

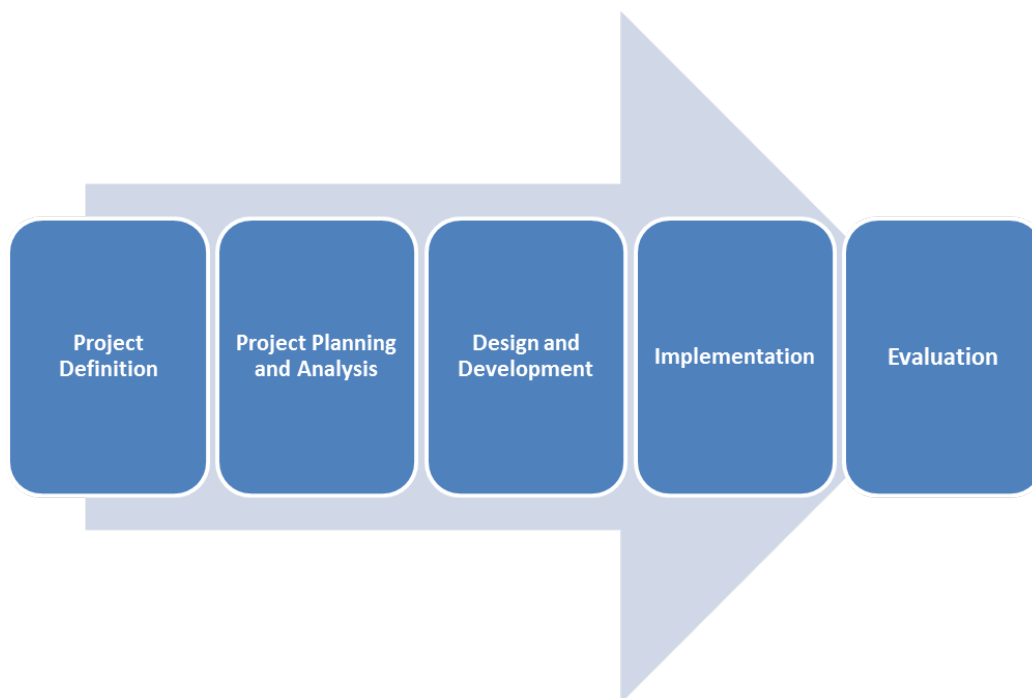
# The Canadian Forces School of Communication and Electronics eLearning and Distance Learning Process

## 1. Introduction

A Distributed Learning process which includes a design and development procedure at Canadian Forces School of Communication and Electronics (CFSCE) will provide CFSCE a structure for the development of training on an as needed basis, responding to the need for timely, up-to-date training for a branch of the service that deals with rapid change in technology and application.

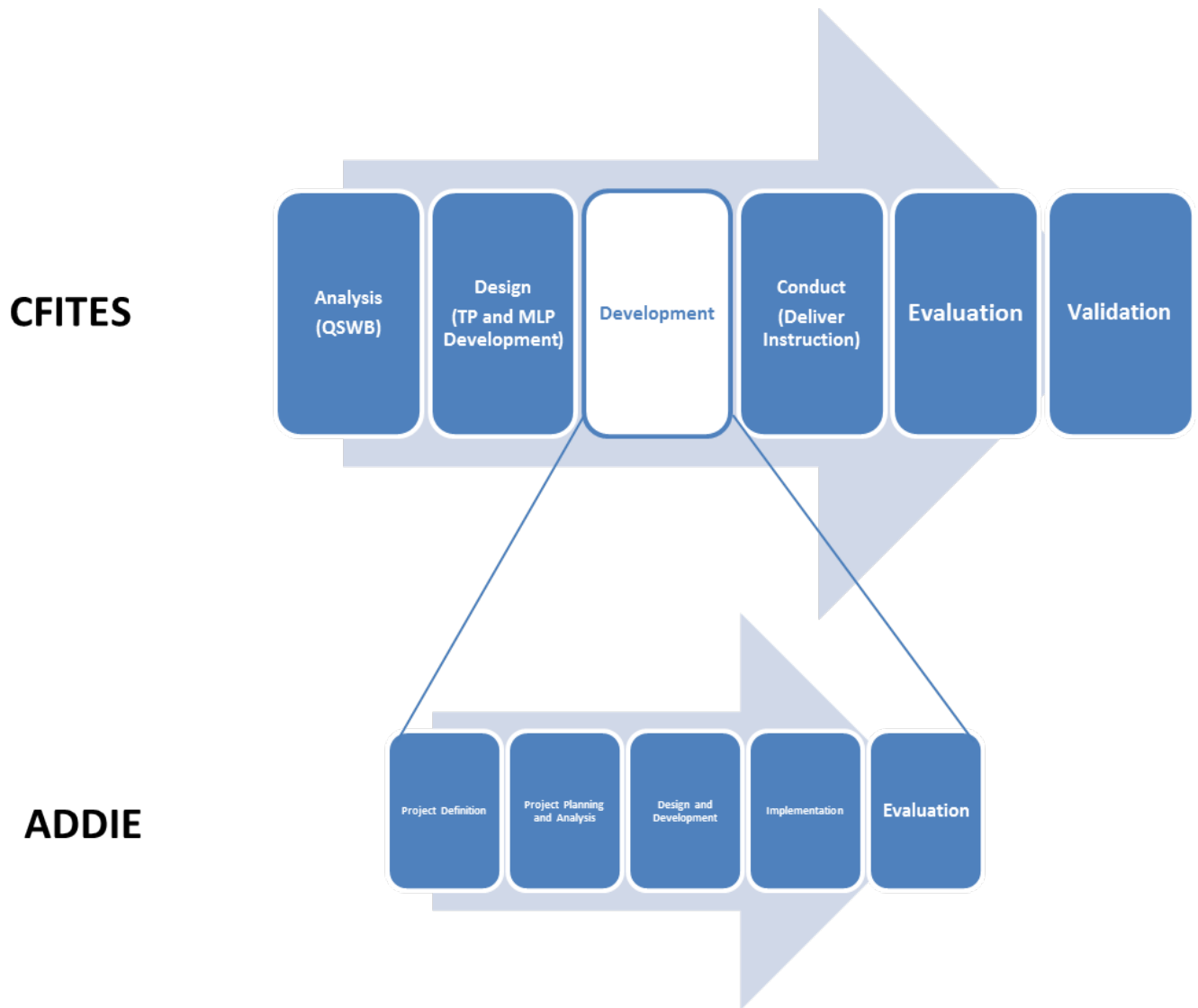
The process will encompass various design strategies used by industry leaders in workplace learning, including pure eLearning, Virtual Classroom delivery and blended delivery. As courses are being developed in house the time from development to delivery will be greatly reduced and on-going updates would be made on a just-in-time basis. This will provide CFSCE with more agility and control than if the development is performed at another location.

The eLearning and Distributed Learning (DL) design and development process at CFSCE will generally follow the industry standard ADDIE process. ADDIE stands for Analysis, Design and Development, Implementation and Evaluation. Each of these phases will be expanded throughout this document to describe the activities that take place, the deliverables and who is responsible.



The ADDIE process should not be confused with the Canadian Forces Individual Training and Education System (CFITES) process. The ADDIE process takes place during the Development phase of the CFITES process.

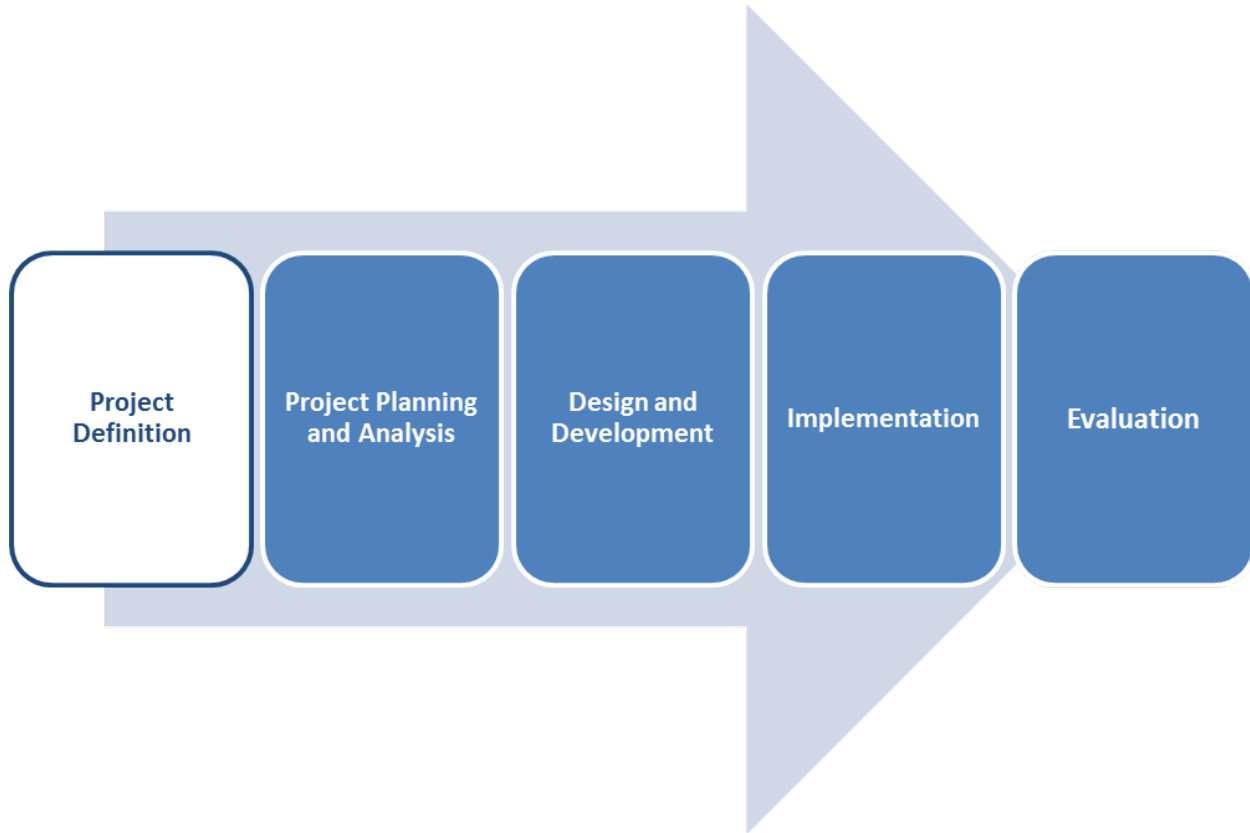
## 2. CFITES Process and ADDIE Process



### 3. Roles and Responsibilities

Role	Responsibility
Chief Instructor (CI)	The CI is responsible for the overall evolvement of distributed learning at the CFSCE.
Training Transformation Training Development Officer (TDO)	The TDO is the Training Resource Centre Lead, responsible for the overall delivery of eLearning and DL projects. The TDO is also the primary point-of-contact for any conflicts between Subject-Matter-Experts and Instructional Designers (ID) over content in the MLP, LP and what happens in practise.
Defence Learning Network (DLN) Administrator	The DLN Administrator is responsible for the structuring, maintaining, monitoring, tracking and delivering of courseware, as well as support to the end users in enrolling, completing and managing individual course offerings at CFSCE. The DLN Admin also creates the initial Learning Portal page which allows for greater interaction between student and instructor.
Instructional Designer(s) (ID)	The ID is responsible for courseware design and development using eLearning development tools including Articulate Storyline and the Adobe Creative Cloud. The ID will ensure that the eLearning courses are instructionally sound and working cooperatively with the course SME and Standards ensure that the course material is effective.
Project Manager (PM)	The PM is responsible for the day-to-day management of the project life cycle including creating all project documents (Project Charter, Project Management Plan, and Project Schedule) and communicating risks and/or problems with the project Client.
Subject Matter Expert(s) (SME)	The SME is the IDs primary point-of-contact for technical questions and clarification of source content. The SME is also responsible for obtaining available images and other multimedia assets that may assist in training development. The SME is also involved in the review cycle at both the Alpha and Beta builds (if required.)
Standards	Standards will ensure that the developed course adheres to the strictest Standards guidelines and in cooperation with the ID, provide questions for the Knowledge Checks, Enabling Checks and Performance Checks. Standards are involved in the review cycle of both the Alpha and Beta builds (if required.)
Senior Trade Advisor (STA)	The STA is involved in the review cycle; usually during Beta review however their participation will be determined during Project Definition. The STA can review the build personally or designate a reviewer with the required expertise.
Client	The Client is generally a Squadron OC requesting the training. The Clients involvement during design and development will vary from project to project. The Client is also responsible for final approval and signoff.

#### 4. Project Definition



The Project Definition phase starts during the Qualification Standard (QS) and Training Plan (TP) board where it is determined which Enabling Objectives (EO) will become Distance Learning (DL) and which will remain Instructor Led Training (ILT). This is ultimately the decision of the TDO and the members of the QS/TP board.

The approved QSTP will provide guidance. Once the document is approved, the only way to address or request a change is through the QS Change Request (CR) TP CR process. The Squadron responsible should approach the Chief Instructor with their request.

The CI will prioritize the project and place it in a waitlist.

When it is determined the EO will become DL, it is analyzed by the ID to ensure that all source content (Lesson Plans (LP), Master Lesson Plans (MLP), PowerPoint slide decks, images, including potential access to equipment and experts who use the equipment) is available.

If all of the source content is present, a Project Charter will be drafted by the Project Manager (PM) which will include the following:

## **Project Background**

The Background includes a brief overview of the reason for the project and the benefits that the project will provide for both CFSCE and the learner.

## **Goals**

The Goals section includes a list of the project deliverables with deadlines. For example “Develop 22 distance learning EOs for the ACISS DP4.0 Signal Warrant course which is to be delivered in the first week of December 2015.”

## **Scope**

The Scope will include a list of the DL and assessments that will be developed during the course of the project.

## **Key Stakeholders**

The Key Stakeholders is a list of the project stakeholders including:

- Client
- Project Manager
- Training Transformation TDO
- Project Team Members
  - Subject Matter Experts (SME), Standards Representatives (Stds), Instructional Designers (ID)
- Learners

## **Project Milestones**

This section includes a list of the main project deliverable dates and a description of each.

## **Constraints, Assumptions, Risks and Dependencies**

This section includes:

### *Constraints\**

Lists and describes any factors that may limit the teams’ options. For example, a pre-defined or imposed schedule dates or milestones are both project constraints.

### *Assumptions\**

Lists and describes facts that are assumed at the beginning of the project. For example, SME review turn-around time will be two days, project team member staffing levels will remain constant throughout the project, are project assumptions.

### *Risks\**

Risks are factors that may cause delays or interfere with the successful completion of a project. Identifying risk means identifying problems before they occur. Staff contracts ending and not being renewed in a timely manner is a risk that should be identified at the outset of the project.

### *Dependencies\**

Dependencies are links between two project schedule activities. For example, one activity has to finish before another one can start.

*\*Definitions for Constraints, Assumptions, Risks and Dependencies drawn from the Project Management Body of Knowledge (PMBOK) 4<sup>th</sup> Edition*

### **Approval Signatures**

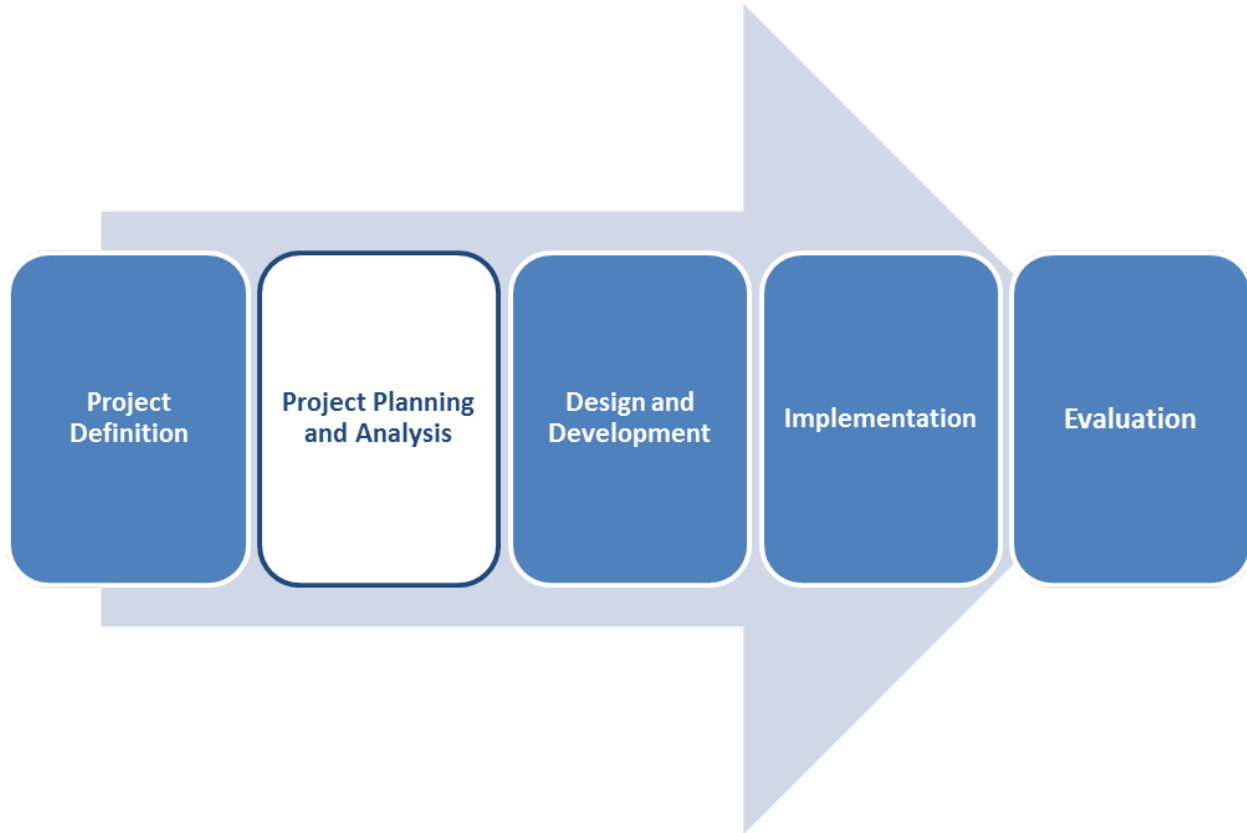
The Project Charter must be signed off by the Project Sponsor and Client before any further project work can start.

*For a sample Project Charter, refer to Annex A.*

During the Project Definition phase, the extent to which the Learning Portal will be used during the course will also be determined. The Project Client will be required to fill out a questionnaire that will later be used by the DLN Manager to build the course Learning Portal page.

*For more information on the Learning Portal and its capabilities, refer to Annex B.*

## 5. Project Planning and Analysis



The Project Planning and Analysis phase can begin only after the Project Charter has been approved and signed off by the project client.

The Project Planning and Analysis phase involves the following activities:

- Collecting the required source content and confirming its complete and accurate
- Developing the project schedule
- Determining the project tasks
- Developing the Project Management Plan
- Assigning tasks (IDs to the project and specific EOs)
- Determining method of delivery (use of the Learning Portal or individually assigned DLN offerings)
- Holding the project kick-off meeting
- If the EO will be eLearning, determining the type and level of eLearning

*For a description of eLearning levels and how that affects the schedule and deliverables, refer to Annex C.*

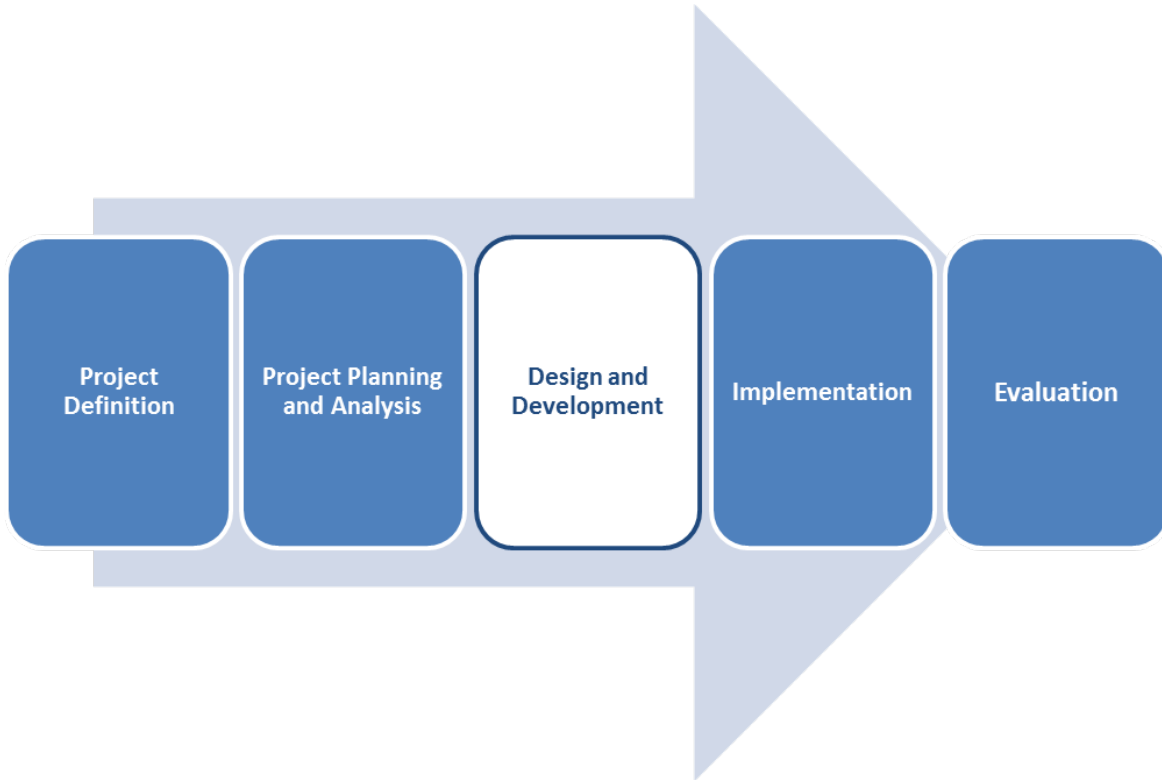
The deliverables at the end of this phase include a Project Management Plan with detailed project schedule, which must be signed off by the Project Client before the next step, Design can start.

The Project Management Plan will include:

- The project overview
- The project schedule
- List and location of **project approved** source content (including images) by EOs
  - While it is not always possible to work from source content that has been approved at the highest level, there must be an understanding between all stakeholders that the source content that will be used during the design and development phase is approved at the project level.
  - This creates a baseline for development and assists in the change management process.
- Target audience including:
  - Rank
  - Expected level of education and training
  - Familiarity and comfort using technology for education
- Details of the DL content of each EO
  - The Workbook
  - eLearning
  - A combination of workbook and eLearning
  - Other elements if required
- List of the learning objectives for each EO
- Details of the evaluation strategy for each EO, including but not limited to:
  - Knowledge Checks and Review Activities throughout the EOs and Enabling Check (EC) at the conclusion of each EO
  - Essay style questions uploaded to the LMS through the learning portal
- Details of the evaluation strategy for the course in general
- The change management process during course development and after course delivery



## 6. Design and Development



After the Project Management Plan and Schedule have been signed-off and approved, the Design and Development phase of the project can only start. The sign off of these documents means that the client and the project team have a mutual understanding of the project deliverables and the project timelines.

The Design and Development phase is where the bulk of the work is performed including:

- Alpha Storyline build
- Alpha review by SMEs and Standards
- Beta Storyline build
- Beta Storyline review by the project Client or personnel authorized to sign-off on final delivery and approval

The deliverables at the conclusion of the Design and development phase are:

- A complete, signed-off EO ready for the Implementation phase
- Complete and approved ECs and PCs
- Developed and functioning Learning Portal presence

*For a detailed description of the steps involved in the Design and Development phase, see Annex D*

## Notes on the Review Cycle

All builds are developed using the **PROJECT APPROVED** source content (an approved MLP). Changes to content can only be made without a Change Request (CR) if they amount to 5% or less of the phase build time. For example, if the EO required 10 hours of development, a change to content can add no more than 30 minutes of extra work or a CR will be issued to account for the extra time.

If the images selected by the ID are determined not to be appropriate by the SME or Standards, the SME or Standards should assist as much as possible by supplying a more suitable image of high resolution.

If the reviewer wants something reworded, they should supply an example of more appropriate on-screen-text.

### *Instructor Training*

If required, the course instructors will be trained during Design and Development in preparation for implementation. The instructor training requirements will change from course to course based on the capabilities that are required, however, recommended training for course instructors and administrators includes:

- IS Security Orders
- DND Instructor Desk
- DND Group Discussion Administration
- If a virtual classroom will be used – DLN Centra
- Learning Portal courses tailored to course requirements

### *Joining Instructions*

Approximately 30 days prior to the Pilot Session kick off date, the Squadron responsible for the training should send Joining Instructions to all course candidates. Ensuring Joining Instructions are sent to course candidates well in advance of the course start date ensures that the learners can resolve any technical issues that impede their participation in the course and they have the appropriate login credentials.

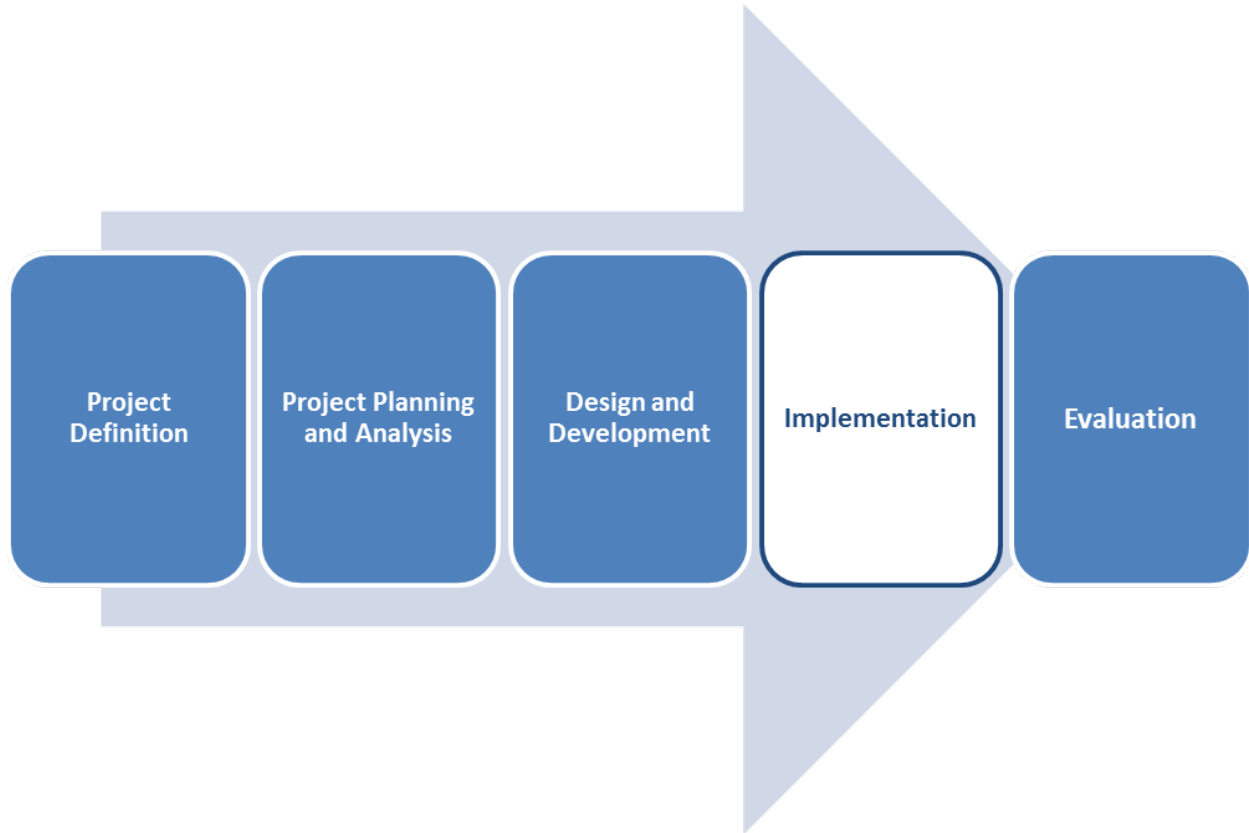
The Joining Instructions should include:

- The duration of the course
- The duration of the DL portion of the course and how to get technical help if required
- Any tasks that the learner must perform before the course starts
- Any other important administrative points

In addition to sending joining instructions to the course candidates, the nominal role must be sent to the DLN Manager. This will allow the DLN manager time to ensure that the course candidates have accounts and to create the course offerings on DLN and request OnGarde Portal accounts.

In addition, these 30 days will allow time for instructors to take any required learning portal training.

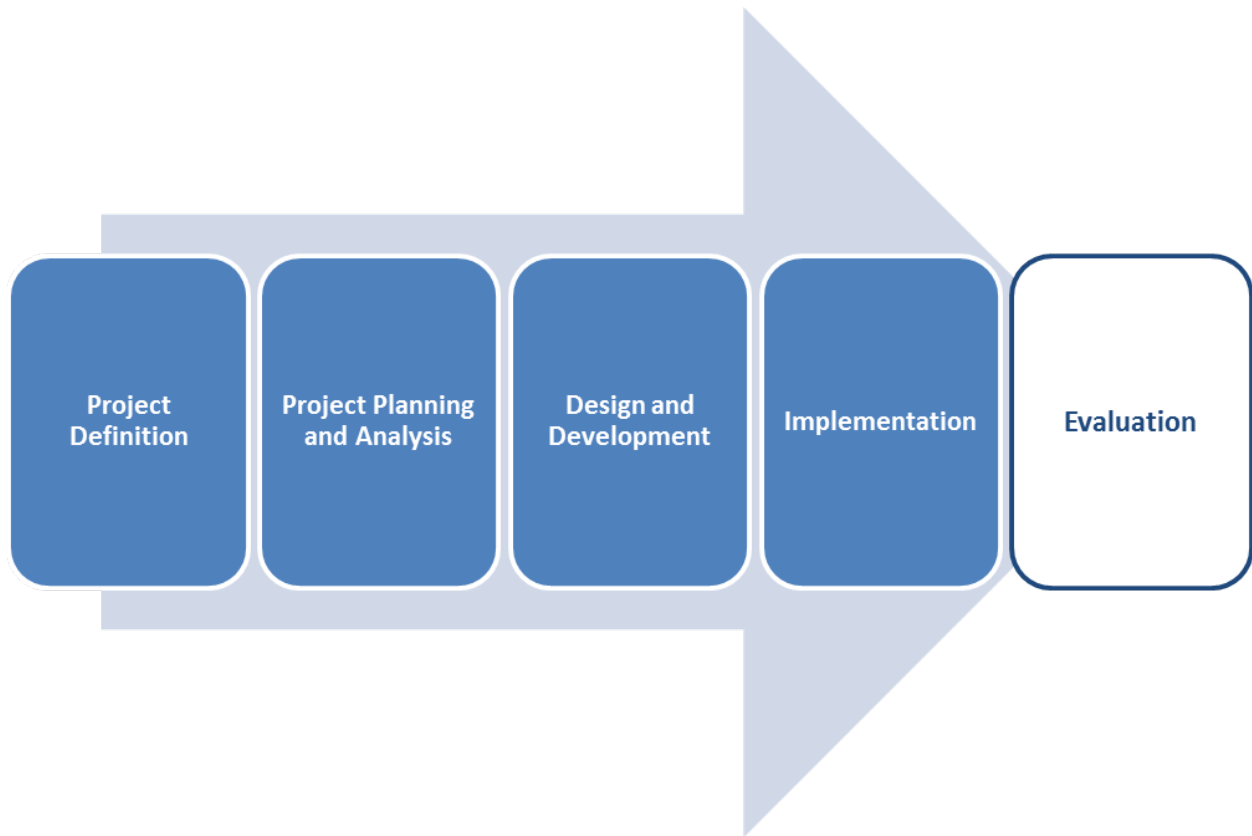
## 7. Implementation



The Implementation phase or the Pilot Course will only start when all of the EOs, ECs and PC have been signed off or instructed otherwise. The Pilot Course will be administered as outlined in the Project Management Plan.

During Implementation, IDs and the DLN manager will be available to manage any technical or content issues that arise on the Pilot Course. On subsequent course serials, the DLN Manager will be available to manage any technical issues.

## 8. Evaluation



Evaluation provides an opportunity for the project team to see what went right and what went wrong through each of the phases and whether the course achieved its educational objectives. A course critique should be administered after each EO, especially for the course pilot. By administering the critique after each EO, we will be able to get more accurate comments instead of the sweeping general statements that you tend to find by waiting until the end of the course to administer the course critique.

While these course critiques can be administered electronically using the DLN, it would be beneficial for Standards to also run a Centra session to conduct a course critique, where they can direct the conversation and get more detailed answers.

This information can then be used to improve the course based on learner feedback.

### *Evaluation Toolkit*

There are many tools that can be used to aid in the evaluation of the course.

1. Information gathered from the DLN.
  - a. Learners scores on ECs and the PC

- b. Number of attempts that each took each learner to successfully complete the ECs and PC
  - c. Number of attempts that each learner to successfully complete each question
  - d. The amount of time each learner spent on each question.
- 2. Interaction between the Instructors and the learners on the Learning Portal.
  - a. Answers to questions submitted via uploading knowledge checks to the Instructors drop-box
  - b. Number of questions asked over the Learning Portal
  - c. Amount and type of interactions learners independently initiate
- 3. Responses from Post-Course Evaluations by students
- 4. Live Centra sessions with a Standards representative and the learners

The Evaluation Phase also includes any revisions or changes to the DL based on the feedback from the learners. Enough time should be worked into the schedule between the first and second pilot to make these changes.

Final acceptance of the project can only take place after the Evaluation phase, as outlined in the Project Management Plan, has been completed.

*For a sample Post Course Evaluation, refer to Annex E.*