

Chapter 3

ANALYSIS PHASE

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3.1 – Chapter Introduction

Phase Overview

Synopsis

As you learned in Chapter 1, the first phase in the Instructional Systems Design (ISD) model of **ADDIE** is Analysis. If you are here, then **it has already been determined** that a resident training program is the best solution. In most cases, some form of an analysis was conducted that identified causes of the performance problems to be skills and knowledge (S/K) and have determined that training is indeed the appropriate solution.



U.S. Coast Guard Training System Standard Operating Procedures (SOP's) Volume 2 focuses on Analysis. Coast Guard analysis efforts are focused on performance at the task, step and task sub-step level. In this chapter, we will build on the analysis effort performed for you and expand on these areas:

- Task detailing (task analysis)
- Target audience analysis
- Identifying course parameters and constraints

In this phase, it will be up to you to determine the additional information necessary for designing and developing a valid and reliable instructional training program with the highest fidelity possible. The result will be training that is both meaningful and effective for the learner and the organization.

Phase Overview, Continued

Audience

Primary Audience: Coast Guard (CG) Training Center active duty course developers and instructional designers, as well as CG civilian course developers and instructional systems specialists.

Secondary Audience: CG Training Center Performance Systems branch managers supporting the instructional designers/course developers; the subject matter specialist, the project lead, project manager, school chief and/or others who have been identified as having some role in the ISD process. Additionally, the secondary audience may include instructional designers employed with contracted companies performing instructional design for the CG, or equivalent individuals who have curriculum/course development responsibilities, including instructors performing course maintenance with ISD oversight.

Due to the varying quality and types of data input sources, the requirement for comprehensive and accuracy data, as well as the range of data details and considerations required when making instructional decisions, it may be advised throughout the chapter to consult with an ISD professional, or graduate of one of the following approved curriculums:

- *Coast Guard Course Designer Course (CDC)*
- *SABA Knowledge Service Peak Performance System workshops (previously known as Accomplishment-Based Curriculum Development (ABCD) workshops) taught by staff at TRACEN Petaluma, TRACEN Yorktown and ATTC Elizabeth City.*

Purpose

The purpose of analysis is to determine the training requirements that will be used for designing and developing the resident instructional training program.

Phase Overview, Continued

Inputs

The inputs for this phase of a resident instruction course development effort can vary widely, depending on the type of analysis that was performed per CG Training System SOP, Volume 2. Common analysis efforts that lead to resident instruction course development efforts include (to follow is a description of all approved methodologies):

- Front end analysis (FEA)
- Job task analysis (JTA)
- Needs assessment
- Occupational analysis (OA) – producing updated Rating Performance Qualifications (RPQs).

In general, the types of inputs you may need include any or all of the following:

- Exact performance problem(s) to be addressed by the training (overall goal for the training)
 - Access to any necessary manuals, directives, policies, regulations or other documents that may impact the course content or delivery conditions (also known as extant data)
 - Access to accomplished performers (APs) who are currently doing the work
 - Access to subject matter experts (SMEs) for the job, job specialty, and tasks
 - Access to the analysis report which should include:
 - Job and/or task data
 - Performance support requirements (the results from the job aid versus memory algorithm)
 - General assumptions for the resident training program that you are implementing with this effort
 - A complete list of current and updated RPQs (applies to “A” schools only)
-

Phase Overview, Continued

Outputs

This chapter explains how to conduct a task analysis, as well as enables you to determine the training requirements for the design and development of the resident instructional training program (i.e., the course).

The key outputs –or deliverables– for this phase include:

- Task details
- Target audience analysis
- Course parameters and constraints

Ensuring Success

During this phase, as you collect your data, you should frequently be evaluating the impact or the effect the collected data might have on the Design and/or Development phases of the training program. Speak with your supervisor or project manager if data indicates that the scope of the project may need to be reevaluated or if additional resources are needed to keep the project on schedule.

Additionally, at each major milestone and/or as questions arise; seek the counsel of an experienced ISD ADDIE professional to ensure that your data is appropriate for the instructional goals for your program. This individual can also ensure that you are following the SOP guidelines and other best practices in the field of instructional design and development.

Types of Analysis

Overview

USCG Training System SOP, Volume 2 focuses on Analysis, and details the process for how to conduct each of the following methodologies:

- Strategic needs assessment (SNA)
- Front end analysis (FEA, NPP or Diagnostic)
- Training requirements analysis (TRA)
- Job task analysis (JTA)
- Cost benefit analysis (CBA)
- Occupational analysis (OA)

Not all the above are typical inputs to a resident instruction course development effort, but it's important to be aware of all possible sources.

Strategic Needs Assessment (SNA)

The purpose of an SNA is to examine the external and internal factors that affect performance within the context of an organization's business strategy and identifies the gaps between the current and desired conditions.

Front End Analysis (FEA)

FEA is a systematic process for describing new performance; determining inhibitors to competent performance; and recommending the skills and knowledge (S/K), environmental (ENV), motivation/incentive (M/I) and assignment and selection (A/S) interventions that must be put in place to help Coast Guard workers achieve optimum performance.

When the problem is poor performance, it provides a rigorous and standardized method for performing gap analysis at the task level. It also applies an equally rigorous and standardized approach to converting FEA data interventions for improving the worker's performance into in the following root causes categories:

- Skill and knowledge (S/K)
- Environmental (ENV)
- Motivation and incentive (M/I)
- Assignment and selection (A/S)

**The Coast Guard uses SABA's Peak Performance System © FEA methodology*

Types of Analysis, Continued

Training Requirements Analysis (TRA)

The purpose of a TRA is to narrow the scope of the analysis project to give the Program Manager (or other client) a clear idea of what the performance needs are and what training intervention is best suited to meet those needs in a cost effective manner.

Job Task Analysis (JTA)

The primary objective of a JTA is to gather information about the difficulty, importance and frequency of tasks for a particular job or function, and to make recommendations for how best to support the task-level performance under review. Job aid and train/no train decision utilize information from task data that is collected on each of the tasks determined necessary to perform the particular job. The help in the JTA, analysts use the following task data (DIF data) to help in these decisions:

- Difficulty
- Importance
- Frequency

The data collected on each tasks is then used in algorithms to make train/no train decision and determine under what circumstances job aided tasks require introductory or extensive training. The outcome of a JTA results in the following performance intervention recommendations:

- No training required
- Job aid
- On-the-job training
- Job aid with introductory training
- Job aid with extensive training
- Train to memory

Looking at one's job performance determines what should or should not be included in a training program, how much will be taught, the instructional sequence and what will be evaluated. Section 3.4 of SOP, Volume 2 (Analysis) explains the JTA process in greater detail.

Types of Analysis, Continued

Cost Benefit Analysis (CBA)

Cost benefit analyses are a Coast Guard requirement that should be completed before the organization will resource a project and are usually part of a larger analysis effort, such as a FEA. During a CBA, the analyst(s) must identify the cost associated with each S/K performance improvement delivery option, and then present that information so that the decision makers can compare each option and select the one that best works for the organization.

Occupational Analysis (OA)

Occupational Analysis is a process that measures the job performance requirements of an occupation. OA takes a snapshot of an occupation's world of work at a particular point in time. OA, as an integral part of the Rating Performance Qualifications (RPQ) process, is mandated by the Enlisted Performance Qualifications Manual (EPQM), COMDTINST 1414.8C. The Coast Guard follows a prescribed cycle for conducting an OA for each of its enlisted ratings.

The goal is for RPQs to be written at the task level, with the steps already identified from a panel of APs during the rating review. This allows course developers to more easily convert the RPQs into terminal performance objectives (TPO) for resident "A" schools.

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3.2 – Task Analysis

Introduction

Overview

Task Analysis (TA) may be required if an analysis reveals the actual task performance is different than existing curriculum or if the task (performance) has changed— resulting in new curriculum. It is the process by which you identify the optimal or desired performance requirements for a job or job specialty. It is the course developers job to pick up where the analyst left off, and complete the collection of step-level data – **task detailing**. Along with identifying the steps, other specific task characteristics are gathered such as the complexity and frequency of the task. Additionally, details about how the task is performed (such as any required tools and equipment, or any safety cautions or warnings that must be observed when performing the task) are also captured.

Most, if not all, resident curriculum development projects should result from a formal analysis conducted in accordance with *SOP Vol. 2: Analysis* - that is the goal for all Coast Guard training programs. If there is no approved analysis associated with your project, or if you suspect that the analysis is not valid (e.g. does not reflect current policies, practices, equipment, etc.), see your Project Manager for guidance. Course developers shall not design or develop training unless an analysis was conducted, and it's been determined that training is indeed the solution to the performance problem. Earlier in this chapter the various approved methodologies for conducting an analysis were discussed.

Purpose

The purpose of conducting task analysis is to produce a step-by-step description of what a competent performer does to complete the associated tasks that produce the required major outputs for the job/job specialty the way you want others to perform.¹ From this information, you will derive specific skills and knowledge requirements which will form the basis for the content of the course (including the testing standards for evaluating required performance in a training environment).

¹ Mager, Robert F., (1997) *Making Instruction Work or Skillbloomers*, page 55, CEP Press, Atlanta, GA Second Edition

Introduction, Continued

Scope

Task analysis defines:

- The circumstances under which each task is performed (conditions)
- How each task is actually performed (behavior)
- How well each task must be performed (standards)

Task performance details collected during this phase will be used to help the instructional designer or course developer determine a sound instructional strategy, then design and develop the resident instructional products that will support the strategy.

Inputs

To begin task analysis, you must have the following:

- Extant Data – the various manuals, instructions, policies, regulations, or other forms of facts, figures, records, forms, etc., that are available and help to identify the job, job specialties, and/or task data identifying optimal performance and/or the actual or current performance
- Access to APs for interviews and observations
- Access to SMEs or other designated technical reviewers for task and data validation
- Access to the source analysis report, task listing and task data already collected

Outputs

The outputs of task analysis document real world optimal job performance that the resident instruction should emulate. The benefits from an accurate and complete task analysis are as follows:

- A detailed description of how each task is performed competently, that is, to standard (performance increments).
 - A detailed breakdown of each task into manageable chunks, supporting optimal learning (training increments).
-

Introduction, Continued

Verify Technical Accuracy

Throughout the process, it is important to verify the technical accuracy and completeness of the various task analysis efforts. For example, during task analysis the task details and step data information provided by a proficient performer were vetted through the individual(s) identified on the project team as having responsibility for technical accuracy for the tasks.

It is important that early in the process you continually monitor the data you are collecting for accuracy and completeness. It is suggested that you work with your designated APs and SMEs to review and validate your data. Hopefully, you also look for any changes in the organization, the learner, or the job that might affect the content or delivery of the resident instruction. If changes occurred, then you should evaluate the impact to the training requirements data that you have already collected and adjust the requirements as needed. If you do that, then you are almost guaranteed a successful evaluation of the outputs from this process.

Using the Quality Assurance checklist job aid presented in *Appendix E JA-E.4*, you can evaluate each output/deliverable for accuracy and completeness. If any output fails the evaluation, then correct as needed and resume the evaluation process.

Introduction, Continued

Important Terms

In order to conduct task analysis, there are some common terms you should know. They include:

Term	Definition
Behavior	How each task is actually performed; the actions (tasks and steps) a person takes to produce an output. These actions can be either overt (observable) or covert (cannot be observed such as thinking or decision making).
Condition	The circumstances under which each task is performed.
Job	A job consists of the performance elements that are the responsibility of an individual assigned to a specific billet; such as Storekeeper (also referred to as a <i>job title</i>).
Job Specialty	An additional means of breaking down a job into areas of expertise or major area of specialized performance. For example, Inventory Management, Procurement, or Shipping and Receiving are all job specialties for Storekeeper.
Standard (also known as criteria)	A measure of quantity and/or quality attached to specific job tasks and/or outputs; generally stated in: time (how long it takes to complete), accuracy (how well it is done), safety (how safely is it produced), and productivity (quantity in a given time period).
Step	An arbitrary unit of behavior that is a smaller component of a task.
Task	A unit of behavior (activity) that has a definite beginning, contains at least two steps, and results in an end which has a specific, identifiable, and measurable outcome.
Task Characteristics	The identifiable traits of a task that help determine how the task is performed, such as the required tools and equipment, any safety cautions or warning, performance standards, where the task is performed, and the steps for completing the task to standard; also includes the performance factors of Speed, Frequency, Complexity, and Consequence; used in making job aid versus memory training decisions.

TA: Collect Task Details

Overview

This is the process you will use to identify and record specific performance information for each task. This activity involves collecting all relevant information about performing a task correctly. During this part of task analysis, you will be answering questions such as:

- When is the task performed?
- How is the task performed?
- How would you know when you're done?

Task details also include collecting the specific steps necessary to complete each task (if not done for you as part of the analysis). You will need to determine the steps and the sequential order of how the steps are performed. You will be looking to identify whether the steps for the task are mainly mental (cognitive) or physical (psychomotor).²

Task Characteristics Data

Task data was already collected for you during the analysis (specifically the performance factors of difficulty, importance and frequency). These characteristics when plugged into a specific job aid versus memory algorithm (as explained earlier in the definition of a JTA and FEA) results in one of the following performance intervention recommendations:

- No training required
 - Job aid
 - On-the-job training
 - Job aid with introductory training
 - Job aid with extensive training
 - Train to memory
-

² Mager, Robert F. (1997), *Making Instruction Work or Skillbloomers*, pg 18, CEP Press: Atlanta, GA, Second Edition

TA: Collect Task Details, Continued

Steps

To ensure task performance accuracy, the best way to obtain task details and associated step data is through interviews and observations of APs and SMEs. The process for collecting task details has been outlined in the steps below. Additionally, a job aid has been included in *Appendix E* which shows the process for collecting specific task details in greater detail, *Appendix F* provides worksheets for documenting your task data as you collect it.

Step 1: Contact APs/SMEs to schedule visit(s) for interviews and observations.

Step 2: Using the Task Details worksheet in *Appendix F.1*, interview the AP to collect the specific task data. (See the job aid in *Appendix E* for a complete list of task detail data requirements.)

Step 3: Ask the AP/SME to review the steps with you from the start of the task to the output (completion of the task).

Step 4*: If the task is complicated with many steps and/or decisions, then diagram the steps in a flowchart. A flowchart provides a means for capturing the sub-steps (also known as sub-sequencing) and decision points.

Step 5: If time permits, observe the AP/SME performing the task. This is the best way to validate the task detail data and to double-check that all of the steps (including the decision points) have been captured and are in the correct sequence.

Step 6: Repeat this process for every task on the Job Task Inventory list.

**Note: From step 4; if your tasks are very complex with multiple steps, have a low tolerance for errors, or when speed of task completion is critical; you should consult with an ISD professional, or graduate of one of the SABA Knowledge Services Peak Performance System workshops (previously Accomplishment-Based Curriculum Development (ABCD) workshops) for further mapping out of the task in a system (paradigming).*

TA: Collect Task Details, Continued

Additional Resources

There are additional resources available for collecting task details, including:

- CG Training System SOP, Vol. 2: Analysis
- CG Training System SOP, Vol. 6, Appendix B Standard Verb List (a useful resource for writing task statements)
- SABA Manual, *Volume 1 - Optimizing Human Performance*
- *Making Instruction Work*, by Robert F. Mager – second Edition, Chapter 6 – Task Analysis
- *Task Analysis*, by Dr. Alice K. Waagen, Issue 9808 in the 2005 Instructional Systems Development Informational Lifeline Collection, pgs 91 – 108, ASTD Press

Example

Below is an example of a completed Task Analysis – Task Detailing worksheet, WS-F.1.

WS-F.1		Task Analysis – Task Detailing	
Project		Ice Rescue, Basic	
Designer		Paul Robbins, PSB TCP	Date 8/9/12
Task		Inspect equipment	Task Code A.3
Source Analysis		Ice Rescue NPP FEA, May 2011	
References		Equipment Required	
9 th District Ice Rescue Manual, D9INST M16130.1		MARSARS Shuttleboard Cold water rescue slings Ice rescue dry suit and associated personal protective equipment	
General Performance Support Decision for Course		<input type="checkbox"/> Job Aid <input checked="" type="checkbox"/> Job Aid with Extensive Training <input type="checkbox"/> Job Aid with Introductory Training <input type="checkbox"/> Train to Memory,	
Steps (Enabling Objectives)		Prerequisite Knowledge	
A.3.1	Inspect SKF-ICE (if received)	Boat crew qualified on SKF-ICE	
A.3.2	Inspect MARSARS Shuttle Board	Location and use of Shuttle Board	
A.3.3	Inspect cold water rescue slings	Location and rigging of sling	

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3.3 –Target Audience Analysis

Introduction

Overview

Target audience is the collective name given to the intended students of the Resident Training program. *Target audience analysis* is conducted to determine the key characteristics about the learners. By knowing certain characteristics about the learner, the training can be designed to make the best use of particular instructional strategies that may be better suited to one target population over another. For example, it will help you identify which examples, what vocabulary, or even what media to use. Knowing who will be attending the training is a key component in making the instruction work³ in terms of efficiency and effectiveness.

Purpose

A target audience analysis is conducted to determine the *entering* key characteristic about the learner. In other words, their “entering state” is what they already know and/or do prior to instruction. By identifying this information, you can design the instructional program to take them from where they are when entering the training, to where they need to be (performing to standard) when they leave the training (i.e. from their present state to the desired state.⁴) The following formula depicts this concept:

$$\begin{aligned} & \text{What they need to be able to do} \\ & - \text{What they can already do} \\ & \hline & = \text{The Instruction (the intervention)} \end{aligned}$$

³ Mager, Robert F. (1997). *Making Instruction Work or Skillbloomers*, pg 20. CEP Press: Atlanta, GA

⁴ Waagen, Alice K., *Task Analysis*, Issue 9808, *Chapter 9 Target Population Description*, pgs. 91 – 103, (2005) Instructional Systems Development Information Lifeline Collection, ASTD Press.

Introduction, Continued

Inputs

The following information is needed before you can develop the target audience profile:

- Current job descriptions for the rating(s) and rate(s) including minimal requirements for the rating(s)
- Access to instructors familiar with the current characteristic of intended learners and/or student trends in related “A” or “C” schools
- Access to supervisors or other SMEs for intended learners

Outputs

The output of this task is a detailed description of the student that accurately reflects what they currently know and do. It not only provides a starting point for the instruction, but the profile can be used to help shape the content of the instructional program by providing insight, which in turn can help determine design decisions like:

- What types of examples to use
 - Best use of particular instructional strategies
 - What vocabulary to use
 - What media to use
 - Learner motivation
-

Develop the Target Audience Profile

Overview

When developing the target audience profile it is important for you to remember that the more diverse the target audience is, the more detailed your data needs to be. The more you can learn about the target audience, the more likely you are to have a successful instructional product. In addition to the typical demographic type of data (male/female distribution, afloat/ashore distribution, age range, percent attending directly from boot camp, etc.), target audience analysis will attempt to describe the learner as she/he enters into the learning process (i.e. the course) by answering questions like:

- What training or experience have they had in relationship to the training you are designing?
 - What attitudes and/or biases do you expect them to bring?
 - What tools or equipment do they already know how to use?
 - Why are they taking the course?
 - What cultural issues need to be considered?
 - What language issues (i.e. English as a second language) need to be considered?
 - What is the educational range?
-

Develop the Target Audience Profile, Continued

Steps

The basic process for developing the target audience profile has been provided in the steps below. *Appendix E* provides you a detailed job aid which describes the process in greater detail. Additionally, *Appendix F* provides a worksheet, (WS-F.2) for documenting your results.

Step 1: Consider the students/learners entering into your course and write down everything that you know about them. Trigger questions are included with the worksheet.

Step 2: Describe the range of characteristics you know about the students. For example, let's say 60 percent of the students who will attend the new "A" school come directly from boot camp. You could assume, then, that many of them may not have had many "real world" experiences in the CG. This knowledge will shape the examples that you use in the instructional program, such as how much detail needs to be included in the practice scenarios.

Step 3: Identify any missing data and determine who or what might be the best source for the obtaining the missing data based on your data collection plan. Arrange for access to the source and collect the data.

Step 4: When you have completed as much as you know or have learned about the target audience, set aside the profile. Remember, this is a working document so you can add to it if additional information about the learner is discovered as you continue with the rest of the Analysis phase.

Note: *The output from this effort is not published or distributed. It is a working document to aid in the Design phase and to provide an audit trail for the decisions made during this phase.*

Develop the Target Audience Profile, Continued

Additional Resources

The following resources are available for developing the Target Audience profile:

- SABA Manual, *Volume 1 - Optimizing Human Performance* and *Volume 2 Training Design*
- *Making Instruction Work*, by Robert F. Mager – second Edition, Chapter 9 – Target Population Description
- *FKA Designing Instruction Workshop – Support Materials*©, Analysis, Population Factors, pages 45 – 47, Friesen, Kaye, and Associates, <http://www.FKA.com>

Note: *If you determine a need to complete an instructor analysis, contact your ISD professional, or a graduate of one of the approved curriculums listed in Chapter 3.1.*

Develop the Target Audience Profile, Continued

Example

Below is an example of a target audience profile, WS-F.2.

WS-F.2		Target Audience Profile	
Project	SYSTEM Financial System		
Designer	M. Smith / G. Mitchell		
Primary Audience Relevant or Key Characteristics			
Data Source(s)	FINCEN Instructors		
Section 3 - Learning and Language Preferences			
Vocabulary or terminology understanding - Technical	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details	
Vocabulary or terminology understanding - Non-Technical	High <input type="checkbox"/> Average <input type="checkbox"/> Limited <input type="checkbox"/> None <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>	N/A	
Overall language skill level (mastery of spoken and written language)	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details	
Overall reading skill level	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details	
Overall math skill level	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details	
Overall computer literacy level	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details	

WS-F.2 – Target Audience Profile

WS-F.2		Target Audience Profile	
Project	SYSTEM Financial System		
Designer	M. Smith / G. Mitchell	Date	31 Mar 2011
Primary Audience Relevant or Key Characteristics			
Data Source(s)	FINCEN Instructors		
Job	Store Keeper	Job Specialty	Procurement Support Representative
Section 1 - Aptitudes / Abilities			
Current knowledge of tasks/work or subject matter area	High <input type="checkbox"/> Average <input type="checkbox"/> Limited <input checked="" type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details Average aptitudes & abilities; have some experience with system; Specifics: <ul style="list-style-type: none"> Over-thinking the process, someone with an accounting background tends to over analyze the process and get frustrated Zero skill sets; average or more experience Receiving report is a misconception Credit card process have issue want to do it the old way and don't want to learn/do the new way Terminology. 	
Relevant background and experience	High <input type="checkbox"/> Average <input checked="" type="checkbox"/> Limited <input type="checkbox"/> None <input type="checkbox"/> Unknown <input type="checkbox"/>	Additional Details Average; understand accounting; just need to understand application process <ul style="list-style-type: none"> Some of the learners have difficulty based on their education in/experience with standard accounting principles and practice; these concepts do not transfer with system; Learners want to see a better application then system Negative attitudes regarding system based on what they've heard out in the field about it Negative press from people who use system but have not received formal training. 	
Section 2 - Tools and Prerequisite Skills			
Specific tool(s) or prerequisite skills abilities			
Basics Course – no experience is necessary Reconciliation Course – need to have taken Basics course first or 6+ months experience on the job reconciling			
Specific tool(s) or prerequisite skills deficiencies			
N/A			
Other deficiencies that may require special attention			
<ul style="list-style-type: none"> Terminology Lack experience with computer Typing Skills 			

WS-F.2 – Target Audience Profile

Develop the Target Audience Profile, Continued

Example, Continued

Below is the continued example from the previous page, of a target audience profile, WS-F.2.

WS-F.2 Target Audience Profile	
Project	SYSTEM Financial System
Designer	M. Smith / G. Mitchell
Date	31 Mar 2011
Primary Audience Relevant or Key Characteristics	
Other additional details	
Mixed range of ages; warrant officers range from 30-40 years old; civilians range from 20-60 years old	

Primary Audience Population Description	
Section 6 – Summary of relevant or key characteristic for consideration during design & development	
Mixed group of participants with some generational differences; Baby Boomers will want to have new skills and knowledge anchored to previous experiences; GenX prefer more tactical opportunities with short lectures followed by immediate applications.	

Optional - Secondary Audience Population Description	
Section 7: Summary of relevant or key characteristic for consideration	
N/A	

WS-F.2 – Target Audience Profile

WS-F.2 Target Audience Profile											
Project	SYSTEM Financial System										
Designer	M. Smith / G. Mitchell										
Date	31 Mar 2011										
Primary Audience Relevant or Key Characteristics											
Overall verbal communication and interpersonal skill level	<table border="0"> <tr> <td>High</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Average</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Limited</td> <td><input type="checkbox"/></td> </tr> <tr> <td>None</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Unknown</td> <td><input type="checkbox"/></td> </tr> </table>	High	<input type="checkbox"/>	Average	<input checked="" type="checkbox"/>	Limited	<input type="checkbox"/>	None	<input type="checkbox"/>	Unknown	<input type="checkbox"/>
High	<input type="checkbox"/>										
Average	<input checked="" type="checkbox"/>										
Limited	<input type="checkbox"/>										
None	<input type="checkbox"/>										
Unknown	<input type="checkbox"/>										
Learning preferences or learning styles (if known) (i.e. information or techniques that may cause a negative reaction)	<p>Most of the younger generation are tactical learners; they want to “do” immediately following instructor-led presentation/demonstrations.</p> <p>More seasoned generation (Baby Boomers / Xer’s) tend to prefer one-on-one instruction</p>										
Section 4 – Learner Attitude / Motivation											
Attitude to organization	<table border="0"> <tr> <td>Eager</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Neutral</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Resistant</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Unknown</td> <td><input type="checkbox"/></td> </tr> </table>	Eager	<input checked="" type="checkbox"/>	Neutral	<input type="checkbox"/>	Resistant	<input type="checkbox"/>	Unknown	<input type="checkbox"/>		
Eager	<input checked="" type="checkbox"/>										
Neutral	<input type="checkbox"/>										
Resistant	<input type="checkbox"/>										
Unknown	<input type="checkbox"/>										
Attitude to job	<table border="0"> <tr> <td>Eager</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Neutral</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Resistant</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Unknown</td> <td><input type="checkbox"/></td> </tr> </table>	Eager	<input type="checkbox"/>	Neutral	<input checked="" type="checkbox"/>	Resistant	<input type="checkbox"/>	Unknown	<input type="checkbox"/>		
Eager	<input type="checkbox"/>										
Neutral	<input checked="" type="checkbox"/>										
Resistant	<input type="checkbox"/>										
Unknown	<input type="checkbox"/>										
Attitude to training (i.e. willingness to accept the content of the training)	<table border="0"> <tr> <td>Eager</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Neutral</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Resistant</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Unknown</td> <td><input type="checkbox"/></td> </tr> </table>	Eager	<input checked="" type="checkbox"/>	Neutral	<input type="checkbox"/>	Resistant	<input type="checkbox"/>	Unknown	<input type="checkbox"/>		
Eager	<input checked="" type="checkbox"/>										
Neutral	<input type="checkbox"/>										
Resistant	<input type="checkbox"/>										
Unknown	<input type="checkbox"/>										
Section 5 – Additional Audience Details											
Overall length of time with the organization	<table border="0"> <tr> <td>New</td> <td><input type="checkbox"/></td> </tr> <tr> <td>2-3 Years</td> <td><input type="checkbox"/></td> </tr> <tr> <td>4+ Years</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Mixed</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	New	<input type="checkbox"/>	2-3 Years	<input type="checkbox"/>	4+ Years	<input type="checkbox"/>	Mixed	<input checked="" type="checkbox"/>		
New	<input type="checkbox"/>										
2-3 Years	<input type="checkbox"/>										
4+ Years	<input type="checkbox"/>										
Mixed	<input checked="" type="checkbox"/>										
Majority age range of audience	<table border="0"> <tr> <td>18-24</td> <td><input type="checkbox"/></td> </tr> <tr> <td>25-30</td> <td><input type="checkbox"/></td> </tr> <tr> <td>31-35</td> <td><input type="checkbox"/></td> </tr> <tr> <td>36+</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Mixed</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	18-24	<input type="checkbox"/>	25-30	<input type="checkbox"/>	31-35	<input type="checkbox"/>	36+	<input type="checkbox"/>	Mixed	<input checked="" type="checkbox"/>
18-24	<input type="checkbox"/>										
25-30	<input type="checkbox"/>										
31-35	<input type="checkbox"/>										
36+	<input type="checkbox"/>										
Mixed	<input checked="" type="checkbox"/>										
Other cultural or heritage issues that may require special attention											
Mixed group, length of time varies											
In general, gender distribution											
% Male	65										
% Female	35										
In general, distribution between types of units											
% Afloat	25										
% Ashore	75										
In general, distribution of students attending directly from boot camp											
	0										

WS-F.2 – Target Audience Profile

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3.4 – Course Parameters and Constraints

Introduction

Overview

In Chapter 2 on Project Management, you were introduced to the concept of parameters and constraints. Both of these factors were identified at the project level and in some cases, may have even touched on those that are specific to delivering the resident training program. As a reminder, we define these facts as below:

- **Constraint** – Any limitation on the availability of time, money, method, equipment, or human resources affecting a project; these could change over the life of the project
- **Parameter** – A given, or a constraint which usually will not or cannot change over the life of the project

Purpose

For gathering this information you will specifically focus on discovering any parameter or constraint that defines the boundaries you must operate within for the design, development, testing, evaluation or delivery of the resident training program (i.e. the course).

Inputs

In order to determine the specific course parameters and constraints for your project, you will need to have access to the following types of information:

- Results from the task analysis
 - Target audience profile
 - Access to schoolhouse management who will be responsible for the delivery of your instructional product
 - POAM and access to the Project Manager or other stakeholders, as needed
 - Access to the client or sponsor for the project
-

Introduction, Continued

Outputs

The output of this task is a detailed listing of the actual boundaries and limitations that may impact your instructional product. The parameters and constraints will be grouped into the following four categories and will answer questions such:

- General
 - Has the student-to-instructor ratio been predefined? If yes, can it be changed?
 - Is the length of the course predefined? If yes, can it be changed?
- Delivery
 - Is there a significant range in entry skill/knowledge or relevant work experience?
 - Are there regulations or safety issues that prevent or confine “real world” simulation? What are they?
- Design and Development
 - Are there good reasons why some teaching methods should not be utilized?
 - Is there budget or other limitations that severely limit or prevent some possible design strategies (such as lack of access to professional audio-visual designers)?
- Testing and Evaluating
 - Will students be available to test the job aids and other training material?
Note: This type of testing occurs during the Development phase is referred to as developmental testing.
 - Is formal certification required?

This type of data will be used to guide the rest of the decisions you will make throughout the remainder of the ADDIE process for your instructional product.

Note: See the associated *Course Parameters and Constraints worksheets in Appendix F for a complete list of the types of questions to be answered in each of the four categories.*

Determine Course Parameters and Constraints

Overview

During this activity, you will specifically focus on discovering any parameters/constraints that will define the boundaries and/or limitations you must operate within for all aspects of this resident instruction project.

Using the worksheets in *Appendix F* and the job aid in *Appendix E*, follow the steps for determining the course parameters and constraints, as summarized below.

Steps

The following steps describe the process you will follow to determine the parameters and constraints for your ISD project:

- Step 1:** Review all completed analysis worksheets, the POAM, and any additional notes on the ISD project. Look for any given restrictions or limitations that could influence the design, development, delivery, or testing/evaluating of the resident training program.
 - Step 2:** Using the Course Parameters and Constraints worksheets, enter the results from your review of existing project and analysis extant data into the appropriate category (general, delivery, design/development or testing/evaluating). Identify data that may be missing or needs additional detail.
 - Step 3:** Use the results from step 2 to prepare for interview sessions with the appropriate individual(s) for collecting and validating all the indentified course parameters and constraints.
 - Step 4:** Conduct interviews to collect, and confirm all course parameters and constraints; record the results in the corresponding categories on the same worksheets completed in step 2.
 - Step 5:** Evaluate the implication and impact of the identified course parameters and constraints, and review with the project manager and project stakeholders. Based on identified impact, work with project team to adjust the POAM and schedule as needed. Obtain concurrence on adjusted ISD strategy before moving to the Design phase.
-

Determine Course Parameters and Constraints, Continued

Additional Resources

The following resources are available to help you in determining the general parameters and constraints for an instructional program:

- SABA Manual, *Volume 2 Training Design*

Example

Below are two pages (of an eight page example provided in *Appendix G*) depicting the results from determining course parameters and constraints, *WS-F.3*.

WS-F.3.B		Course Parameter and Constraints: Part B - Delivery	
Project	SK "A" School		
Designer	M. Smith / G. Mitchell	Date	12 Mar 2011
1. Has the duration of the training been pre-specified/defined? If yes, will the course timeline be sufficient?	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>	Comments Based on current design for the complete re-write, the existing 8 weeks is sufficient; however this should be identified in Part C of this worksheet as a possible constraint if additional time is required; the process for requesting additional time is documented in SOP Vol. 6 – Curriculum Outline	
2. Are instructional methods pre-specified / defined? (i.e. blended delivery method could not be utilized?)	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>	Comments No time has been included in the POAM for any other instructional methods; only leader led is going to be considered at this time.	
3. Are delivery funds available to support other delivery methods?	No <input type="checkbox"/> Yes <input type="checkbox"/> Not Req <input checked="" type="checkbox"/>	Comments	
4. Is the Instructor / student ratio (I:S) pre-specified/defined?	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Unknown <input type="checkbox"/>	Comments	
5. Will there be trained instructors available to teach?	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>	Comments	
6. Is there sufficient and suitable classroom space?	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Unknown <input type="checkbox"/>	Comments	
7. Are Lab facilities relevant to job/specialty available for training?	No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not Req <input type="checkbox"/>	Comments	
8. Are any other facilities, such as a wet room, equipment storage room available for training?	No <input type="checkbox"/> Yes <input type="checkbox"/> Not Req <input checked="" type="checkbox"/>	Comments	

WS-F.3.B – Course Parameters and Constraints: Part B - Delivery

WS-F.3.C		Course Parameter and Constraints: Part C – Design/Develop	
Project	SK "A" School		
Designer	M. Smith / G. Mitchell	Date	12 Mar 2011
1. Must accommodate wide-range of entry skills/knowledge?	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments	
2. Must-live-within the pre-specified teaching methods (activity and/or media)?	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments	
3. High levels of simulation are not practical.	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments This is not an issue; a mock warehouse exists as does a real inventory supply with the ET School; all needed software databases have existing training data bases, so real-world simulation is possible. There is no simulator required.	
4. Budget possibly too low to accommodate some required design?	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments Although there are some budget issues, it is not believed to be a factor for the current plans for design and development of the courseware; there is limited funds for travel to collect data, but again this work is also performed at the training center and both APs and SMEs are available locally.	
5. Student-Instructor ratio probably too great.	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments Not expected to change from existing Curriculum Outline ratio but there may be some individual lessons changes in current ratio allocations; but it is not expected to exceed total available instructor billets.	
6. Student unavailability must be accommodated.	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments Other than normal time already allocated for indoc and out-doc; at no time are the students unavailable to attend class.	
7. Remediation activities possibly prevented.	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments	
8. Length of training pre-specified?	No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Comments However if the new design anticipates the course will exceed the existing 8 weeks, this could become an issue. Approval of course length change is documents in SOP, Vol. 6 (Curriculum Outline)...will need to be sure to check if this needs to be addressed.	

WS-F.3.C – Course Parameters and Constraints: Part C – Design/Develop