds by the Resource Sponsor occurs after the BCA at the end of development of the Training Project Plan (TPP). In addition to providing Learning Center resources to meet new requirements, the Request for Analysis also serves as a resource planning tool for the Requirements Sponsor to discuss with the resource sponsor. In some cases, the Program Objective Memorandum (POM) issues will have to be submitted to support these resource requirements. In other cases NETC, may be able to support some of the requirements or analysis. The complexities of these issues makes the Request for Analysis identify the cognizant organization to provide the resources. This is best managed by conducting a meeting between the Learning Center, Requirements Sponsor and NETC N7 to develop a specific plan and timeline to resource the requirement. Steps 1-6 for processing a 1500.9 are identified in Table 1.

Table 1 – 1500.9 Process Requirements and Steps

STEP	ACTION	ADDITIONAL INFORMATION
1	Develop an Integrated Master Plan (IMP) and Integrated Master Schedule (IMS) as directed by the organization providing funds, IMP/IMS can be tailored to meet project specific requirements)	This is a living document that is updated throughout the life cycle of the project. Reference: IMP/IMS Guide, DOD 2005 and DI-MISC-81183A. 1. Integrated Master Plan (IMP)— The IMP is an event-based plan depicting the overall structure of the program and the key processes, activities, and milestones. It defines accomplishments and criteria for each event. It should also identify the projects communication plan, risk and mitigation strategy, evaluation assessment plan and for contractors evaluations a Quality Assurance Surveillance Plan (QASP). See Figure - 2.  TABLE OF CONTENTS Page 1.0 INTRODUCTION ..... 6 1.1 DOCUMENT OVERVIEW ..... 6 1.2 SCOPE ..... 6 1.3 BACKGROUND ..... 7 2.0 ORGANIZATIONAL STRUCTURE ..... 8 2.1 ELECTRICAL STRAND ORGANIZATION CHART ..... 8 3.0 ASSIGNMENT OF FUNCTIONS, DUTIES, AND RESPONSIBILITIES ..... 9 3.1 CONTRACTING TEAM ..... 9 3.1.1 Naval Education and Training Professional Development and Technology Center (NETPDTC) Team Assignments ..... 9 3.1.2 Contractor Team Assignments ..... 9 3.2 GOVERNMENT TEAM ASSIGNMENTS ..... 10 3.2.1 NETC Team Assignments ..... 10 3.2.2 SWOSU Team Assignments ..... 10 3.3 CONTRACTOR TEAM ASSIGNMENTS ..... 11 3.3.1 Program Management Assignments ..... 11 3.3.2 Project Leader Assignments ..... 11 3.3.3 Courseware Development Assignments ..... 12 4.0 PROCEDURES AND POLICIES ..... 12 4.1 COURSEWARE DEVELOPMENT PROCESS ..... 12 4.2 REQUIREMENTS MANAGEMENT ..... 13 4.2.1 Traceability ..... 14 4.3 DESIGN ..... 14 4.3.1 Technical Data Package (TDP) ..... 15 4.4 DEVELOPMENT ..... 15 4.4.1 ILT and IMI ..... 15 4.5 IMPLEMENTATION ..... 17 Figure 2- Example of IMP Table of Contents

STEP	ACTION	ADDITIONAL INFORMATION
		2. Integrated Master Schedule (IMS)— The IMS shows the detailed tasks and timing for events in the IMP and depicts the logical progression of events throughout the program. These tasks should be directly traceable to the IMP and the Work Breakdown Structure (WBS).



Revised IMS

ID	Task Name	% Complete	Duration	Start	Finish
1	NETC-	6%	522 days	Tue 10/1/13	Wed 9/30/15
2	CONTRACT AWARD ACTIVITIES	100%	24 days	Tue 10/1/13	Fri 11/1/13
3	Project Awarded	100%	1 day	Tue 10/1/13	Tue 10/1/13
4	Receipt of Government Furnished Information (GI	100%	10 days	Mon 10/14/13	Fri 10/25/13
5	Acknowledge Receipt of GFI	100%	1 day	Fri 10/25/13	Fri 10/25/13
6	Review GFI	100%	5 days	Mon 10/28/13	Fri 11/1/13
7	Request Additional GFI (if required)	100%	1 day	Fri 11/1/13	Fri 11/1/13
8	CONFERENCE / MEETINGS	25%	484 days	Wed 11/13/13	Mon 9/21/15
9	Kick-off and Initial Risk Meeting (NOV 13)	100%	1 day	Wed 11/13/13	Wed 11/13/13
10	In Progress Review (IPR) #1 (JAN 14)	100%	1 day	Fri 1/24/14	Fri 1/24/14
11	In Progress Review (IPR) #2 (APR 14)	0%	1 day	Wed 4/23/14	Wed 4/23/14
12	In Progress Review (IPR) #3 (JUL 14)	0%	1 day	Wed 7/23/14	Wed 7/23/14
13	In Progress Review (IPR) #4 (OCT 14)	0%	1 day	Wed 10/22/14	Wed 10/22/14
14	In Progress Review (IPR) #5 (JAN 15)	0%	1 day	Wed 1/21/15	Wed 1/21/15
15	In Progress Review (IPR) #6 (APR 15)	0%	1 day	Wed 4/22/15	Wed 4/22/15
16	Project Closeout Meeting	0%	1 day	Mon 9/21/15	Mon 9/21/15
17	CONFERENCE / MEETING MINUTES	4%	488 days	Thu 11/14/13	Mon 9/28/15
18	Kick-off Meeting	100%	1 day	Thu 11/14/13	Thu 11/14/13
19	IPR#1	0%	1 day	Mon 1/27/14	Mon 1/27/14
20	IPR#2	0%	1 day	Tue 4/22/14	Tue 4/22/14
21	IPR#3	0%	1 day	Tue 7/29/14	Tue 7/29/14
22	IPR#4	0%	5 days	Thu 10/23/14	Wed 10/29/14
23	IPR#5	0%	5 days	Thu 1/22/15	Wed 1/28/15
24	IPR#6	0%	5 days	Thu 4/23/15	Wed 4/29/15
25	Project Closeout Meeting	0%	5 days	Tue 9/22/15	Mon 9/28/15
26	BI-WEEKLY MEETINGS	9%	445 days	Wed 11/20/13	Tue 8/4/15
27	1 - November 2013	100%	1 day	Wed 11/20/13	Wed 11/20/13
28	2 - December 2013	100%	1 day	Wed 12/11/13	Wed 12/11/13
29	3 - January 2014	100%	1 day	Tue 1/7/14	Tue 1/7/14
30	4 - January 2014	100%	1 day	Tue 1/21/14	Tue 1/21/14
31	5 - February 2014	0%	1 day	Tue 2/4/14	Tue 2/4/14
32	6 - February 2014	0%	1 day	Tue 2/18/14	Tue 2/18/14
33	7 - March 2014	0%	1 day	Tue 3/4/14	Tue 3/4/14
34	8 - March 2014	0%	1 day	Tue 3/18/14	Tue 3/18/14
35	9 - April 2014	0%	1 day	Tue 4/1/14	Tue 4/1/14
36	10 - April 2014	0%	1 day	Tue 4/15/14	Tue 4/15/14
37	11 - April 2014	0%	1 day	Tue 4/29/14	Tue 4/29/14
38	12 - May 2014	0%	1 day	Tue 5/13/14	Tue 5/13/14
39	13 - May 2014	0%	1 day	Tue 5/27/14	Tue 5/27/14
40	14 - June 2014	0%	1 day	Tue 6/10/14	Tue 6/10/14
41	15 - June 2014	0%	1 day	Tue 6/24/14	Tue 6/24/14
42	16 - July 2014	0%	1 day	Tue 7/8/14	Tue 7/8/14
43	17 - July 2014	0%	1 day	Tue 7/22/14	Tue 7/22/14
44	18 - August 2014	0%	1 day	Tue 8/5/14	Tue 8/5/14
45	19 - August 2014	0%	1 day	Tue 8/19/14	Tue 8/19/14
46	20 - September 2014	0%	1 day	Tue 9/2/14	Tue 9/2/14
47	21 - September 2014	0%	1 day	Tue 9/16/14	Tue 9/16/14
48	22 - September 2014	0%	1 day	Tue 9/30/14	Tue 9/30/14
49	23 - October 2014	0%	1 day	Tue 10/14/14	Tue 10/14/14
50	24 - October 2014	0%	1 day	Tue 10/28/14	Tue 10/28/14
51	25 - November 2014	0%	1 day	Tue 11/11/14	Tue 11/11/14
52	26 - November 2014	0%	1 day	Tue 11/25/14	Tue 11/25/14
53	27 - December 2014	0%	1 day	Tue 12/9/14	Tue 12/9/14
54	28 - December 2014	0%	1 day	Tue 12/23/14	Tue 12/23/14
55	29 - January 2015	0%	1 day	Tue 1/6/15	Tue 1/6/15
56	30 - January 2015	0%	1 day	Tue 1/20/15	Tue 1/20/15
57	31 - February 2015	0%	1 day	Tue 2/3/15	Tue 2/3/15

Page 1

Figure 3 - Example of IMS

3. The IMP/IMS is used by program management as a powerful planning, control, and communications tool that, when properly executed, supports time and cost estimates, opens communications among personnel involved in program activities, and establishes a commitment to program activities.

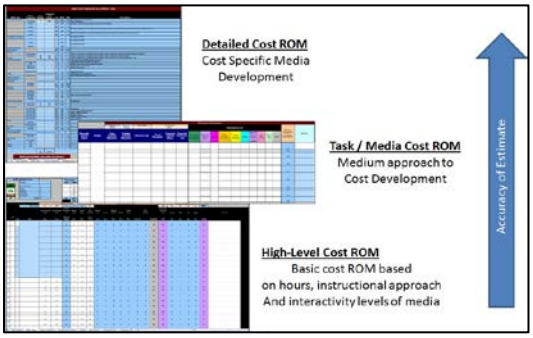
The IMP/IMS must be kept current to be effective.

STEP	ACTION	ADDITIONAL INFORMATION
1a	Integrated Master Plan (IMP): 1. Introduction 2. Project Scope Management 3. Project Time Management 4. Project Cost Management 5. Project Quality Management 6. Project Human Resource Management 7. Project Communications Management 8. Project Risk Management 9. Project Procurement Management (include above items as required)	1. Introduction - An explanation of the Learning Center, Learning Site, development team or company. 2. Project Scope Management • Initiation - What and When resources can be applied and any supporting information completed in this area that will decrease your ramp-up time. • Scope Planning - The project calls for multiple phases of the Plan, Analyze, Design, Develop, Implement, Evaluate (PADDIE) ISD Model, define what will be accomplished in each phase. • Scope Definition - Definition or explanation of the project scope. • Scope Verification - Any statements or explanations of the scope definitions that may cause increased risk. • Scope Change Control - A section to document any changes to scope approved by the government. 3. Project Time Management • Activity Definition - A description of each phase or activity being accomplished. • Activity Sequencing - When the work would start or the sequence. • Activity Duration Estimating - The percentage of resources being devoted to accomplish that phase/activity. • Schedule Development - Key milestones or Plan of Actions & Milestones (POA&M) (defined as part of your IMS), including major review periods for the government. (e.g., JDTA, FEA, TCCD, IMDP, Prototypes, Government Content Acceptance Testing [GCAT], Course Pilots) • Schedule Control - Complete an ongoing estimate of the management of the project schedule.

STEP	ACTION	ADDITIONAL INFORMATION
		4. Project Cost Management • DoN Staff Participants in Resource Planning - Based on the project and compared to the requirement for Government Subject Matter Expert (SME), Learning Standards Officer (LSO), Requirements Sponsor, acquisition program or other support should be defined here. This can be off-set by internal SMEs. If internal SME are being used, a short paragraph of qualifications will be included. • Resource Planning - Hours per labor category per deliverable • Cost Estimating - Estimated costs at this time delivered to the Fleet Industrial Supply Center (FISC) or Requirements Sponsor on a separate document. The government will break down cost estimate for major deliverables to assist FISC or Requirements Sponsor in doing cost realization. • Cost Budgeting - For government use. This section will be communicated to FISC or Requirements Sponsor based on NETC/Learning Center requirements if a potential change of scope or requirement is associated to this effort. This is primarily to address risk viewed by the government on contractor/Learning Center proposals that fall well under Government cost estimates or for project that based on objective may have additional work / scope increase based on government data. • Cost Control - An internal / external evaluation of the ability to manage cost to plan. Notes or comments will be added to explain deviations from the plan. • Setting Objectives - In the project and confirmed at the kick-off meeting specific goals to measure success of each effort will be identified. An internal / external evaluation upon completion of the project or delivery date will be conducted. The contractor will have 30 days after this

STEP	ACTION	ADDITIONAL INFORMATION
		review to submit in writing any rebuttals to the government's evaluation to the contracting officer. 5. Project Quality Management • Quality Planning - A description of the process used, percentage of the budget allocated and the number of resources assigned. These numbers will be reflected in the time management and reported. It is desired that a separate labor code be used or in the detailed explanation how this process meets the requirements. • Quality Assurance - A clear and detailed explanation of how, based on FEA/BCA/TPP requirements, IMDP, storyboard, content development to course pilot is quality controlled. This is critical to manage and support minimal government review times with the proper amount of resources being devoted to support those foundational reviews. • Quality Control – This process is referred to as the Quality Assessment Surveillance Plan (QASP). A description of how this is performed, how Government comments are adjudicated and how they are tracked thru the phases of development. 6. Project Human Resource Management • Organizational Planning - An explanation of project management and development team • Staff Acquisition - A planning tool for the government. The number of people that do not qualify to immediately acquire a Common Access Card (CAC) or don't have an active one. • Team Development - An internal assessment and description of your capabilities to execute project / Statement of Work (SOW) requirements. Team Development will be considered during requirement sponsor reviews or contract

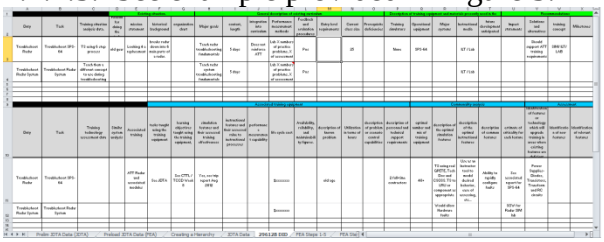
STEP	ACTION	ADDITIONAL INFORMATION
		awards. This is one of the key government post-requirements sponsor / post-contract evaluation reviews performed associated with Setting Objectives. 7. Project Communications Management • Communications Planning - All proposed meetings, example of Monthly status message (may be submitted and approved prior by Contract Officer Representative [COR]), web-portal, web meeting and bi-weekly meeting considerations. • Information Distribution - Names, e-mails addresses, and phone numbers of all key players (government and contractor) • Performance Reporting - added to monthly status report / bi-weekly meeting • Administrative Closure - Goes as a response to the government evaluation. A section documenting all correspondence that explains risk to execution based on government direction or issues. 8. Project Risk Management • Risk Management Planning - How will risk be defined and approved in the plan • Risk Identification - Risk identified on this project. • Qualitative Risk Analysis - Subjective evaluation of probability and impact. This number can be revised/updated. • Quantitative Risk Analysis - Probabilistic estimates of time and cost. • Risk Response Planning - The plan for discussing risk with the government. • Risk Monitoring and Control - The plan for monitoring and controlling identified risk. 9. Project Procurement Management (a) Project / Contract Close-out – Review of government evaluation and contractor feedback (if required).

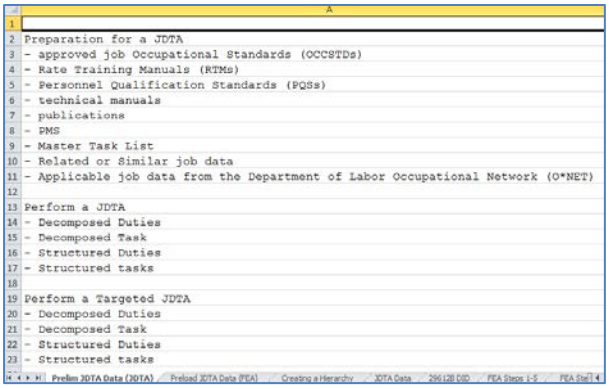
STEP	ACTION	ADDITIONAL INFORMATION
		Refer to IMP/IMS Guide, DOD 2005 and DI-MISC-81183A
2	Form an Integrated Product Team (IPT)	Refer to ILE Handbook MPT ECIOSWIT-ILE-HDBK-1C. Table 5 At a minimum, the IPT should have a Project Manager, Instructional System Specialist / Learning Standards Officer, Subject Mater Expert and a person capable of performing a Job Task Analysis / Evaluation. Requirements and Resource Sponsor should be identified. Other key personnel as required including a NETC N72/N74 Representative.
3	Schedule a meeting to review E2E Triggers and the Request for Analysis	Meeting should include projects key stakeholders to ensure a shared vision of the requirement. Refer to NAVEDTRA 137 (series)
4	Create a Rough Order of Magnitude (ROM)	If the content will be new content or a revision to existing content require a JDTA be performed prior to development of the ROM. See Figure 4 for an example of one method of a determining ROM. Use a high-level a mid-range or a detailed content cost estimate based on available data. Refer to DOD HBK 29612-2A & 3A  Figure 4 – Determining ROM
5	Draft, route, and sign the Request for Analysis, as required	Refer to the NETCINST 1500.9 (series) for specific details.
6	All Learning center contract efforts must obtain NETC N7 concurrence prior to using an outside contract vehicle for execution of a Statement of Work (SOW).	

2. JTA for Acquisition & JDTA process for NETC

Specific Requirements and steps for work requirements are provided in Table 2

Table 2 – Analysis Requirements and Steps

STEP	ACTION	ADDITIONAL INFORMATION
1	Conduct analysis using DID-SESS-81517B, as the Training Situation Document (TSD). This is accomplished during the period between the 60-Day JDTA Workshop Announcement message and the workshop convening.	The TSD is completed by an Instructional Systems Designer in the LC or the contracting company using the DID-SESS-8151B, depending whether written into the SOW. Use DID-SESS-81517B for analysis. Use of this DID is required to address JDTA Task Level, Status of Training, Types of Training, and Existing Interventions. DI-SESS-81517B, Required Sections - 1A, 2-2 - 2.2.4.3, 2.2.4.6 - 2.2.4.8; Optional or as required to support the project - 2.2.4.4 and 2.2.4.5. See example provided in Figure 5.  Figure 5 - Example of Analysis Workbook
2	Conduct analysis using Instructional Performance Requirements Document (IPRD) (The JDTA spreadsheet is used to minimize / optimize the data to enter into CPM to address identified work requirements. It is also used to conduct the job task analysis to place items in context, understand performance requirements, and key performance indicators [fault types, operation types, levels of proficiency, and resource] for developing learning objectives.)	Use DID-SESS-81518B for analysis (use DID-SESS-81518B's Training Assignment Matrix). Note: Use this to prepopulate the JDTA spreadsheet. NOTE: DI-SESS-81518B – Required (if not using AIM/CPM or CPM Spreadsheet) - 1A, 2.3.2 (to step Z, others optional) - 2.4.2, 2.5 - 2.6; Optional or as required - 2.3.1, 2.7 and 2.8. NOTE: See Figure - 5. This Analysis takes the listed performance requirements from the IPRD and translates them into learning objectives. This analysis is accomplished before and during the JDTA Workshop.

STEP	ACTION	ADDITIONAL INFORMATION
2a	Identify key JDTA duties and task.	The primary focus is on the duties and task, then identifying the location of sub-task and steps. Defining sub-task and individual steps in CPM increases the complexity of the review (especially for the requirements sponsor), increases time to develop, and increases life-cycle issues on the data that may not be used later by CPM. The data entered should be the data required to meet the requirement and support later development. If the data in the JDTA is organized correctly, new work data can always be added in the future to meet additional requirements. See Figure 6 for an example of a workbook used to assist in organizing preliminary JDTA data that list the work performed on the job. This data can be easily organized or reviewed by an SME. In many cases by starting with operation and maintenance will also help start this approach. Refer to DI-SESS-81518B  Figure 6 - Workbook to List and Organize

STEP	ACTION	ADDITIONAL INFORMATION
2b	Determine the analytical model/approach to create a JDTA that will be performed. 1. All Critical Learning (ACL) Model 2. Current, Similar, Subtask (CSS) and Criticality, Difficulty, Frequency (CDF) Models 3. Behavioral Task Analysis Model 4. Cognitive Task Analysis Model 5. Goals, Operators, Methods, and Selection Rules (GOMS) Analysis Model 6. Critical Decision Method Approach	Part of the analysis phase includes capturing skills required for performance, completed during the JDTA. There are several methods listed in NAVEDTRA 137 (series) for capturing performance attributes, however, ISD specialists normally only list Behavioral Task Analysis (when technical or procedural) or when they are largely invisible and nonprocedural in nature, require a Cognitive Task Analysis approach. The solution is to plug the desired method or tool into the ISD or ADDIE model. The purpose of the JDTA is to conduct a Needs Analysis that supports a Needs Assessment (NA) used during the FEA, based on DOD-HBK-29612-2A 1. ACL: Another name for this model is "Multiple Factor Model". The instructional analyst can tailor the ACL model to fit their requirements. When tailoring the ACL model, remember to select criteria that support making judgments on the selection of tasks for training. If at least four selection criteria are selected from the data collected, there should be a large database to use for selecting tasks for training. The following are guidelines for using the ACL model: (a) Select criteria to be evaluated. (b) Assign a weight factor or priority factor to the most important criteria (8 to 1 or 4 to 1, with 8 or 4 being the most critical and 1 the least critical). (c) List the criteria to be used for selection and assigned weight factor on the ACL model sheet. (d) List the tasks to be analyzed on the ACL model sheet. (e) Select a task to be analyzed. (f) Review the task analysis worksheets for the criteria listed. (g) Determine the average rating for the criteria for the selected task and multiply the average rating by the weight factor (if any), place the result in

		the square provided. h. Once all the criteria ratings are on the form, total them to determine the overall rating for the task and write this rating in the right hand column. (h) Continue this process until all tasks have an overall rating. (i) The tasks with the highest overall ratings should be the tasks selected for training and should be placed on the training task list. The training developer has to determine the cutoff point for the train/no train rating value. **<u>Advantages</u>:** (a) Provides a fairly comprehensive set of data for each task. (b) Probably gives the best analysis of any model. **<u>Disadvantages</u>:** (a) Analysis is difficult. (b) Assigning a weight factor is sometimes difficult and subjective. (c) Application of the model is time consuming. **<u>Major attributes</u>:** (a) An extensive database. (b) The number of different selection criteria that can be analyzed and combined to determine task selection. 2. CSS/CDF: CSS and CDF: The CSS and CDF models are used in the process of selecting tasks for training. They involve analyzing data collected from both supervisors and jobholders. **<u>Advantages</u>:** (a) There are three straightforward factors. (b) There is ease of administration. (c) A small sample is acceptable. (d) The analysis is simple. (e) Uses input from supervisors and incumbents. (f) Degree of complexity is adjustable.

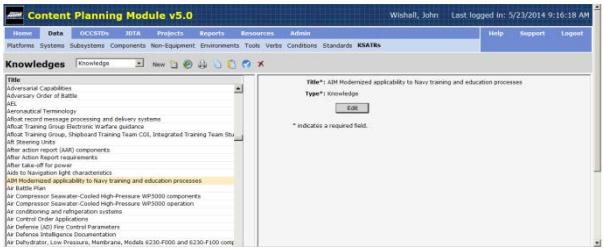
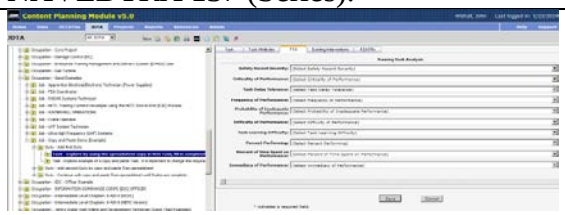
STEP	ACTION	ADDITIONAL INFORMATION
		<u>Disadvantages</u>: (a) Model provides a crude instrument for analysis. (b) Provides only gross task selection recommendations. **<u>Major attributes</u>:** (a) Simple rank ordering by category. 3. Behavioral Task Analysis: Used to capture overt actions by observing and recording an Exemplary Practitioner performs the task. Questions may also be asked to ensure the analyst has fully captured the performance. The output is a list of steps that may also have diagrams or pictures of the desired performance to aid the performers. If no Exemplary Practitioners can be found, for example the task is new; Subject Matter Experts (personnel who know about the subject but are not present performers) are interviewed to determine the best task steps. This is normally a prototyping method that has to be repeated a few times to pinpoint the best steps for performing the task. Depending upon the learners' prior knowledge and the complexity of the task, the list might also contain sub-task and steps. 4. Cognitive Task Analysis or a Rule-based Analysis approach: Cognitive task analysis is a type of task analysis aimed at understanding tasks that require a lot of cognitive activity from the user, such as decision-making, problem-solving, memory, attention and judgment. The cognitive task analyses methods analyze and represent the cognitive activities users utilize to perform certain tasks. Some of the steps of a cognitive task analysis are: the mapping of the task, identifying the critical decision points, clustering, linking, and prioritizing them, and characterizing the strategies used.

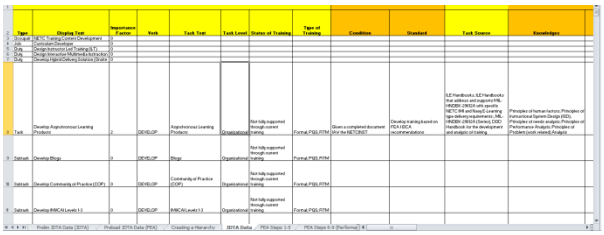
STEP	ACTION	ADDITIONAL INFORMATION
		Cognitive task analysis can be used to examine: • Performance differences between novices and experts • Mental workload associated with complex controls and displays • Decision-making of experts • The development and evolution of mental models • Information requirements for command and control systems • Troubleshooting, fault isolation, and diagnostic procedures 5. A GOMS model is a description of the procedural knowledge that a user must have in order to carry out tasks on a device or system; it is a representation of the "how to do it" knowledge that is required by a system in order to get the intended tasks accomplished. Briefly, a GOMS model consists of descriptions of the Methods needed to accomplish specified Goals. The Methods are a series of steps consisting of operations that the user performs. A Method may call for sub-Goals to be accomplished, so the Methods have a hierarchical structure. If there is more than one Method to accomplish a Goal, then Selection Rules choose the appropriate Method depending on the context. Describing the GOMS Rules for a set of tasks in a formal way constitutes doing a GOMS analysis, or constructing a GOMS model.

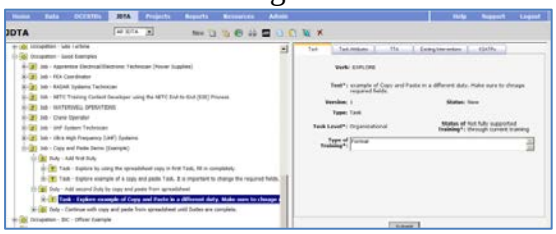
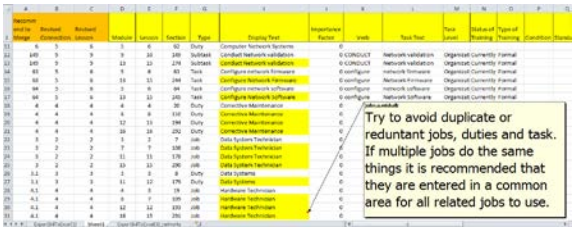
STEP	ACTION	ADDITIONAL INFORMATION
		6. Critical Decision Method (CDM) provides a model for tasks that will take place in naturalistic environments characterized by tight windows of time, a high level of information and constantly changing conditions. In CDM, a non-routine incident from the past is recalled, and a set series of questions about that incident is used to determine how to best assess the situation to make effective decisions. Interviews are conducted with experts in a particular subject, with cognitive probe questions used to determine how to best assess a non-routine incident and the decision-making involved. The aim of CDM is to reveal the subtle cues that experts will pick up on but may be overlooked by less-experienced personnel when assessing a situation. Refer to DOD-HBK-29612-2B
2c	Gather data to support the JDTA pre-population of data.	Different methods of gathering data exist to complete a JDTA. Please review MIL-HDBK-29612-2A APPENDIX B for data collection ideas. The list below is just for amplification of that more detailed list. In most JDTA performed the following methods will be used. The best approach is to use as many of the methods defined in 29612 Appendix B together as possible. • Subject Mater Expert (SME) - Provides a good review and amplification of duties, task, sub-task and steps required to perform the job. In many cases can provide procedural documentation or technical manuals that help support this analysis effort. The risk with relying on just this approach is each SME's view is subjective and may not be agreed to by all SME.

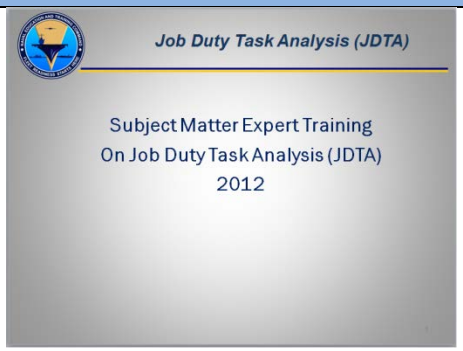
STEP	ACTION	ADDITIONAL INFORMATION
		• Technical Manuals / Required Procedural Steps (e.g., Engineering Systems Operational Sequencing System, (ESOSS), Preventative Maintenance System (PMS), etc.) - Provides duties, task, sub-task and step levels and normally is the starting point for pre-configuration of JDTA. The risk with relying on this approach is that sometimes procedures are not complete and/or do not provide an SME's explanation for the issues that may be preventing the job from being done correctly. • Direct observation - Provides a good opportunity for the ISD person to view the duties, task, sub-task and steps being performed. After viewing this, the ISD should have a better understanding of what's being performed and how it will need to be assessed, factoring in other limitations that they may be aware of. Limitations are not a reason for not doing something, but as a planning tool to be identified for the project manager (and listed in the Integrated Master Plan). The sooner the limitation is addressed the more expeditiously corrections can be made if possible. Benefit of this approach is in some cases the SME's are so use to doing something they miss things that can be captured. The risk is if the work is just covered at a very basic or superficially level the ISD may walk away with incomplete data, not capturing all the critical performance requirements. This will lead to an inaccurate assessment.

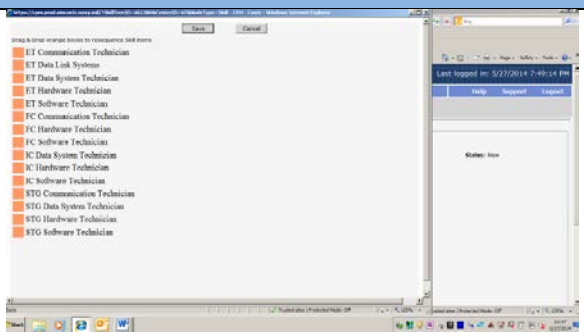
STEP	ACTION	ADDITIONAL INFORMATION
3	Conduct a Learning Center meeting to plan and announce JDTA workshop. (Release NAVEDTRA 137A required messages).	Refer to NAVEDTRA 137 (series) for discussions and examples of this meeting and naval messages to announce a JDTA workshop. A 60-Day Announcement Message for the JDTA Workshop is sent by the Learning Center Learning Standards Officer (LSO). See Figure 7 for an example of a JDTA Workshop Announcement Message. FM: LEARNING CENTER TO: INFO: BT UNCLAS//N01500// MSGID/GENADMIN/LEARNING CENTER/MONTH// SUBJ/LEARNING CENTER JOB DUTY TASK ANALYSIS ANNOUNCEMENT// REF/A/DOC/JUL2011// REF/B/DOC/3DEC10// NARR/REF A IS NAVEDTRA 137. REF B IS NETCINST 1500.9 TRAINING REQUIREMENT IDENTIFICATION AND RESOURCE SPONSOR COMMITMENT.// POC/LAST NAME/RANK (MIL OR CIV)/LEARNING CENTER/LOCATION/TEL: DSN XXX-XXXX/EMAIL:// RMKS/1. PER REF A, A JDTA ALIGNS A JOB BENEATH AN OCCUPATION. THEN, THE WORK ASSOCIATED WITH THE JOB IS DECOMPOSED AND STRUCTURED INTO DUTIES AND TASKS. TASK LEVEL DATA IS THE SOURCE FOR BUILDING LEARNING OBJECTIVES, AND THUS IS THE FOUNDATION OF NAVY CURRICULUM DEVELOPMENT. ATTRIBUTES WILL BE ASSIGNED AT THE TASK LEVEL THAT WILL PROVIDE THE SPECIFICITY THAT WILL ENABLE CURRICULUM DEVELOPERS TO BUILD COURSES TO SATISFY VALIDATED AND RESOURCED FLEET TRAINING REQUIREMENTS PER REF B. 2. JDTA INFORMATION: A. PURPOSE: B. DATE(S): C. LOCATION: D. TENTATIVE AGENDA: 3. SUBJECT MATTER EXPERTS (SME) PROVIDE INVALUABLE TECHNICAL KNOWLEDGE AND EXPERTISE NECESSARY TO DECOMPOSE AND STRUCTURE WORK, DURING A JDTA. NETC REQUESTS STAKEHOLDERS NOMINATE A MINIMUM OF THREE SMES (E5 OR ABOVE) FOR THE JDTA. REQUEST PROVIDE SME POC INFO. FLEET, TYCOM, ISEA, PROGRAM OFFICE, MAINTENANCE COMMUNITY, ENLISTED COMMUNITY MANAGER AND OTHER STAKEHOLDER PARTICIPATION IS HIGHLY ENCOURAGED. REQUEST ATTENDEES PLAN TO ATTEND IN PERSON FOR DURATION OF JDTA. 4. A COMMUNITY OF PRACTICE (COP) FOR THIS JDTA IS AVAILABLE ON THE LEARNING CENTER NKO HOMEPAGE. FROM NKO HOME PAGE, GO TO PULL DOWN MENU UNDER NKO LOGO AND CLICK LEARNING CENTERS - CLICK ON LEARNING CENTER - CLICK ON LEARNING CENTER'S JDTA COP - THEN SELECT JDTA TITLE. RECOMMEND BOOK MARKING PAGE. JDTA COP IS THE REPOSITORY FOR ALL JDTA INFO. 5. POSTED ON THE LEARNING CENTER COP IS A PRELIMINARY WORK STRUCTURE FOR THE JDTA. REQUEST STAKEHOLDERS REVIEW AND PROVIDE COMMENTS. Figure 7 - JDTA Workshop Announcement. Refer to NAVEDTRA 137(series)
4	Complete JDTA spreadsheet (**Option 1**). (Note: The JDTA spreadsheet is the recommended method to assist in easy organization of the data [JDTA preload data] used to populate the JDTA data in CPM.) **Option 2:** JDTA data entered directly into CPM. (Step 7)	Use DID-SESS-81518B and CPM Users Guide. 1. Duties (title only), Tasks, Sub-Tasks and Steps need to use action verbs followed by behavior using the "Attributes" tab, and should not include: platform, system, sub-system, equipment / component. Platform, system, sub-system, equipment/ component should be identified at the job level. 2. JDTA Task Level, Status of Training and Types of Training. This data should be verified from the DID-SESS-81517B analysis to determine the correct entries.

STEP	ACTION	ADDITIONAL INFORMATION
		3. Conditions Standards, Sources, KSATR, Platform, system, sub-system, equipment/ component and non-equipment can be preloaded using the Data Menu in CPM. Conditions, Standards and Source are based upon the work. One of these per task statement should be identified - Platform, System, Sub-System, Equipment / Component and Non-equipment. See Figure 8 for an example of the KSATR view of CPM Data Menu.  Figure 8 - CPM Data Menu (KSATR) 4. Training Task Analysis (TTA) data is designed to be used to flush out which tasks are the most critical/most used to train. TTA can be identified before a JDTA workshop by working with a knowledgeable SME. See Figure 9 for an example of what is available in the JDTA Menu. Explanations of the fields in the JDTA menu of CPM can be found in DOD HBK-29612A-2A, ISD/SAT and NAVEDTRA 137 (Series).
		 Figure 9 - JDTA Menu 5. KSATR: This includes Knowledge and Skills that identify foundational, background, or prerequisite knowledge and skills. Abilities identify individual attributes that influences performance (cognitive, physical, psychomotor, and sensory); Tools and

STEP	ACTION	ADDITIONAL INFORMATION
		Resources (Manuals/Documents) list items necessary to complete the task. There are two methods of developing KSATR and the best method for use depends on the projected size and complexity of the information. • Method #1: Utilize NETC N72 KSATR Spreadsheet or the Personal Performance Profile (PPP) development tool, located in NAVEDTRA 131 (series). • Method #2: (Recommended for large or complex KSATR): Use of KSATR as a pointer to a different JDTA analysis effort as another Duty or Task, which will allow greater flexibility to develop foundational background or prerequisite requirements. 6. Identify proficiency level required to perform the work. Identify the required Skill Performance Level (SPL) for each JDTA task by recording it in the Skill (S) section of the KSATR. See Figure 10 for an example of a JDTA Worksheet. Refer to DOD HBK-29612A-2A, ISD/SAT and NAVEDTRA 137 (series).  Figure 10 - JDTA Worksheet
5	Review JDTA preload data to ensure it is accurate, complete and ready to be placed in CPM at least 5 days before the JDTA workshop.	Learning Center and NETC N7 personnel should review this data to ensure it supports execution of the whole E2E process, to include later learning objective development. Refer to 29612A-2A, ISD/SAT & NAVEDTRA 137 (series).
6	JDTA data should be sent out, posted or made available to the SME, Requirements Sponsor and other key review members.	JDTA data for review can be e-mailed, hosted on Navy Knowledge Online (NKO) Communities of Practice (COP), or referenced in CPM for review. SME should gather related documents to support this effort and identified job requirements. NAVEDTRA 137 (series).

STEP	ACTION	ADDITIONAL INFORMATION
7	Transferring data from JDTA spreadsheet to CPM.	1. Input one task (or duty, task, sub-task as appropriate) and use the CPM copy and paste feature editing the JDTA fields to enter the data for the remaining items.  Figure 11 - JDTA Data Entry Example 2. Condition, Standard, Sources, KSATR, Platform, System, Sub-System, Equipment / Component and Non-equipment can be pre-entered into CPM using the Data menu by copy and paste from the worksheet. See Figure - 7 for an example of the KSATR view of CPM Data Menu. Refer to 29612A-2A, ISD/SAT & NAVEDTRA 137 (series).
8	Optimize the JDTA data to eliminate redundancy at the duty, task and sub-task level	CPM/LO Module builds learning objectives using the JDTA data, but can only link one duty or task or subtask to that objective. (This can be accomplished by moving the task that supports a primary task from the Task level to a related Subtask level.) See Figure 12 for an example of not optimizing. Note: Yellow items are duplicate duties, task and sub-task in this example JDTA. Refer to 29612A-2A, ISD/SAT & NAVEDTRA 137 (series).  Figure 12 - Duplicated Items
9	Conduct a JDTA Workshop.	SME review should be facilitated by a JDTA professional. An ISS/ISD professional that is experienced with the analysis conducted as part of the 17B and 18B DID should also attend. SME are encouraged to provide amplifying data and correct any mistakes. The requirements sponsor should attend, if available.

STEP	ACTION	ADDITIONAL INFORMATION
		 Figure 13 - Workshop Training Cover Slide Note: A brief is available on NKO N72 COP to assist the SME's before a JDTA workshop. A JDTA Workshop is more than just a review of job items in a list to meet a NETC requirement. A JDTA is an Analysis of the work being performed, so it can be put into context, types of situations can be identified and a determination of how much practice is required to reach certain proficiency levels. Refer to 18B DID for specific requirements that should have been identified before or during the JDTA workshop. Refer to DOD-HBK-29612A-2A, ISD/SAT NAVEDTRA 137(series)
10	Make required changes to JDTA data in CPM.	Data can be sorted in a Learning Hierarchy. JDTA data can be listed in the order it is done on the job. Note: See Figures 14 and 15 for examples of hierarchy and sorting. Figure 14 - Learning Hierarchy Refer to DOD-HBK-29612A-2A, ISD/SAT NAVEDTRA 137(series)

STEP	ACTION	ADDITIONAL INFORMATION
		 Figure 15 - Arrangement and Sorting Window
11	Prepare a JDTA Approval Letter for the Requirements Sponsor.	This letter should be e-mailed to the Requirements Sponsor and a meeting arranged to discuss specific requirements and explain the results of the JDTA. The letter should list key performance items that the Fleet SMEs said required formal training. It is NOT recommended to send the Requirements Sponsor a JDTA Hierarchy Report without a supporting meeting/discussion of the data. Having the Requirements Sponsor review excessive amounts of JDTA pages without context is counterproductive. The process will be greatly enhanced by having a discussion of the JDTA data with the requirements sponsor to ensure that the analysis and design team understands the requirement and vision recommended by the analysis. See Figure 16 for an example of the JDTA Approval Letter. Refer to NAVEDTRA 137(series). *(Learning Center Letterhead)* 1500 Ser N7/ *(Date)* From: *(Learning Center)* To: (Requirement Sponsor(s)) Subj: *(name of JDTA)* JDTA DATA Encl: (1) *(name of JDTA)* JDTA Data Report 1. A JDTA was conducted on *(dates)* in response to the training requirement that was submitted per NETCINST 1500.9, *(list name of training requirement, Ser, and date of ltr)*. Enclosure (1) is forwarded for your review, validation, and approval. 2. If upon review, there is JDTA data that needs to be modified, request annotate it on the enclosed report or on separate correspondence and return it to *(Learning Center)* with your approval. Upon receipt, the data will be updated in the Authoring Instruction Material (AIM) Content Planning Module (CPM), per your direction. 3. If you have any questions concerning this matter, please feel free to contact the *(Learning Center)* JDTA POC, *(POC full name and contact information)*. (Typed Name) Copy to: NETC N74 Figure 16 - JDTA Approval Letter

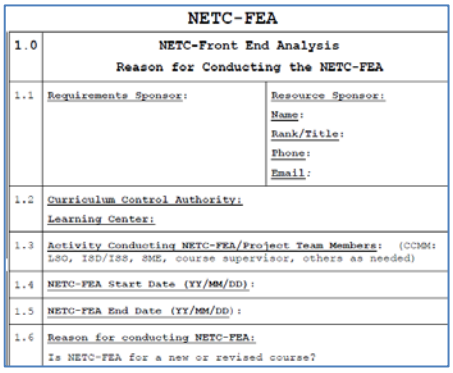
STEP	ACTION	ADDITIONAL INFORMATION
12	Creation of preliminary performance learning objectives to support the up-coming FEA "To-Be" state. (Function is currently not available in the software application.)	Refer to DID-SESS-81518B section 2.2 for using the pre-AIM JDTA or FEA worksheet preliminary performance learning objectives should be constructed (the "To-Be" JDTA). CPM builds learning objectives based on the JDTA duty, task, sub-task, steps and KSATR statements. If these statements are not performance based and are not considered by the ISS/ISD person working the project as if they can be assessed / evaluated the CPM data will be at risk when exporting the CPM project to LO Module. See Figure 17 for an example of FEA worksheet. Figure 17 - FEA Worksheet
13	Approval of the JDTA from the Requirements Sponsor.	It is not recommended to rush into CPM and approve the JDTA the minute after the requirements sponsor approves it. Before approval of the JDTA in CPM, a large percentage of the FEA can be completed. This will ensure the JDTA data will align well with the training requirements needed to support development later in LO Module. 1. Before a JDTA can be approved, it must first be submitted and accepted. The JDTA developer's permission levels govern the difficulty of completing this step. CPM has a bulk submit, accept and approve button available to the Learning Center CPM managers. It is recommended to save time when ready for that final approval, that the Bulk Approval process be used. It is prudent to review content prior to conducting bulk approval.

STEP	ACTION	ADDITIONAL INFORMATION
		2. Once a JDTA is approved, it requires the highest levels of CPM access to unapproved JDTA. Care must be taken to ensure the JDTA is only approved when it is correct. 3. Having an approved JDTA is required to link the JDTA items with Learning Objectives in the CPM Projects section for further training development. Refer to NAVEDTRA 137(series)
14	Organize the JDTA Data to allow the transition from work requirements to training requirements.	Duty = Terminal Learning Objective (TLO) Task = Enabling Learning Objective (ELO) 1. CPM application allows TLO to be developed from using JDTA Duties, Tasks, Sub-Tasks or individual KSATR. CPM is optimized if the TLO is kept higher in precedence from the list of Duties and Tasks. 2. ELO developed from using JDTA Tasks, Sub-Tasks, Steps or individual KSATR Refer to DI-SESS-81518B
15	Perform other 29612B Data Item Descriptions (DID) as required to support the overall project requirements.	DID's provide an extensive range of analysis tools to look at software, Technical Training Equipment issues, Course Management, Media and Instructor support tools. Refer to DOD-HBK-29612B DID

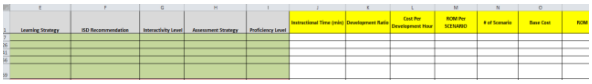
3. Specific requirements and steps for performing a FEA.

Note: Many data element fields for completion of the Pre-Aim Project Management Entry Worksheet listed below can be cut and pasted from the TSR (e.g., DIDs: DI-SESS-81517/8/9B)

Table 3 – FEA Process Requirements and Steps

STEP	ACTION	ADDITIONAL INFORMATION
1	State the reasons for conducting the analysis. (Identify the team, the affected CINs, and the LC.)	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5 found on the NETC N72 Production Management NKO portal complete data for Step 1 of the FEA, (fields A1:F9) REASON FOR CONDUCTING THE NETC-FEA, IAW Reference NAVEDTRA 138 (series) Chapter 2. See Figure - 18. Full FEA Template can be found in NAVEDTRA 138 (series) Appendix A  NETC-FEA 1.0 NETC-Front End Analysis Reason for Conducting the NETC-FEA 1.1 Requirements Sponsor: / Resource Sponsor: Name: Rank/Title: Phone: Email: 1.2 Curriculum Control Authority: Learning Center: 1.3 Activity Conducting NETC-FEA/Project Team Members: (CCMM: LSO, ISD/ISS, SME, course supervisor, others as needed) 1.4 NETC-FEA Start Date (YY/MM/DD): 1.5 NETC-FEA End Date (YY/MM/DD): 1.6 Reason for conducting NETC-FEA: Is NETC-FEA for a new or revised course? Figure 18 - FEA Template Excerpt
2	Review TSD/IPRD, TCCD, Course Training Task List (CTTL), and other appropriate documents dependent on the trigger. (Enter key performance requirements into the current state [AS-IS] of the spreadsheet.)	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5 found on the NETC N72 Production Management NKO portal, complete data for the section titled TSD/IPRD and for Step 2 of the FEA section titled ESTABLISH AN "As-Is" COMPARATIVE BASELINE entering the learning objectives (TOs, EOs) using the completed TSD to make additional comments as required. Note: The TSR is the combined reports from DID 17, 18 and 19 based on required items. The TSR should integrate these reports as appropriate and be supportive based on the analysis so they can be used by the FEA. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)

STEP	ACTION	ADDITIONAL INFORMATION
3	Review learning objectives developed from the JDTA and IPRD. (This step is the review of the data created during the JDTA and populated in CPM) *(Functionality is not currently available in the software application. Selection of these performance requirements must be accomplished by using the JDTA.)*	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5, found on the NETC N72 Production Management NKO portal, complete data for the section titled "TO-BE" TRAINING REQUIREMENTS Step 3 of the FEA, entering the learning objectives (TOs, EOs) developed from the JDTA and IPRD. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)
4	Identify the requirements gap.	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5, found on the NETC N72 Production Management NKO portal, complete data for the section titled GAP Summary of Differences, Step 4 of the FEA for each LO. Note: This includes gaps in training, the assessment methodology, media, Technical Training Equipment (TTE), classroom type, based on the delivery method, and infrastructure (e.g. bandwidth, bottlenecks, safety issues, etc.) and resources. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)
5	Determine reuse, repurpose, and reference (R3).	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5, found on the NETC N72 Production Management NKO portal complete data for the section titled REUSE, REPURPOSE, AND REFERENCE (R3) CONTENT, Step 5 of the FEA. Identify LOs that fall into each category: Reuse = as is plug and play minimum to no level of effort, Reference = no level of effort, Repurpose = includes the # of LOs, specific media requirement details (i.e., 3 Simulated Interactive Media (SIM) interactivity level-1 for conversion to meet interactivity level 3 requirements). In Section 5.1 of the FEA template report a summary identifying percentages /#'s of LOs that fall into each category of R3. The data collected in the summary of differences is used during the media selection process and in the development of recommendations and the output statement. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)

STEP	ACTION	ADDITIONAL INFORMATION
6	Determine the media and media delivery mode requirements based on the performance requirement.	Using Pre-AIM Project Management Entry Workbook, worksheet FEA Steps 1-5 found on the NETC N72 Production Management NKO portal, complete data for the section titled IMRD Results and using Worksheet FEA 6-9 for Step 6 of the FEA section titled MEDIA SELECTION entering hierarchical module, lesson, section data, associated learning objectives, and the minimal requirements for ISD consideration data (Learning Strategy, ISD Comments gaps, Interactivity Level, assessment strategy, and S/K proficiency level) based on DOD Handbook 29612 series. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)
7	Enter recommendation and solution statement into ISD Consideration Narrative section.	Minimum requirements for ISD consideration are narrative statements describing the overall instructional/learning strategy including the prescribed learning hierarchy/ies, design and use of media, assessment strategy/ies for formative (progress)/ summative (comprehensive- capstone) assessments measuring learner performance proficiencies, media interactivity level requirements, Minimum prerequisite Knowledge and Skill (K/S) proficiencies required for learner training eligibility and Background direct/indirect K/S proficiencies. This data will ultimately roll up into the generation of the IMDP report from CPM. See Figure 19 showing the ISD Considerations from the FEA Spreadsheet 6-9.  Figure 19 - FEA ISD Considerations Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series) step 7 and step 8

STEP	ACTION	ADDITIONAL INFORMATION
8	Complete the output statement.	List three (3) High level courses of action (i.e., 1-Status quo, 2-Blended learning w/Instructor Led Training (ILT), Computer Aided Instruction (CAI), SIM level of interactivity 2/3, and TTE delivered as resident w/classroom and lab; 3-Blended learning w/ILT/CAI, SIM level 2/3, TTE w/knowledge components delivered as Distributed Learning (DL) w/computer-aided instruction and resident labs.
9	Route FEA to NETC for review/approval.	Routing should be via the Learning Center. Refer to 29612A-2A and 3A, ISD/SAT & NAVEDTRA 138 (series)
10	Create Final Approval and Executive Summary.	The approved FEA will be used to develop the BCA. Both the approved FEA and BCA will be entered into the CPM Projects menu to develop the TPP.

4. The Content BCA using the FEA requirements.

Note: This will provide cost data to the Sponsors. This will allow the Sponsors to determine resource availability.

Table 4 – Content BCA Process Requirements and Steps

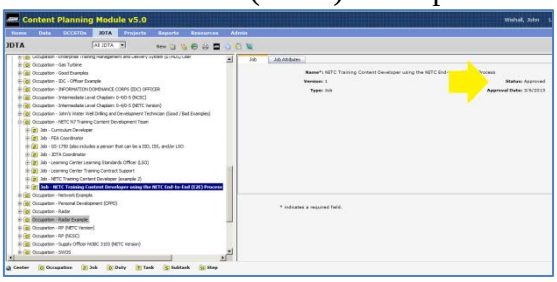
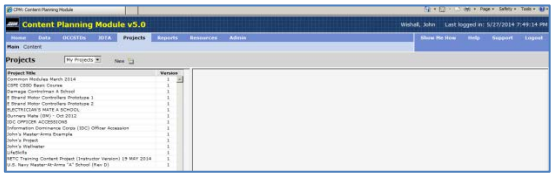
STEP	ACTION	ADDITIONAL INFORMATION
1	Determine if a high-level a mid-range or a detailed content cost estimate can be provided based on the FEA data.	Contact NETC N721 office at 757-322-9717 for assistance with performing a cost analysis.
2	Based on the selection made in the preceding step, analyze each FEA recommendation to determine a development cost to meet the requirement.	Contact NETC N721 office at 757-322-9717 for assistance with performing a cost analysis.
3	Review ROM provided in NETCINST 1500.9. (series)	Review IMP / IMS to determine if ROM is still within acceptable risk to execute based on the plan and schedule.
4	Evaluate the BCA/FEA.	Responsibility of Development Team
5	Route the BCA/FEA for review.	This content BCA data will be used in the NETCINST 1510.3 (series) (BCA Instruction) as the curriculum development cost.

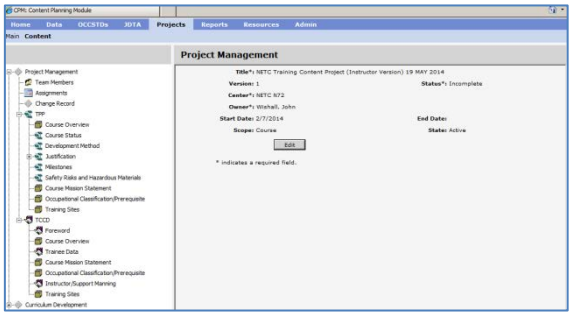
STEP	ACTION	ADDITIONAL INFORMATION
6	Schedule a meeting with the Requirement Sponsor for the purpose of approving the COA and to begin development of the TPP.	Explain the different Course of Action (CoA), discuss options and way forward with sponsor. Refer to NAVEDTRA 130 and 140 (series) for managing work and resources; Useful for NETC N4 call for new work to address Electronic Classroom ECR.
7	Determine Instructor requirements.	Use Instructor Computation (ICOMP) 21 model.
8	Determine facilities.	
9	Determine the Resource Requirements List (RRL).	This is developed in LO and exported back into CPM when the project is completed.
10	Determine Training day (actual Days of Instruction.)	Total training days are determined by the instructional hours defined at each section level. CPM is not restricted to 50 min of inst.
11	Determine Strategic Alignment.	Is this going to be a NETC or OPNAV bill? Who owns the requirement?
12	Determine Analysis of Alternatives (AoA).	The number of AoA should be based on providing the sponsor options. Three AoA are only a recommendation. If the FEA is constructed properly many options become available.
13	Determine Business and Operational Impacts.	
14	Determine Risk Assessment.	The Request for Proposal (RFP)/contract package/ Government execution plan will reflect the adequacy and accuracy of the requirements. Considerable risk may be placed on the Government and contractor when the contract package lacks adequate definition of requirements. Packages lacking an integrated Government and contractor Quality Assurance (QA) effort, through the IPT process, also present significant risk. Joint quality reviews, as part of the IPT process, are important. A well-written RFP/contract package defines these QA procedures. This, in turn, should reduce technical, schedule, and cost risks for both the contractor and the Government.
15	Determine Cost/Benefit Analysis.	See NETCINST 1510.3 (series)BCA
16	Create Conclusions and Recommendations.	See NETCINST 1510.3 (series) BCA
17	Provide Implementation Strategy.	

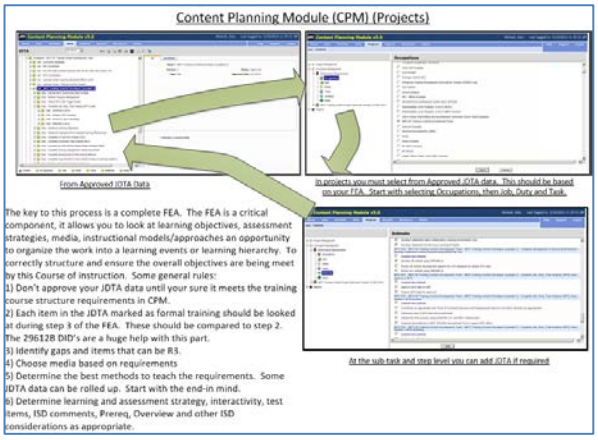
5. CPM Projects Menu

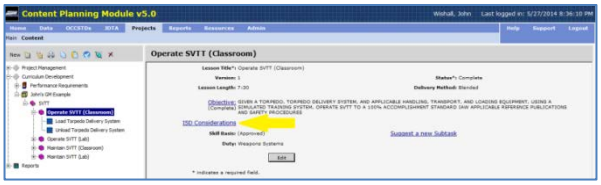
The transition between the JDTA work requirements and the agreed upon training approach

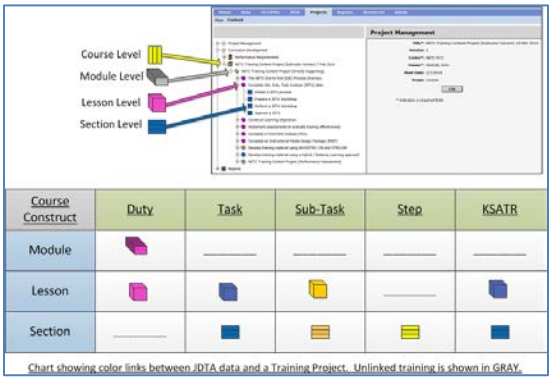
Table 5 – Transition Process Requirements and Steps

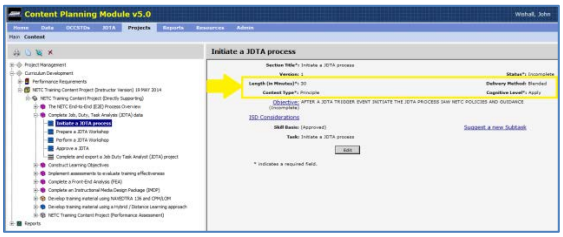
STEP	ACTION	ADDITIONAL INFORMATION
1	Verify that the JDTA Data is approved.	This may require review of multiple JDTA entries and/or entries across multiple Learning Centers. See Figure 20 on how to verify if the JDTA is approved. Note: See yellow arrow pointing at Approved. 29612A-2A, ISD/SAT & NAVEDTRA 137 (series) for steps 1-4.  Figure 20 - JDTA Approval Verification
2	Create new project in CPM Projects Tab.	The CPM project should be planned and other related projects should be reviewed. CPM allows projects or parts of projects to be linked and reused in other efforts.  Figure 21 - Projects Menu Tab
3	Ensure Project is highlighted and select view.	All follow-on steps will be accomplished within the CPM Project.

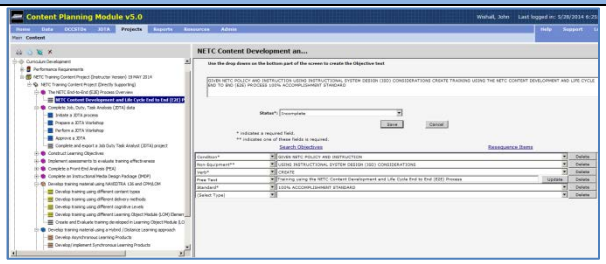
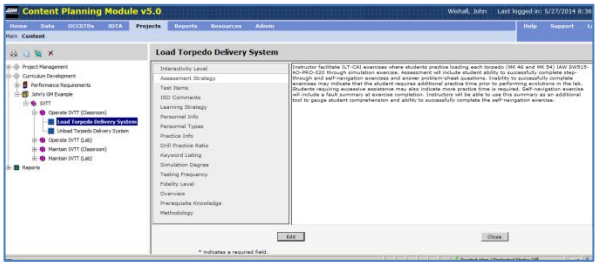
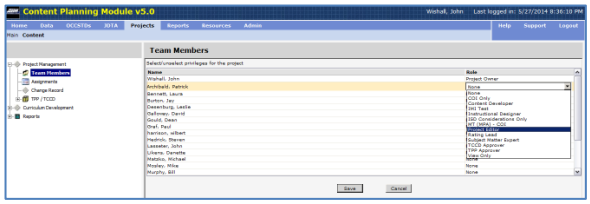
STEP	ACTION	ADDITIONAL INFORMATION
4	Create TPP.	Fill in blanks in required fields. Refer to NAVEDTRA 130 or 131 (series) for additional information on a TPP. See Figure 22 for project management with creation of TPP.  Figure 22 – Project Management
5	Create TCCD.	Fill in blanks in required fields. Refer to NAVEDTRA 130 or 131 (series) for additional information on a TPP. TCCD is not separate from the TPP until after the TPP is approved, this causes the TCCD to split off. Approve the TPP only after content development is complete in LO Module. Once TPP is approved it cannot be unapproved.
6	Select performance requirements by using the following steps: 1. Select "Occupation" in the navigation tree. A window will appear listing all approved JDTA occupations by Learning Center. Click on the "Edit" button to enable selection of the occupations identified in the FEA. Select the applicable occupation(s) and click on the "Save" button. 2. Select the identified Job(s) listed in the FEA. 3. Select the identified Duties listed in the FEA. 4. Select the identified Tasks listed in the FEA. 5. Select the identified Sub-Tasks listed in the FEA. 6. Select the identified Steps listed in the FEA.	Continue the process delineated in step 6.1 for the remaining steps 6.2 through 6.6, as needed for the specific project. Each of the remaining steps has interrelated dependencies (i.e., steps 6.2 through 6.6 cannot be accomplished unless the predecessor step has been completed). For example, step 6.5 will not be available unless step 6.4 has been completed, and step 6.4 will not be available until step 6.3 has been completed. See Figure 23. Note: This figure relates to figure 25 in Step 13 that shows how linkages are shown.

STEP	ACTION	ADDITIONAL INFORMATION
		 Figure 23 – CPM Projects Menu
7	Record ISD considerations for the course, then ensure the course is selected and choose "New".	Under the course title a new module will appear.
8	Create all Modules based on the FEA. 1. Select "Instructional Delivery Method". 2. Select "ISD Considerations".	Name and complete each data field for each module IAW the FEA. Refer to the CPM Users Guide. In some instance the module may be linked to a JDTA duty. This will be visible using a magenta colored module box.
9	Select the appropriate module and choose "New".	This will create a lesson.
10	Open the pull-down menu named "Select Type" and choose Duty, Task, or Sub-task based on the FEA.	1. This is the method used to construct the TLO and link training to the work requirement. 2. If a task was selected that has supporting KSATR another select type menu will appear, allowing KSATR to be used to develop TLOs.

STEP	ACTION	ADDITIONAL INFORMATION
11	Complete all data fields at the lesson level. 1. Select “Instructional Delivery Method”. 2. Select “Objective”. 3. Select “ISD Considerations”.	1. Instructional Delivery Methods choices are Interactive Multimedia Instruction (IMI), ILT-Class, ILT-LAB, EPSS, and Blended. 2. Learning Objectives are composed of Condition, Platform (or system, sub-system, component, non-equipment) action verb, behavior and standard. 3. ISD Considerations (at the lesson level) are composed of levels of interactivity, assessment strategy, test items, ISD comments, learning strategy, personnel info, personnel types, practice info, drill and practice ratio, keyword listing, simulation degree, testing frequency, fidelity level, overview, prerequisite knowledge, and methodology. See Figure 24 for an example of ISD Considerations. Note: See yellow arrow pointing to the ISD considerations.  Figure 24 – ISD Considerations
12	Select Lesson and choose “New”.	This will create a section.

STEP	ACTION	ADDITIONAL INFORMATION
13	Open the pull down menu named "Select Type" and choose Task, Sub-task, or step based on the FEA.	1. This is the method used to construct the ELO and link training to the work requirement. See Graphic below to show linkage between JDTA and Training Project. 2. If a task was selected that has supporting KSATR another select type menu will appear, allowing KSATR to be used to develop ELOs. See Figure 25. Note: Do NOT force a link to data if JDTA data does not exist. The LSO should ensure review of all the gray items (not linked to JDTA) to ensure it aligns with requirements and for future updates to the JDTA data in CPM. Discrepancies in the requirements may be submitted as recommended changes to OCCSTD data or future requirements.  Figure 25 - Depiction of Color Code
14	Complete all data fields at the section level. 1. Enter the instructional time. 2. Select "Content Type". 3. Select "Instructional Delivery Method". 4. Select "Cognitive Level". 5. Select "Objective". 6. Select "ISD Considerations".	1. The time it will take to teach the instructional material. 2. Content Type is composed of the following: fact, concept, procedure, process and principle. See section 8 of this document. 3. Instructional Delivery Methods choices are IMI, ILT-Class, ILT-LAB, EPSS, and Blended.

STEP	ACTION	ADDITIONAL INFORMATION
		4. The time it will take to teach the instructional material. 5. Content Type is composed of the following: fact, concept, procedure, process and principle. See section 8 of this document. 6. Instructional Delivery Methods choices are IMI, ILT-Class, ILT-LAB, EPSS, and Blended. 7. Cognitive Level are defined as remember or apply. Remember supports KPL1 knowledge, memorization, recall or comprehension. If you desire the learner to perform critical thinking and want them to apply this learning to the job task then "Apply" should be selected. See Figure 26 showing the "Initiate JDTA Process" window. Note: Area highlighted in yellow box supports sub-steps 1-4.  Figure 26 - Initiate JDTA Process 8. Learning Objectives are composed of Condition, Platform (or system, sub-system, component, non-equipment) action verb, behavior and standard. See Figure 27 for understanding how to build learning objectives. Note: All 5 parts are required for approval of an objective.

STEP	ACTION	ADDITIONAL INFORMATION
		 Figure 27 - Learning Objectives 9. ISD Considerations (at the section level) are composed of levels of interactivity, assessment strategy, test items, ISD comments, learning strategy, personnel info, personnel types, practice info, drill and practice ratio, keyword listing, simulation degree, testing frequency, fidelity level, overview, prerequisite knowledge, and methodology. See Figure 28 below.  Figure 28 - ISD Considerations Example
15	Assign team members CPM permissions.	Individuals can be given permissions to the project. Permissions can be increased for an individual that will allow them to perform task higher than the normal CPM user role. See Figure 29 for an example of how to update roles.  Figure 29 - Updating Role Assignments
16	Provide assignments, as appropriate.	Record actions that need to be completed and provide to the team.

STEP	ACTION	ADDITIONAL INFORMATION
17	Create Resource Requirements List (RRL), Manpower, Resources and CMS can be added or edited here.	The RRL will not be as accurate as the file produced from LO Module. The CMS has issues with being imported into CETARS. Later in the process you can re-import the RRL from AIM I or AIM II (including LO) back into the project.
18	Print IMDP.	IMDP report is created by the COI, Course, Module, Lesson and Section data fields with related ISD Considerations that are filled out. This printed out version from CPM is approximately 1/3rd of the information required in the IMDP. The remaining portion of the IMDP will be developed using Microsoft™ Word, based on the information.
18a	Develop a summary description of training. The training summary shall provide a brief description of training materials being developed. The summary shall include: a. Training program title, identifier, and version identifier. b. A brief description of the major topics. c. Number of instructional hours training materials will be used. d. A listing of the methodologies employed in the design, development, implementation, and presentation of the training program. A description of the target audience to include occupational specialty and skill level. A listing of the equipment being used real or simulated. e. Location of the training sites. f. Location of the administrative repository for the reports and evaluation materials to include necessary points of contact, addresses, and telephone number(s). g. Keyword listing. h. Developmental software product name(s), version, vendor name, and Government rights code.	The IMDP report will cover these identified sections at a level to support the readers understanding of the project design. The additional information provided below in line items (a) through (i) directly align to the listed actions. Additional information for training summary includes: a. Populated in Projects section, Course level "ISD Considerations" in the field labeled Course Strategy. b. Covered in the TCCD and later at the module, lesson and section level c. Rolled up from all the section levels in the course. This is displayed at the course, module and lesson level. d. Populated in Projects section, Course level "ISD Considerations" in the field labeled Learning Strategy (high level). e. Covered by TCCD and TPP above. f. Populated in Projects section, Course level "ISD Considerations" in the field labeled Methodology. g. Populated in Projects section, Course level "ISD Considerations" in the field labeled Keyword. h. Development software and operating system and delivery system will go into the paper version created outside of CPM using Microsoft™ Word. This will be attached with the CPM appendix. i. Will be identified at the bottom of

STEP	ACTION	ADDITIONAL INFORMATION
	Operating system name, version, and additional software drivers required to operate the training program. Delivery system requirements description to include minimum free system memory, central processing unit type and speed, minimum hard drive storage space, number of disc drives and types, graphics adapter type, and input and output devices. i. Security requirements code and Security classification code and restrictions to distribution code.	Learning Strategy and added to metadata, as required, into the paper version created outside of CPM using Microsoft™ Word.
19	Develop course design strategy. (The complete section 2.3 [2.3.1 – 2.3.12])	Completed in the paper version of the IMDP created outside of CPM using Microsoft™ Word.
20	Develop lesson design strategy. (The complete section 2.4 [2.4.1 – 2.4.8])	Should be completed in CPM ISD. Considerations in the field labeled "Learning Strategy at the course, module, lesson, or section level, as appropriate.
21	Develop courseware logic flow diagrams. (The complete section 2.5)	Completed as flow charts outside of CPM using Microsoft™ Word. This is a paper version of the IMDP that will be consolidated with the IMDP portion printed from CPM.
22	Develop IMDP Prototype	Should be completed in CPM and exported to LO Module. Developed, as appropriate, before being developed in external IMI development tools. Should have sufficient functionality to allow the Government to approve the design before being allowed to continue with development.
23	Print CMS.	Currently does not print correctly.
24	Print other reports.	Maintain a duplicate printed master copy of the materials, such as the Master Course Reference File per NAVETRA manual (130 series), and as required by the LC or LS policy.

6. Use of the Enterprise Data Environment (EDE)

The only method for transferring data from CPM to LO

Table 6 – EDE Process Requirements and Steps

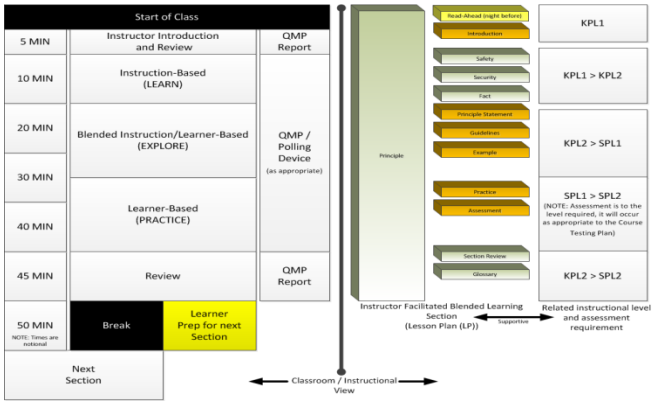
STEP	ACTION	ADDITIONAL INFORMATION
1	Select CPM Project (main sub-menu) and choose Export.	This takes the CPM Project to the EDE.
2	Open LO Module and under "File" choose "Import from EDE". Choose specific course to import.	Should show a list of all courses that have been exported to the EDE. If the course was updated in CPM, and currently exist in LO Module, do not select import from EDE. The user cannot import a course over an existing course in LO Module.
3	Select project in CPM • Make changes and select "View," • Select "Export." This updates EDE. • In LO Module, select "Update from EDE," while having the specific course selected and LO Module will update the course with only those updates.	If the course requires updating in LO Module to change specific fields or Learning Objectives these must be accomplished in CPM projects. LO Module will check for an update to an existing course automatically make those changes. If it no update is detected, there will be a note to saying no update found.
4	To transfer between instances of LO Module, use the Generate Output Package and select Sharable Content Object Reference Model (SCORM). This creates a ZIP file. On the other version of LO Module, select "Import Learning Object," and select the "output ZIP file."	This only works if the user is running same version of LO Module and that course cannot currently exist in the other version of LO Module. LO Module cannot import a course over an existing instance of the same course. The user must delete it first, so version control is very important.
5	Items exported (course, module, lesson and section structure, delivery methods, instructional time, content types, learning objectives, etc…) from CPM to LO can NOT be changed in LO. They must first be changed in CPM. The new CPM export will not overwrite the LO material if you use Update from EDE selection.	

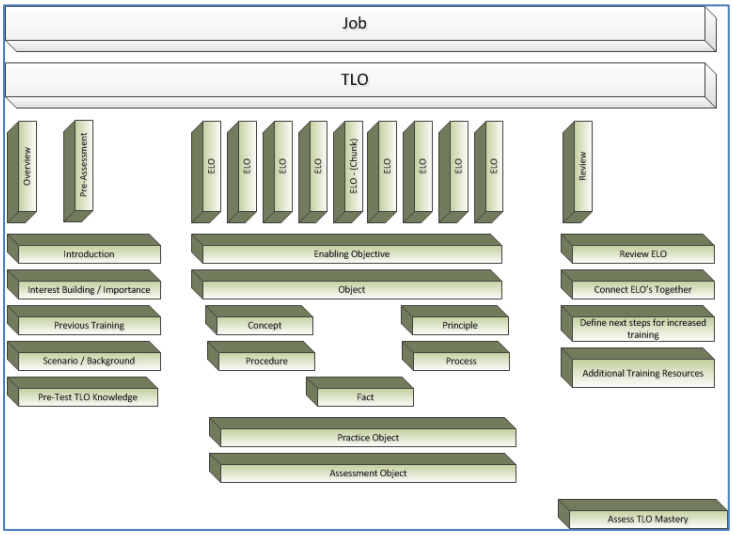
7. Development in LO Module

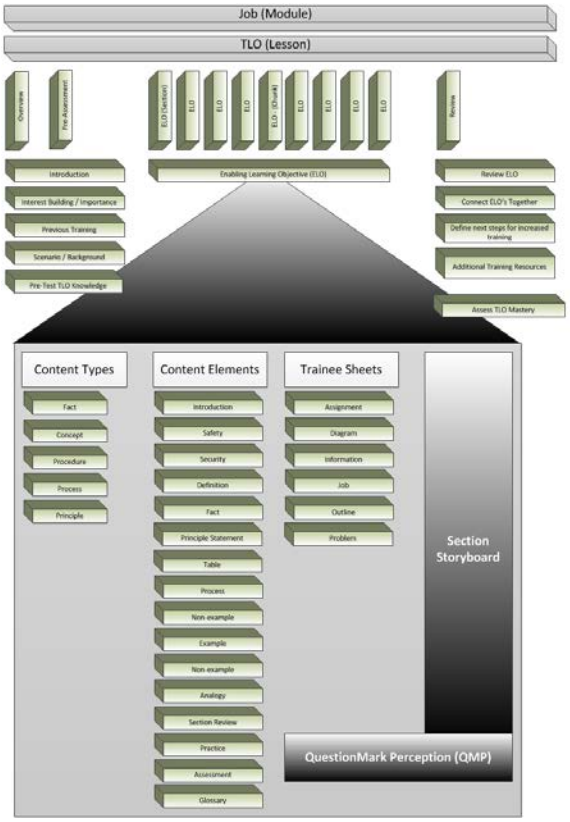
Development that is based upon performance requirements identified in the JDTA

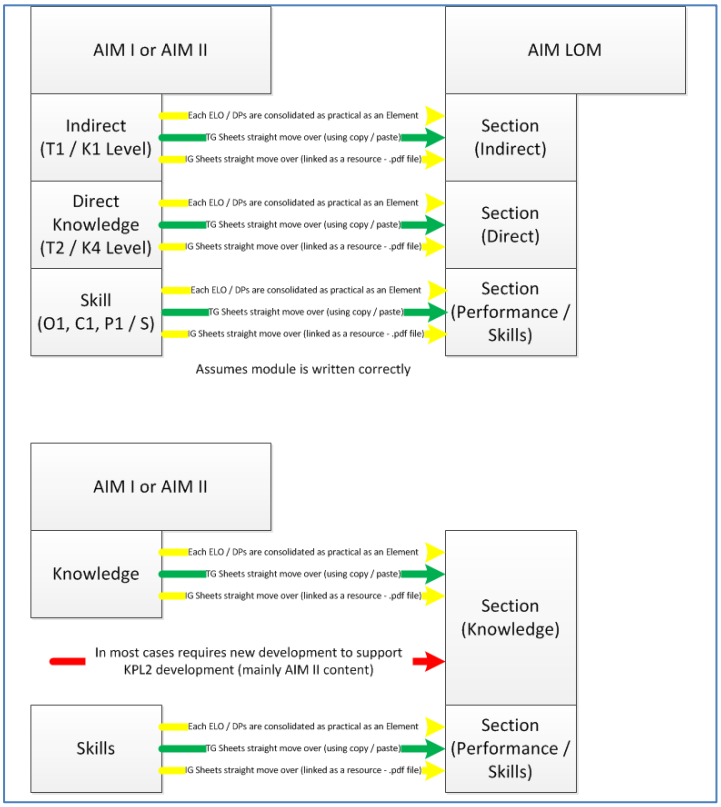
Note: The FEA builds on those performance requirements and designs training centered on ISD considerations. This provides the developer the design for training development in LO Module. These design requirements cannot be changed in LO Module.

Table 7 – LO Module Development Process Requirements and Steps

STEP	ACTION	ADDITIONAL INFORMATION
1	Review course, module, lesson, and section to ensure that the information is IAW with the approved FEA/BCA.	1. Review ISD considerations to ensure course design data is adequate to proceed to development. 2. Course structure delivery methods, content types, ISD considerations cannot be changed in LO Module. (Changes must be made in CPM Projects Menu, and re-exported back into EDE and reimported into LO Module) (Check for updates from EDE.) 3. This was done intentionally to ensure the course design was followed during development. Note: See Figure 30 for an example at the Section Level.  Figure 30 – Review at the Section Level
2	Develop the lesson (TLO) overview. 1. Introduction 2. Interest Building / Importance 3. Prerequisite Training 4. Scenario / Background 5. Pre-Test	1. If a pre-test, homework or an advanced organizer this should be used get the class started. 2. The goal of the Importance item is to inform learners why they should be interested in the lesson by creating interest and relevance. 3. The goal of the Prerequisites item is to inform learners of knowledge and skills needed to complete the lesson. 4. The goal of the Scenario item is to relate a story to a job function to motivate the learners and capture their attention. Scenario should be consistent with the requirements for each section.

STEP	ACTION	ADDITIONAL INFORMATION
		5. Optional allows for measurements of what learning has occurred or as a guide for the instructor to determine the class strengths and weakness in learning.  Figure 31 - Graphic Representation for TLO Development

STEP	ACTION	ADDITIONAL INFORMATION
3	Develop each Section (ELO)	If the IMDP was done correctly, the developer should just have to fill in elements with data or create some additional elements to address specific items identified in IMDP step 19, 20 and 21. Assessment Strategy and Table of specifications should define what types of things need to be created and Learning Strategy and levels of interactivity should describe how it will be taught and student engaged. See Figure 32.  Figure 32 - Graphic Representation for ELO Development

STEP	ACTION	ADDITIONAL INFORMATION
3a	Develop each Section – Converting AIM I or AIM II content to LO.	If the whole process was followed and the IMDP is correct (see above), the developer should be able to move the TG sheets over using cut-and-paste, MS PowerPoint can be added to the Site RRL (or other media, references or resources may already be in the Site RRL, you will need to ensure that extra slides are removed or broken down as appropriate to the section). Elements should be named based on the discussion point and additional elements or sub-elements can be added to support additional requirements. Since most sections should start with the skills first, followed by SPL1/KPL2; KPL1 items should be focused at the element level. This does not prevent a KPL1 section to be created to support training, but that decision should be based on the complexity and size of the KPL2, breaking it down from a very complex or time consuming KPL2 section into smaller sections supported by KPL1 material is one method to control that. The key to a section's size or complexity is what is best for the student to learn the material. But if you start from the final requirement and only teach the things need to support that requirement it guides you backwards to what knowledge levels are required.  Figure 33 - Comparison of AIM I / AIM II and LO Module.

STEP	ACTION	ADDITIONAL INFORMATION

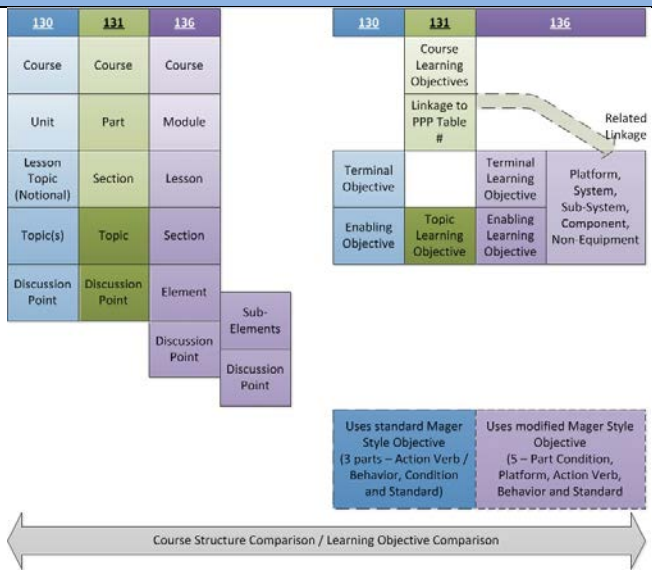


Figure 34 - Examples of AIM II Conversion to LO Module

See Figures 35 and 36 for additional examples with AIM II conversion to LO Module as 3 Sections (more focused on performance objectives and individual requirements associated with this job task.

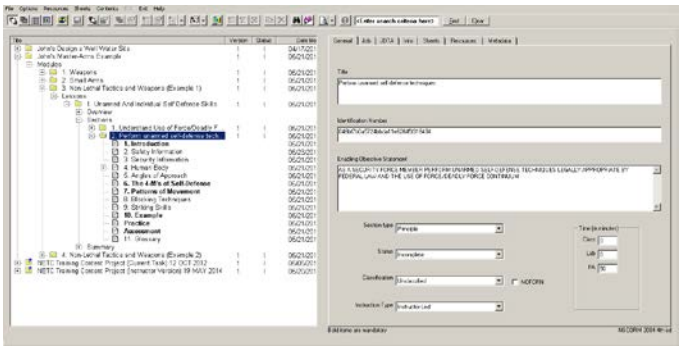


Figure 35

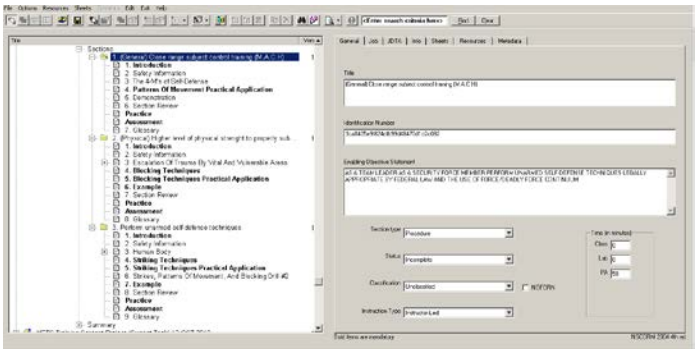


Figure 36

<table>
<tr><th>STEP</th><th>ACTION</th><th>ADDITIONAL INFORMATION</th></tr>
<tr><td>3b</td><td>Use of Section level elements and sub-elements with different content types and instructional delivery methods.
1. Fact
2. Concept
3. Procedure
4. Process
5. Principle</td><td>Sections (with each content type) can be developed to support training at two different levels remember (KPL1) and apply (>KPL2)
1. Fact: Remember Only
2. Concept: Remember and Apply
3. Procedure: Remember and Apply
4. Process: Remember and Apply
5. Principle: Remember and Apply

<table>
<tr><th>Classifying Knowledge</th><th>Fact</th><th>Concept</th><th>Procedure</th><th>Process</th><th>Principle</th></tr>
<tr><td>Apply (KPL2>)</td><td>_____</td><td>Classify examples</td><td>Perform the steps</td><td>Use a method</td><td>Apply a rule</td></tr>
<tr><td>Remember (KPL1)</td><td>Recall an association</td><td>Recall a definition</td><td>List the steps</td><td>Name a method</td><td>State a rule</td></tr>
</table>
Figure 37 - Content Types and Instructional Delivery</td></tr>
<tr><td>3c</td><td>Different types of Sections</td><td>See section 8 of this document for more detail on the 5 content types.</td></tr>
<tr><td>3d</td><td>Practice and Assessment Elements</td><td>After an instructor or self-paced section is taught, the student should be given problems or questions they must answer. This reinforces the learning and makes the student use the information provided to solve questions. An interactive element can be inserted in different levels of a section to break a training session up into smaller pieces. See Figure 38.

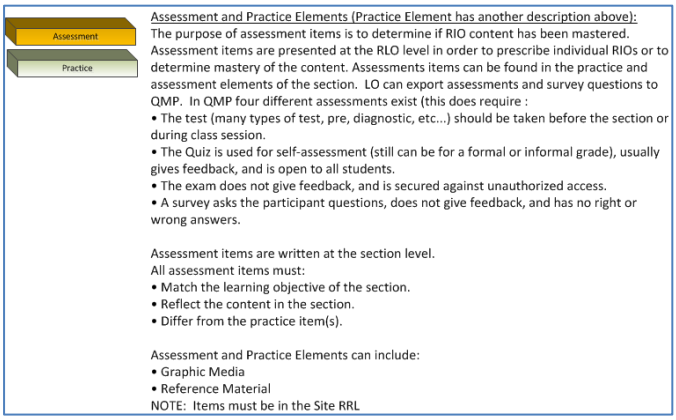
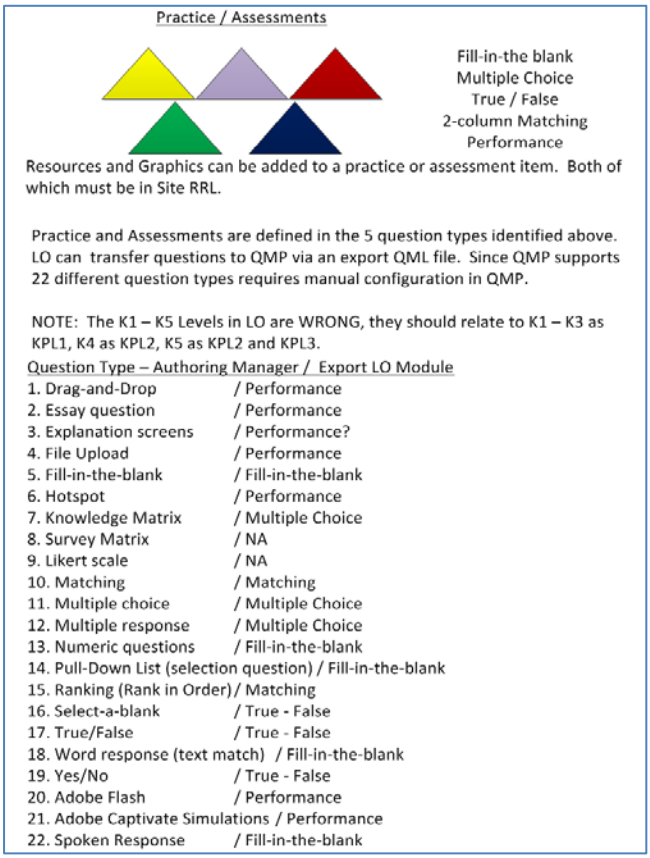
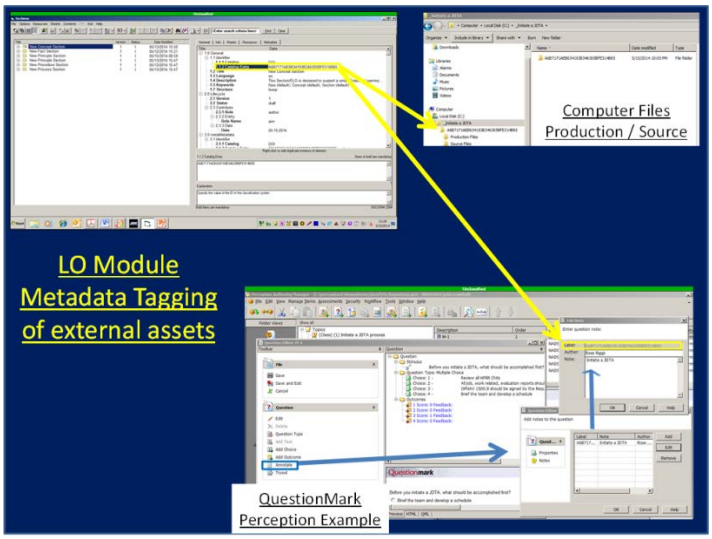
 

Figure 38 – Practice and Assessment Elements</td></tr>
</table>

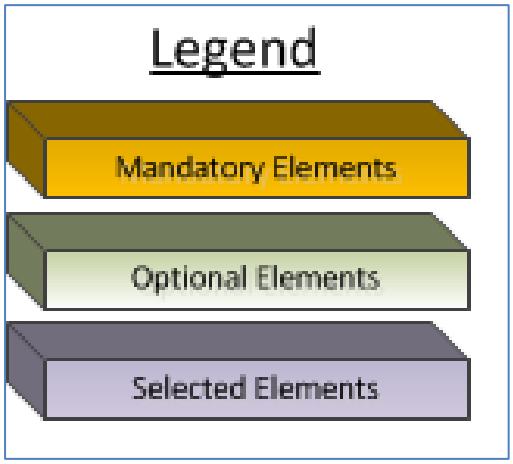
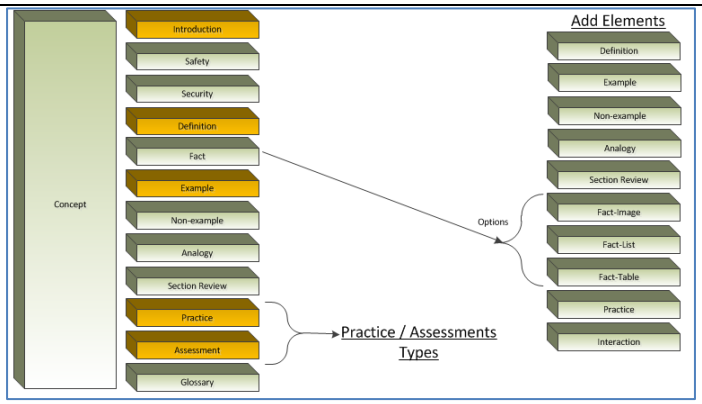
STEP	ACTION	ADDITIONAL INFORMATION
4	Export Practice and Assessments to QuestionMark Perception (QMP) 1. Under File 2. Select "Generate Test Question Package" 3. Exports a test package to a *.QML file 4. File can be exported into QMP (also called LAS) 5. Some question types, questions headers, etc… will require some work in QMP.	LO has 5 question types, but can support other question types listed below with QMP. See Figure 39 for a list of other types of questions that QMP can support.  Figure 39 – QMP Question Types
5	Develop the lesson summary. 1. Review 2. Next Step 3. Resource 4. Final Test (if required)	1. The goal of the Review item is to recap the key points from all Sections in the Lesson. 2. The goal of the Next Steps item is to direct the learner to additional steps that would further their knowledge of the subject presented in the Lesson. 3. The goal of the Additional Resources item is to provide more information about the knowledge and skills covered in the Lesson. 4. Can be a final test as a roll-up of the individual sections combined.

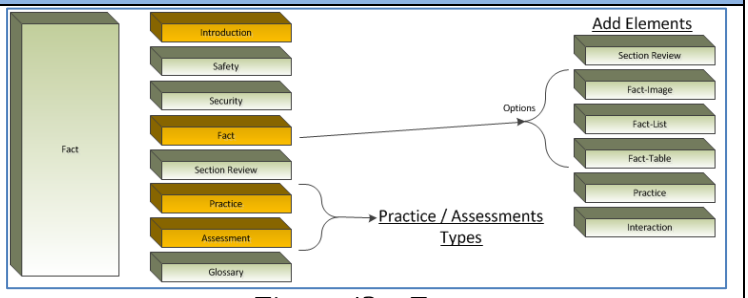
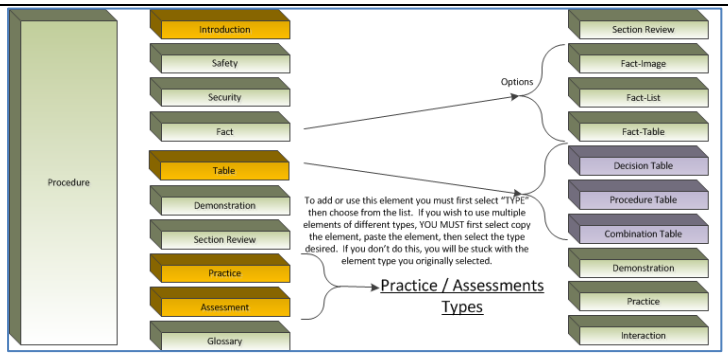
STEP	ACTION	ADDITIONAL INFORMATION
6	Metadata tag external IMI or other Media. Tag source files with the same naming convention.	In LO Module, a field called metadata has the following information. See Figure 40.  Figure 40 – Metadata Tagging Note: Look at yellow arrows and headers by each graphic.

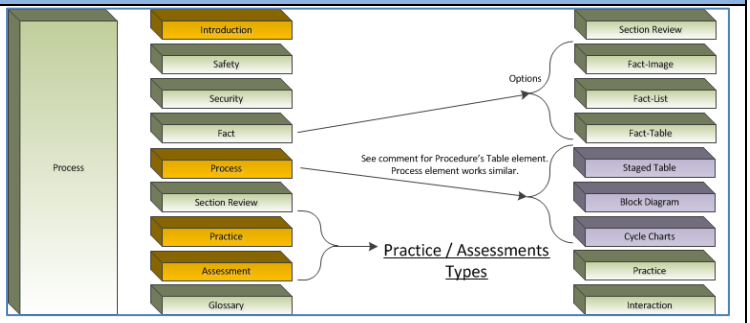
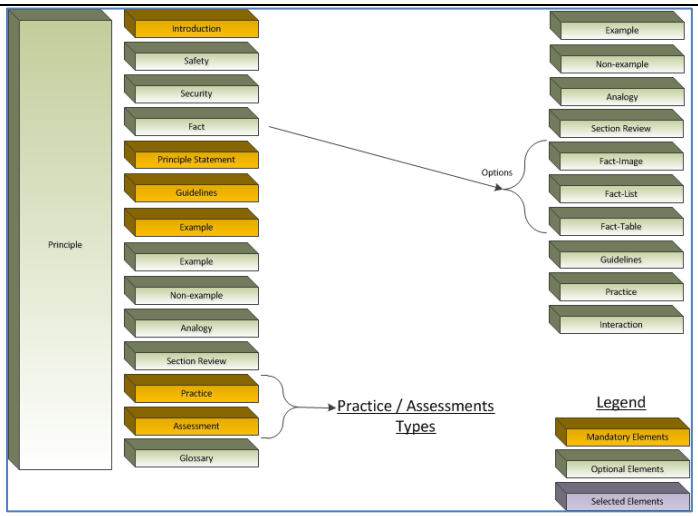
8. CPM / LO Content Types

Methods for building training at the section level

Table 8 – Building Training using CPM / LO Content Types

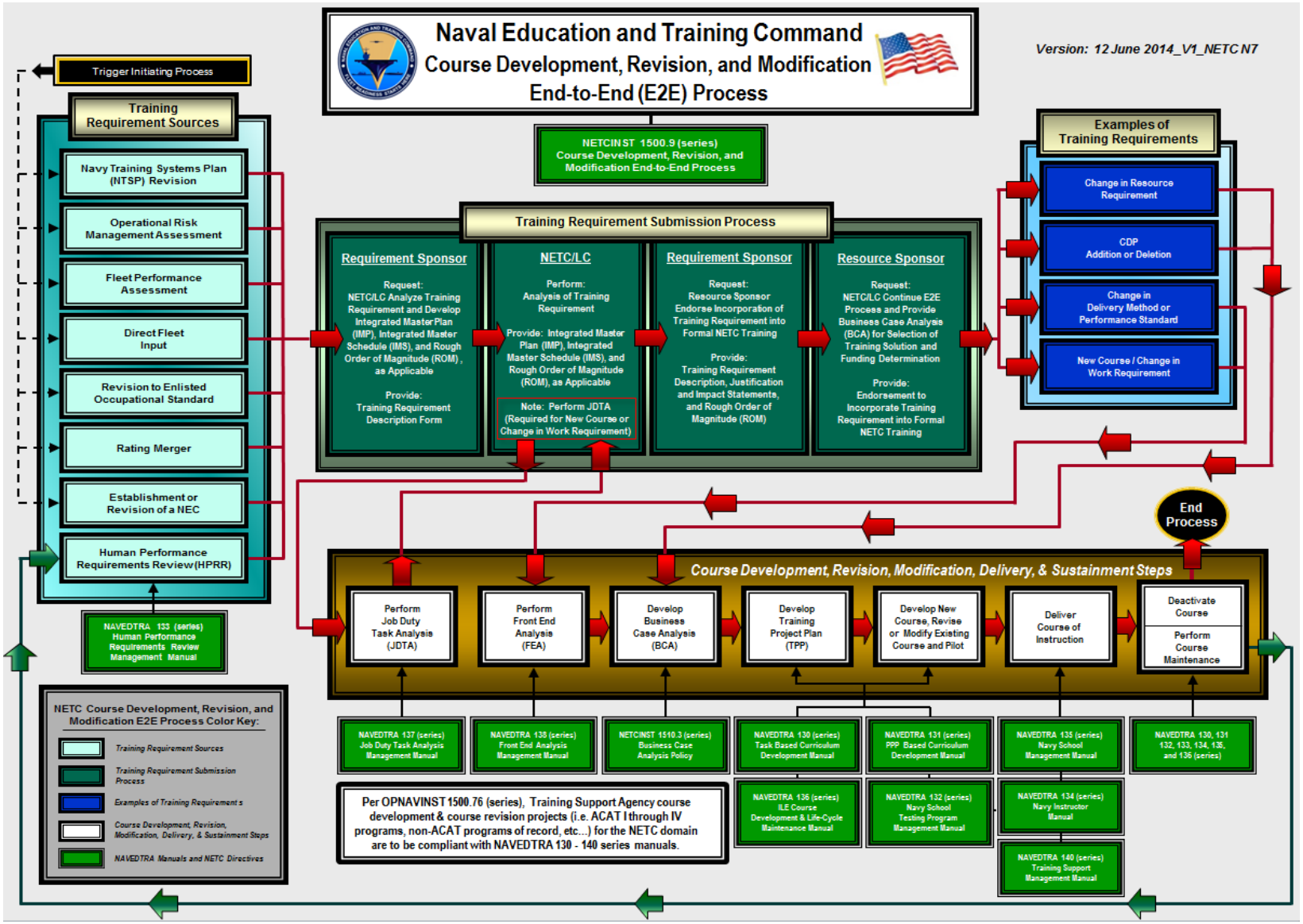
STEP	ACTION	ADDITIONAL INFORMATION
1	The Learning Object (LO) Module has a "Content Type" selection wizard. IMPORTANT: In order to build a Section for the subject, please select yes or no to each question below. REMEMBER you are focusing on the specific discussion point or item and NOT the entire lesson. When you see terms "item" or "something" in the questions below the thing being referred to is the discussion point for which you are building the Section.	 Figure 41 – Element Categories
2	Concept Definition: A concept is a class of items that share common features and are known by a common name. Characteristics of Concepts: • Tell what something is. • Can be distinguished from similar objects by examining critical characteristics. • Can be concrete (physical) or abstract (mental).	 Figure 42 – Concepts

STEP	ACTION	ADDITIONAL INFORMATION
3	Fact Definition: A fact is a unique, specific item or specific information. Characteristics of Facts: • Are unique (multiple instances can exist but they are exact duplicates). • Can only be remembered; not applied. • Can be concrete (physical objects) or abstract (information).	 Figure 43 – Facts
4	Procedure Definition: A procedure is a series of clearly defined steps you perform to complete a task. Characteristics of Procedures: • Have a beginning and end with a given set of directions or steps. • The steps are followed the same way and not based on performer's judgment. • Each step has an observable result to let the learner know they can move on to the next step.	 Figure 44 – Procedure

STEP	ACTION	ADDITIONAL INFORMATION
5	Process Definition: A process describes how things work. Characteristics of Processes: • Describe how something works (vice how to do something) • Can be explained as a flow of stages. • Are NOT performed by individuals following the same steps. But individuals following different steps (performing different complimentary functions) may play a role in a single process.	 Figure 45 – Process
6	Principle Definition: Applying a principle requires using guidelines to perform a task which cannot be performed using a defined set of procedural steps. Characteristics of Principles: • Require the use of judgment and guidelines rather than following a set of directions or steps. • Often result in different task outcomes. You do not necessarily get the same result each time. • The steps used to complete the task vary. They are not the same each time.	 Figure 46 – Principle

APPENDIX (A) FIGURES

1. NETC Course Development and Revision End-to-End Process (E2E) Graphic



2. Example of Integrated Master Plan (IMP) Table

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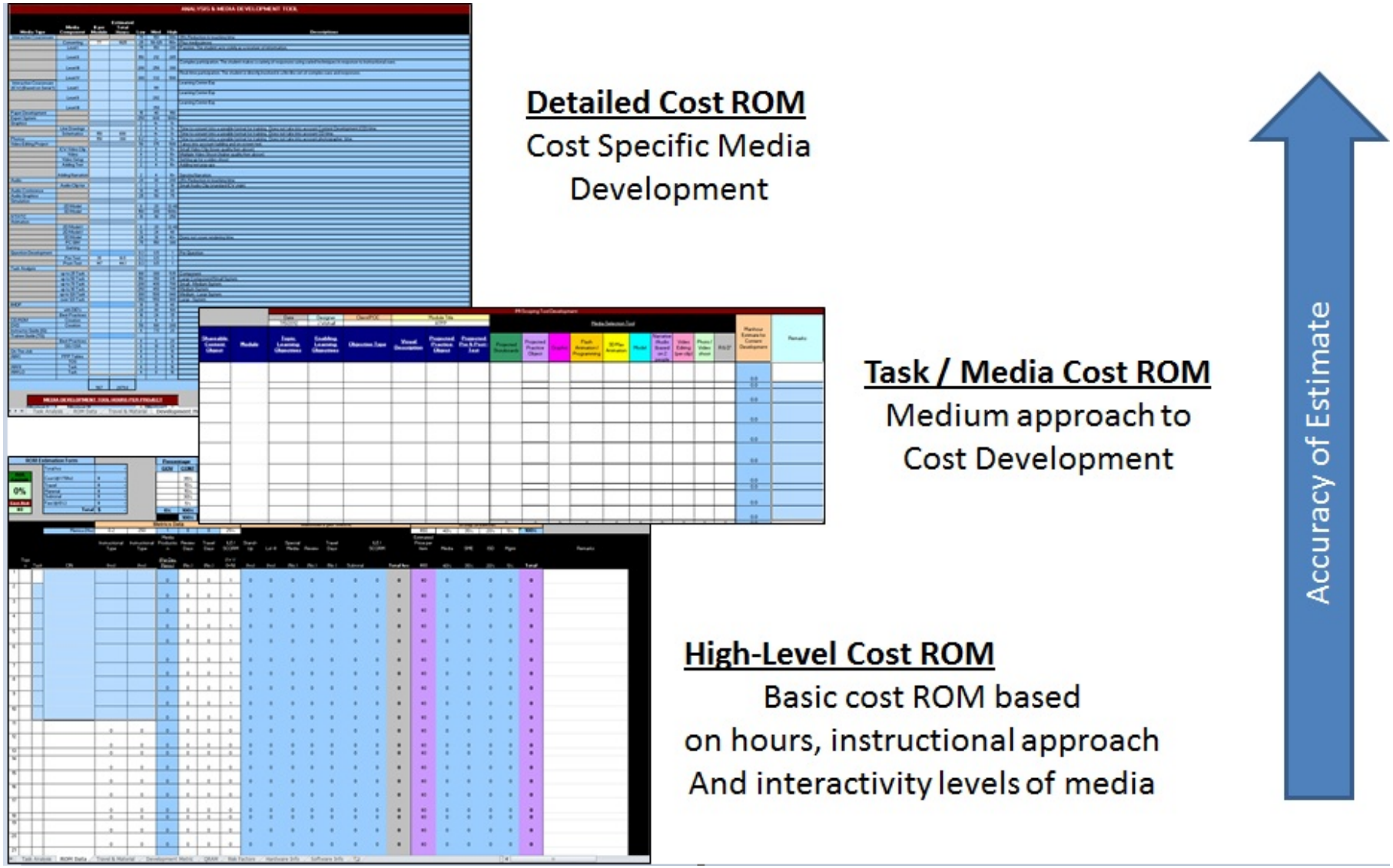
3. Example of Integrated Master Schedule (IMS)

Revised IMS

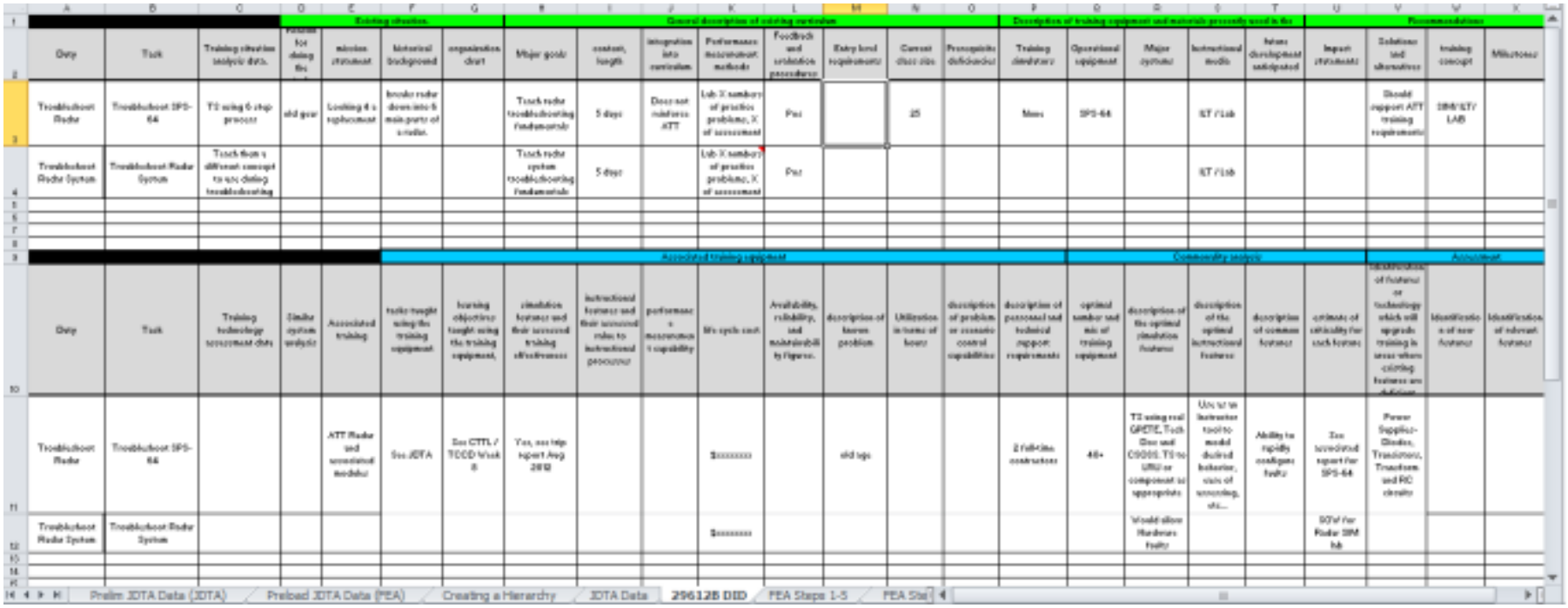
ID	Task Name	% Complete	Duration	Start	Finish
1	**NETC-**	**6%**	**522 days**	**Tue 10/1/13**	**Wed 9/30/15**
2	**CONTRACT AWARD ACTIVITIES**	**100%**	**24 days**	**Tue 10/1/13**	**Fri 11/1/13**
3	Project Awarded	100%	1 day	Tue 10/1/13	Tue 10/1/13
4	Receipt of Government Furnished Information (GI	100%	10 days	Mon 10/14/13	Fri 10/25/13
5	Acknowldege Receipt of GFI	100%	1 day	Fri 10/25/13	Fri 10/25/13
6	Review GFI	100%	5 days	Mon 10/28/13	Fri 11/1/13
7	Request Additional GFI (if required)	100%	1 day	Fri 11/1/13	Fri 11/1/13
8	**CONFERENCE / MEETINGS**	**25%**	**484 days**	**Wed 11/13/13**	**Mon 9/21/15**
9	Kick-off and Initial Risk Meeting (NOV 13)	100%	1 day	Wed 11/13/13	Wed 11/13/13
10	In Progress Review (IPR) #1 (JAN 14)	100%	1 day	Fri 1/24/14	Fri 1/24/14
11	In Progress Review (IPR) #2 (APR 14)	0%	1 day	Wed 4/23/14	Wed 4/23/14
12	In Progress Review (IPR) #3 (JUL 14)	0%	1 day	Wed 7/23/14	Wed 7/23/14
13	In Progress Review (IPR) #4 (OCT 14)	0%	1 day	Wed 10/22/14	Wed 10/22/14
14	In Progress Review (IPR) #5 (JAN 15)	0%	1 day	Wed 1/21/15	Wed 1/21/15
15	In Progress Review (IPR) #6 (APR 15)	0%	1 day	Wed 4/22/15	Wed 4/22/15
16	Project Closeout Meeting	0%	1 day	Mon 9/21/15	Mon 9/21/15
17	**CONFERENCE / MEETING MINUTES**	**4%**	**488 days**	**Thu 11/14/13**	**Mon 9/28/15**
18	Kick-off Meeting	100%	1 day	Thu 11/14/13	Thu 11/14/13
19	IPR#1	0%	1 day	Mon 1/27/14	Mon 1/27/14
20	IPR#2	0%	1 day	Tue 4/22/14	Tue 4/22/14
21	IPR#3	0%	1 day	Tue 7/29/14	Tue 7/29/14
22	IPR#4	0%	5 days	Thu 10/23/14	Wed 10/29/14
23	IPR#5	0%	5 days	Thu 1/22/15	Wed 1/28/15
24	IPR#6	0%	5 days	Thu 4/23/15	Wed 4/29/15
25	Project Closeout Meeting	0%	5 days	Tue 9/22/15	Mon 9/28/15
26	**BI-WEEKLY MEETINGS**	**9%**	**445 days**	**Wed 11/20/13**	**Tue 8/4/15**
27	1 - November 2013	100%	1 day	Wed 11/20/13	Wed 11/20/13
28	2 - December 2013	100%	1 day	Wed 12/11/13	Wed 12/11/13
29	3 - January 2014	100%	1 day	Tue 1/7/14	Tue 1/7/14
30	4 - January 2014	100%	1 day	Tue 1/21/14	Tue 1/21/14
31	5 - February 2014	0%	1 day	Tue 2/4/14	Tue 2/4/14
32	6 - February 2014	0%	1 day	Tue 2/18/14	Tue 2/18/14
33	7 - March 2014	0%	1 day	Tue 3/4/14	Tue 3/4/14
34	8 - March 2014	0%	1 day	Tue 3/18/14	Tue 3/18/14
35	9 - April 2014	0%	1 day	Tue 4/1/14	Tue 4/1/14
36	10 - April 2014	0%	1 day	Tue 4/15/14	Tue 4/15/14
37	11 - April 2014	0%	1 day	Tue 4/29/14	Tue 4/29/14
38	12 - May 2014	0%	1 day	Tue 5/13/14	Tue 5/13/14
39	13 - May 2014	0%	1 day	Tue 5/27/14	Tue 5/27/14
40	14 - June 2014	0%	1 day	Tue 6/10/14	Tue 6/10/14
41	15 - June 2014	0%	1 day	Tue 6/24/14	Tue 6/24/14
42	16 - July 2014	0%	1 day	Tue 7/8/14	Tue 7/8/14
43	17 - July 2014	0%	1 day	Tue 7/22/14	Tue 7/22/14
44	18 - August 2014	0%	1 day	Tue 8/5/14	Tue 8/5/14
45	19 - August 2014	0%	1 day	Tue 8/19/14	Tue 8/19/14
46	20 - September 2014	0%	1 day	Tue 9/2/14	Tue 9/2/14
47	21 - September 2014	0%	1 day	Tue 9/16/14	Tue 9/16/14
48	22 - September 2014	0%	1 day	Tue 9/30/14	Tue 9/30/14
49	23 - October 2014	0%	1 day	Tue 10/14/14	Tue 10/14/14
50	24 - October 2014	0%	1 day	Tue 10/28/14	Tue 10/28/14
51	25 - November 2014	0%	1 day	Tue 11/11/14	Tue 11/11/14
52	26 - November 2014	0%	1 day	Tue 11/25/14	Tue 11/25/14
53	27 - December 2014	0%	1 day	Tue 12/9/14	Tue 12/9/14
54	28 - December 2014	0%	1 day	Tue 12/23/14	Tue 12/23/14
55	29 - January 2015	0%	1 day	Tue 1/6/15	Tue 1/6/15
56	30 - January 2015	0%	1 day	Tue 1/20/15	Tue 1/20/15
57	31 - February 2015	0%	1 day	Tue 2/3/15	Tue 2/3/15

Page 1

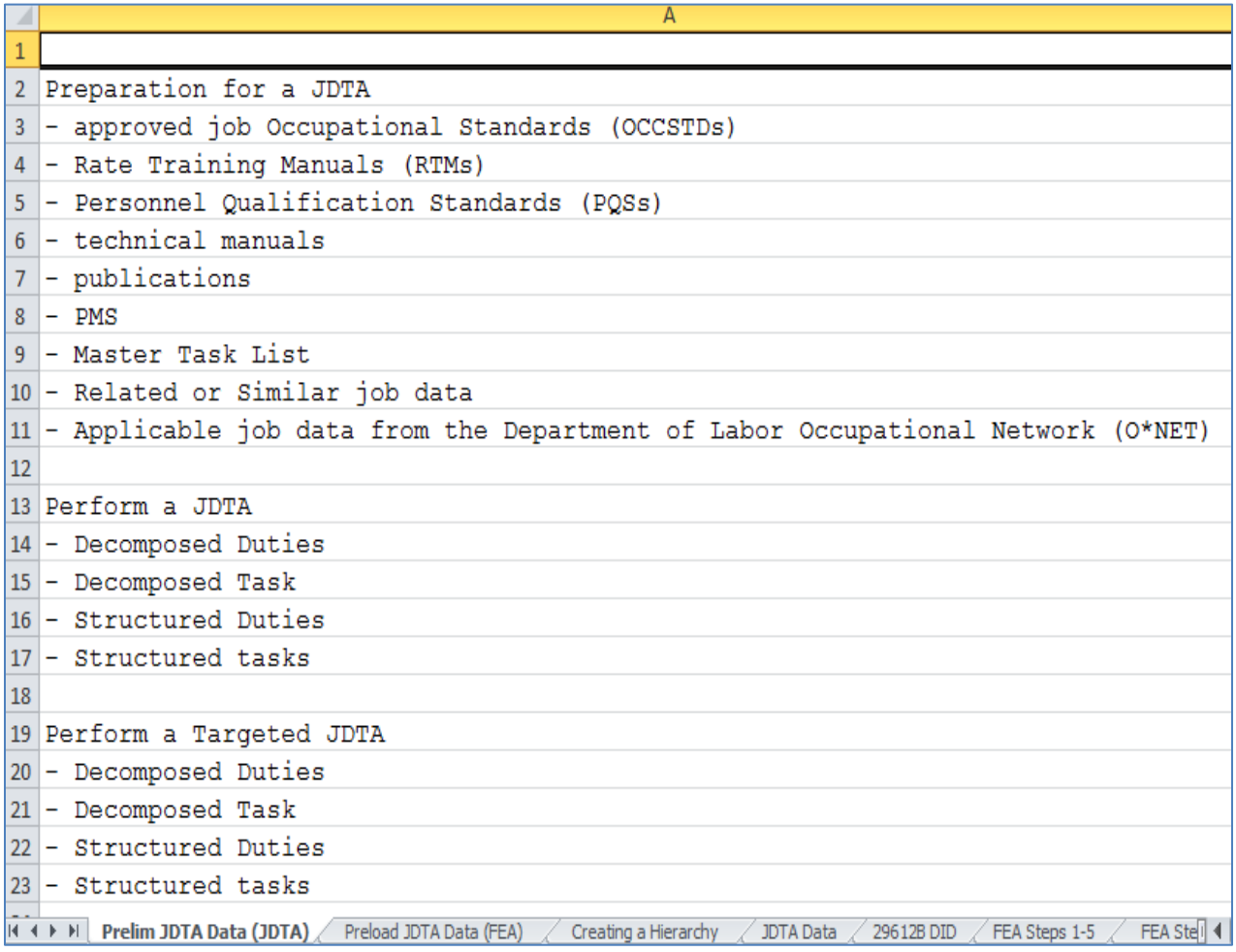
4. Example of Rough Order of Magnitude (ROM)



5. Example of Analysis Workbook



6. Workbook to List and Organize

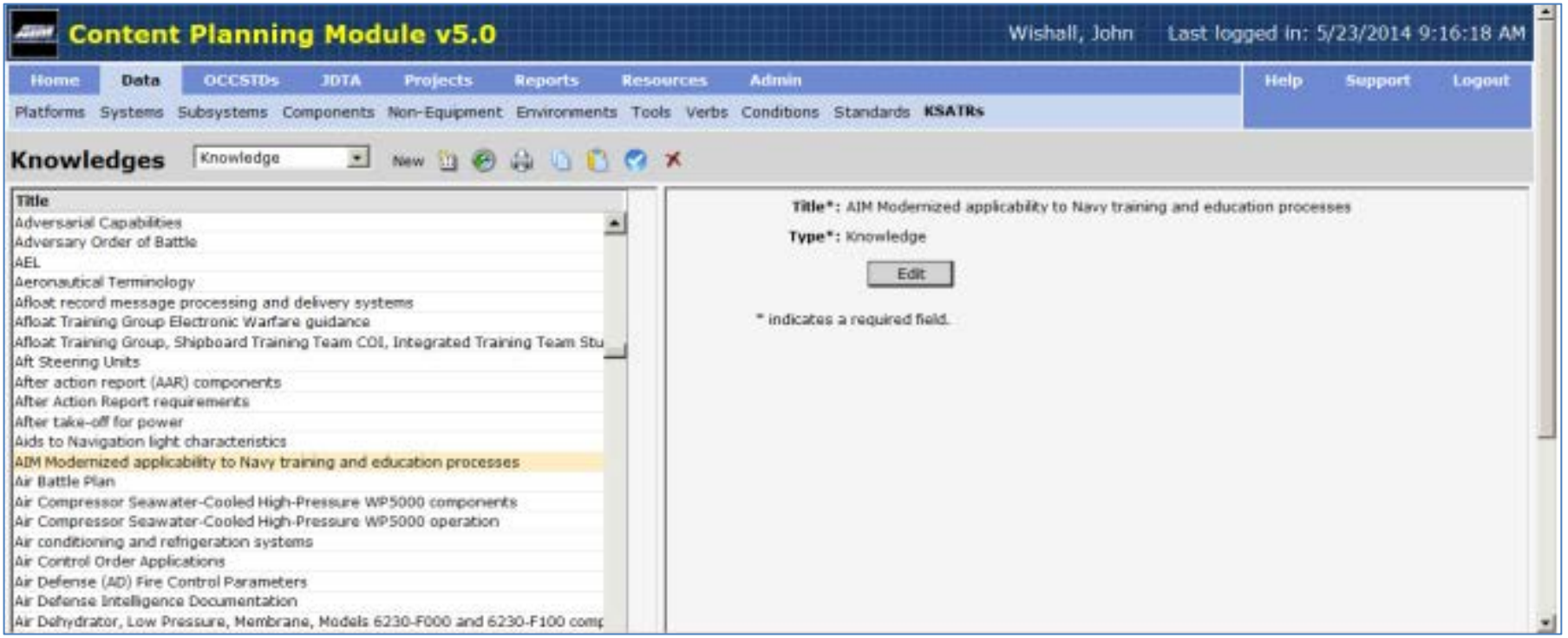


	A
1	
2	Preparation for a JDTA
3	- approved job Occupational Standards (OCCSTDs)
4	- Rate Training Manuals (RTMs)
5	- Personnel Qualification Standards (PQSs)
6	- technical manuals
7	- publications
8	- PMS
9	- Master Task List
10	- Related or Similar job data
11	- Applicable job data from the Department of Labor Occupational Network (O*NET)
12	
13	Perform a JDTA
14	- Decomposed Duties
15	- Decomposed Task
16	- Structured Duties
17	- Structured tasks
18	
19	Perform a Targeted JDTA
20	- Decomposed Duties
21	- Decomposed Task
22	- Structured Duties
23	- Structured tasks

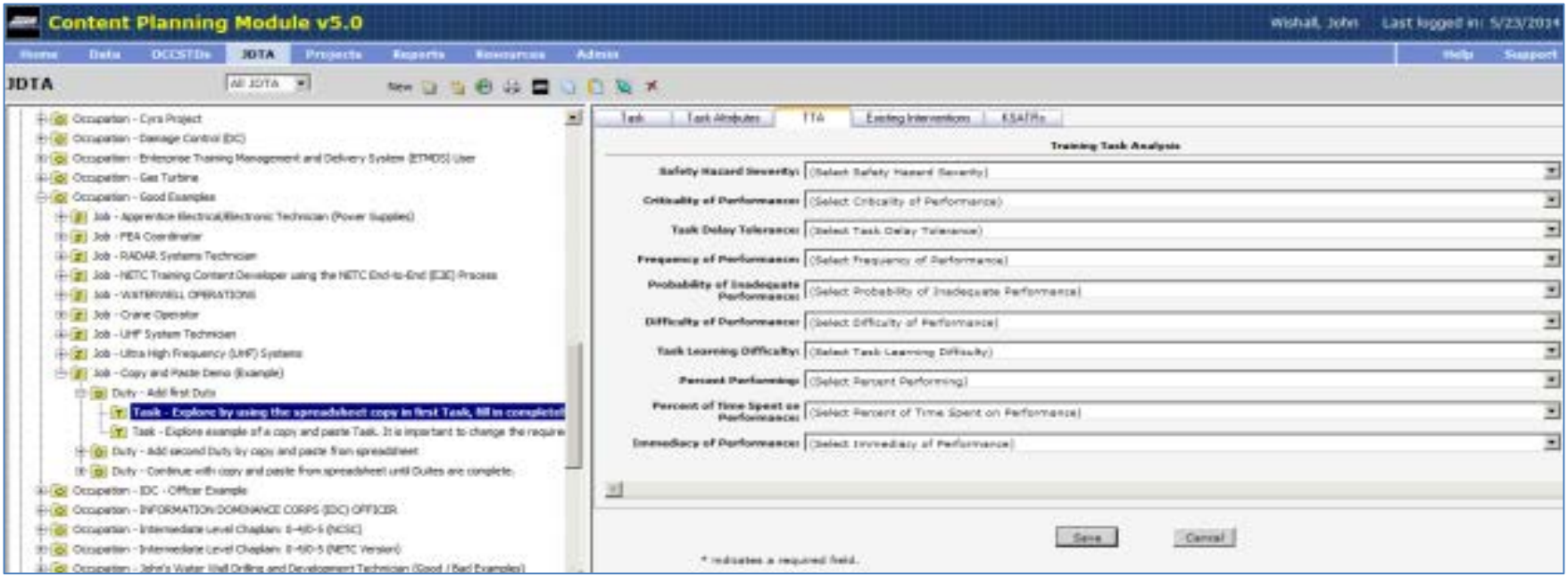
7. JDTA Workshop Announcement

FM: **LEARNING CENTER**
TO:
INFO:
BT
UNCLAS//N01500//
MSGID/GENADMIN/**LEARNING CENTER**/**MONTH**//
SUBJ/**LEARNING CENTER** JOB DUTY TASK ANALYSIS ANNOUNCEMENT//
REF/A/DOC/JUL2011//
REF/B/DOC/3DEC10//
NARR/REF A IS NAVEDTRA 137. REF B IS NETCINST 1500.9 TRAINING REQUIREMENT IDENTIFICATION AND RESOURCE SPONSOR COMMITMENT.//
POC/**LAST NAME/RANK (MIL OR CIV)/LEARNING CENTER/LOCATION/TEL: DSN XXX-XXXX/EMAIL**://
RMKS/1. PER REF A, A JDTA ALIGNS A JOB BENEATH AN OCCUPATION. THEN, THE WORK ASSOCIATED WITH THE JOB IS DECOMPOSED AND STRUCTURED INTO DUTIES AND TASKS. TASK LEVEL DATA IS THE SOURCE FOR BUILDING LEARNING OBJECTIVES, AND THUS IS THE FOUNDATION OF NAVY CURRICULUM DEVELOPMENT. ATTRIBUTES WILL BE ASSIGNED AT THE TASK LEVEL THAT WILL PROVIDE THE SPECIFICITY THAT WILL ENABLE CURRICULUM DEVELOPERS TO BUILD COURSES TO SATISFY VALIDATED AND RESOURCED FLEET TRAINING REQUIREMENTS PER REF B.
2. JDTA INFORMATION:
A. PURPOSE:
B. DATE(S):
C. LOCATION:
D. TENTATIVE **AGENDA**:
3. SUBJECT MATTER EXPERTS (SME) PROVIDE INVALUABLE TECHNICAL KNOWLEDGE AND EXPERTISE NECESSARY TO DECOMPOSE AND STRUCTURE WORK, DURING A JDTA. NETC REQUESTS STAKEHOLDERS NOMINATE A MINIMUM OF THREE SMES (E5 OR ABOVE) FOR THE JDTA. REQUEST PROVIDE SME POC INFO. FLEET, TYCOM, ISEA, PROGRAM OFFICE, MAINTENANCE COMMUNITY, ENLISTED COMMUNITY MANAGER AND OTHER STAKEHOLDER PARTICIPATION IS HIGHLY ENCOURAGED. REQUEST ATTENDEES PLAN TO ATTEND IN PERSON FOR DURATION OF JDTA.
4. A COMMUNITY OF PRACTICE (COP) FOR THIS JDTA IS AVAILABLE ON THE **LEARNING CENTER** NKO HOMEPAGE. FROM NKO HOME PAGE, GO TO PULL DOWN MENU UNDER NKO LOGO AND CLICK LEARNING CENTERS - CLICK ON **LEARNING CENTER** - CLICK ON **LEARNING CENTER**'S JDTA COP - THEN SELECT **JDTA TITLE**. RECOMMEND BOOK MARKING PAGE. JDTA COP IS THE REPOSITORY FOR ALL JDTA INFO.
5. POSTED ON THE **LEARNING CENTER** COP IS A PRELIMINARY WORK STRUCTURE FOR THE JDTA. REQUEST STAKEHOLDERS REVIEW AND PROVIDE COMMENTS.

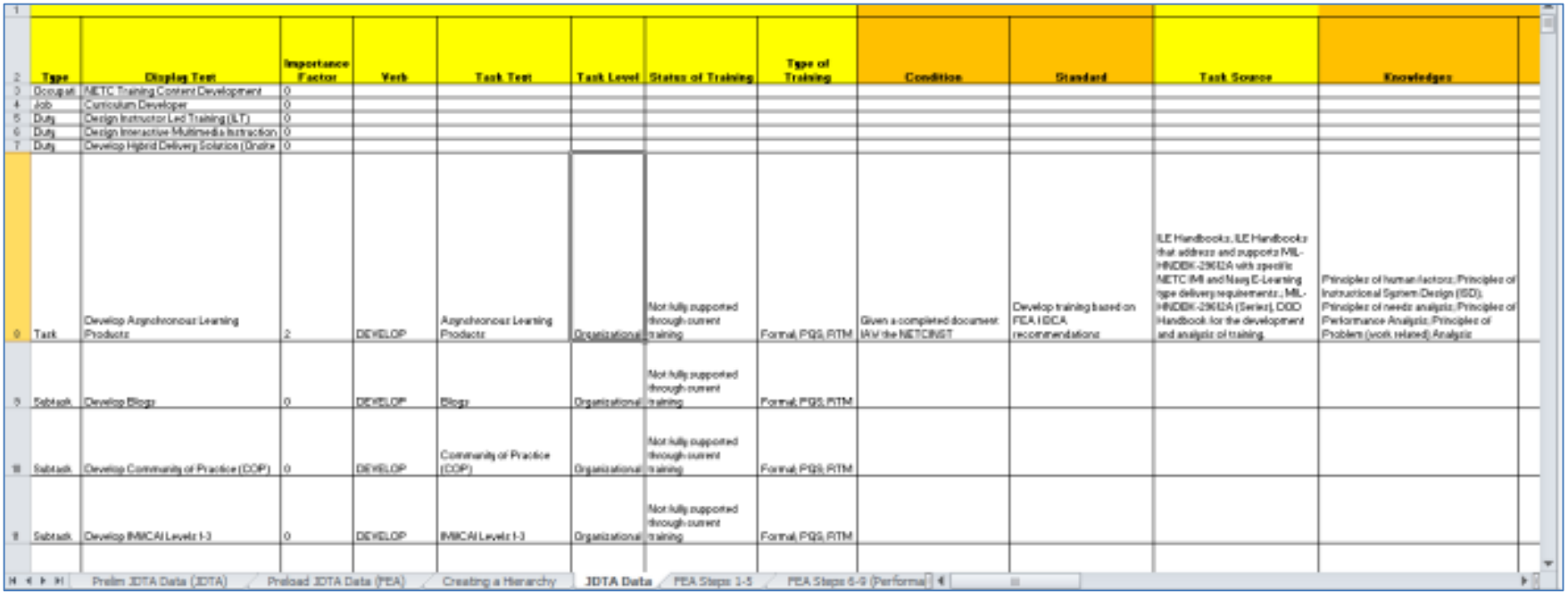
8. CPM Data Menu (KSATR)



9. JDTA Menu


Content Planning Module v5.0
Home
Data
OCCSTDs
JDTA
Projects
Reports
Resources
Admin
Help
Support
JDTA
Task
Task Attributes
TTA
Existing Interventions
KSAT/Rs
Training Task Analysis
Safety Hazard Severity:
Criticality of Performance:
Task Delay Tolerance:
Frequency of Performance:
Probability of Inadequate Performance:
Difficulty of Performance:
Task Learning Difficulty:
Percent Performing:
Percent of Time Spent on Performance:
Immediacy of Performance:
Save
Cancel
* indicates a required field.

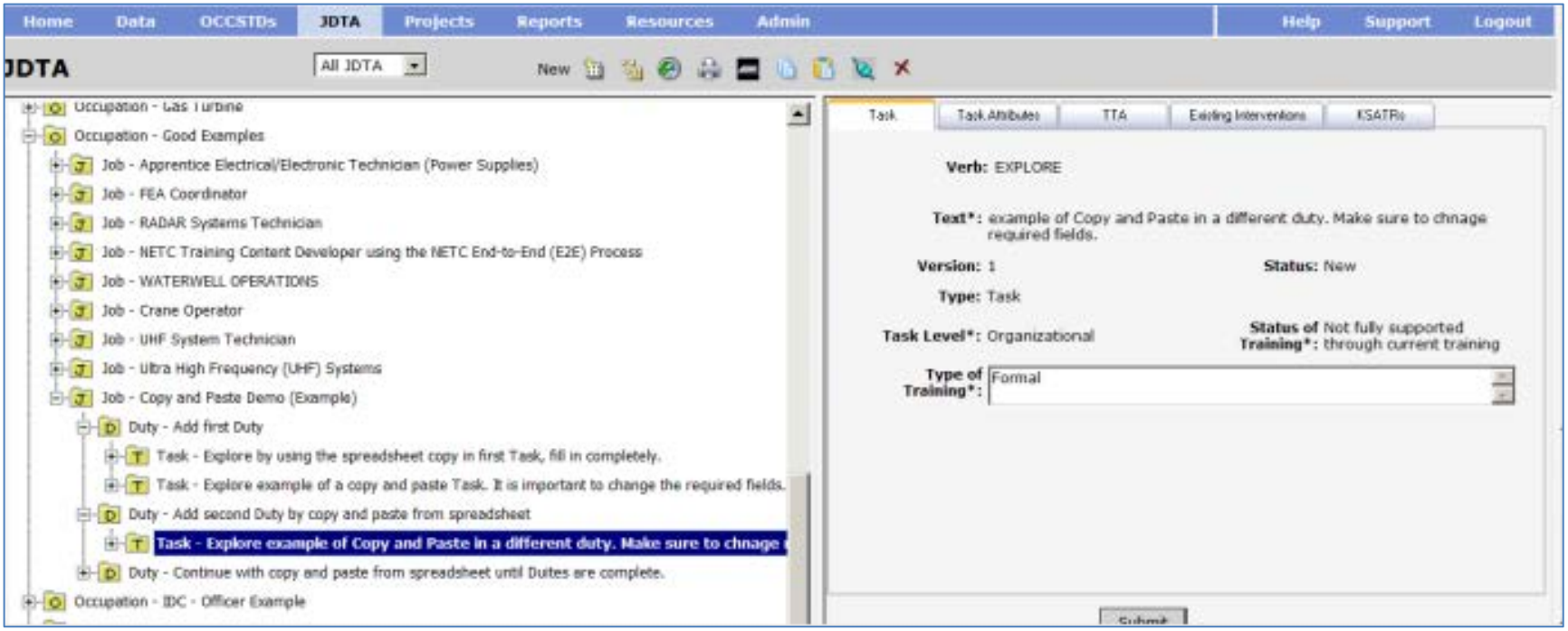
10. JDTA Worksheet



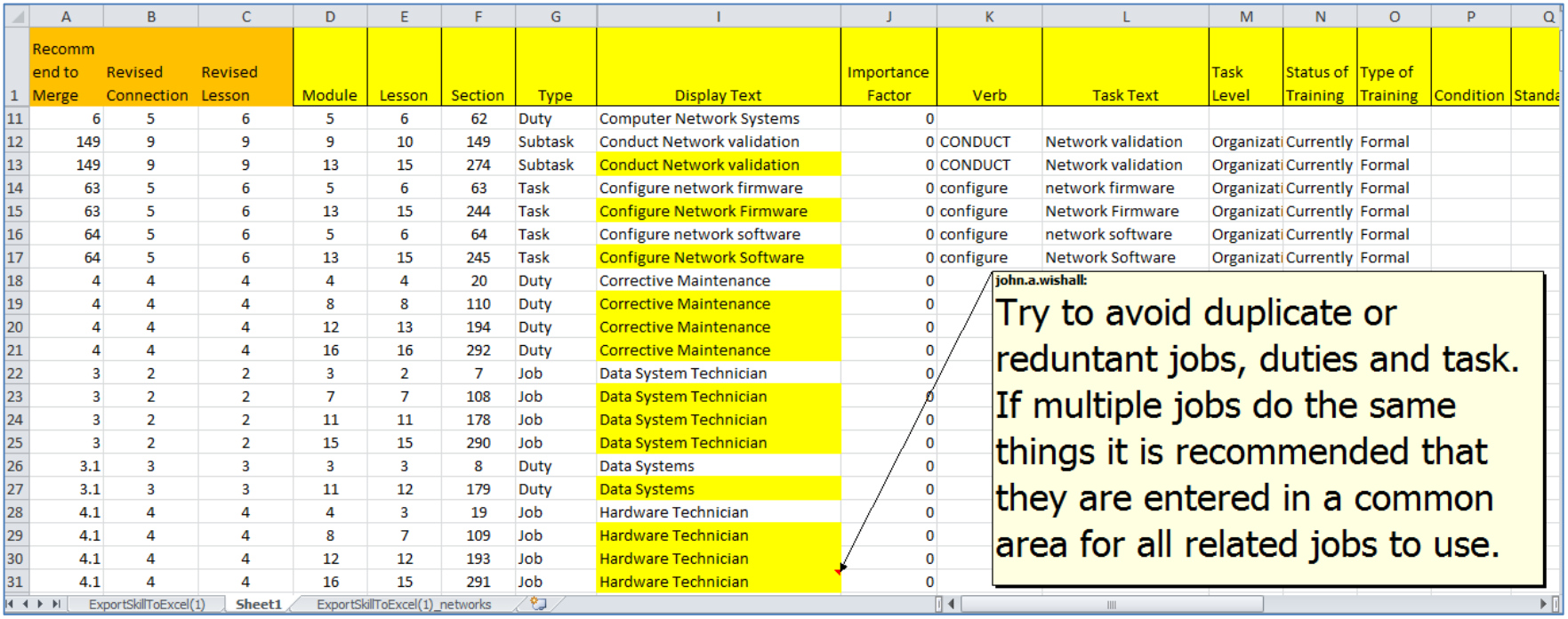
Type	Display Text	Importance Factor	Verb	Task Text	Task Level	Status of Training	Type of Training	Condition	Standard	Task Source	Knowledges
Occupati	METC Training Content Development	0									
Job	Curriculum Developer	0									
Duty	Design Instructor Led Training (ILT)	0									
Duty	Design Interactive Multimedia Instruction	0									
Duty	Develop Hybrid Delivery Solution (Onsite	0									
Task	Develop Asynchronous Learning Products	2	DEVELOP	Asynchronous Learning Products	Organizational	Not fully supported through current training	Formal, PQS, RTM	Given a completed document IAW the NETCINST	Develop training based on FEA I IDCA recommendations	ILE Handbooks, ILE Handbooks that address and supports MIL-HNDBK-29612A with specific NETC IMI and Navy E-Learning type delivery requirements., MIL-HNDBK-29612A (Series), DOD Handbook for the development and analysis of training	Principles of human factors; Principles of Instructional Sigmen Design (ISD); Principles of needs analysis; Principles of Performance Analysis; Principles of Problem (work related) Analysis
Subtask	Develop Blogs	0	DEVELOP	Blogs	Organizational	Not fully supported through current training	Formal, PQS, RTM				
Subtask	Develop Community of Practice (COP)	0	DEVELOP	Community of Practice (COP)	Organizational	Not fully supported through current training	Formal, PQS, RTM				
Subtask	Develop IMMICAI Levels I-3	0	DEVELOP	IMMICAI Levels I-3	Organizational	Not fully supported through current training	Formal, PQS, RTM				

Prelim JDTA Data (JDTA) | Preload JDTA Data (PEA) | Creating a Hierarchy | **JDTA Data** | PEA Steps 1-5 | PEA Steps 6-9 (Performa

11. JDTA Data Entry Example



12. Duplicated Items



	A	B	C	D	E	F	G	I	J	K	L	M	N	O	P	Q
1	Recommend to Merge	Revised Connection	Revised Lesson	Module	Lesson	Section	Type	Display Text	Importance Factor	Verb	Task Text	Task Level	Status of Training	Type of Training	Condition	Standa
11	6	5	6	5	6	62	Duty	Computer Network Systems	0							
12	149	9	9	9	10	149	Subtask	Conduct Network validation	0	CONDUCT	Network validation	Organizati	Currently	Formal		
13	149	9	9	13	15	274	Subtask	Conduct Network validation	0	CONDUCT	Network validation	Organizati	Currently	Formal		
14	63	5	6	5	6	63	Task	Configure network firmware	0	configure	network firmware	Organizati	Currently	Formal		
15	63	5	6	13	15	244	Task	Configure Network Firmware	0	configure	Network Firmware	Organizati	Currently	Formal		
16	64	5	6	5	6	64	Task	Configure network software	0	configure	network software	Organizati	Currently	Formal		
17	64	5	6	13	15	245	Task	Configure Network Software	0	configure	Network Software	Organizati	Currently	Formal		
18	4	4	4	4	4	20	Duty	Corrective Maintenance	0							
19	4	4	4	8	8	110	Duty	Corrective Maintenance	0							
20	4	4	4	12	13	194	Duty	Corrective Maintenance	0							
21	4	4	4	16	16	292	Duty	Corrective Maintenance	0							
22	3	2	2	3	2	7	Job	Data System Technician	0							
23	3	2	2	7	7	108	Job	Data System Technician	0							
24	3	2	2	11	11	178	Job	Data System Technician	0							
25	3	2	2	15	15	290	Job	Data System Technician	0							
26	3.1	3	3	3	3	8	Duty	Data Systems	0							
27	3.1	3	3	11	12	179	Duty	Data Systems	0							
28	4.1	4	4	4	3	19	Job	Hardware Technician	0							
29	4.1	4	4	8	7	109	Job	Hardware Technician	0							
30	4.1	4	4	12	12	193	Job	Hardware Technician	0							
31	4.1	4	4	16	15	291	Job	Hardware Technician	0							

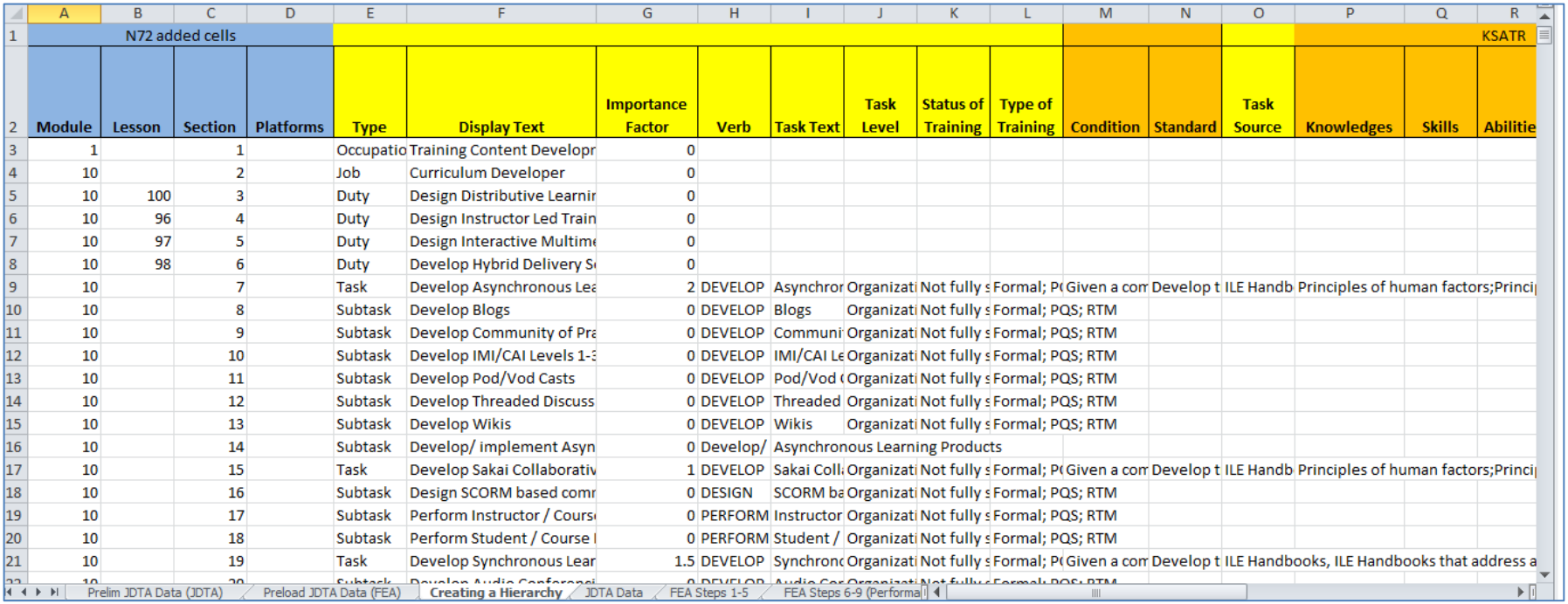
ExportSkillToExcel(1) | Sheet1 | ExportSkillToExcel(1)_networks

john.a.wishall:

Try to avoid duplicate or reduntant jobs, duties and task. If multiple jobs do the same things it is recommended that they are entered in a common area for all related jobs to use.

13. Workshop Training Cover Slide

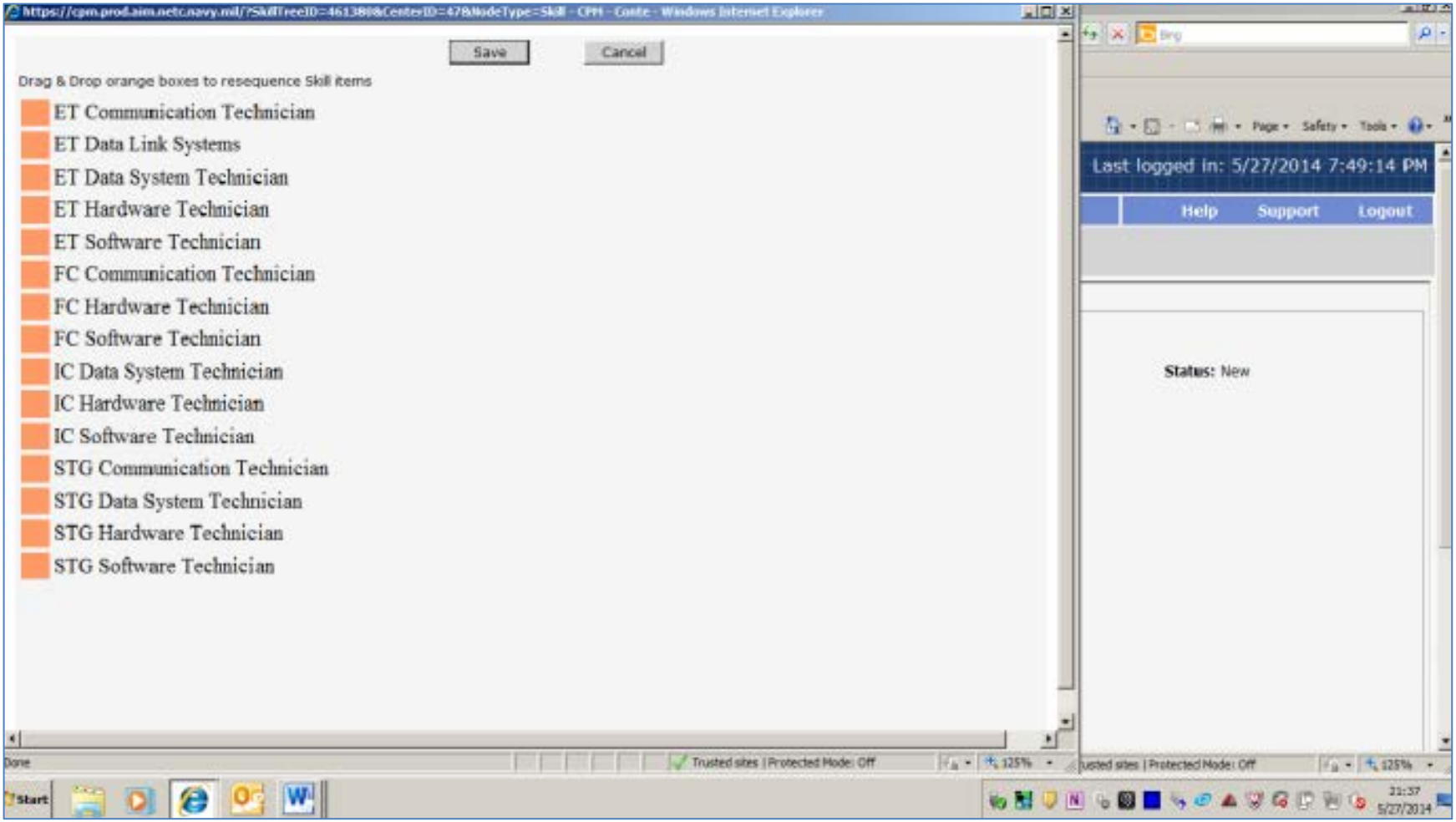
14. Learning Hierarchy



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	N72 added cells																	KSATR
2	Module	Lesson	Section	Platforms	Type	Display Text	Importance Factor	Verb	Task Text	Task Level	Status of Training	Type of Training	Condition	Standard	Task Source	Knowledges	Skills	Abilitie
3	1		1		Occupatio	Training Content Developr	0											
4	10		2		Job	Curriculum Developer	0											
5	10	100	3		Duty	Design Distributive Learnir	0											
6	10	96	4		Duty	Design Instructor Led Train	0											
7	10	97	5		Duty	Design Interactive Multime	0											
8	10	98	6		Duty	Develop Hybrid Delivery S	0											
9	10		7		Task	Develop Asynchronous Lea	2	DEVELOP	Asynchror	Organizati	Not fully s	Formal; P(	Given a com	Develop t	ILE Handb	Principles of human factors;Princi		
10	10		8		Subtask	Develop Blogs	0	DEVELOP	Blogs	Organizati	Not fully s	Formal; PQS; RTM						
11	10		9		Subtask	Develop Community of Pra	0	DEVELOP	Communi	Organizati	Not fully s	Formal; PQS; RTM						
12	10		10		Subtask	Develop IMI/CAI Levels 1-3	0	DEVELOP	IMI/CAI Le	Organizati	Not fully s	Formal; PQS; RTM						
13	10		11		Subtask	Develop Pod/Vod Casts	0	DEVELOP	Pod/Vod (	Organizati	Not fully s	Formal; PQS; RTM						
14	10		12		Subtask	Develop Threaded Discuss	0	DEVELOP	Threaded	Organizati	Not fully s	Formal; PQS; RTM						
15	10		13		Subtask	Develop Wikis	0	DEVELOP	Wikis	Organizati	Not fully s	Formal; PQS; RTM						
16	10		14		Subtask	Develop/ implement Asyn	0	Develop/	Asynchronous Learning Products									
17	10		15		Task	Develop Sakai Collaborativ	1	DEVELOP	Sakai Coll	Organizati	Not fully s	Formal; P(	Given a com	Develop t	ILE Handb	Principles of human factors;Princi		
18	10		16		Subtask	Design SCORM based comr	0	DESIGN	SCORM ba	Organizati	Not fully s	Formal; PQS; RTM						
19	10		17		Subtask	Perform Instructor / Cours	0	PERFORM	Instructor	Organizati	Not fully s	Formal; PQS; RTM						
20	10		18		Subtask	Perform Student / Course I	0	PERFORM	Student /	Organizati	Not fully s	Formal; PQS; RTM						
21	10		19		Task	Develop Synchronous Lear	1.5	DEVELOP	Synchron	Organizati	Not fully s	Formal; P(	Given a com	Develop t	ILE Handbooks, ILE Handbooks that address a			

Prelim JDTA Data (JDTA) | Preload JDTA Data (FEA) | Creating a Hierarchy | JDTA Data | FEA Steps 1-5 | FEA Steps 6-9 (Performa

15. Arrangement and Sorting Window



16. JDTA Approval Letter

(Learning Center Letterhead)

1500
Ser N7/
(Date)

From: *(Learning Center)*
To: (Requirement Sponsor(s))

Subj: *(name of JDTA)* JDTA DATA

Encl: (1) *(name of JDTA)* JDTA Data Report

1. A JDTA was conducted on *(dates)* in response to the training requirement that was submitted per NETCINST 1500.9, *(list name of training requirement, Ser, and date of ltr)*. Enclosure (1) is forwarded for your review, validation, and approval.

2. If upon review, there is JDTA data that needs to be modified, request annotate it on the enclosed report or on separate correspondence and return it to *(Learning Center)* with your approval. Upon receipt, the data will be updated in the Authoring Instruction Material (AIM) Content Planning Module (CPM), per your direction.

3. If you have any questions concerning this matter, please feel free to contact the *(Learning Center)* JDTA POC, *(POC full name and contact information)*.

(Typed Name)

Copy to:
NETC N74

17. FEA Worksheet

22	Mod	Lesson	Section	TLO	ELO	INDIRECT ELO (Supporting)			TLO
23	1	1	1	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	EVALUATE EXISTING DATA			
24	1	1	2	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	EVALUATE MISHAP REPORT			
25	1	1	3	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	EVALUATE NEC CHANGE LETTER OR NEOCS CHANGE PACKAGE			
26	1	1	4	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	EVALUATE RATING MERGER REQUIREMENTS			
27	1	1	5	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	RECEIVE LETTER FROM CCA			
28	1	1	6	OVERSEE JDTA PROCESS	INITIATE JDTA PROCESS	REVIEW NETCINST 1500.9 FORM (REQUIREMENTS SPONSOR COMMITMENT)			
29	1	5	5	OVERSEE JDTA PROCESS	EVALUATE INSTRUCTIONAL MATERIAL ASSOCIATED TO THE COURSE OF INSTRUCTION (COI)				
30	1	10	1	PREPARATION FOR A JDTA	ASSIGN JDTA COORDINATOR				
31	1	10	3	PREPARATION FOR A JDTA	IDENTIFY RESOURCES NECESSARY TO CONDUCT THE JDTA				
32	1	10	5	PREPARATION FOR A JDTA	DEVELOP BRIEF THAT COVERS GOALS, AGENDA, GROUND RULES, AND TENTATIVE TIMELINE OF THE JDTA.				
33	1	10	7	PREPARATION FOR A JDTA	IDENTIFY JDTA STAKEHOLDERS AND NECESSARY				
34	1	10	10	PREPARATION FOR A JDTA	IDENTIFY INTERNAL STAFF SUPPORT AND ROLES				
35	1	10	15	PREPARATION FOR A JDTA	PREPARE JDTA PLAN OF ACTION AND MILESTONES (POA&M).				
36	1	10	20	PREPARATION FOR A JDTA	CONDUCT LC JDTA ORGANIZATIONAL MEETING.				
37	1	10	25	PREPARATION FOR A JDTA	DRAFT JDTA ANNOUNCEMENT MESSAGE.			1	
38	1	10	30	PREPARATION FOR A JDTA	COLLECT A REVIEW OF RELEVANT REFERENCE DOCUMENTATION.				
39	1	10	32	PREPARATION FOR A JDTA	IDENTIFY , IF APPLICABLE, THE COURSE IDENTIFICATION NUMBER(S) (CIN) THAT WILL BE ANALYZED DURING THE	Determine if it is a targeted JDTA			
40	1	10	32	PREPARATION FOR A JDTA	IDENTIFY , IF APPLICABLE, THE COURSE IDENTIFICATION NUMBER(S) (CIN) THAT WILL BE ANALYZED DURING THE	Determine if it is a targeted JDTA			
41	1	10	35	PREPARATION FOR A JDTA	MONITOR THE RELEASE OF THE JDTA ANNOUNCEMENT MESSAGE.			1	
42	1	10	40	PREPARATION FOR A JDTA	CONDUCT A REVIEW OF RELEVANT REFERENCE DOCUMENTATIONS.				
43	1	10	45	PREPARATION FOR A JDTA	CREATE NEW AIM CPM USER ACCOUNTS			7	

JDTA Data | **FEA Steps 1-5** | FEA Steps 6-9 (Performance) | FEA Steps 6-9 (Theory-Direct) | FEA Steps 6-9 (Gen-Indirectly)

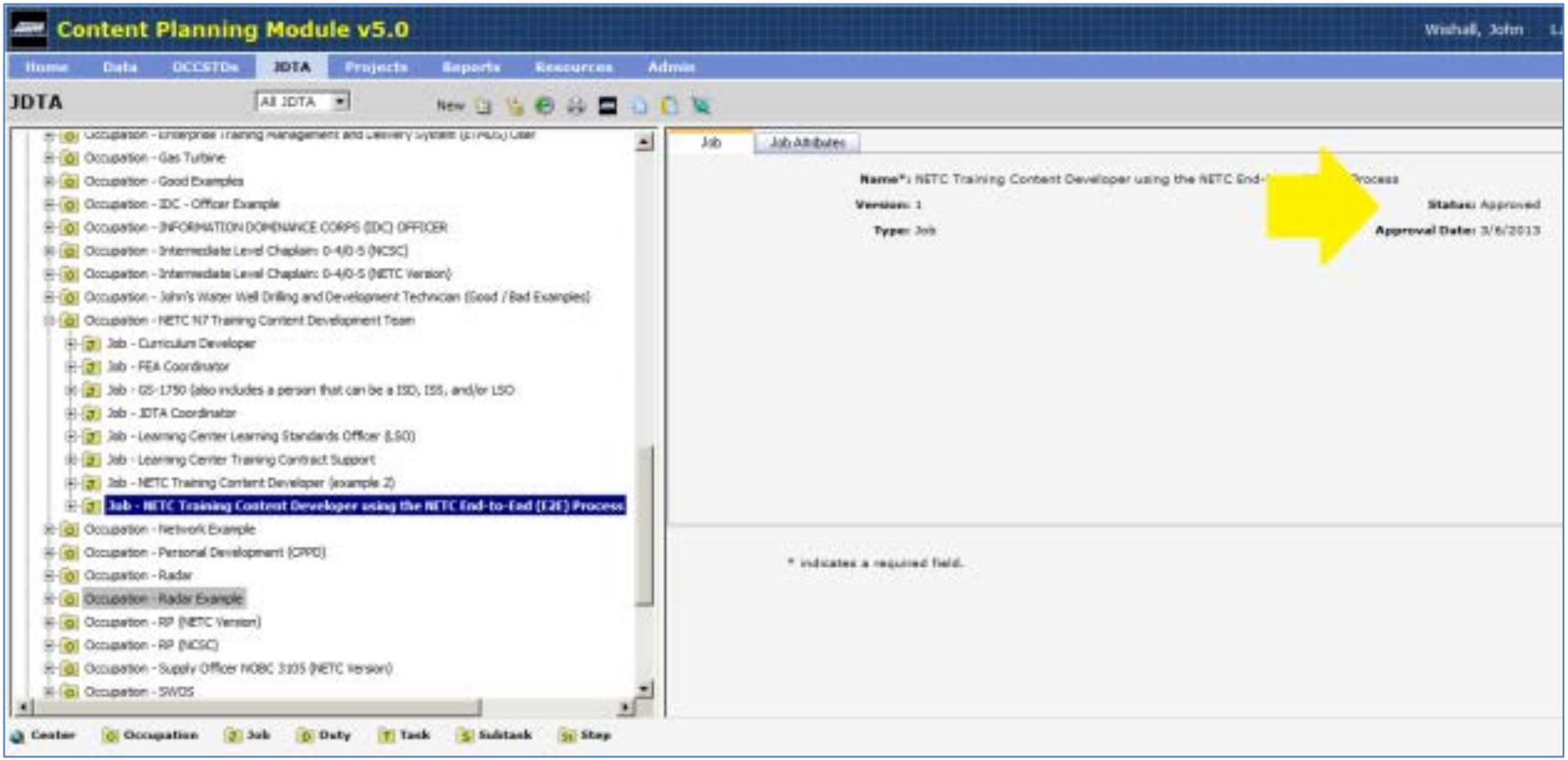
18. FEA Template Excerpt

NETC-FEA		
1.0	**NETC-Front End Analysis** **Reason for Conducting the NETC-FEA**	
1.1	Requirements Sponsor:	Resource Sponsor: Name: Rank/Title: Phone: Email:
1.2	Curriculum Control Authority: Learning Center:	
1.3	Activity Conducting NETC-FEA/Project Team Members: (CCMM: LSO, ISD/ISS, SME, course supervisor, others as needed)	
1.4	NETC-FEA Start Date (YY/MM/DD):	
1.5	NETC-FEA End Date (YY/MM/DD):	
1.6	Reason for conducting NETC-FEA: Is NETC-FEA for a new or revised course?	

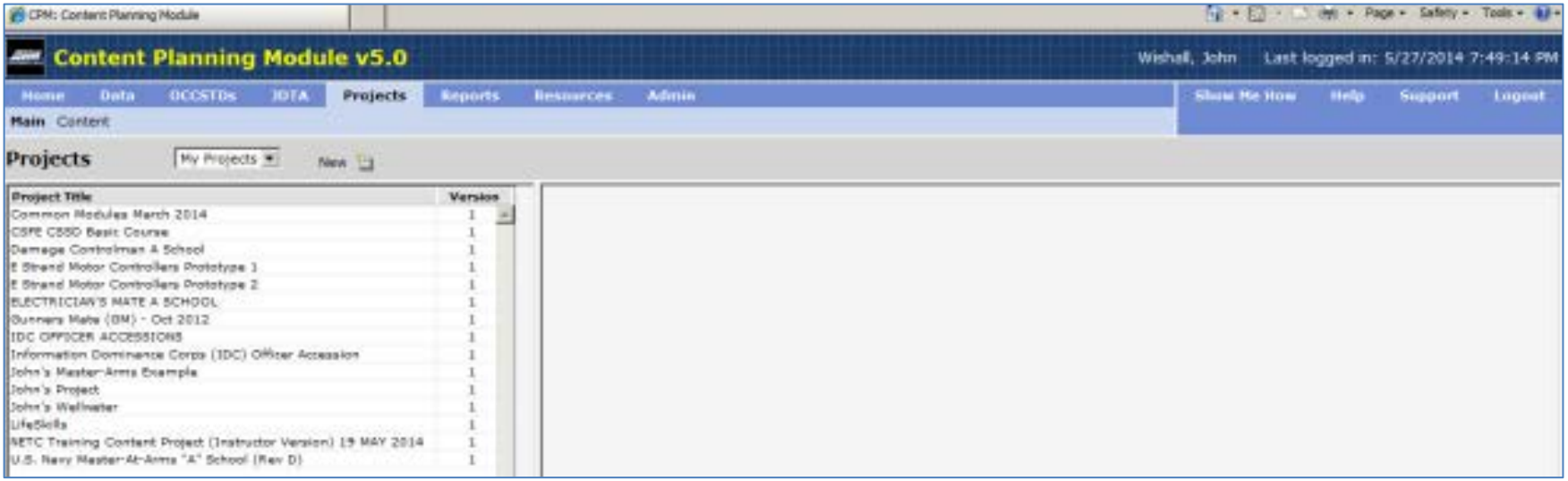
19. FEA ISD Considerations

	E	F	G	H	I	J	K	L	M	N	O	
1	Learning Strategy	ISD Recommendation	Interactivity Level	Assessment Strategy	Proficiency Level	Instructional Time (min)	Development Ratio	Cost Per Development Hour	ROM Per SCENARIO	# of Scenario	Base Cost	ROM
7												
26												
31												
36												
59												

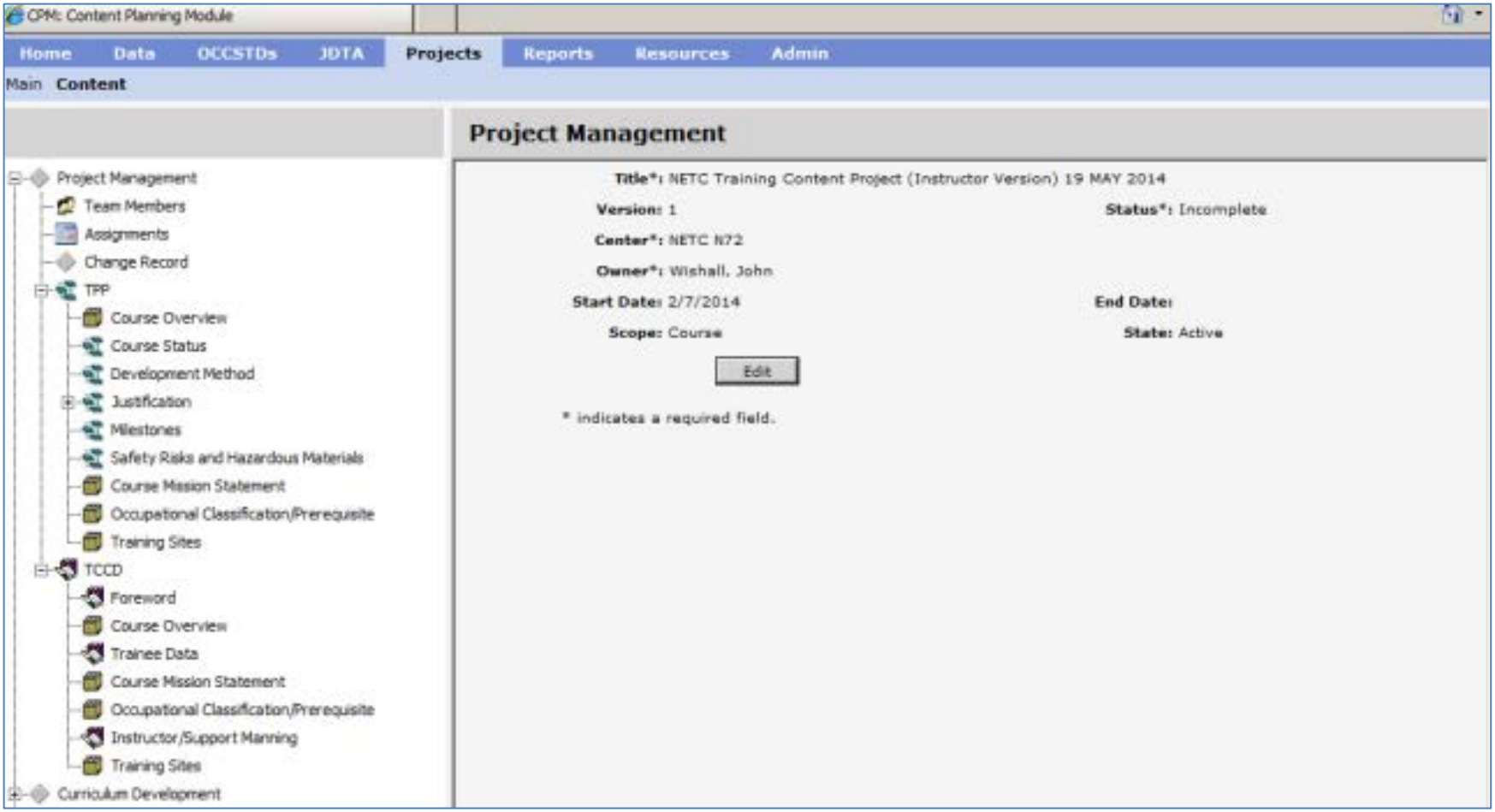
20. JDTA Approval Verification



21. Projects Menu Tab

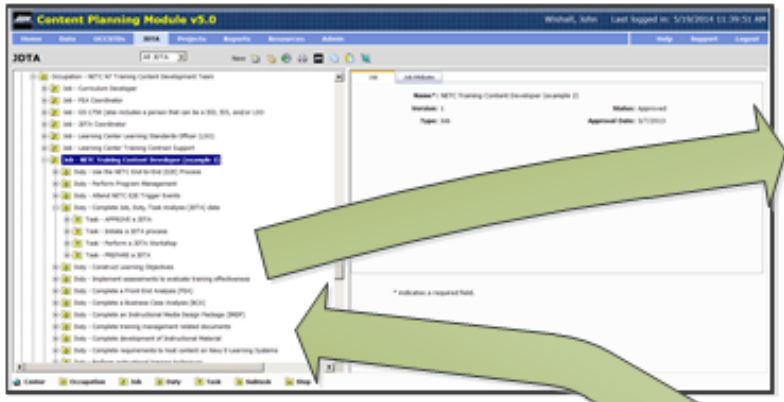


22. Project Management

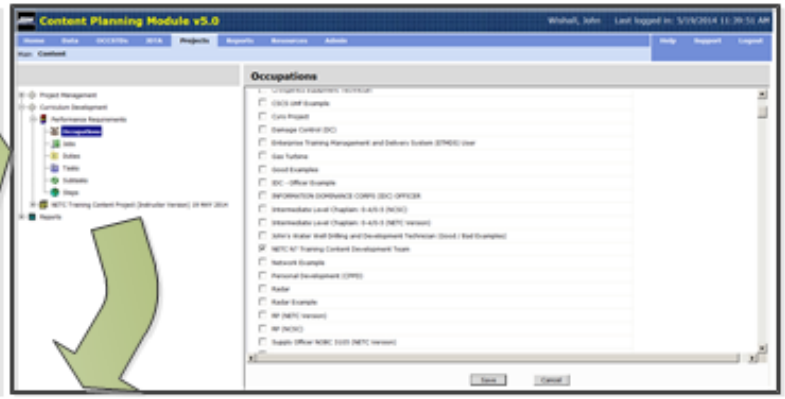


23. CPM Projects Menu.

Content Planning Module (CPM) (Projects)



From Approved JDTA Data



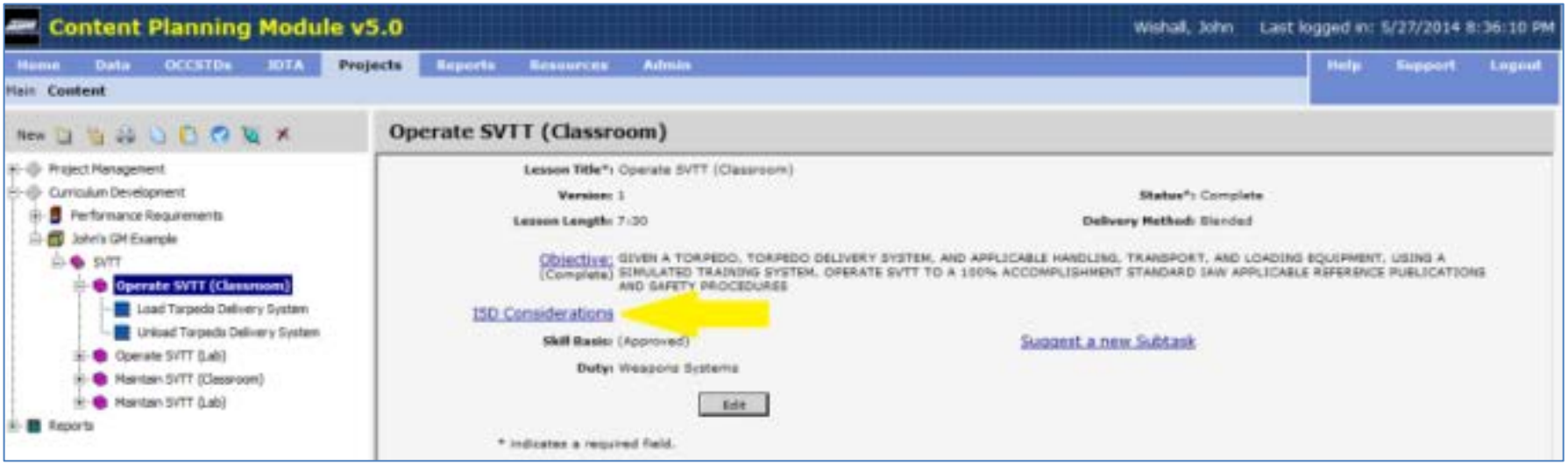
In projects you must select from Approved JDTA data. This should be based on your FEA. Start with selecting Occupations, then Job, Duty and Task.

The key to this process is a complete FEA. The FEA is a critical component, it allows you to look at learning objectives, assessment strategies, media, instructional models/approaches an opportunity to organize the work into a learning events or learning hierarchy. To correctly structure and ensure the overall objectives are being meet by this Course of instruction. Some general rules:

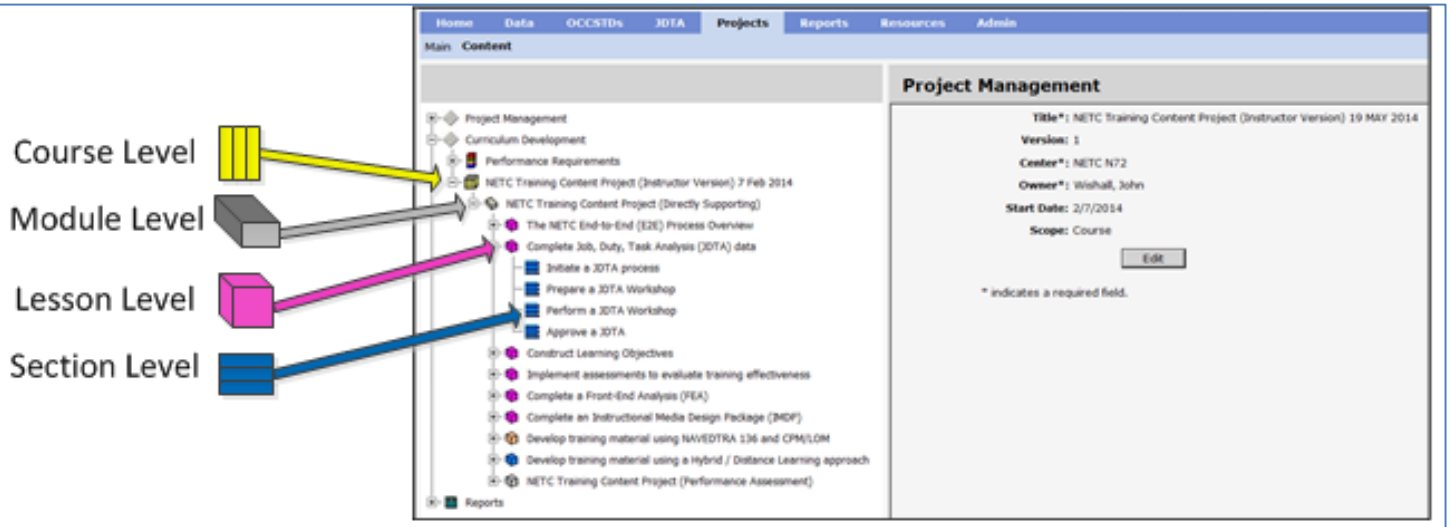
1) Don't approve your JDTA data until your sure it meets the training course structure requirements in CPM.
2) Each item in the JDTA marked as formal training should be looked at during step 3 of the FEA. These should be compared to step 2. The 29612B DID's are a huge help with this part.
3) Identify gaps and items that can be R3.
4) Choose media based on requirements
5) Determine the best methods to teach the requirements. Some JDTA data can be rolled up. Start with the end-in mind.
6) Determine learning and assessment strategy, interactivity, test items, ISD comments, Prereq, Overview and other ISD considerations as appropriate.

At the sub-task and step level you can add JDTA if required

24. ISD Considerations



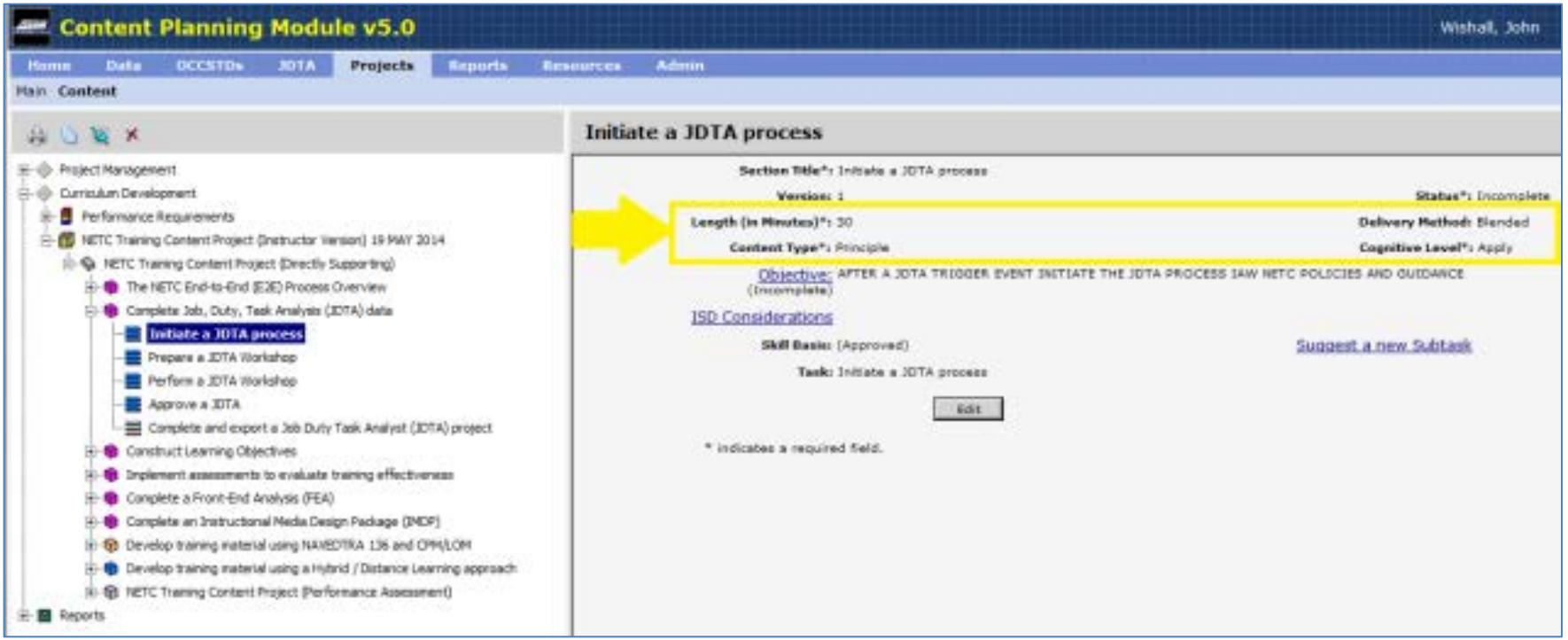
25. Depiction of Color Code



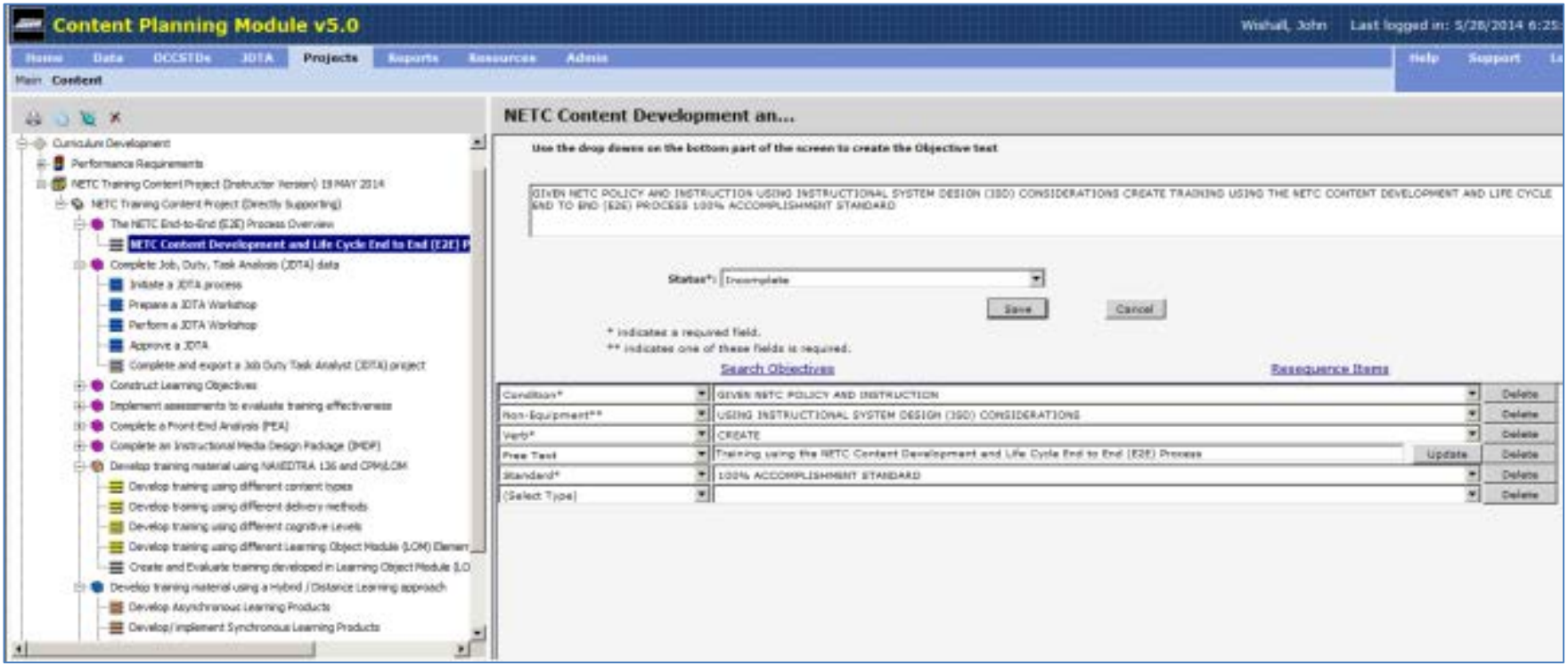
Course Construct	Duty	Task	Sub-Task	Step	KSATR
Module					
Lesson					
Section					

Chart showing color links between JDTA data and a Training Project. Unlinked training is shown in GRAY.

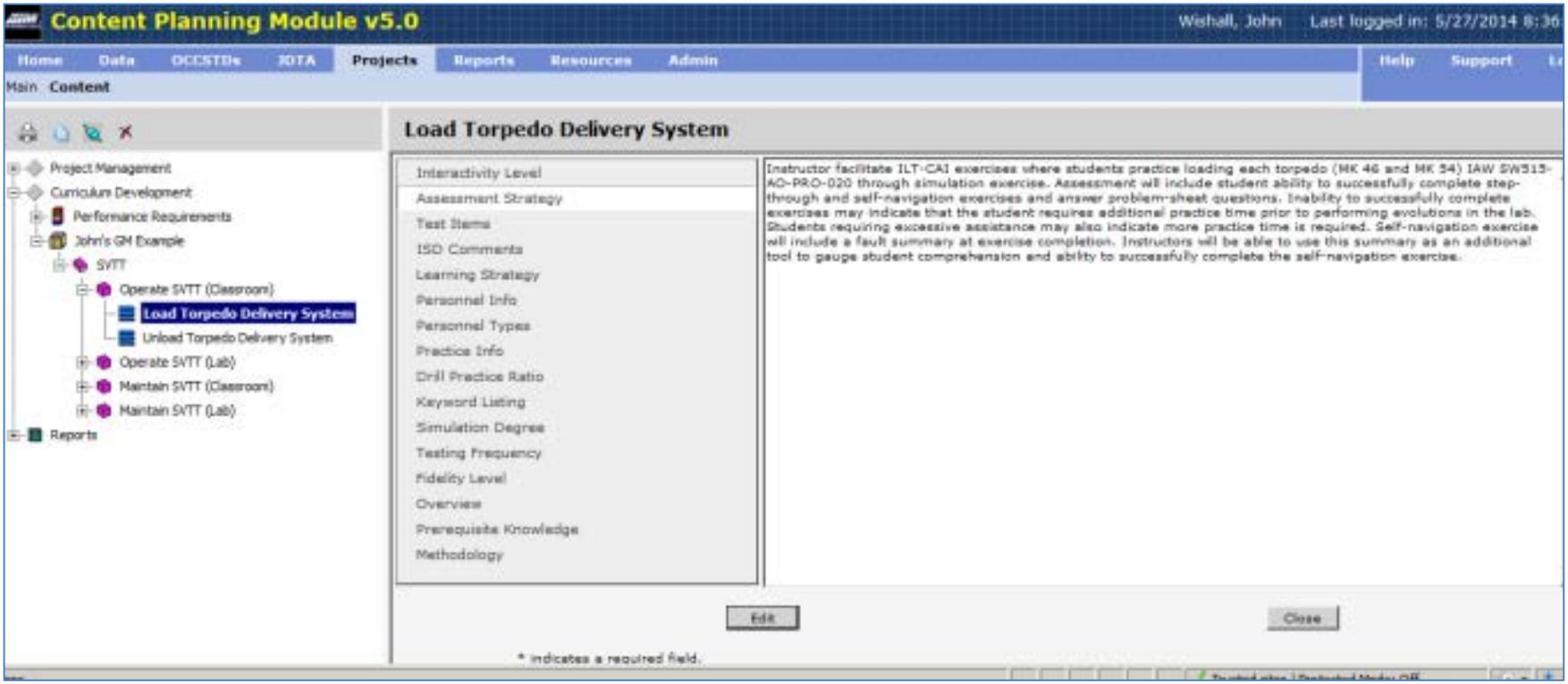
26. Initiate JDTA Process



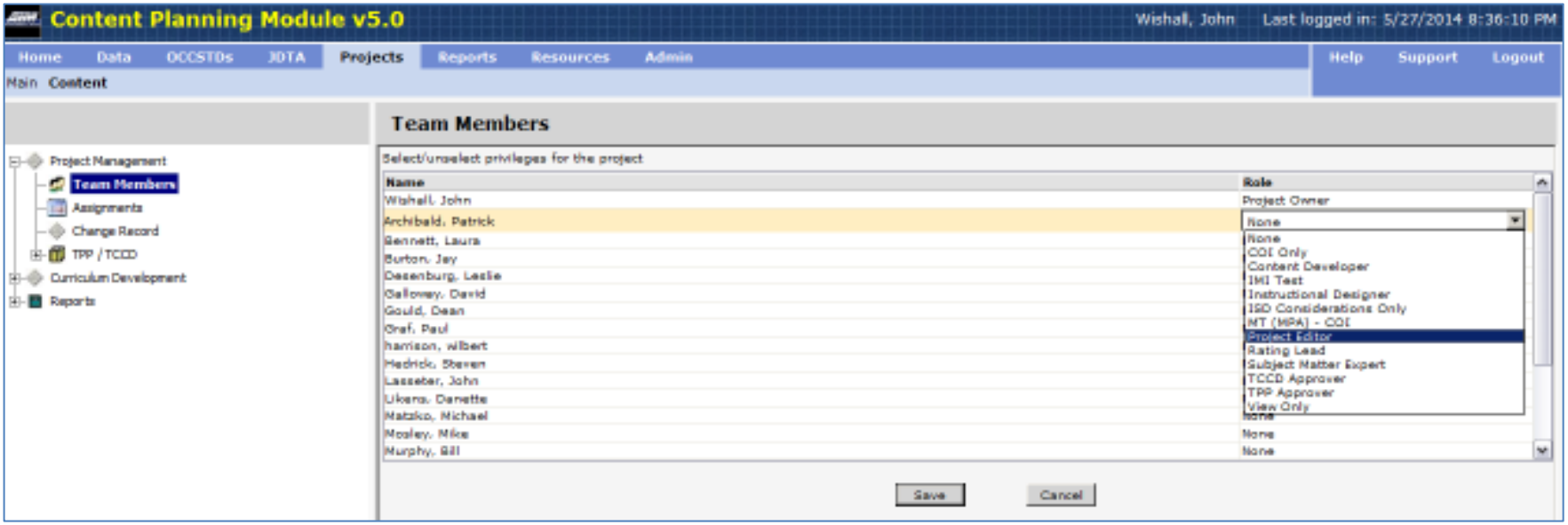
27. Learning Objectives



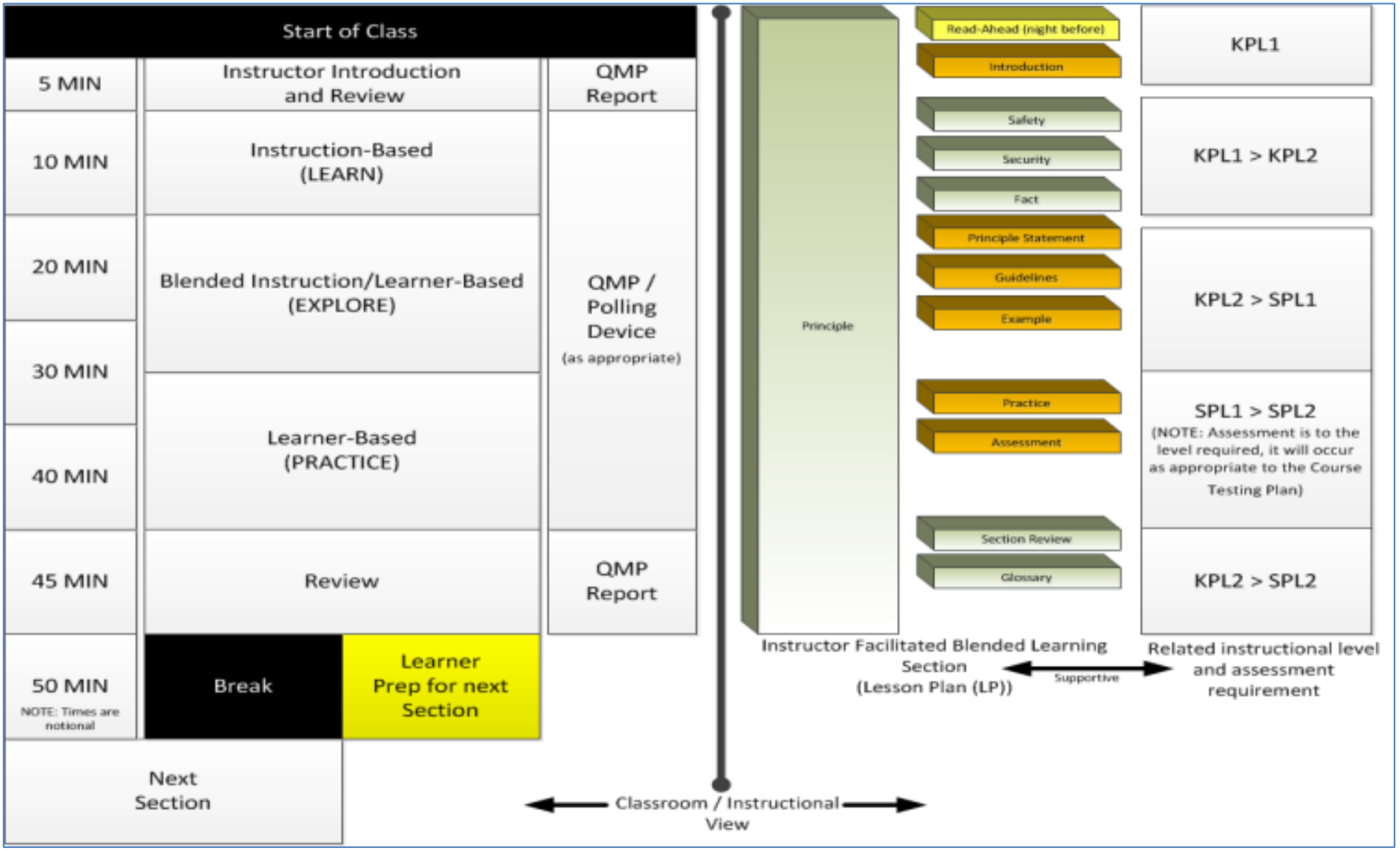
28. Example of ISD Considerations



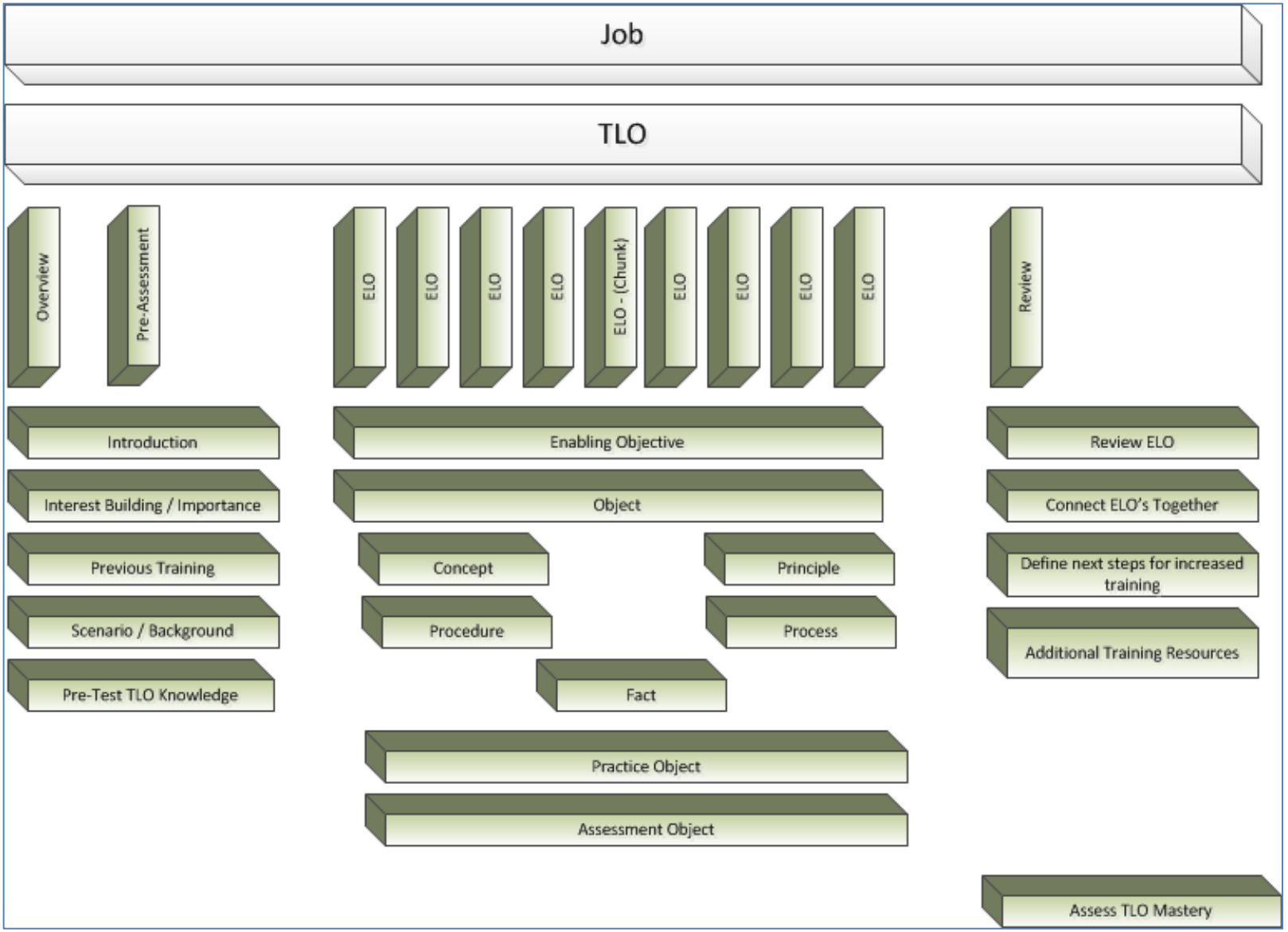
29. Update Role Assignments



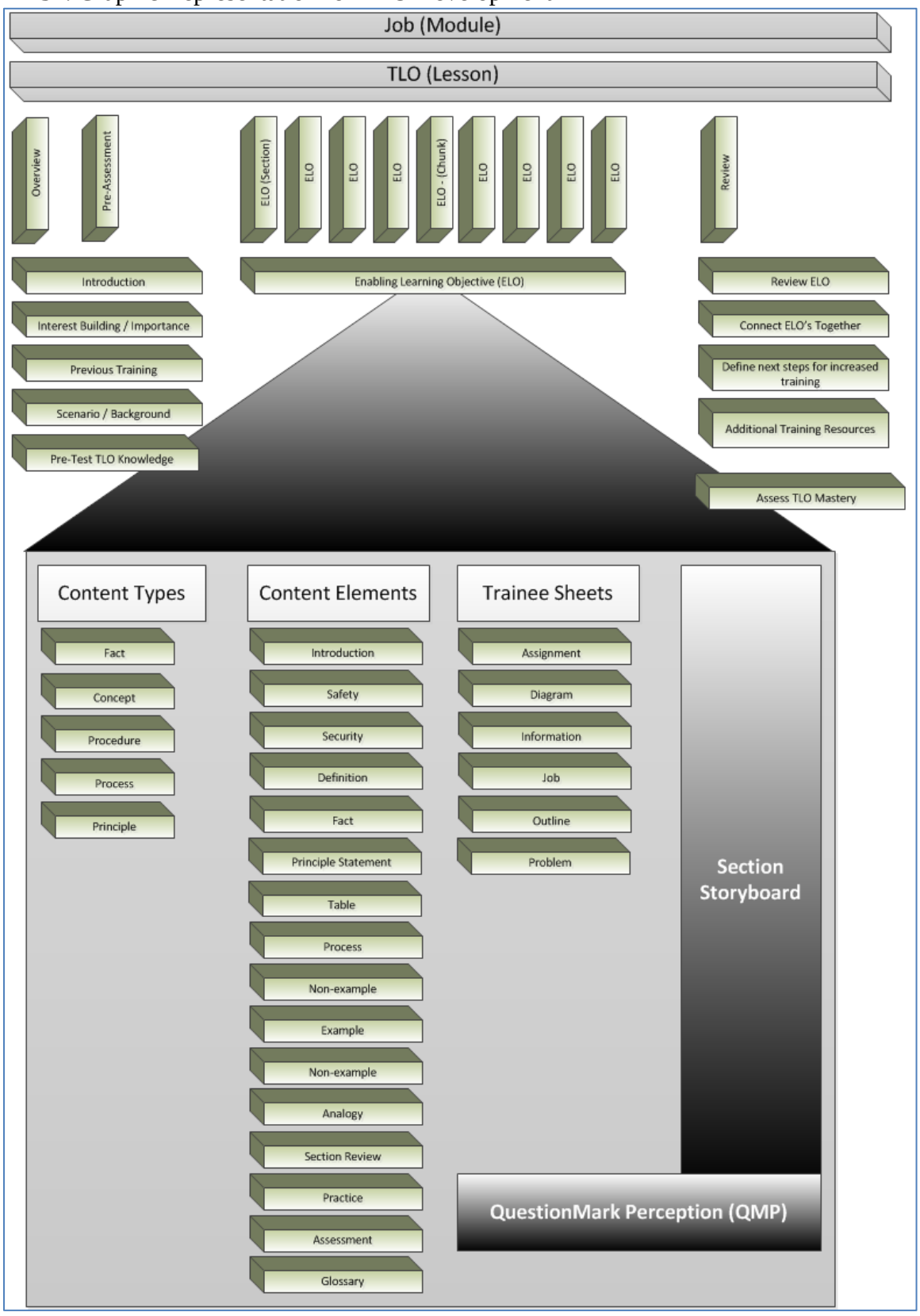
30. Review at the Section Level



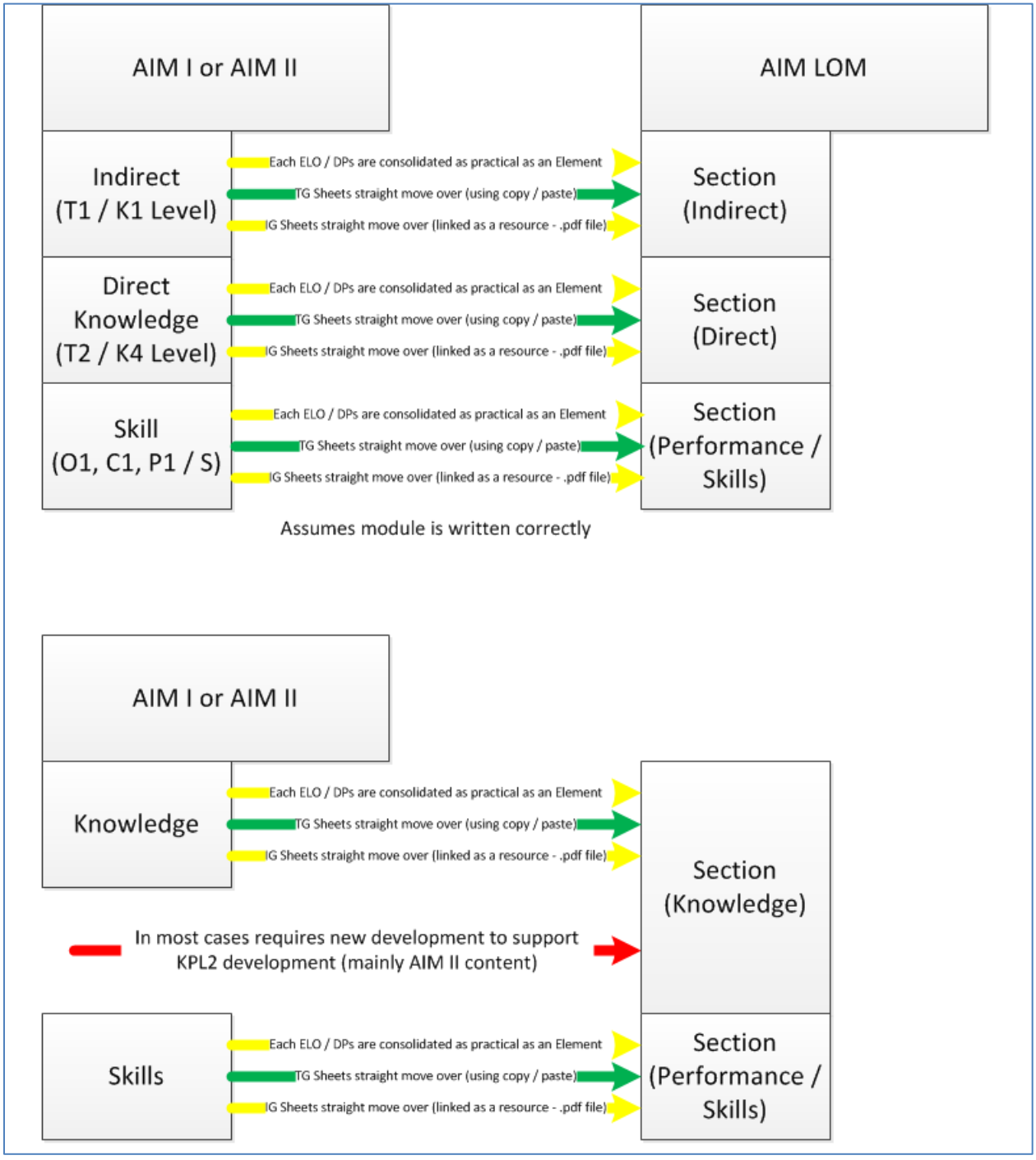
31. Graphic Representation for TLO Development



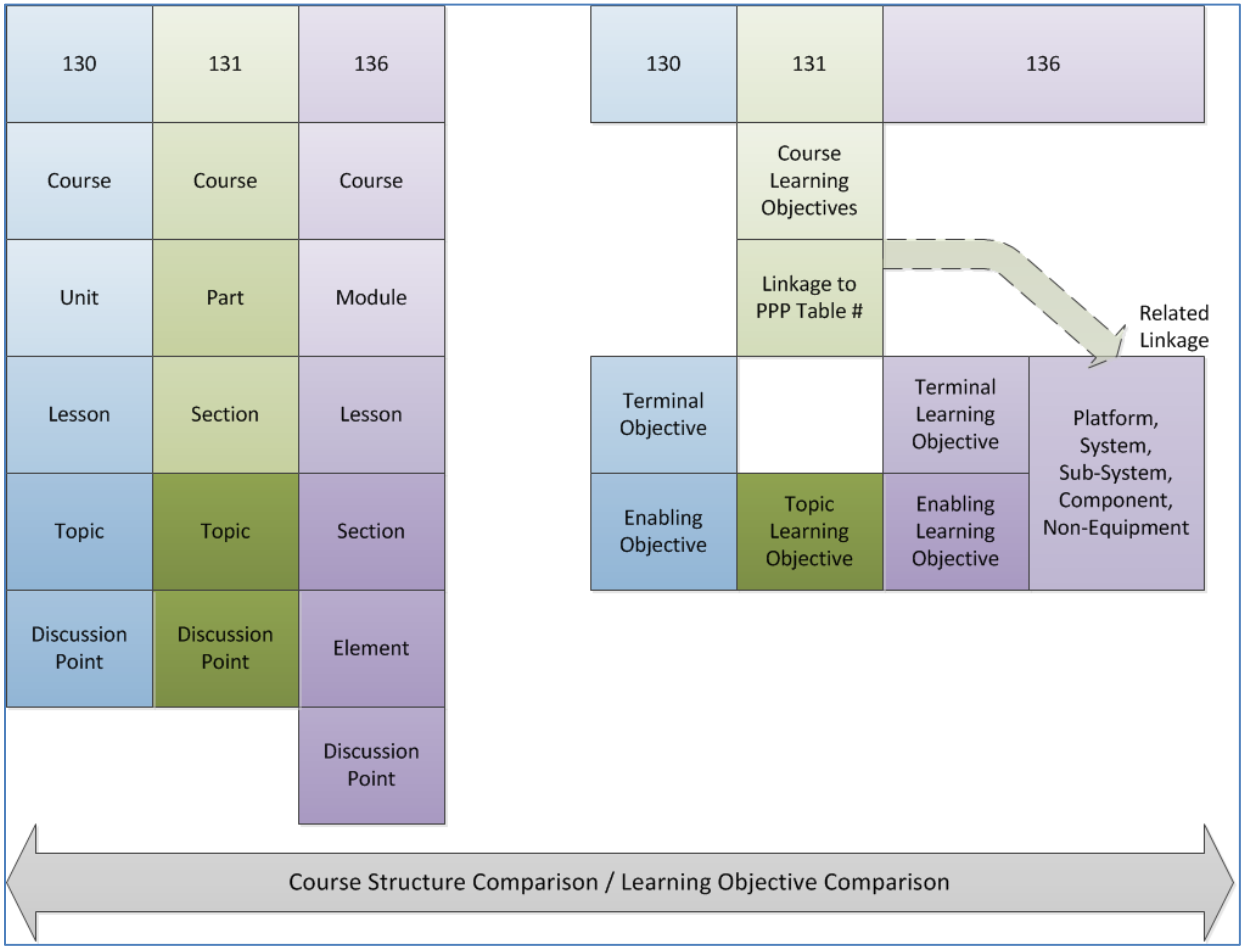
32. Graphic Representation for ELO Development



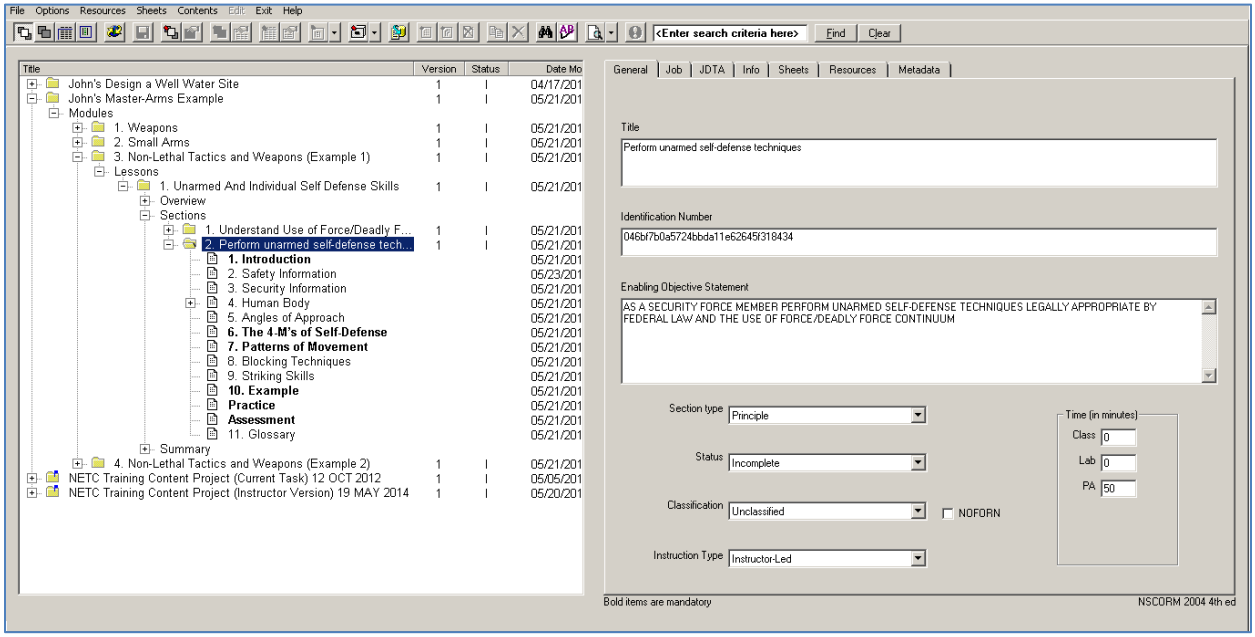
33. Comparison of AIM I/AIM II and LO Module What do the color codes below represent?



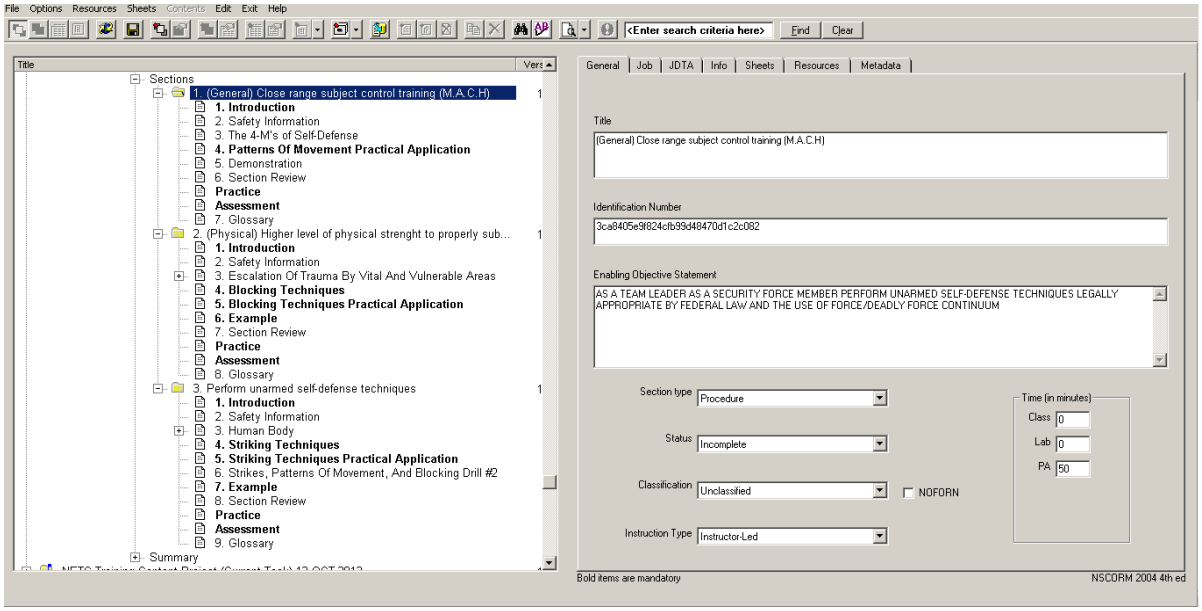
34. Examples of AIM II Conversion to LO Module



35. Additional example related to AIM II Conversion to LO Module.



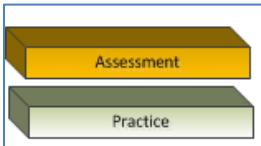
36. Additional example related to AIM II Conversion to LO Module.



37. Content Types and Instructional Delivery

Classifying Knowledge	Fact	Concept	Procedure	Process	Principle
Apply (KPL2>)	————	Classify examples	Perform the steps	Use a method	Apply a rule
Remember (KPL1)	Recall an association	Recall a definition	List the steps	Name a method	State a rule

38. Practice and Assessment Elements.



Assessment and Practice Elements (Practice Element has another description above):
The purpose of assessment items is to determine if RIO content has been mastered. Assessment items are presented at the RLO level in order to prescribe individual RIOs or to determine mastery of the content. Assessments items can be found in the practice and assessment elements of the section. LO can export assessments and survey questions to QMP. In QMP four different assessments exist (this does require :

- The test (many types of test, pre, diagnostic, etc...) should be taken before the section or during class session.
- The Quiz is used for self-assessment (still can be for a formal or informal grade), usually gives feedback, and is open to all students.
- The exam does not give feedback, and is secured against unauthorized access.
- A survey asks the participant questions, does not give feedback, and has no right or wrong answers.

Assessment items are written at the section level.
All assessment items must:

- Match the learning objective of the section.
- Reflect the content in the section.
- Differ from the practice item(s).

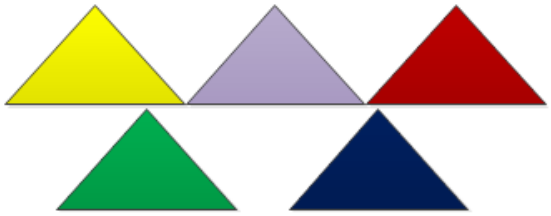
Assessment and Practice Elements can include:

- Graphic Media
- Reference Material

NOTE: Items must be in the Site RRL

39. QMP Question Types.

Practice / Assessments



Fill-in-the blank
Multiple Choice
True / False
2-column Matching
Performance

Resources and Graphics can be added to a practice or assessment item. Both of which must be in Site RRL.

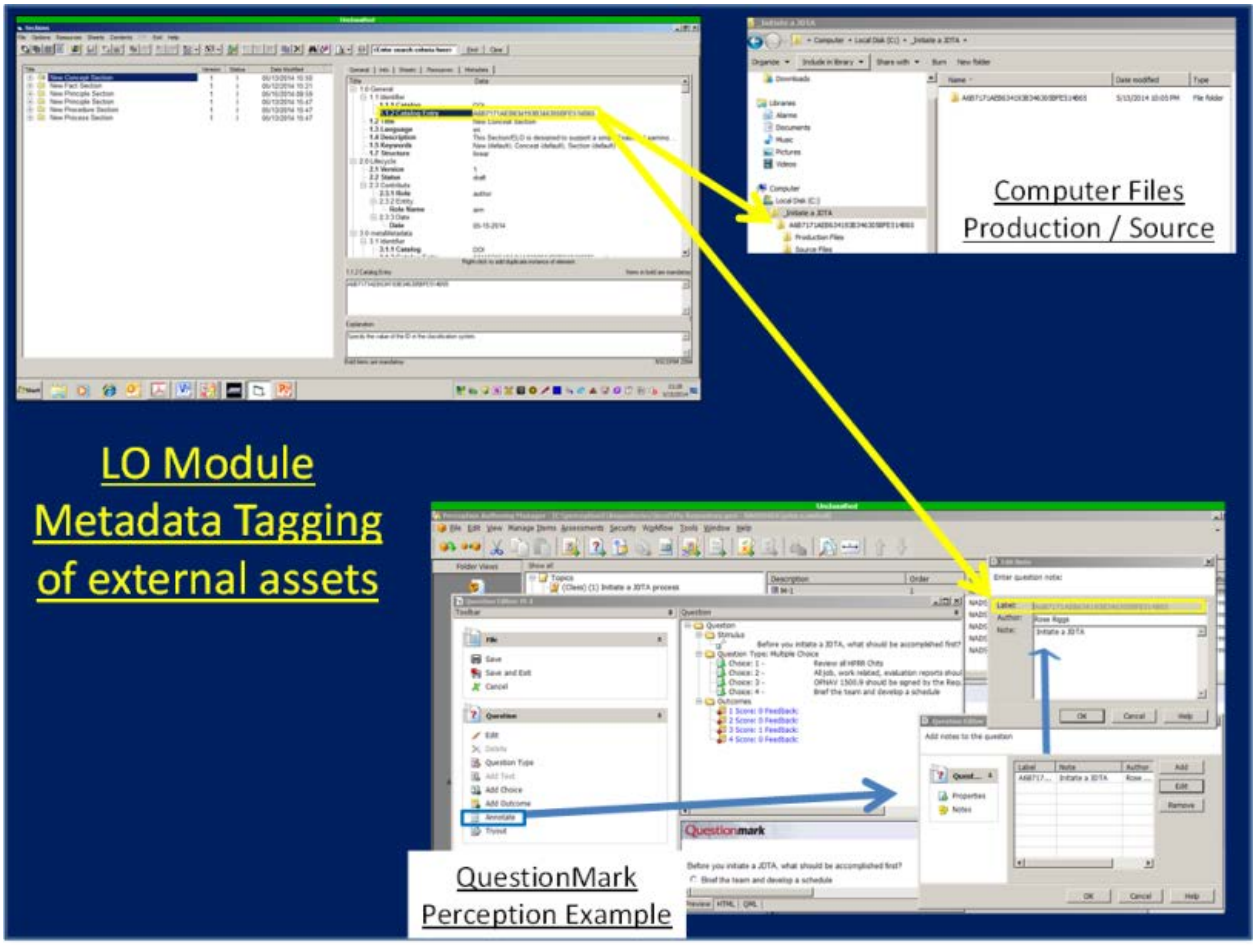
Practice and Assessments are defined in the 5 question types identified above. LO can transfer questions to QMP via an export QML file. Since QMP supports 22 different question types requires manual configuration in QMP.

NOTE: The K1 – K5 Levels in LO are WRONG, they should relate to K1 – K3 as KPL1, K4 as KPL2, K5 as KPL2 and KPL3.

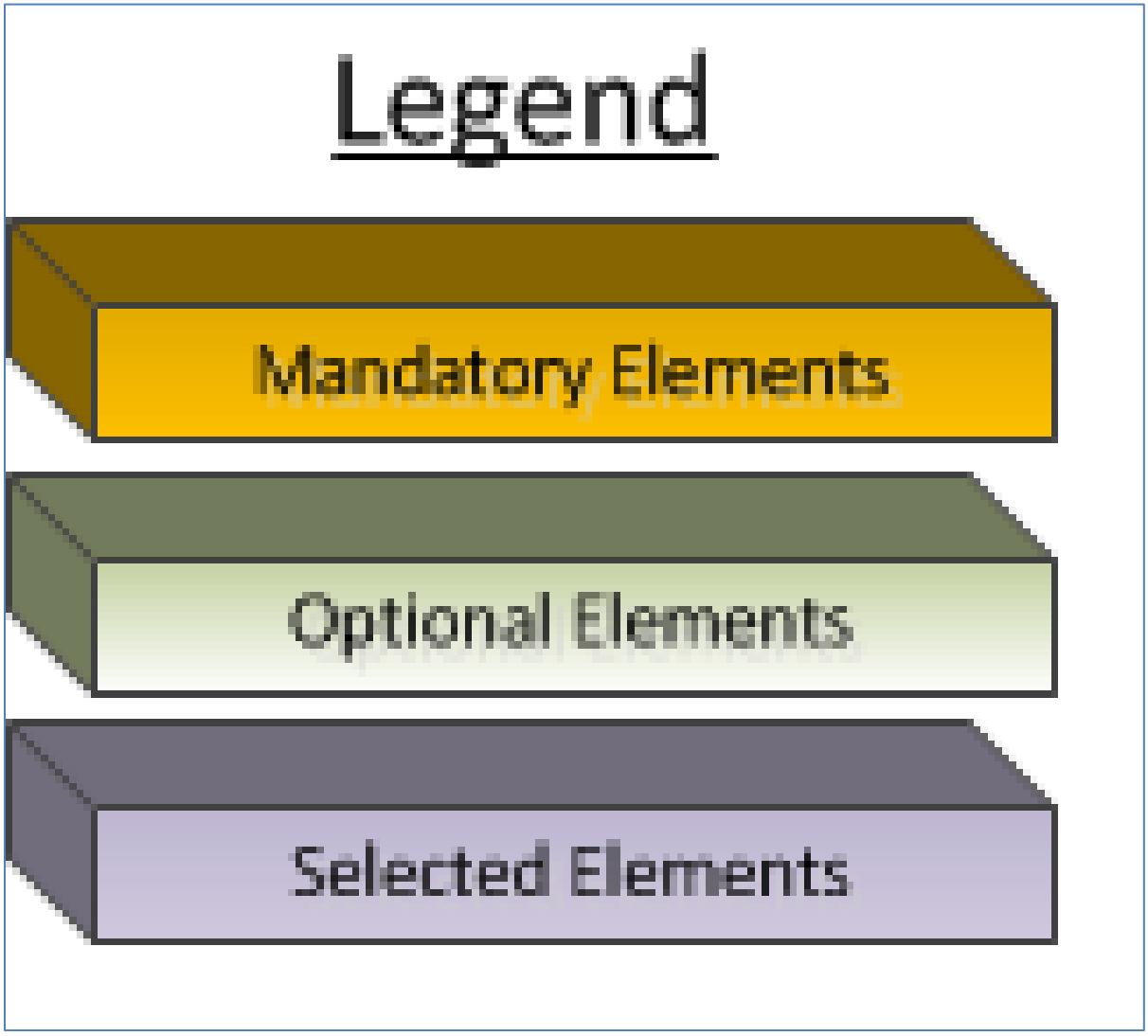
Question Type – Authoring Manager / Export LO Module

1. Drag-and-Drop / Performance
2. Essay question / Performance
3. Explanation screens / Performance?
4. File Upload / Performance
5. Fill-in-the-blank / Fill-in-the-blank
6. Hotspot / Performance
7. Knowledge Matrix / Multiple Choice
8. Survey Matrix / NA
9. Likert scale / NA
10. Matching / Matching
11. Multiple choice / Multiple Choice
12. Multiple response / Multiple Choice
13. Numeric questions / Fill-in-the-blank
14. Pull-Down List (selection question) / Fill-in-the-blank
15. Ranking (Rank in Order) / Matching
16. Select-a-blank / True - False
17. True/False / True - False
18. Word response (text match) / Fill-in-the-blank
19. Yes/No / True - False
20. Adobe Flash / Performance
21. Adobe Captivate Simulations / Performance
22. Spoken Response / Fill-in-the-blank

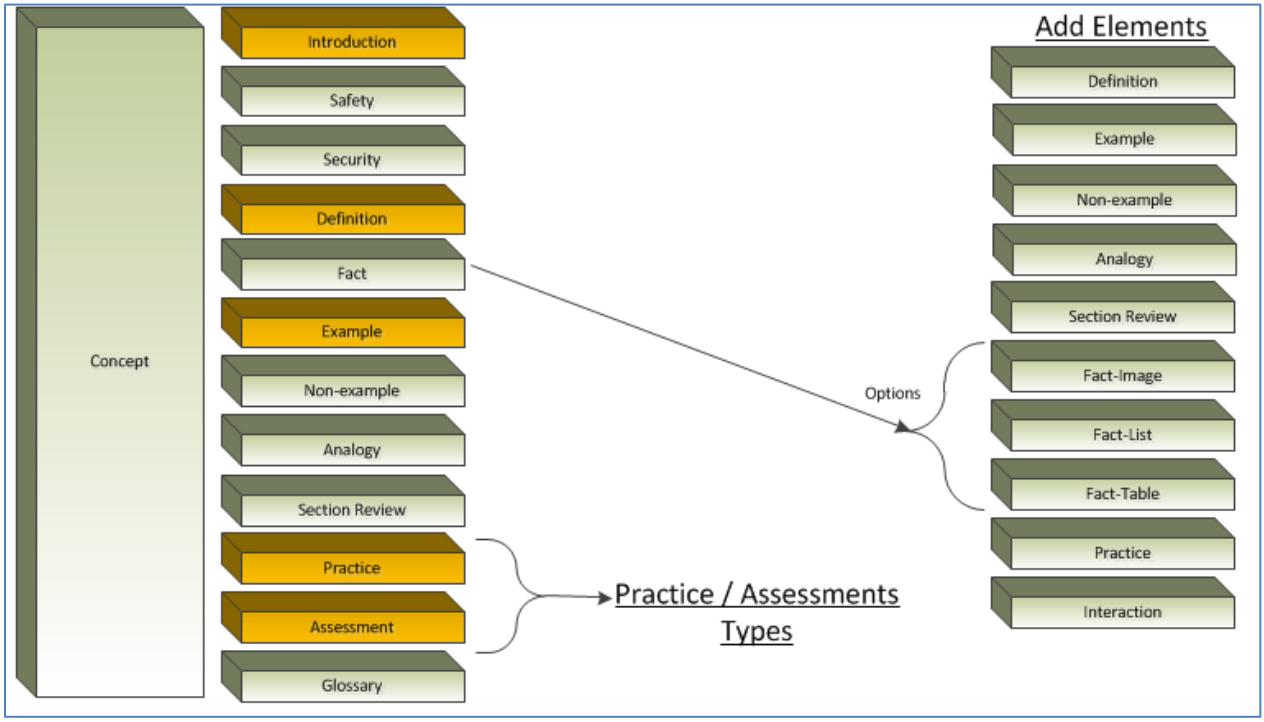
40. Metadata Tagging.



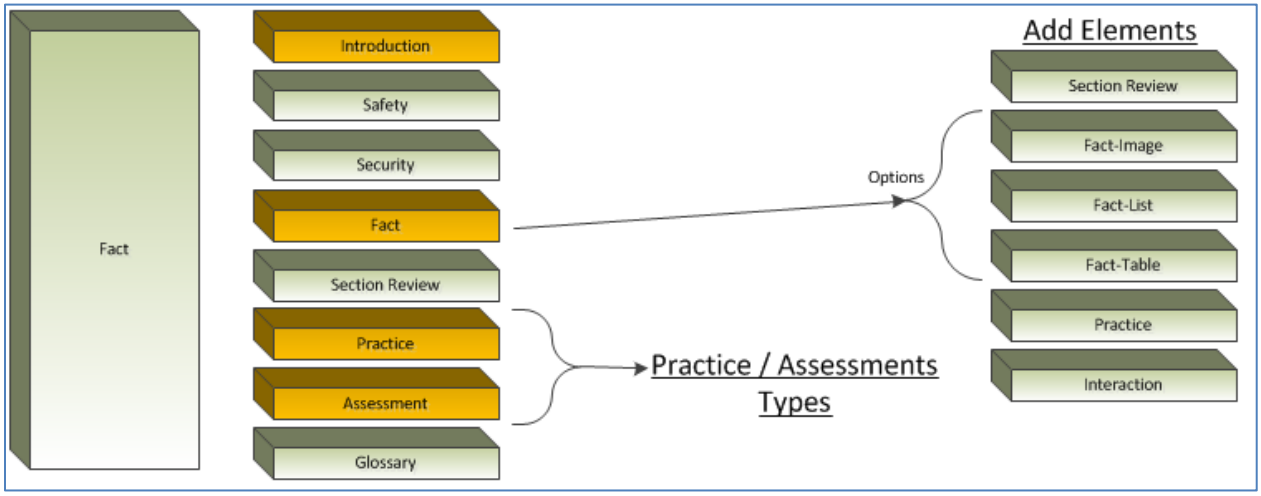
41. Element Categories.



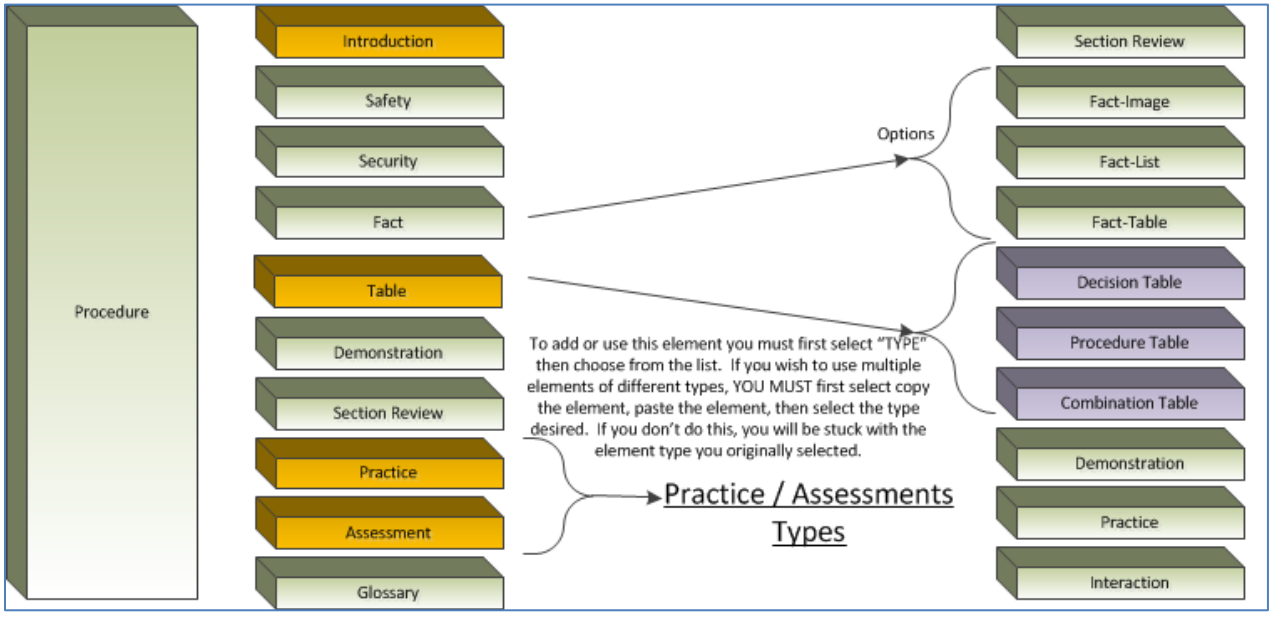
42. Concepts.


Concept
Introduction
Safety
Security
Definition
Fact
Example
Non-example
Analogy
Section Review
Practice
Assessment
Glossary
Practice / Assessments Types
Options
Add Elements
Definition
Example
Non-example
Analogy
Section Review
Fact-Image
Fact-List
Fact-Table
Practice
Interaction

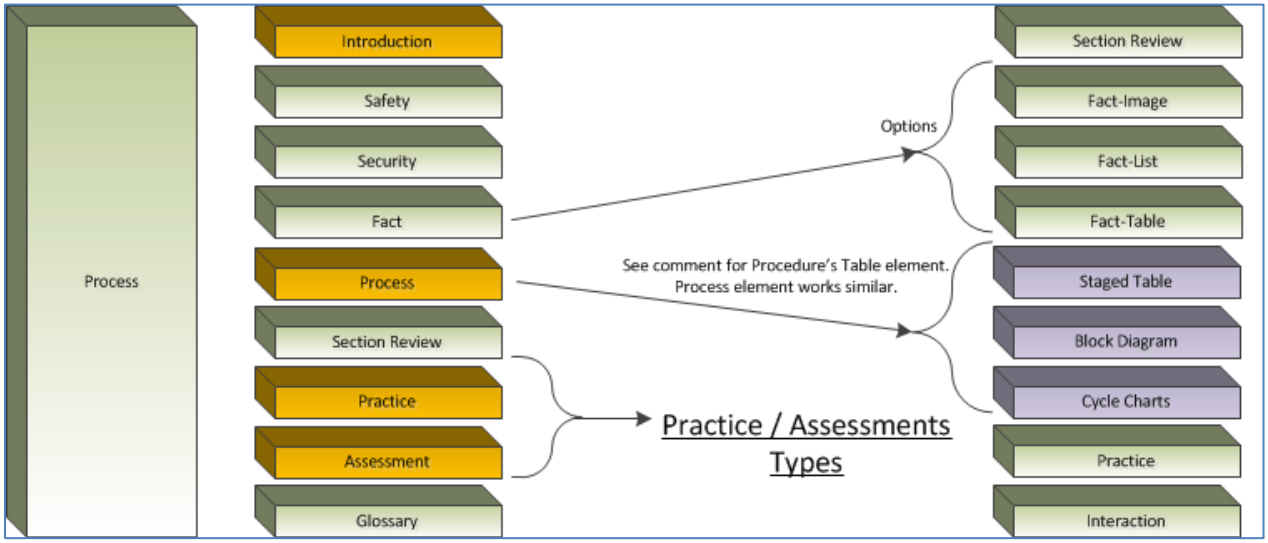
43. Facts.


Fact
Introduction
Safety
Security
Fact
Section Review
Practice
Assessment
Glossary
Options
Add Elements
Section Review
Fact-Image
Fact-List
Fact-Table
Practice
Interaction
Practice / Assessments Types

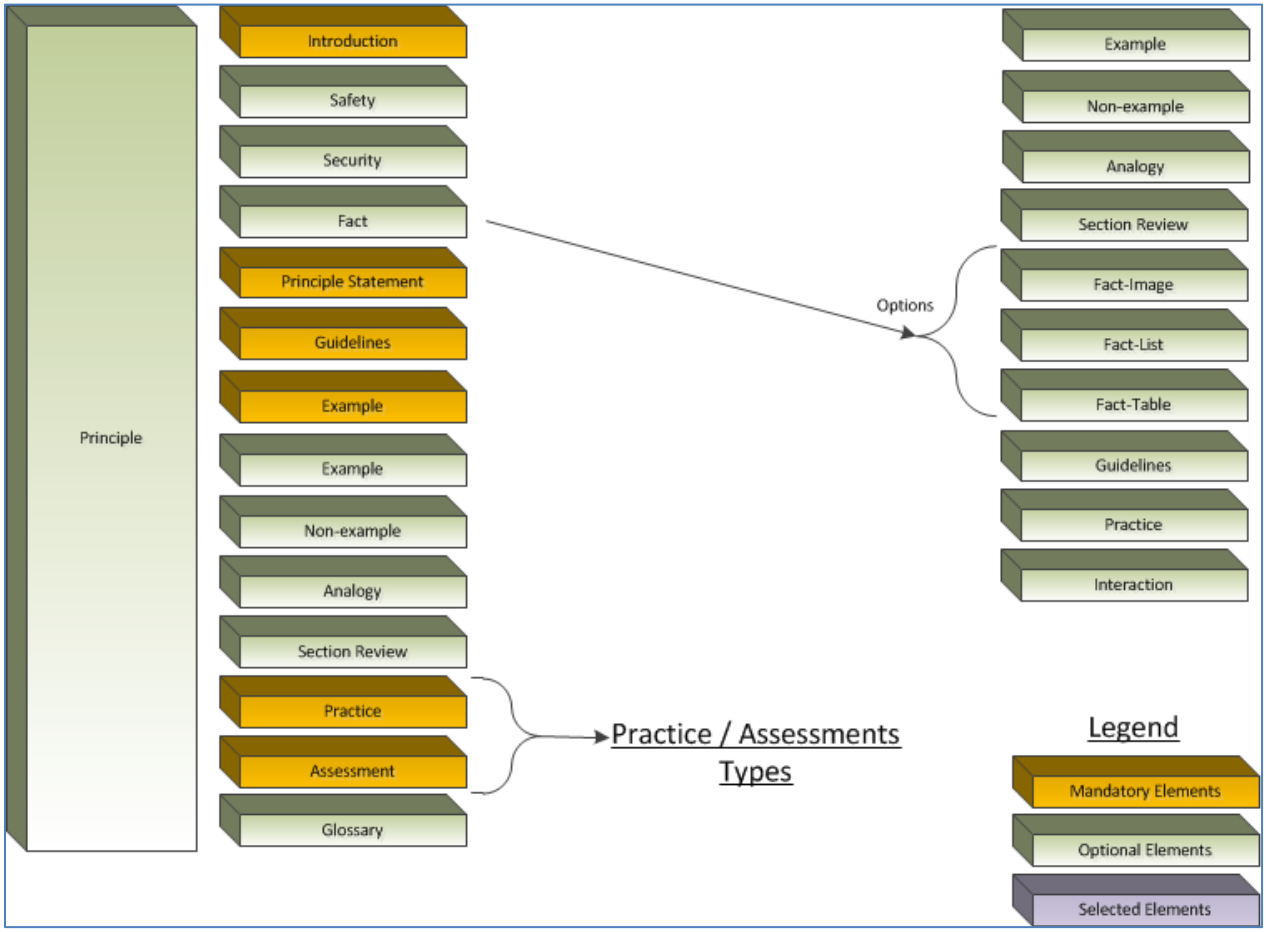
44. Procedure.



45. Process.


Process
Introduction
Safety
Security
Fact
Process
Section Review
Practice
Assessment
Glossary
Options
See comment for Procedure's Table element.
Process element works similar.
Practice / Assessments
Types
Section Review
Fact-Image
Fact-List
Fact-Table
Staged Table
Block Diagram
Cycle Charts
Practice
Interaction

46. Principle.



APPENDIX (B) GLOSSARY

ACRONYMS/UNIFORM RESOURCE LOCATOR ADDRESSES

ADDIE	(see PADDIE model below)
ADL	Advanced Distributed Learning
AIM	Authoring Instructional Material
AIM I	PPP-Based Authoring Tool NAVEDTRA 131
AIM II	Task-Based Authoring Tool NAVEDTRA 130
AIM LOM	AIM Learning Object Module
AIM CPM	AIM Content Planning Module
AoA	Analysis of Alternatives
BCA	Business Case Analysis
CAC	Common Access Card
CAI	Computer Aided Instruction
CDM	Critical Decision Method
CeTARS	Corporate enterprise Training Activity Resource System
COA(s)	Course of Action(s)
COI	Course Outline of Instruction
CMS	Course Master Schedule
COP	Communities of Practice
COR	Contract Officer Representative
CPM	Content Planning Module
CTTL	Course Training Task List
DID	Data Item Descriptions
DL	Distributed Learning
DoD	Department of Defense
DoN	Department of Navy
E2E	End To End
ECR	Electronic Classroom
EDE	Enterprise Data Environment
ELO	Enabling Learning Objective (i.e., Enabling Objective)
EO	Enabling Objective
EPSS	Electronic Performance Support System
ESOSS	Engineering Systems Operational Sequencing System
FEA	Front End Analysis
FISC	Fleet Industrial Supply Center
GCAT	Government Content Acceptance Testing
GOMS	Goals, Operators, Methods, and Selection Rules
HPRR	Human Performance Requirements Review

ICOMP	Instructor Computation
ILE	Integrated Learning Environment
ILT	Instructor-Led Training
IMDP	Instructional Media Design Package
IMI	Interactive Multimedia Instruction
IMP	Integrated Master Plan
IMS	Integrated Master Schedule
IPR	In Progress Review
IPRD	Instructional Performance Requirements Document
IPT	Integrated Product Team
ISD	Instructional Systems Design
ISS	Instructional Systems Specialist
JDTA	Job Duty Task Analysis
JTA	Job Task Analysis
KSATR	Knowledge, Skills, Abilities, Tools, and Resources
LC	Learning Center(s)
LO	Learning Objectives
LO (module)	Learning Object (module)
LS	Learning Site(s)
LSO	Learning Standards Officer
MIL-HNDBK	Military Handbook
NA	Needs Assessment
NAVEDTRA	Naval Education and Training
NETC	Naval Education and Training Command
NETCINST	Naval Education and Training Command Instruction
NETPDTC	Naval Education and Training Professional Development and Technology Center
NKO	Navy Knowledge Online
NRTC	Non-Resident Training Course
NTSP	Navy Training System Plan
OCCSTDS	Occupational Standards
OPNAV	Office of the Chief of Naval Operations
OPNAVINSTR	Office of the Chief of Naval Operations Instruction

PADDIE	Plan, Analyze, Design, Develop, Implement and Evaluate
PMS	Preventative Maintenance System
POA&M	Plan of Actions & Milestones
POM	Program Objective Memorandum
PPP	Personnel Performance Profile
PQS	Personnel Qualification System
QA	Quality Assurance
QASP	Quality Assessment Surveillance Plan
QMP	QuestionMark Perception
R3	Reuse, Repurpose, and Reference (R3)
RFP	Request for Proposal
RFT	Ready for Training
ROM	Rough Order of Magnitude
RRL	Resource Requirements List
RTM	Rate Training Manual
SAT	Systematic Approach to Training
SCORM	Sharable Content Object Reference Model
SIM(s)	Simulated Interactive Media
SME	Subject Matter Expert
SOP	Standard Operating Procedures
SOW	Statement of Work
TCCD	Training Course Control Documents
TLO	Terminal Learning Objective
TO	Terminal Objective
TPP	Training Project Plan
TSD	Training Situation Document
TTA	Training Task Analysis
TTE	Technical Training Equipment
WBS	Work Breakdown Structure