

# **Introduction To Multimedia Applications CT801-4-0-OIMA**



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## **Multimedia Development Methodology**

# Topic & Structure of Lesson



To discuss the need for a methodology in  
Multimedia Application Methodology



Stages and sub-stages in the methodology



Explain the sequence of sub-stages (tasks) mentioned in  
the evaluation methodology related to each stage

# Learning Outcomes

**At the end of  
this lecture, you  
will be able to:**



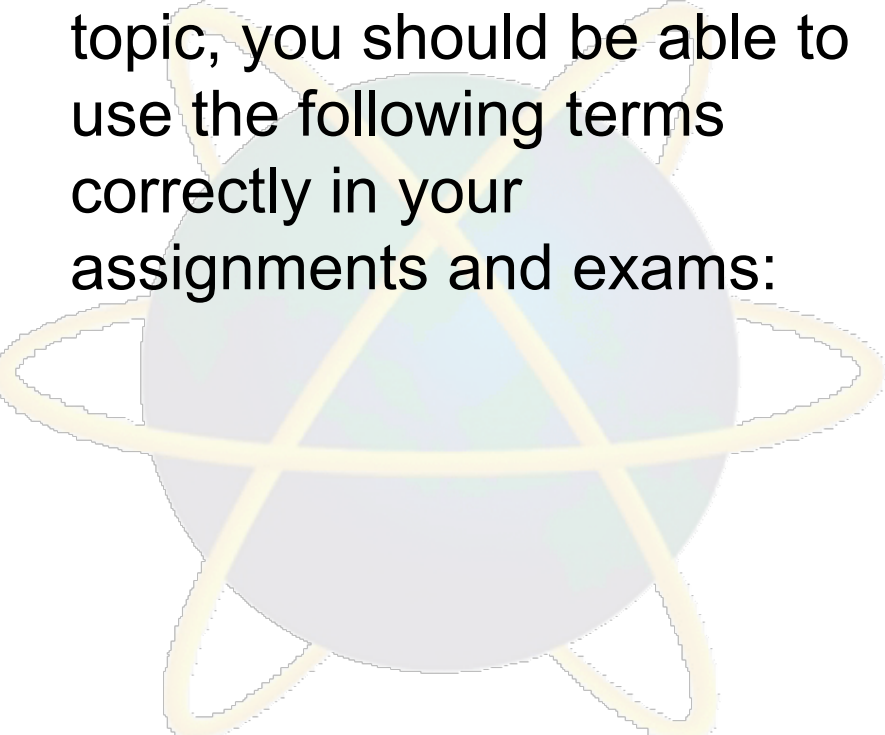
Identify and explain the five steps in the **ADDIE** multimedia development methodology.



Apply the development methodology to your Multimedia Application project.

# Key Terms you must be able to use

If you have mastered this topic, you should be able to use the following terms correctly in your assignments and exams:



Development Methodology

Analysis stage

Design stage

Development stage

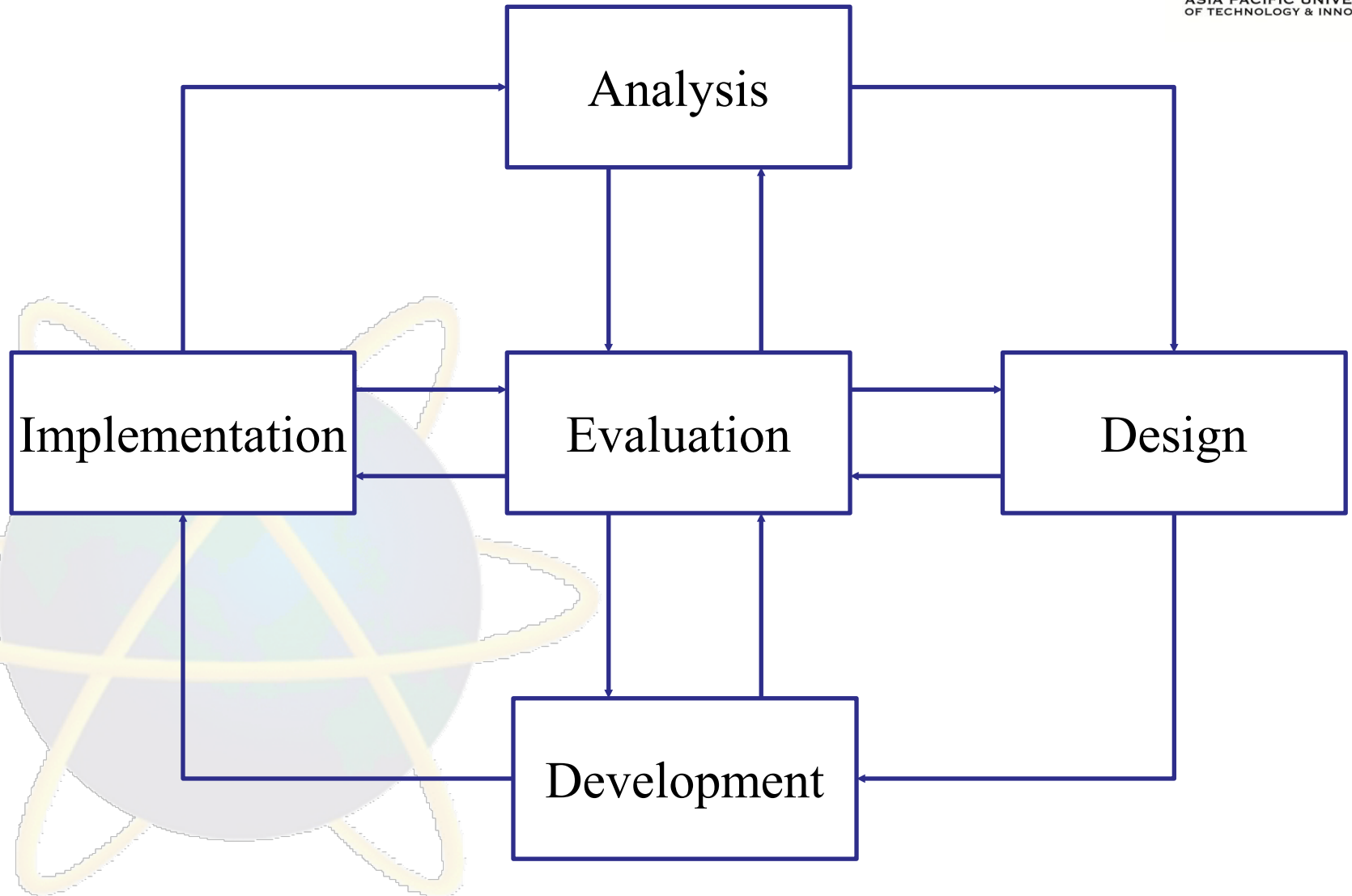
Implementation stage

Evaluation stage

# The Multimedia Application Methodology (ADDIE)



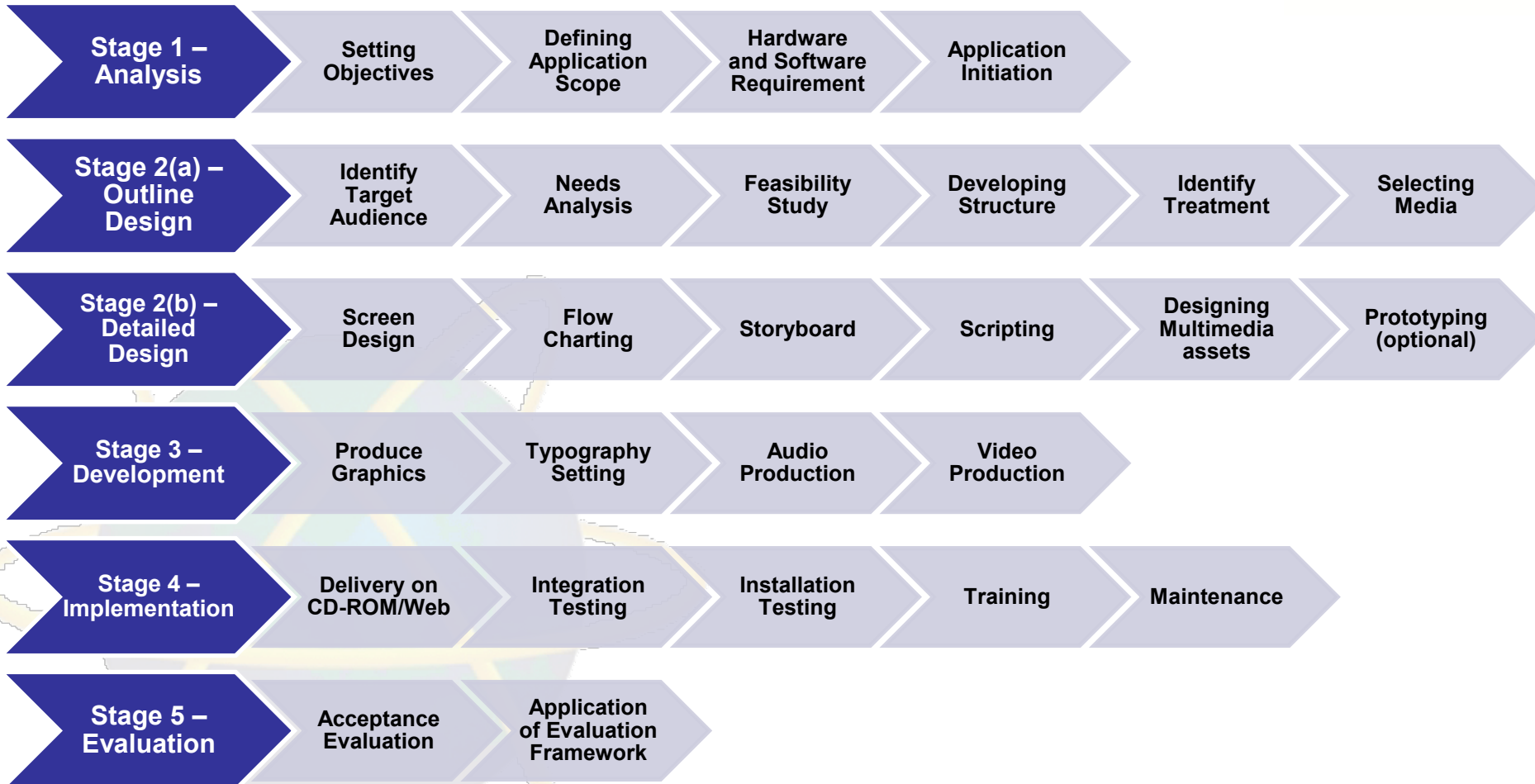
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# Multimedia Development Stages



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# Multimedia Development Stages

## Stage One – Analysis

This specification stage is the first stage in the cycle. In this stage, the system analyst would gather some basic requirements from clients for the development of the application.

### **Task 1.1 – Setting Objectives**

- Objectives outlined
- To have a clear definition of the application
- The objectives must be agreed upon by both parties (eg. system analyst and clients).

### **Task 1.2 – Defining Application Scope**

- To define the boundary of the application.
- This is to ensure that the system does not go out of the requirements of the clients.

# Multimedia Development Stages



## Stage One – Analysis

### **Task 1.3 – Hardware and Software Requirement**

- The platform' is usually specified by the client
- This may impose a major constraint on the design
- The platform should be precisely defined
- The location and number of machines should also be ascertained

### **Task 1.4 –Application Initiation**

- Setting up of a project initiation document which lists:
  - ❖The objectives and scope of the project
  - ❖The Development Team and their roles
  - ❖The project plan
  - ❖Skills required
  - ❖Time required
  - ❖Budget
  - ❖Tools required
  - ❖Resources



# Multimedia Development Stages



## Stage Two (a) – Outline Design:

Design stage consists of Two steps - Outline Design and Detailed Design

The outline design must reflect the skills, time, budget, tools, and resources that are available to you.

- **Task 2.1 – Identify Target Audience**

- A Target Audience can be defined as *"Those people who will most use or need this content, and for whom I am making it available"*
- It does not necessarily include anyone and everyone who would ever see it, but rather those who are the primary stakeholders in the usage of the information you are sharing.

- **Task 2.1 – Identify Target Audience**

- Questions that will help us to define Target Audience:
  - Is this content intended for a restricted group of viewers, the public, or both? Who should not see this content?

- **Task 2.2 – Needs Analysis**

- Needs analysis is carried out to get users' requirements.
- Analysis can be carried out in a few methods: Questionnaires, Interviews, Observation, Focus groups and etc

- **Task 2.3 –Feasibility Study**

- The study will identify the feasible options that meet the stated requirements.
- Feasibility studies are sometimes commissioned to establish that the development of a multimedia application will be cost-beneficial.
- Review several available multimedia options.

# Multimedia Development Stages



## Stage Two (a) – Outline Design

### **Task 2.4 – Developing Structure**

- Define navigational structure. Types include: Star Structure, Tree Structure, Fully Cross-linked Structure

### **Task 2.5 – Identify Treatment**

- Treatment describes the intended approach that incorporates the media, the techniques associated with the media, and the user interface that's chosen for the application.
- The decision about treatment needs to strike a balance between the needs of the user, the type of materials available, the time to produce it, and the available budget.

### **Task 2.6 – Selecting Media**

- Choosing the right media: Text, Graphics, Animation, Audio, and Video
- Media selection has to consider the project budget and cost.

# Multimedia Development Stages



## Stage Two (b) – Detailed Design

### **Task 2.1 – Screen Design**

- Screen layout and graphics design is about specifying how computer-generated text and graphics should be presented. Various screen features are addressed such as:
- Screen Size, Typography, Scrolling, Layout, Use of Color, Graphics

### **Task 2.2 – Flow Charting**

- The production flowchart is a visual representation of the sequence of the content of your product.
- It shows what comes first, second, third, etc. as well as what your audience will do, and subsequently, what will happen.
- Essentially, it is a working map of our final product.

### **Task 2.3 – Storyboard**

- The storyboard now takes the treatment and the roadmap and combines them into a detailed description of the final product.
- The storyboard contains information on graphics, video, sound, text, audience interaction, color, type fonts, type size, etc.

## Stage Two (b) – Detailed Design

### **Task 2.4 – Editorial / Script**

- The writing up of content
- All scripts for video and audio to be written at this stage
- The content writing has to match the overall application objectives and goals

### **Task 2.5 – Considering Multimedia assets**

- In the multimedia design field, the various components such as text, still images, audio, and video, are called *assets*
- Each asset has its own standard format, and trade-offs in size and quality.

# Multimedia Development Stages



## Stage 3 – Development

Now comes the part where all of the elements and techniques identified in the detailed design is developed.

**Example: Using Adobe Photoshop to scan and edit an image**

### **Task 3.1 – Produce Graphics**

- At this stage, we would start the production of the graphics images (i.e. Vector images)
- The designers would document the details of the image they have produced based on the description in the detailed design.

### **Task 3.2 – Produce Typography**

- Good typography depends on the visual contrast between one font and another, and the contrast between text blocks and the surrounding empty space.
- The text editing and text placement are carried out.

### **Task 3.3 – Produce Sound**

- Recording of all audio materials is done and the audio files will be created
- Editing of audio elements and sound is implemented
- The audio developer would document the process and the plan for audio production
- Also, documents problems encountered during production

# Multimedia Development Stages

## Stage Three – Development:

### **Task 3.4 – Produce Video Assets**

- Setting up of a project initiation document which lists:
- The development of a video production can be divided into three stages:
- Pre-Production, Production, Post-Production

### **Task 3.5 – Integration**

- This is the development of the final product or the final application.
- All the elements that have been developed will be integrated using an authoring tool.
- The Application would be given a name / a title by the project manager or the client.

# Multimedia Development Stages



## Stage 4 – Implementation

After the integration of the elements is done, the application is then developed as a final copy and for testing.

At this stage there are many processes that would take place i.e. Training, Testing, etc

This would be the final stage as before the user acceptance testing would be carried out.

### Task 4.1 – Delivery on CD-ROM/Web

- At this point, the project leader should make sure that all files that need to be in the application CD-ROM or Web are present.

### Task 4.2 – Integration Testing

- Integration, testing, and calibration has probably to be done at specialized laboratories
- Testing means examining the project performance according to the specifications that have been agreed.
- At every stage the output of the testing would be recorded.

### Task 4.3 – Testing Documentation

- Once the testing has been done, the documentation for the application is developed.
- Documentation of the tasks and processes that took place during the production of the application is recorded
- The manual on how to use the application is developed
- Documentation is important for future references

# Multimedia Development Stages

## Stage 4 – Implementation

### **Task 4.4 – Installation Testing**

- Once the system is tested for integration, it is time to test it's installation process
- The CD-ROMs which have problems installing would be rejected.

### **Task 4.5 – Training**

- This stage is only for those who will be using this application for educational purposes or even for sales promotion.
- The teachers would be taught how to use the application.
- The Sales personnel would be given training on the features and other necessary information regarding the application.

### **Task 4.6 – Maintenance**

- Maintainability is important as it is often overlooked by the developer
- For future enhancement and others.
- This in return would be a source of income for the developer.



# Quick Review Question

01

What are the focus areas in the Implementation stage of ADDIE?

02

What are the focus areas in the Evaluation stage of ADDIE?

03

What are the focus areas in the Analysis stage of ADDIE?

04

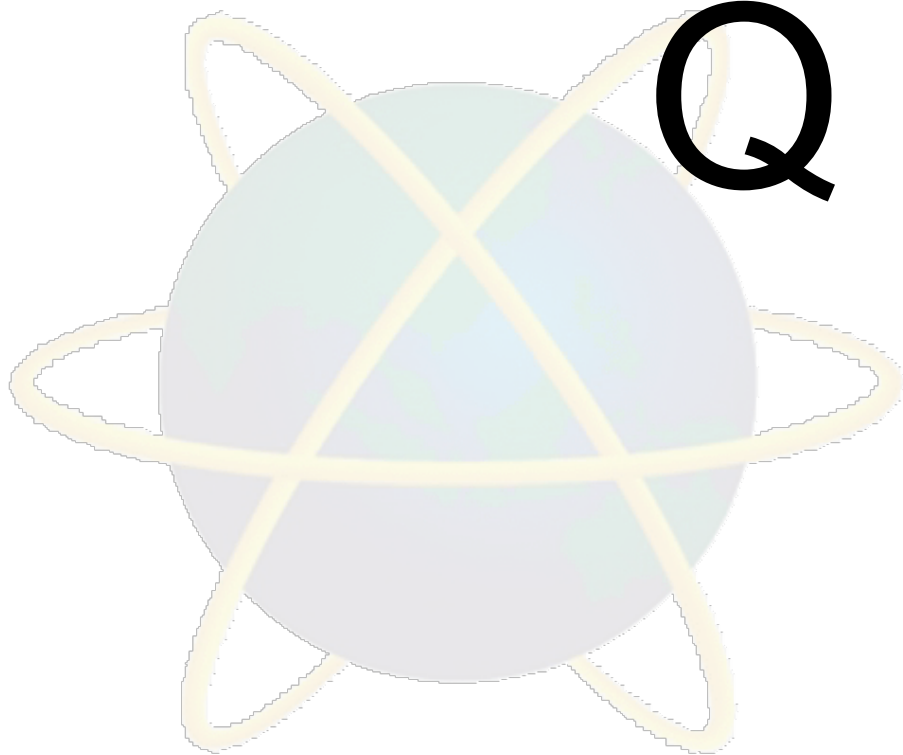
What are the focus areas in the Design stage of ADDIE?

05

What are the focus areas in the Development stage of ADDIE?

# Question and Answer Session

Q & A



# Next Session

## Evaluation Framework in Multimedia Environment

