



Mahidol University

Design and Development of Efficient video for e-learning.

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Instructional Design Framework

ADDIE

Microlearning Concept

Short-time learning activities,
single skill, topic, and learning objective



OPEN
edX



Enhanced Learning Performance



Systematic Approach





Planning Stage
Pre-production

 **A** Analysis



▶ Define audience

▶ Learning objectives

▶ Content selected

▶ Delivery method

▶ Resources

▶ Time frame



Mahidol University

Wisdom of the Land



Analysis

Planning Stage

Pre-production

ITGE142 Digital Drawing and Painting

- Theory & Concept
- Watercolor Painting Practice (Traditional)
- Digital Drawing and Painting (with Software)

Conceptual Abstract

- 7 Element of Arts
- Theory of colors
- Color cycle
- Theory of drawing



Practice Concrete

- Use of graphical software
- Basic drawing & painting by hands
- Drawing of a variety of shapes
- Perspective drawing

1st year student
Beginner Level

No pre-requisites course
Have at least basic computer skill

Cognitive domain
Psychomotor domain
Affective domain
Draw Explain Create Criticize Apply

Can learning material help students to

- Use basic tools in computer programs for digital drawing.
- Apply important concepts and principles to draw and paint digitally.
- Criticize the art work of classmates
- Create watercolor paintings with the correct techniques .



Planning Stage
Pre-production



Analysis



▶ Content Selected

- ▶ Learning Topics
- ▶ Learning Activity
- ▶ Exercise & Practice

▶ Delivery Method

- ▶ Video
- ▶ Text
- ▶ Image
- ▶ ...

7 Units

1: Line

2: Shape

3 : Form

4 : Value

5 : Color

6 : Space

7 : Texture



Video

Document Files Discussion Animation Infographic
Social Media Hyperlink



Resources

People



Equipment



Budget



Time



Planning Stage

Pre-production

1. Dr. Sujika Srinantakul
2. Miss Kanrawi Kitkhachonkunlaphat
3. Mr. Noppadol Owartmahasilp
4. Mr. Manas Wattana

People

Instructional Design Team



1 2

EdTech + Instructor

Story board

Video Production Team



3 4

Audio Visual + Video Editor

Graphic Animator

Deliver Team



LMS Admin

* Working with Division of Academic Affairs

Equipment



Server
Mux.Mahidol.ac.th



Budget & Time



Funded by the University



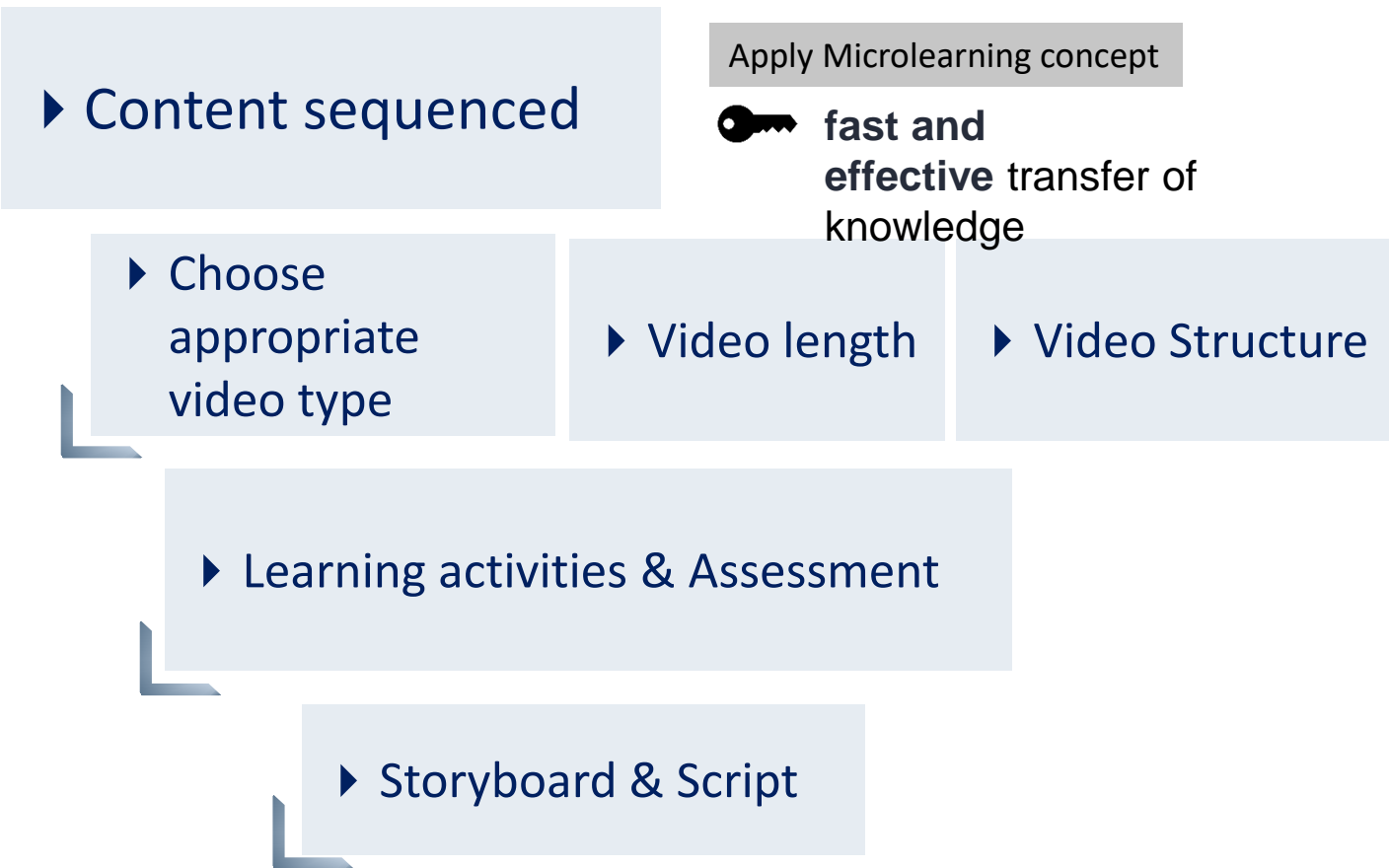
12 months



 **D** Design

Planning Stage

Pre-production



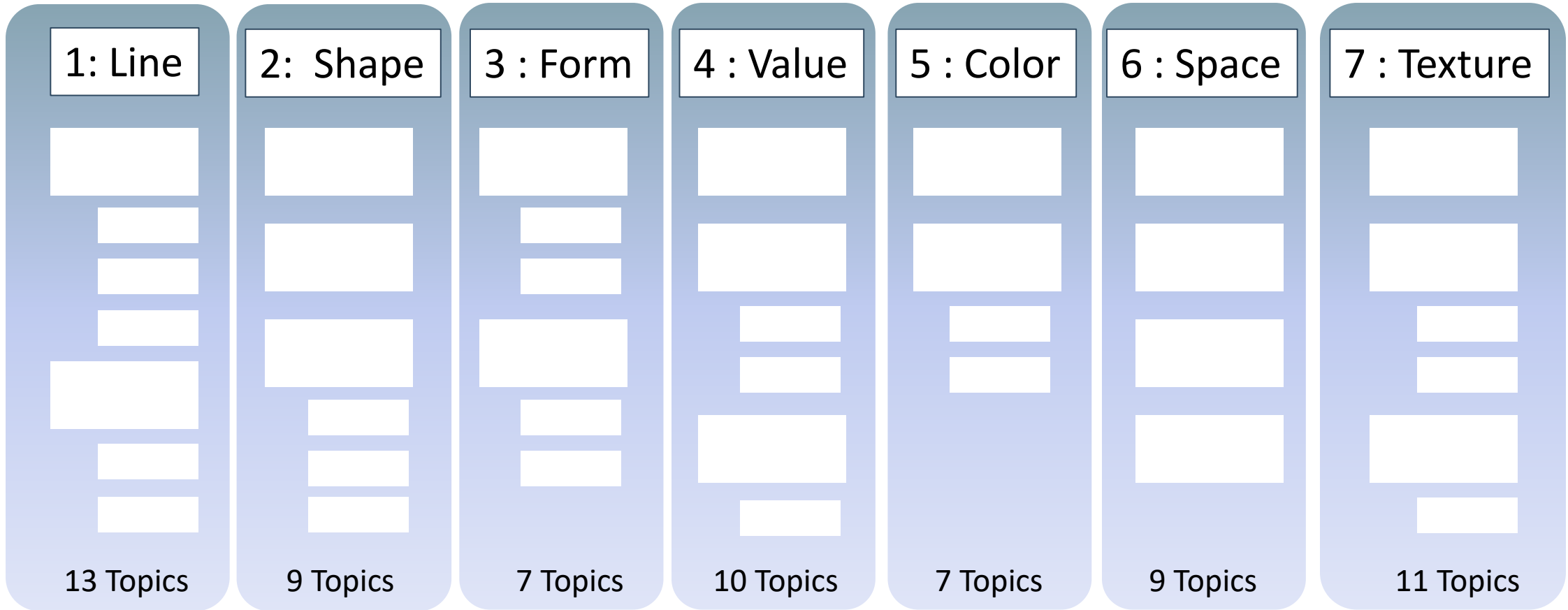


 **D** Design

7 Units

▶ Content sequenced for each unit

Planning Stage
Pre-production





Unit 1: Line	
Introduction to Photoshop	
Photoshop Interface	2 mins
File Management	3 mins
Layer Concept	2 mins
Dynamic Brush Adjustment	2 mins
Save and File Format	3 mins
Basic Digital Sketching with Stroke Adjustment	
Layer Management	2 mins
Watermark Layer	5 mins
Contour Lines	2 mins
Line Quality	3 mins
Cross Contour Lines	3 mins
Basic Digital Sketching with Stroke Adjustment Summary	2 mins
Summary	
Unit Summary	2 mins
Assignment and Critique	
Quiz	

Unit 3: Form	
Watercolor techniques	
Effect of Light to the Illusion of Form	3 mins
Characteristics of Watercolor	3 mins
Watercolor Demonstration	5 mins
Basic watercolor technique to create the Illusion of Form	4 mins
Advanced watercolor techniques	5 mins
Apple on the Cloth	3 mins
Summary	
Unit summary	1mins
Assignment and Critique	

Unit 5: Color	
Coloring using watercolor	
Theories Related to Color	4 mins
Creating a Color Wheel Using Watercolor	2 mins
Color Schemes	4 mins
Watercolor Technique to Create the Illusion of Distance	4 mins
Watercolor Techniques for Landscape	5 mins
Summary	
Unit summary	1 mins
Assignment and Critique	

Sample of material break down into short, easily to understand or practices support a single learning objective.



Design

Planning Stage

Pre-production

Unit	Learning Topics	Learning Outcome	Teaching Method ① Lecture ② Demo ③ Role Playing ④ PBL ⑤ Case study ⑥ Others						Instructional Media Learning Activities (mins) ① Video ② Document ③ Discussion ④ Infographic ⑤ Animation ⑥ Social Media ⑦ Hyperlink							Assessment (Quantity) ① Quiz ② Participation ③ Assignment ④ Final Exam				Channels for Communication ① Discussion board ② Social Media ③ E-mail ④ Online tools ⑤ Others					Specify the details of the learning activity and teaching materials used	
			1	2	3	4	5	6	1	2	3	4	5	6	7	1	2	3	4	1	2	3	4	5		
3	Form																									Lecture using video with discussion board and supplementary documents. Assignments and tests are also provided at the end of section.
	Water color techniques	L03	X	X						3		5								X		X				
	Characteristics of Watercolor	L03		X						5								X	X					X		

SAMPLE

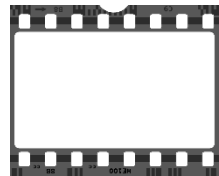
Activity design form using online teaching and learning materials



Planning Stage

Pre-production

► Choose appropriate video type

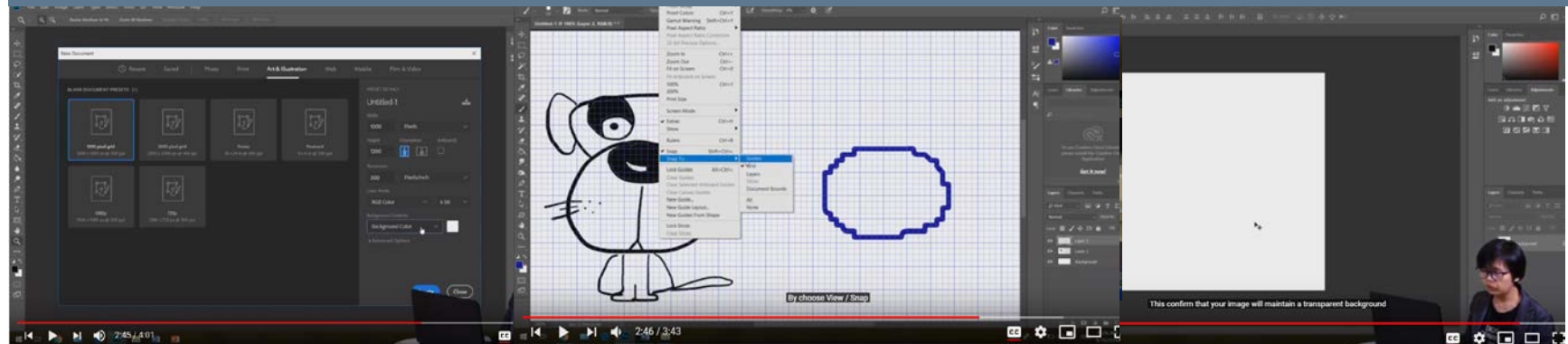


- Green Screen
- Studio
- Screen Cast
-

lecture-style



Software Tutorial

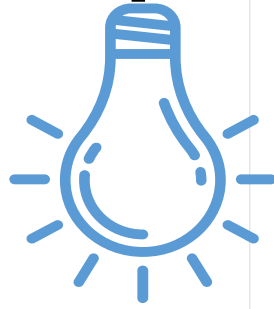


Demonstrations





▶ Writing Story board & Script



Control production Steps

Sequence instruction

Control relationship of learning elements in each unit

Planning Stage

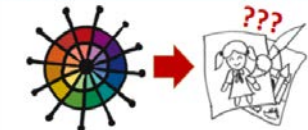
Pre-production

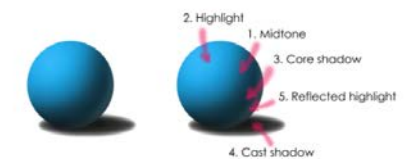

ITGE142 Digital Drawings and Paintings Unit 2 Shape Topic -

VDO Unit 2 Grid

	Picture	Script
1	<ul style="list-style-type: none"> Subject Title Digital Drawings and Paintings 	Intro Music for Digital Drawings and Paintings
2	<ul style="list-style-type: none"> Instructor MS Shot in front of Green Screen 	Welcome to the second unit of digital drawing and painting. This unit, we are going to talk about shape.
3	<ul style="list-style-type: none"> MS Shot PPT Slide 	Last unit, you learnt concepts about line, and how to create them digitally using Photoshop. This unit, we are going to move forward.
4	<ul style="list-style-type: none"> MS Shot PPT Slide 	We will use those lines to create more dimension by transforming them into shapes. In order to do that, I would like to introduce helpful tools and techniques for the creation of shapes in Photoshop.
5	<ul style="list-style-type: none"> MS Shot PPT Slide 	The first tool is Grid. Let's see how to use Grid in Photoshop to support digital drawing and painting.
6	<ul style="list-style-type: none"> Computer Screen Photoshop Demonstration 	Grid Snap Menu bar > View > Snap
7	<ul style="list-style-type: none"> MS Shot PPT Slide 	That is all about Grid. Next video, let's me introduces you another helpful technique for shape creation, creating straight lines using Photoshop brush.

Storyboard & Script Form

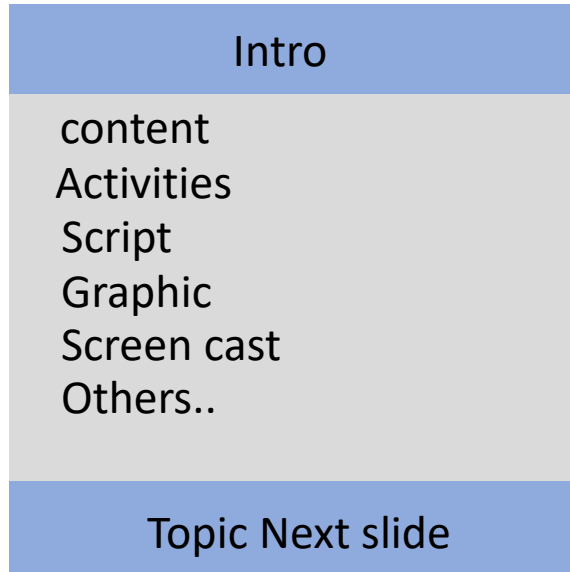
2	<ul style="list-style-type: none"> MS Shot 	<p>You may wonder that there are so many colors that you can create and use. But, when you really create an artwork, which should you pick to use. That is why in art, they have theory about color scheme to help you.</p> 
3	<ul style="list-style-type: none"> MS Shot 	<ul style="list-style-type: none"> Artists claim that color schemes are systematic ways that colors can be together beautifully. The color scheme describe the general way to pick colors, but not exactly which. For example, a color scheme says, you will get a very interesting picture if you use colors on the opposite side of the color wheel as the main colors in your artwork. Then, you can select any pair of colors on the opposite side of the color wheel to use. Color schemes only guide artists about color selection.

		<p>Effects of Light to Create the Illusion of Form</p> 	
4	MS Shot	<p>Then, you studied watercolor painting as well as how it is different from other types of colors.</p> 	ภาพ MS ศิริจันต์



Planning Stage

Pre-production

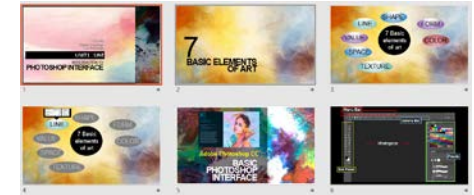




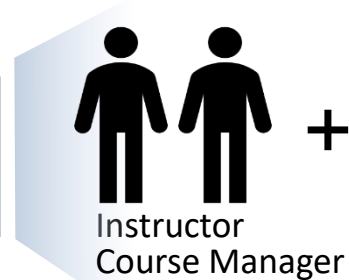
D Development

Do Stage

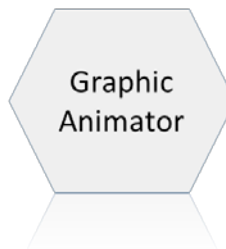
- ▶ Create graphic / Slide
- ▶ Video Recording
- ▶ Video Editing
- ▶ Voice narration
- ▶ Create Subtitle
- ▶ ...



Production



+ Video
Production
Team



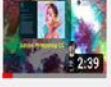








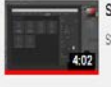







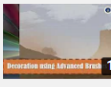

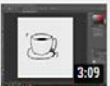






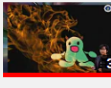
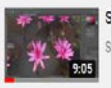

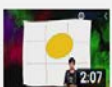





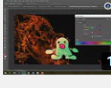
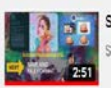







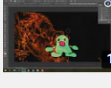
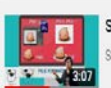



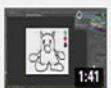



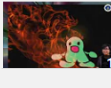
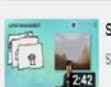



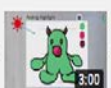



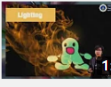
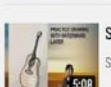
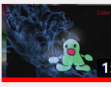
+ Video
Editing
Process



Other learning material

- ▶ Make an exam
- ▶ Create assignment
- ▶ Create online tool for collaboration
- ▶



1	 SPOC61-20-1-1 SPOC61	10	 SPOC61-20-1-9 SPOC61	17	 SPOC61-20-2-3 SPOC61	24	 SPOC61-20-3-1 SPOC61	31	 SPOC61-20-4-1 SPOC61	38	 SPOC61-20-4-8 SPOC61	45	 SPOC61-20-5-5 SPOC61	52	 SPOC61-20-6-6 SPOC61	59	 SPOC61-20-7-4 SPOC61
3	 SPOC61-20-1-2 SPOC61	11	 SPOC61-20-1-10 SPOC61	18	 SPOC61-20-2-4 SPOC61	25	 SPOC61-20-3-2 SPOC61	32	 SPOC61-20-4-2 SPOC61	39	 SPOC61-20-4-9 SPOC61	46	 SPOC61-20-5-6 SPOC61	53	 SPOC61-20-6-7 SPOC61	60	 SPOC61-20-7-5 SPOC61
4	 SPOC61-20-1-3 SPOC61	12	 SPOC61-20-1-11 SPOC61	19	 SPOC61-20-2-5 SPOC61	26	 SPOC61-20-3-3 SPOC61	33	 SPOC61-20-4-3 SPOC61	40	 SPOC61-20-4-10 SPOC61	47	 SPOC61-20-6-1 SPOC61	54	 SPOC61-20-6-8 SPOC61	61	 SPOC61-20-7-6 SPOC61
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9	 SPOC61-20-1-8 SPOC61													66	 SPOC61-20-7-11 SPOC61		

7 Units 66 Videos



Implementation

Do Stage
Production

1st Reviewed

Prior to delivery the learning, course upload for expert review and Evaluation.

Content Expert

Instructional Media Expert

Some of evaluation topics

- Does the material aligns with learning objectives?
- Is the content current, relevant, and accurate?
- Does the material provide flexibility in its use?
- Assessment methods are appropriate to the learning objectives?
-



Enrolled in semester 2/2019

MU Mahidol University Extension Sign in

การวาดรูปและเขียนภาพดิจิทัล MU-IT

ENROLLMENT IS CLOSED

DIGITAL DRAWINGS AND PAINTINGS ITGE142

Course Description :
Theory and practice of designing and drawing lines. Drawing of a variety of shapes such as geometric shapes and natural shapes. Perspective drawing. Theory of colors. Color cycle. Techniques of painting. Practice of basic drawing and painting by hands. Use of graphical software. Production of creative graphics. Applications of drawing and painting to several forms of media such as publishing, video and animation.

Course Details

Course name:	Digital Drawing and Painting
Faculty/Institute/College:	ICT - Faculty of Information and Communication Technology
Total learning hours:	7 hours

Course Number	ITGE142
Classes Start	Jan 10, 2020
Classes End	May 31, 2020
Estimated Effort	01:00



Evaluation

Semester 2/2019 JAN – MAY 2019

- Participation in learning activities
- Learning achievement
- Analysis report

Report summarizing the use of online lessons in teaching and learning management. (MU SPOC Online Lesson Development Project)



56

Enrolled students

98% Participate in online lessons

93% Completed the activities

93% Pass the online lesson
Score from Test /Quiz/Assignment

Do Stage

Production



Week 1 LINE



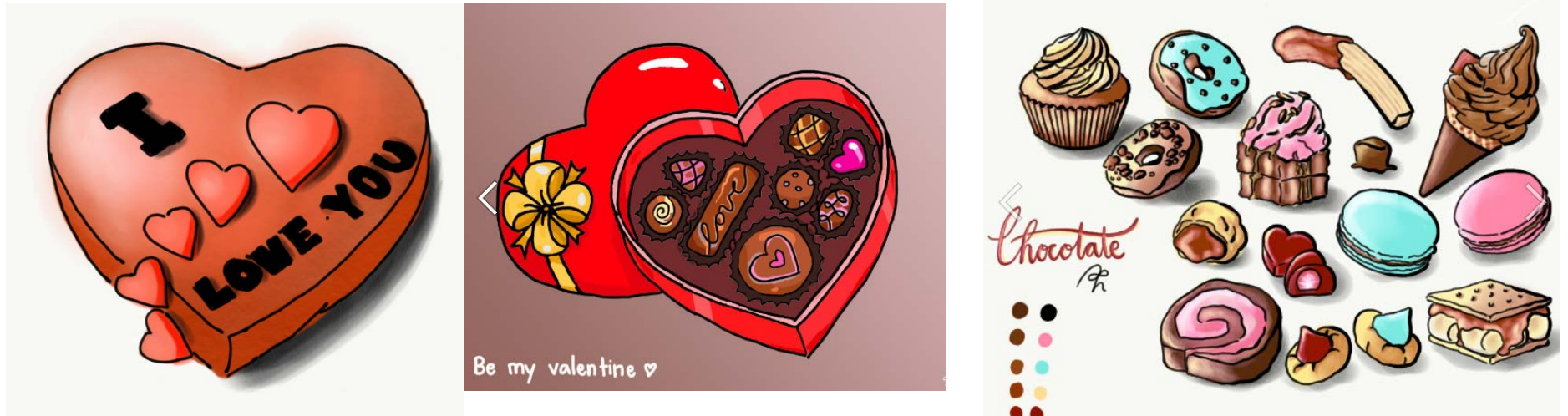
Week 2 SHAPE



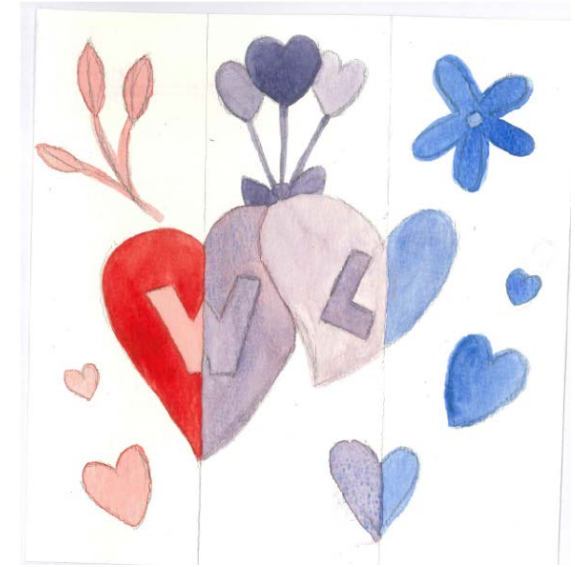
Week 3 Form



Week 4 Value



Week 5 Color



Week 6 Space



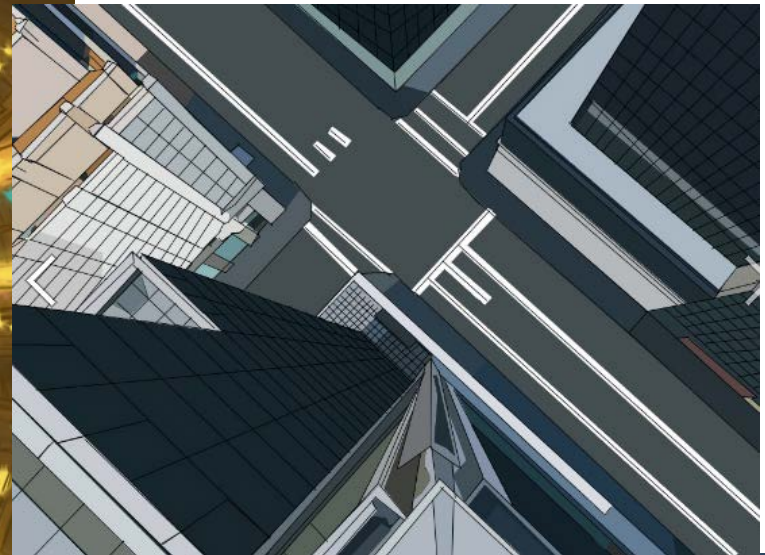
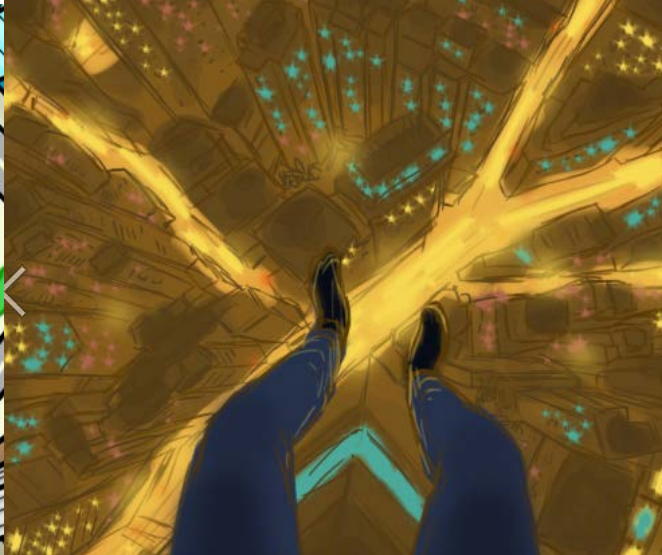


Week7



Week 8 Physical Class

indepth technique





Week 9 Physical Class

indepth technique



Dick
Stacy



Evaluation

Semester 2/2019 JAN – MAY 2019

- Participation in learning activities
- Learning achievement
- **Analysis report**

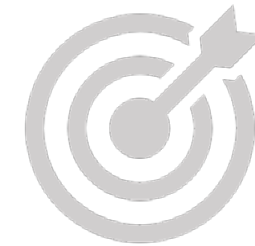
Report summarizing the use of online lessons in teaching and learning management. (MU SPOC Online Lesson Development Project)

Do Stage

Production

	Learning Outcome	Result
1	Use basic tools in computer programs for digital drawing.	✓
2	Apply important concepts and principles to draw and paint digitally.	✓
3	Criticize the art work of classmates	✓
4	Create watercolor paintings with the correct techniques	✓

Things we have learnt.





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Thank You



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Abstrxct -- Concrert



Planning Stage
Pre-production

- ▶ Choose appropriate video type
- ▶ Control the length of each video
- ▶ Related to single learning objectives

3: Form

Learning Objective
Video Type
Video Length

Watercolor techniques	LO		mins.
Effect of Light to the Illusion of Form			
Characteristics of Watercolor			
Watercolor Demonstration			
Basic watercolor technique to create the Illusion of Form			
Advanced watercolor techniques			
Apple on the Cloth			
Summary			
Unit summary			
Assignment and Critique			

4: Value

Learning Objective
Video Type
Video Length

Photoshop tools	LO		mins.
Color Selection			
Clipping Masking			
Dodge and Burn Tools			
Coloring a monster			
Creating Color Palette			
Light Setting			
Clipping Mask for Character Painting			
Blending Technique			
Shiny Effect			
Coloring a Monster Summary			
Summary			
Unit summary			
Assignment and Critique			
Quiz			



Planning Stage



Analysis

Resources

People

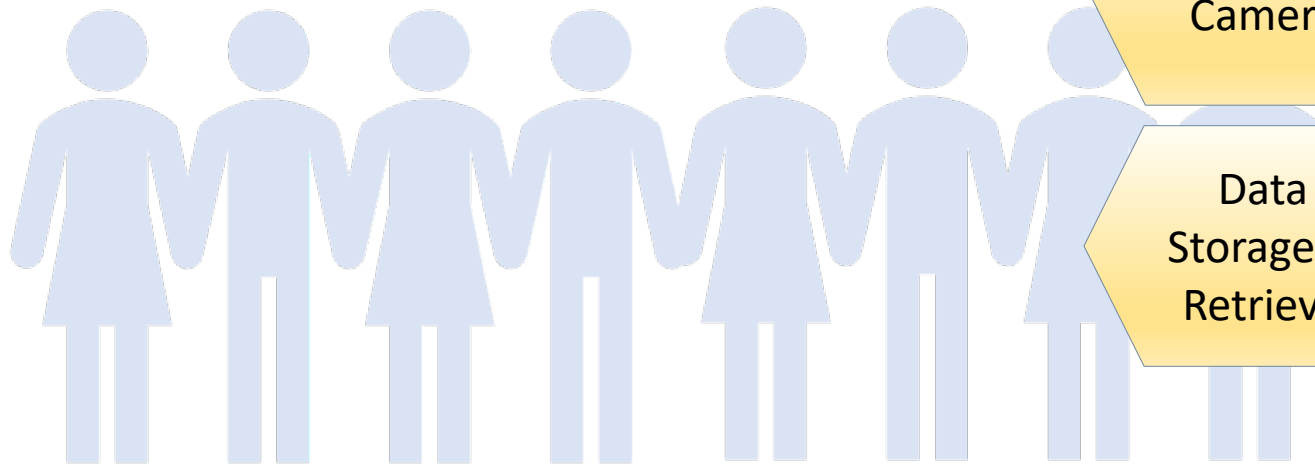
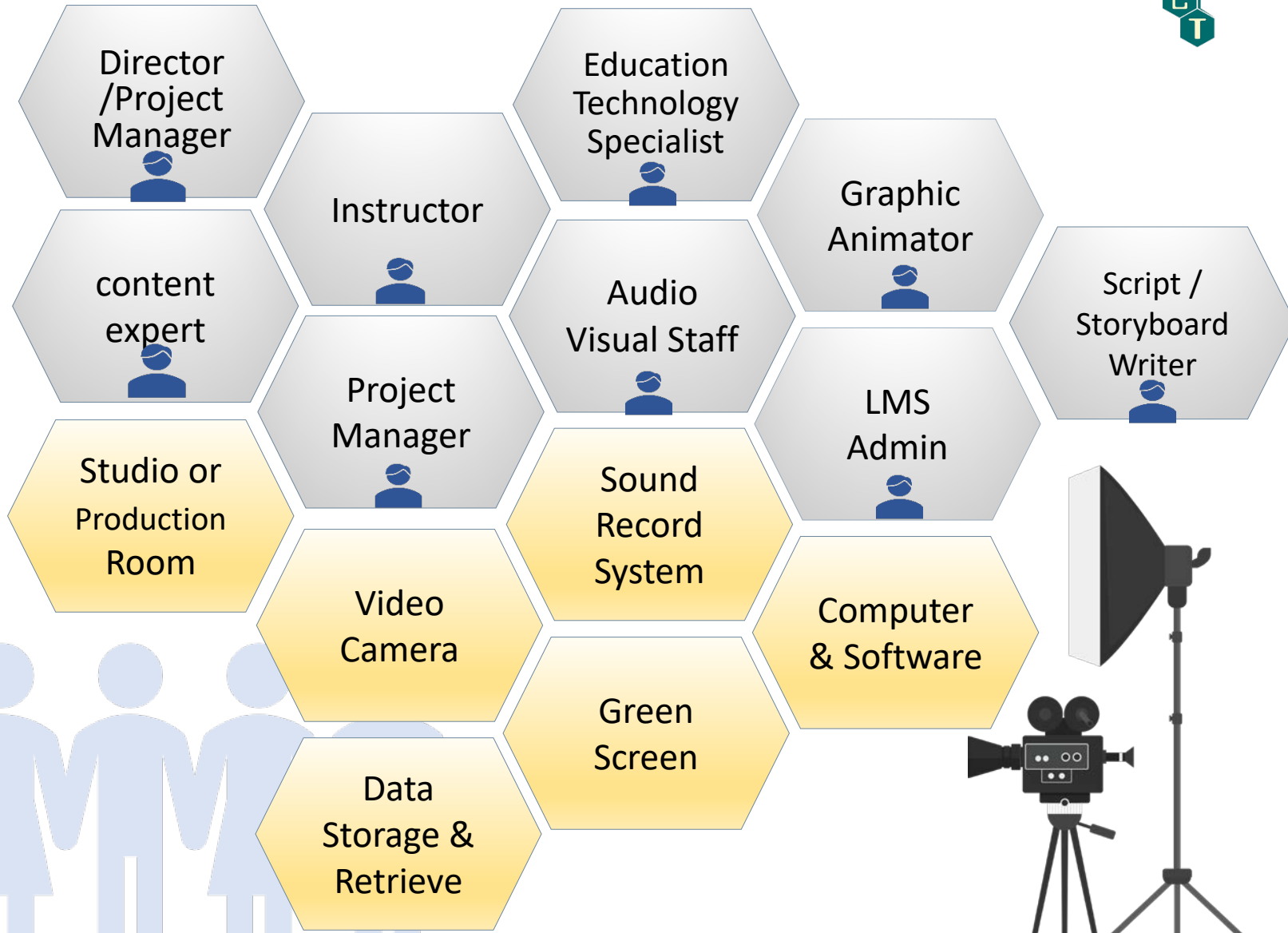
Equipment

Budget

Time

People

Equipment



Pre-production



Why use ADDIE

The ADDIE model is a flexible guideline for building an effective training course. It is basically a strategic plan for course design and development. The ADDIE process is a cycle, in which each step has an outcome that feeds into the subsequent step. Also, the model is flexible enough to allow each step to be revisited, reviewed, and refined if necessary.

It is a versatile model that can be used to design any type of training or instruction, including workplace training. All ISD models are holistic, rather than linear, &

A common complaint is that ADDIE is a linear process....That one stage must be completed before moving to the next....But, this depends on how you implement the model into your own workflow.

Each step is flexible and can be varied according to the specific circumstances of the project. Yet, it is also rigid. Each step must be thoroughly executed, and well-documented, for it to work successfully.

model gives you a, focused approach that provides feedback for continuous improvement.

What are the limitations of ADDIE?

A second criticism is that the ADDIE model is what might be called 'front-end loaded' in that it focuses heavily on content design and development, but does not pay as much attention to the interaction between instructors



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What is the challenge

Not mention here