

สื่อการเรียนการสอนออนไลน์ เรื่อง หลักไวยากรณ์อังกฤษ

E-learning online for English Grammar in Use

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Business Computing Major

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Name of Project (in Thai): สื่อการเรียนการสอนออนไลน์ เรื่อง หลักไวยากรณ์อังกฤษ Name of Project (in English): E-learning for English Grammar in Use Group Members:

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Abstract

Name of Project (in Thai): สื่อการเรียนการสอนออน ไลน์ เรื่อง หลักไวยากรณ์อังกฤษ

Name of Project (in English): E-learning for English Grammar in Use

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Committee Members:

Advisors: Mrs. Ohmar Thwin

Co-Advisor: Ms. Thitirut Naiyapat

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The purpose of this E-learning for English Grammar in Use. The learners can learn the much of English Grammar in Use from our website and watch the information and practice themselves, there will be an online quiz so the learners can do and watch their result. You can register id to be a member to keep a record and visit the website.

This E-Learning System was developed with Adobe Dreamweaver CS6 together with designed the website by Adobe Photoshop CS6.

This website was written in English. This website can improve English skill and it is helpful for your real live communication in English.

Acknowledgement

We thank to board of committee members who introduced to develop this E-learning for English

Grammar in Use. This project may not be completed if we did not have any suggestions and supports from our

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We would like to thank to all teachers from Business Computer department who taught and gave the

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system. We would like to give great thanks to our friends who shared knowledge, time and helps to complete

this project successfully.

Finally, we would like to thank to our parents and family who cared with true love and support to

complete the project successfully.

Team prepared

27 January, 2020

C

Introduction

This project provides guidelines to people who interested in developing an E-learning website.

The website has been developed by using Adobe Dreamweaver CS6 and Adobe Photoshop CS6.

There are four chapters which explain about the usage of grammar. There is a pre-test which involved the mixed knowledge from all seven topics from the four chapters and there are post-tests for each chapter.

The developers hope that this website will be useful for the learners who interested in grammar and who wants to practice the skills to speak English. The website makes the learners to be convenient as they can learn the lesson from anywhere and at any time they want.

Team prepared

27 January,

2020

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Chapter 1

Introduction

1.1 Background and Background

E-learning or Electronic Leaning is a concept of teaching and learning media that has a role in teaching and learning. through online, Therefore, the teaching materials of various systems with different names become popular such as Web-based teaching (Web-based Instruction), online teaching (On-line Learning), Internet-based teaching (Internet-based Instruction) Each type of computer assisted instruction (Camion Web) is a form of learning through the computer network.

Today's English language is very important in life, such as communication, business meetings, and even job applications. And most Thai people are not interested in English because they think that English is not the main language of their own, like Thai, and therefore do not think to learn more English Although studying English is not easy. Therefore we think to create

E-learning to make it easier to learn and change according to the era in which technology is progressing and becoming more active And we have prepared teaching English grammar principles for understanding, easy to learn and can be used in the future for the benefit of oneself and society.

From the foregoing, we would like the general public to learn about the English grammar correctly. And hope that the learner will gain knowledge on how to use grammar from our website to be useful in the future.

1.2 Project objectives

- 1. To develop website building skills on grammar principles.
- 2. To study the lesson content of grammar.
- 3. To be useful to those who focus on grammar.
- 4. To enhance the skills of listening, speaking, reading, writing grammar.
- 5. To learn about HTML, CSS and PHP.
- 6. To study the structure of the website.

1.3 Scope of study

- 1. There are contents about the use of grammar.
- 2. Have tests before class and after class.
- 3. There are videos for speaking in English.
- 4. There is Login and Subscription system.
- 5. There is a system to link the website.
- 6. Have a database to store the names of the applicants.
- 7. Those younger than 10 years should be advised to have an adult.

1.4. Expected benefits

- 1. Developing website building skills on grammar principles.
- 2. Gain knowledge about grammatical contents.
- 3. Benefit to those who focus on grammar.
- 4. Enhance skills in listening, speaking, reading, writing grammar.
- 5. Get knowledge about HTML, CSS and PHP.
- 6. Get knowledge about the structure of the website.

1.5 Time Schedule for the completing project

List	June 2019				July 2019				August 2019				September 2019				Date
List	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Date
Student project training		←→															11 – 12 June 2019
Proposed project topic (Chapter 1)		←→															14 June 2019
Announcement of topic results			*														28-29 June 2019
Proposed project topic			←→														4 July 2019
Announcement of topics results				+													11-23 July 2019
Register online topics, present a joint advisor			•	*													26 Jul - 20 Aug 2019
Send document Chapter 2					←→												3 September 2019
Send document Chapter 3						•											12-16 September 2019
Examination presentation of project topics										←→							19-30 September 2019
Announcement of test results										•							22 August 2019
Send progress 50%																	9-15 September 2019
Send progress 60%															*		16-22 September 2019
Send progress 70%																←→	23-30 September 2019
List	November 2019			19	December 2019			January 2020			February 2020			20	Date		
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Send progress 90%	↔																1-8 November 2019
Send progress 100%		+															9-13 November 2019
Project presentation exam			←→														7 December 2019
Announcement of test results						↔											11 December 2019
Send Chapter 4										←→							6-16 December 2019
Send Chapter 5											←→						20-26 January 2020
Send CDs and bindings												*					26-30 January 2020
Send a CD, book													•		-		1-20 February 2020

Table 1.1 Time Schedule for the completing project

1.6 Tools for developing programs

- 1. Adobe Dream Weaver CS6 is used to make websites.
- 2. Adobe Photoshop CS6 is used to edit pictures and design banners.
- 3. AppServ version 8.5.0 is used to make links in databases and websites.

1.7 Expected Budget

List	Description	Number	Price (Bath)
1	Copy Paper A4 80 GSM.	2 Ream	220
2	Printing Ink	1 Bottle	500
3	CD	2 Disks	20
4	CD Bx	2 Box	30
5	Binding Values	1 Book	250
6	Printer	1 Machine	500
		Total	1,520

Table 1.2 Expect the budget to complete the Project

Chapter 2

The System and Related Theory

2.1 Flowchart current work system

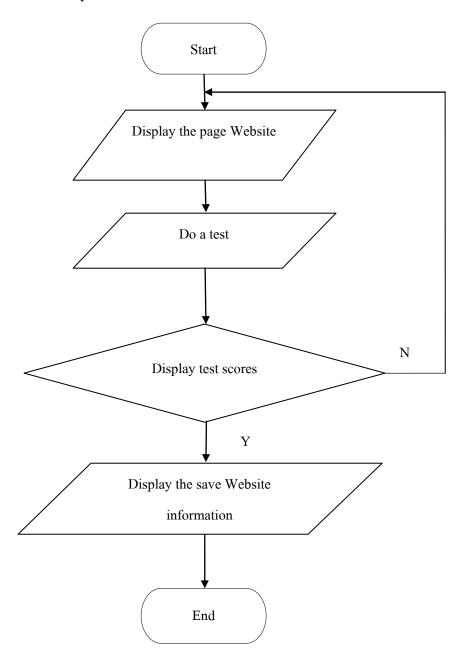


Fig. 2.1 Flowchart current work system

Current studies on grammar It's a story that isn't quite far away. Because it is a story that can be found in everyday life May be made as a career or used in education Due to the current use of English and various languages that help facilitate communication, most of the information is in the form of reading in books and searching for knowledge via the internet. Which some of them are media that provide information about non-fixed knowledge Some books contain wrong and inconsistent information. Therefore may cause students to be confused And do not understand that information Some websites may contain incomplete information and may be misinformation. And within the internet media There may be images that do not match the information displayed on the website. Or have too few pictures and most of the information is not comprehensive in the real story of grammar.

Nowadays, there are many groups of people interested in using grammar and language correctly. But because the data collection source is not much information If there is any study or research, there must be an investment to buy the book to read. Come to study directly Or read from websites on the internet Or see from the media that those media There may be inaccurate and not interesting information for those who study it for sure. Because some information may not be available in that media or there may be information but it is incomplete It means having to study some information that people who want to study may be buying books. Watch a video about using grammar.

Therefore, it can be seen that on the website of the teaching materials, some websites have unclear information. May have some knowledge that is missing Therefore, it may be necessary to develop in the area of important information to be more interesting. May put pictures or additional information that has been missing in the part so that the website will be teaching materials that have complete knowledge.

2.2 Problems that occur in the current work system

Education and learning through the internet system currently has disadvantages as follows.

- 1. The introduction of educational information media has some parts that cannot be adapted at present. Because the information is old and uncertain.
- 2. Web page design is not interesting or contains more content and images than necessary. Which may make the reader bored.
- 3. Images and data do not match Causing readers to be confused and not understand whether the subject is the same or not.

2.3 Analysis and new system requirements

- 1. Start work Login to login.
- 2. Check if the username and password are correct or not.
- 3. If not, please log in to the new system.
- 4. If being selected to use the E-learning system.
- 5. Do a test before studying.
- 6. Attend E-learning lessons.
- 7. Do the test after study.
- 8. Record the test.
- 9. Show test scores.
- 10. End of work.

2.4 Theories and related work systems

Design related to the website.

The website is a very popular medium on the internet. Which the website is a media that is completely in control of the user, that is, the user can decide which website to view and which website to choose. As needed Thus causing users to not tolerate the obstacles and problems caused by the wrong website design if users see that the website being viewed is not useful to him Or do not understand how this website will be used He was able to quickly switch to other websites. Because there are many websites today and there are also many new websites happening every day, so users have more choices And can compare the quality of various websites on their own.

Beautifully designed website with convenient use Will receive the attention of users More than a website that looks chaotic There is a lot of information but can't find anything. It also takes time to display each page for too long. These problems are all caused by poor website design.

Therefore, website design is an important process in creating a website. To impress users Making him want to come back to the original website again in the future Which in addition to having to develop a good website is useful Must also consider competing with other websites as well.

Elements of website design

Website design for efficiency and able to attract people's attention well Must have complete website elements including

1. Simplicity, easy to understand

Good website design Must focus on simplicity primarily by choosing to present only what you really want to present in a variety of formats Which may be color, graphics, animation or characters Importantly, there must be a presentation that doesn't look too cluttered. In order not to cause a feeling of clutter Or create boredom Annoying to those who visit the website.

2. Consistency is not confusing

Should design the website with consistency Is to have a graphic style, color scheme, and various decorations for each page on the website to be similar And in the same direction throughout the website As an example of a general website that will notice that every page of that website Will emphasize the decoration in all the same style Each is only a presentation of each page.

3. Create outstanding unique

Website design to be able to convey the purpose of the website presentation Must have a unique and distinctive feature for the website To be able to reflect the nature of the organization as much as possible By creating such a identity, it may use color combinations, images, letters or graphics. In addition, it depends on whether Is the official website? In order to design the most appropriate.

4. Content must be complete

Content is the most important thing of creating a website. Because of what makes people interested and always keep track of those websites Is content that is complete and interesting In addition, there must be improvements. Develop content on the web to be up-to-date. Including information must be as accurate as possible.

5. Easy navigation system

Navigation system As a signpost for users No confusion while using the website The navigation design must be focused on simplicity, ease of use and easy understanding. Importantly, there must be a consistent placement position in order to look the same way. Makes users or viewers feel impressed And easier to remember the website For those who use graphics in navigation systems Will have to choose graphics that can communicate well.

6. Quality of the website

A good website must have quality. Both what is visible on the website Whether it is graphics, type of characters, pictures or colors used Content that is displayed Which if the website has quality, it will create credibility And is a highlight that makes most people interested Therefore do not neglect the quality.

7. Ease of access

The website should provide convenience to users. That is, it must be displayed in all operating systems Whether it is a web browser, notebook computer or mobile phone Importantly, there must be a resolution of the display and can be used without problems as well.

8. The stability of the design

Website design should be stable in design. By creating a website with the same pattern And carefully compiled content Make the web reliable And looks quality Help create a good impression for the user.

9. Stability of work

The working system on the website must be designed and developed continuously and the system design must always be rigorously checked. Will be resolved immediately. In addition, modern design has been improved.

Website structure

Website structure design Can do many types Which depends on individual preferences and aptitude It also depends on the target group that wants to present. Because it must be designed to suit the usage of the target group as much as possible the structure of most websites will consist of 4 forms as follows.

1. Sorted structure

Sort website structure Will be a normal structure that is most commonly used Because it is easy to organize information systems and able to present the story sequentially as well Suitable for small websites with uncomplicated content Most of them are websites that provide knowledge. Or small corporate website by linking content Will link one page at a time There is a direction to enter various content in a straight line. Use the forward-back button to determine the direction. Thus making use easy but the sorting website structure has disadvantages is to allow users to waste time accessing content because they cannot determine the direction to enter content on their own.



Fig. 2.2 Sort structure

2. The hierarchical structure

Hierarchical structure Commonly used with complex web data In order to be able to access information more easily by dividing the content into sections And a small detail is presented Making it easier for me to understand the content structure By having the homepage as the starting point And the only point that will lead to the linking of content from top to bottom.



Fig. 2.3 Hierarchical structure

3. Table structure

Table structure Is a complex website design structure but there is a certain degree of flexibility In order for users to be able to access various content more easily, this type of design will link the content in each section. Enabling users to change directions Or can determine the direction of entering content on their own Therefore do not waste time It also makes the website more modern.



Fig. 2.4 Table structure

4. Spider web structure

Spider web structure Is a very popular structure Because it has the most flexibility All pages are linked to each other. Makes it easy to access pages that you want and have more freedom In addition, it can link well to external websites.

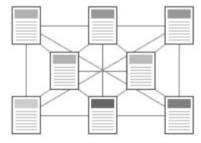


Fig. 2.5 Spider web structure

Website structure design

Website structure Is the order of the content on the website into a map that is easy to understand What content does the website need? Where is the webpage? Which pages will be linked together? Or simply Is like putting the storyline before writing the content perfectly Therefore, website structure design is very important. Which can be done in a variety of ways but there are key concepts The most popular 2 types are

- 1. Organize the structure according to the content group.
- 2. Organizing user-based structure.

Important components on the page

On the page There are 3 important components that need to be included:

1. Head of the page (Header)

Is at the top of the page and is the most important part Which must be able to attract viewers to feel like following the content on the website Which most often have a graphic image to look beautiful the main important thing is the logo, website name and main menu that can link to content on various web pages.

2. Body parts (Body)

In the middle of the page By displaying information about the content on the web roughly Which will contain text, graphics, tables, data or video And if there is a group-specific menu, it will be organized on this page as well And most importantly, the content in this section should be concise, easy to understand, using simple and orderly font styles.

3. Footer

At the bottom of the page Which may or may not be This section shows various information. Additions such as messages that represent copyright Website owner information Contact methods and recommendations About the use of the website correctly, etc.

Application theory

1. Adobe Photoshop CS6

Photo shop is an Adobe family program that is used to decorate photos and graphics. Effectively Whether it is publications, magazines and multimedia work It can also retouching, decorating images and creating images. Which is becoming very popular now We can use Photoshop to decorate images, add effects to images and text. Making black and white images Making photos as paintings Bringing together images, retouch, decorating images We can learn how to use this Adobe Photoshop program by ourselves. You can easily edit images, decorate images in different formats easily. And what is indispensable is Entering text in the image as well and because Adobe Photoshop has developed programs continuously Therefore we need to study various commands to understand, but more importantly, when you learn to use commands in old versions You can still apply to the new version.

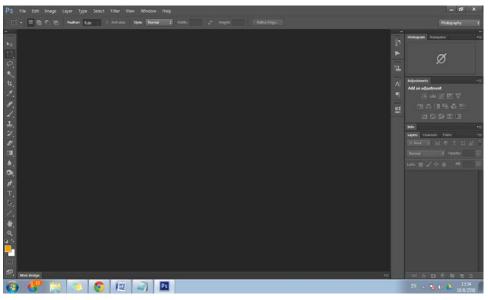


Fig. 2.6 Adobe Photoshop CS6 window

Components of Adobe Photoshop CS6

- 1. Menu Bar is a collection of commands used for retrieving commands to manage image files or decorate images.
- 2. Options Bar is used to adjust the settings of various tools. The settings in the options bar will change according to the tools used.
- 3. Toolbox is a tool used to store basic tools in the program, can run sub-tools by clicking the triangle in the bottom corner.

- 4. Title Bar is the section that displays the image file name that is currently active. For Adobe Photoshop CS6, the title bar is arranged in tabs.
- 5. Status Bar (Status Bar) is a section that displays image-related features, such as percentage of zoom, image file expansion, image file size, etc.
- 6. The working area is used to create graphics. By opening the image file to edit on the work area or draw a new image on the work area
- 7. Panel: used for manipulating images by separating into categories such as color selection panel Panels for adjusting brightness, etc. Each panel has different functions and uses. You can choose to open or close the panel from the Window command menu. Examples of popular panels.

2. Adobe Dreamweaver CS6

Adobe Dreamweaver is a program used to create and develop websites that have always been popular. Because it has features that are easy to use Users can arrange the elements of the webpage as needed, so those who have never created a website before can learn how to use this program.



Fig. 2.7 Adobe Dreamweaver CS6 window

Components of Adobe Dreamweaver CS6

- 1. Application bar is an application bar Consists of application bar, consisting of.
- 2. Menu bar is a combination of all the commands of Dreamweaver that are used to manage web page files.
- 3. Workspace is a button to change the workspace view (Workspace). You can choose which style you want to use. In Adobe Dreamweaver CS6, there are 11 options available.
- 4. Toolbar is a toolbar that is used to include commands that need to be used on a regular basis to enable / disable. The tool bars consist of a toolbar.
- 5. The Insert panel is a panel that collects a group of commands that are used to create and insert various objects. It is divided into groups. For easy use Example of active command group.
- 6. Panel Group is a small window panel That collects tools into groups according to their duties for specific use You can open or close the operation panel by clicking the Window command menu and clicking Select. Preferred panel.
- 7. Document Area is the area for creating web pages. Enter content and web page elements such as graphics, multimedia systems and codes that can be displayed in 3 different views: Code View, Split View and Design View.
- 8. Status bar is a bar at the bottom of the operation window. Used to display additional information about the status Working on the currently running web page, such as displaying and selecting HTML tags, adjusting the display size Window size determination File size and loading time and displaying the language code of the webpage Active.
- 9. Panel Property is a panel located at the bottom of the program screen. Is the most frequently used part for use in customizing details and editing features such as size, position or color, etc. This panel will change according to the object selected for use on the webpage. Example properties panel.

PHP theory

PHP was born in 1994 by American programmer Rasmus Lerdorf, inventing tools for his personal web development. Using the advantages of C and Perl, called the Personal Home Page, and creating a interface with a database called Form Interpreter (FI), including two parts called PHP / FI, which is the starting point of PHP. Visited his website and liked it, so he asked to use the code and used it to develop it in the form of Open Source after having become more popular within 3 years. There are websites that use PHP / FI in contacting the database and showing Result Dynamic and more than 50000 sites

PHP2 (now called PHP / FI) during 1995-1997 Dealing with forms, data generated from HTML language, and supports contact with the mSQL database management program, making PHP start to be used more quickly And began to support more PHP applications. By the end of 1996, PHP was deployed around 15,000 websites worldwide and increased Later, another 3 people who helped develop StigBakken, responsible for the ability to contact Oracle, Shane Caraveo was responsible for PHP on Window 9x / NT, and Jim Winstead was responsible for detecting various defects. And changed the name to Professional Home Page in version 2

PHP3 came out during the month of June 1997 from 1999 to the eyes of programmers. The feature is that it supports both Windows 95/98 / ME / NT, Linux and Web server operating systems like IIS, PWS, Apache, OmniHTTPd. It supports a variety of database systems such as SQL Server, MySQL, mSQL, Oracle, Informix, ODBC

PHP4 since 1999 - 2007, which has added a lot of functions to work more easily. Zend, which has Zeev and AndiGutmans, co-founded (http://www.zend.com). This version is a compile script. In this version of the page, it will be embed the script interpreter. Currently, there are more than 5,100,000 PHP users. Worldwide, developers have set up a new PHP name, PHP: Hypertext Preprocessor, which means that it has a proficient performance for hi. Vertex

HTML theory

The HTML language is based on the GSL language (SGML stands for Standard Generalized Markup Language), which is a language that is specific to the type of computer. Values and Documentation (DTD: Document Type Definition) in 1990 (Tim. 1990), Tim Berners-Lee of the Center for Laboratory Physics Europe (CERN: Conseil Europeen Pour La Recherche Nucleaire) located in Geneva Switzerland Has determined that To create a media that scientists can publish their work And can be used 24 hours a day and create computer languages that support local languages That does not depend on the system of the computer (Platform) or any network system, then has spread out, so this system has named that is known as World Wide Web to date.

1990 (1991). The internet was born and raised. Along with many computer languages and protocols to support the rapid growth of the Internet One of the computer languages and protocols is HTML. And even though the World Wide Web is just a part One of the internet but highly popular and fast. The Http protocol, a subset of the TCP / IP protocol, was developed to support HTML language. Which is used to store documents on the World Wide Web has been developed and used widely Thus creating standards in determining different versions

HTML 1.0 was born in 1993 (1993). Tim Berners-Lee and Dave Raggett have assigned HTML documents. That is developed must not make the document that is not readable "Any standard must not make exiting documents (As Far As Possible)

HTML 2.0 was born in 1995 (1995) developed by IETF (International Engineering Task ForceX), which aims to enable the display of web browsers in general use. Accepted as a complete standard However, Netscape and Microsoft companies add new commands. Into their own program to allow page designers to use other functions In addition to HTML 2.0

HTML 3.0 was born in 1995 (1995). The HTML language was developed with the ability to increase by adding work to the table. Adjust the text around the image and show the complex parts well. As well as allowing the web browser to go back and look at the previous pages that had previously been viewed better than HTML 2.0 or called the "Backward" button

HTML 3.2 was born in 1996 (1996). There are additional elements and attributes that can work with many web browsers.

HTML 4.0 was born in 1997 (1997). The increasing demand of designers makes the W3C organization agree to apply. With the ability to use new commands Helps the page designer Can control the document format Improving work efficiency with CSS (CSS stands for Cascading

Style Sheets). Embedding objects of extra programs to display Pictures and sounds Form creation Can be improved and used in conjunction with the scripting language, which is to write short statements called various scripts to allow web pages to interact with More users By the script written Must be inserted in the HTML language, but the web browser must support the HTML 4.0 function with the ability to manipulate the object model.

Color theory

Color means the impact on the eyes to be seen as a color that affects psychology. Is the power to create the intensity of light that emotions and feelings Seeing the color from the eyes, the eye will send the feeling to the brain, causing various feelings according to the influence of color, such as refreshing, hot, excited, sad. The color is very meaningful because the artist wants to use color as a medium to impress the work of Art and reflect that impression to the viewer of the human beings associated with various colors at all times because everything that is around is all different colors. So many Color is something that should be studied for self-interest and Creator of painting works because the color of the story is a science, so understanding science. The color will achieve more work. If you do not understand the color reasonably well If studying the color is good enough the art will be very complete.



Fig. 2.8 The picture shows the color cycle caused by mixing the colors together

The color circuit is the color that is produced by mixing in pairs, starting from 3 colors and then creating a new color until the complete cycle. All 12 colors will be divided into 3 colors.

Color Step 1 is red, yellow, blue.

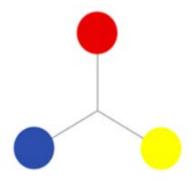


Fig. 2.9 Primary colors

The second color is the color caused by the 1st color or the color of the mother in the same ratio. Will create 3 new colors, including red, mixed with yellow, orange, red mixed with blue, purple, yellow mixed with blue, green.

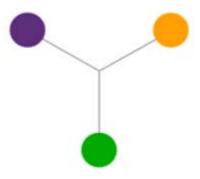


Fig. 2.10 Secondary Colors

The third color is the color caused by the color. Step 1 is mixed with the second color in the same ratio. The other 6 colors are

Red, mixed with orange, orange, red, red and purple, purple, yellow, mixed with green Get green, yellow, blue mixed with green Get green, blue, blue, mixed with purple, purple, blue, yellow mixed with orange, orange, yellow.



Fig. 2.11 Intermediate Colors

The fourth color can be obtained by mixing the colors that are opposite of the color circuit. If mixed in equal proportions, will be black or dark gray.



Fig. 2.12 The opposite color (Complementary Colors)

But if mixed in unequal proportions, it will get a darker color such as 75% orange, mixed with blue 25%. Can get a dark orange color that is similar to brown. 75% blue, mixed with 25% orange.

75% reddish-purple, mixed with yellowish green, 25% will get a purple mole.

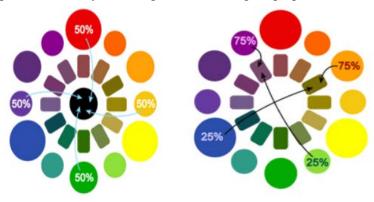


Fig. 2.13 Color combinations in unequal proportions

In addition, the color circuit also allows us to divide the color into two large groups: warm colors and cool tones, with cool colors giving a calm, cool feeling. Warm colors provide a warm, excited feeling.



Fig. 2.14 Warm colors and Cool tones

Color intensity

Caused by the true color is the color caused by mixing in the color circuit Is the primary color that is mixed according to the rules and is not mixed with medium or other colors. It has the highest intensity Or the strongest Is the true value of the undiluted color When these colors In the midst of other colors that are mixed or darkened, darkened or changed The true color will show the strength of the color that appears clearly, which will create a focus on the work like this, like bougainvillea, fresh pink or fuchsia, which is surrounded by green leafy bougainvillea or flares. The bright spot in the festive season, contrasting with the dark, dull colors of the night cloth.

Value of color

Is the use of color by having different weight values at different levels and with many colors, if one color is Will look like monochrome Using the weight of the color Will cause harmony The distance is shallow, deep, if there are many weight values, the color will be more harmonious, but if there are only 1 - 2 levels apart Will make a difference.

Color sense

Different colors often have different meanings in many cultures and even Western societies. The meaning of different colors has changed over time. But in the United States, researchers have discovered the accuracy that each color is associated with the human emotions as follows.

Color	Feeling
Red	Giving the feeling of Passionate, aggressive, important.
Orange	Give the feeling of Playful, energetic, cheap.
Yellow	Give the feeling of Happy, friendly, warning.
Green	Give the feeling of Natural, stable, prosperous.
Blue	Give the feeling of Serene, trustworthy, inviting.
Purple	Give the feeling of Luxurious, mysterious, romantic.
Pink	Give the feeling of Feminine, young, innocent.
Brown	Give the feeling of Earthy, sturdy, rustic.
Black	Give the feeling of Powerful, sophisticated, edgy.
White	Give the feeling of Clean, virtuous, healthy.

Fig. 2.15 Sense of color

Color and design

Using color and work out Where is the designer's aim? To create interest Excitement to viewers in order to reach the desired destination the main uses are as follows.

1. The use of a single caste the meaning of the tone is the color group that is divided into two colors of the wheel, warm tone, which consists of yellow, orange, red, purple. These colors give influence. The feeling of excitement and excitement is considered a hot caste.

Cool tone consists of yellow, green, blue, purple. These colors look cool, giving a calm feeling (yellow and purple can be used in both castes)

Using each color should use the same caste color in all images. Because it will make the image of unity (unity) harmonious, motivated to be very conformable

- 2. The use of different color castes the general principle is to use the ratio of 80% to 20% of the color castes. If using 80% hot color, the caste color is 20% cold, etc. This use creates the focus of the viewer. Should not use the same ratio because it will not make any color that is not attractive.
- 3. Using opposite color The opposite color will give a strong contrast. Create dominance And can be very stimulating, but if not used properly or is not suitable or used too many colors Will cause the blurred vision, conflict, should use the opposite color in the ratio of 80% to 20%, or if there are equal areas that need to be used, bring white or black to add to the line to separate from each other or Another way is to reduce the freshness of the opposite color to tarnish. The opposite color has 6 pairs, namely

Yellow in contrast to purple

Red in contrast to green

Blue opposite to orange

Yellow-green, opposite to the magenta color

Yellow orange, opposite to purple-blue

Red orange color, opposite the blue green



Fig. 2.16 opposite color or double color

Color perception

Perception of human colors Caused by vision by using the eye as an exposed organ Eyes will respond to various light colors, especially light. From the sun and from the light making it visible by starting from the reflected light from the object through the eye the intensity of the light affects the color and sharpness of the object. If the light intensity is normal Will make the object visible clearly but if the light intensity is low or dark, it will make the object not clear or blurry. Education about The sensitivity of perception of human colors appears to be human senses. More sensitive to red, green and purple color recognition than other colors as for the perception of children about color, most children will prefer images that are more clean, bright, black and white. And like the image that is the color group is more hot than the cold color (KosumSaijai, 1997). The eyes of normal people can distinguish different colors correctly, but if they see that color Is another color that is distorted, called color blindness, such as seeing red objects Is a color other than red, indicating that red blindness, if seen blue, is distorted Showing that blue blindness, for example, color blindness is a visual impairment Any person with color blindness will be a barrier to certain types of work, such as art, design, driving, driving a plane. Science work etc.

Program AppServ

AppServ program generator

For this AppServ program, there is no support from government agencies. Or any private or independent organization, but the AppServ program is born from inspiration from a friend of a developer who has started studying PHP and MySQL databases and has problems every time to install Than can be installed, it takes at least 3 hours, sometimes not possible. And every time the installer is unable to come to ask for help from the developer on a regular basis every time. Therefore the developer has created a program that is convenient to install so that the friends of the developer can use it immediately. Without having to come up with a headache with complicated installation anymore During the first distribution. The developer has distributed on the website in English. Foreign users are interested and have a lot of use. And at present, more in the Thai website section. In the future, developers will create websites that can support all languages. And reach all users around the world.

AppServ program developer history

For the developer, he lived in Thailand, named PanupongPanyadee, nickname apples, born on 14 August 1980, graduated with a bachelor's degree from Rajabhat Institute Chiang Mai Faculty of Science and Technology Computer Science Special experience and expertise in the areas of Linux Security, Linux Network, Network Security, Network Admin, PHP Programming, MySQL Database, Linux / Unix Hacking System, Web Design, etc. The operating system that chooses to use Desktop, select Windows. / Network only select Debian GNU / Linux

Definition of AppServ program

AppServ is a program that brings together many Open Source Software.

With the main package as follows

- Apache
- PHP

errors.

- MySQL
- phpMyAdmin

AppServ differences in each version

AppServ has divided the version into 2 parts:

2.5.x is the version that brings new packages especially for use. Suitable for developers who need a new system or want to test Try the new function. Which may not have the stability of the system 100% because the package from the developer is still in the testing phase Try to find

2.4.x is the main version of the package that is stable. Suitable for those who want stability of the system without focusing on using new functions.

Database programming theory

Database program Is a program or software that helps manage information or items that are in the database Whether storing, retrieving, updating data The database program will help users find information quickly. Which database program There are many common uses such as Access, FoxPro, Mysql, Oracle, SQL, Sever etc. Each program has different capabilities. Some programs are easy to use but will limit the scope of use or use with small databases. Some programs are more difficult to use. But will be able to work more or use with a large database Therefore would like to mention some popular database programs.

Dbase is another database program. The usage is similar to the FoxPro program. The data or reports contained in the files on the Dbase can be processed in Word Processor and even Excel can read the .DBF file. Created by the Dbase program as well.

Access is a very popular program at the moment. Especially in small and medium sized database systems Can create a form that needs to browse the data in the database. The main data from the data already recorded in the database. Will be able to search or browse information from any field. The display may be displayed on the screen. Or can be sent out via the printer. In

addition, Access also has a data security system. By setting a password to protect the security of data in the system as well.

FoxPro is a database program that has a lot of users. Because it is easy to use, both the method of calling from the FoxPro menu and applying the program Programs written with FoxPro can be used with Dbase. The commands and functions in Dbase can be used on FoxPro. In addition, FoxPro also provides tools for writing programs, such as creating reports. Programs written with FoxPro can be converted into .EXE files as well as other language programs and can be used with other computers without the need for the FoxPro structure on the device.

The Oracle program, Oracle means Object-Relational Database Management System (ORDBMS), is capable of working in both Rational formats and some of the properties of Object Oriented are products from Oracle and also the world's first commercial RDBMS. Oracle is also Database Sever level RDBMS with outstanding capabilities in database management With reliable and Rollback Segment technology that can handle data in the event of a system failure Or the system is unable to service With Rollback Segment technology, it will manage Instance Recovery data without causing any damage due to system failure.

Microsoft SQL Server program is another Database Sever level RDBMS that is most popular in modern times. And is considered the first Microsoft software that uses .NET technology. It is a technology that allows us to present information to be used on Windows applications or through the Internet network. In general, MS-SQL Server will work. In conjunction with the Windows2000, 2003 Server operating system in order to use MS-SQL Server as a database for making systems Client / Server

The importance of database processing from data collection as a database will result in the following benefits:

1. Can reduce data duplication. Storing the same type of information that causes redundancy, so the data is stored in the database Will reduce the problem of duplication of data. The database management system (DBMS) will help control duplication. Because the database management system will know at all times where there is redundancy.

- 2. Avoid data conflicts If the same type of data has been collected for many places and the same information has been updated But not fully updated anywhere where data is stored, it will cause problems of the same type of information May have different values in each location where the data is stored Therefore causing a conflict of information (Inconsistency)
- 3. Can share information the database will collect data together. Therefore, if the user wants to use the data in the database that comes from various data files, it is easy to do.
- 4. Able to maintain data reliability. Sometimes it is found that storing data in the database may have errors such as from the input of the wrong input data, which is entered from one number to another. Especially in cases where many users have to share information from the database If any one user corrects the wrong information, it will cause others to be affected as well. In the database management system (DBMS), you can enter rules to control errors that occur.
- 5. Can set the same standard of information. Collecting data together in a database will enable the standardization of data as well as various standards for storing data in the same manner. Such as determining the writing style, date in day / month / year or year / month / day. There will be people who manage the database that we call Database administrators (Database Administrator: DBA) define standards
- 6. Can set the data security system. Security system now. To prevent unauthorized users from using or come to see some information in the system Database administrators will be able to determine the level of data usage of each user as appropriate.
- 7. Data independence in the database, there is a database manager that acts as a link to the database. Programs may not need to have a data structure every time. Therefore, editing information sometimes Therefore may only be used with programs that use changed data For programs that do not use such information Will be free from change

Basic principles in instructional design

In the design of teaching and learning, there are basic principles that instructional designers should consider in order to help design the quality of teaching as follows (Gagné, Wager, Golas, & Keller, 2005, pp. 2-3; Smith & Ragan, 1999, p.18)

Taking into account the learning outcome of learners is an important goal. Teaching and learning design aims to promote the learning process. More than the teaching process Instructional designers must consider the learning results clearly and use it as a guideline for

choosing the teaching process. Teaching activities that help learners achieve effective learning outcomes.

Considering factors that affect learning, including facilitating learning for learners when using teaching quality Attitude and learning ability of learners These factors should be considered in the design of teaching and learning.

Know how to apply the principles of teaching and learning, teaching methods, teaching styles To suit the age of the learner and the content To enable learners to be enthusiastic in learning and engaging in both physical and Intelligence and mind in teaching and learning activities

Use various methods and media Instructional designers should use media that helps learning to be effective. Consistent with learning objectives and differences in student learning which will help learners become more interested and enthusiastic about learning

With continuous development Quality teaching and learning should be developed continuously, starting from the actual implementation plan and applying the results and suggestions from the learners to improve teaching and learning to be more quality. This continuous development will Making teaching and learning quality

There are assessments covering both the teaching and learning process and student evaluation. In order to use the assessment results to develop teaching and learning to be more effective, efficient and more interesting. Should not only be intended to know the learner's learning results But should obtain information that is used to develop learners to achieve learning objectives

The teaching and learning elements are related. Teaching elements Such as learning objectives Teaching activities And evaluation Should have a consistent relationship And suitable for learners and learning contexts Allowing learners to achieve learning objectives that require basic principles in the design of teaching and learning As mentioned above, this is a general guideline for teaching and learning designers who have started working in this field and have applied it to the teaching conditions and context.

Teaching and learning design patterns (instructional design model)

Instructional designers will use teaching and learning design patterns. (instructional design model) is a tool or guideline for working to describe the elements of work or relationship of those elements to those involved or the team to understand the work process and to monitor the operation. The instructional design model that is the basis of the system-based teaching and learning design that is very popular here, is the common model of instructional design. design) This format is developed from the concept of Makers (Mager, 1975, p.2) that has set the basic questions for instructional designers who must find the answers as follows.

- 1) Where are we going? (What are the goals of teaching and learning)
- 2) How can we achieve the goal? (What is strategy and medium)
- 3) How do we know that the goal has been achieved? (What is the assessment tool? How do we evaluate and improve teaching materials?)

From the above questions, it is defined as an activity that must be performed in the process of designing the teaching and learning into 3 steps which are related as follows:

Step 1 Analysis of teaching and learning To set goals to go What the assessor should analyze is the environment or learning contexts, the learner and the learning task, or what the learner should know and should do.

Step 2 Teaching and learning design In order to answer the question of how we can reach the goal, this step is where the instructional designer must consider the media and various learning activities used to create experiences for the learner. In addition, consideration must be given to Priority of the presentation of activities and class management, for example, how to arrange for students to learn, such as studying in large groups, subgroups or individual classes, etc. This step is a step that designers must consider to implement How to teach.

Step 3 Assessment of teaching and learning In order to answer the question of how to know how to reach the goal, this step is an assessment of both teaching and learning results. The evaluation can be divided into 2 phases: assessment during progress or formative evaluation and summative evaluation, which is assessed after the completion of the operation. The progress assessment is intended to use information to improve teaching and learning. The summary evaluation is intended to determine the results of the operation and determine the outcome of how the goals are achieved.

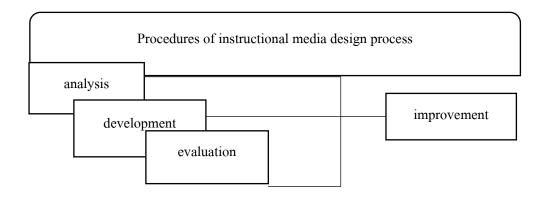


Fig 2.18 Steps of instructional media design

ADDIE model

ADDIE model design consists of 5 operational activities, namely analysis, design, develop, implement and evaluation (evaluate) which, when considered well, looks like a systematic problem-solving process Starting from analyzing, analyzing, presenting, solving problems (design), preparing, solving problems, developing experiments, solving problems (implement) and finally evaluate the way to solve problems whether successful or not evaluate. This form of ADDIE is a form that can be applied in the design of teaching and learning in a wide range of topics. People used in media design Teaching materials, such as learning package design, program-based lesson design, etc., and used in the design of teaching and learning at the regional level Is the education system in the community and the design of teaching and learning at the classroom level to improve the learning outcomes of students in various areas

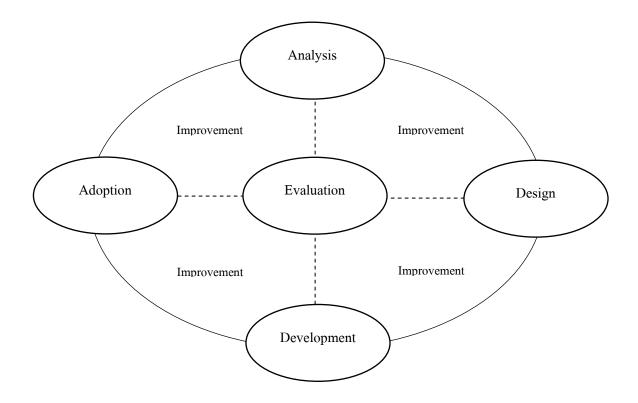


Fig. 2.19 Activity components

Activities that must be performed in each step of the design of teaching and learning according to the model of ADDIE model are as follows.

- Step 1: Analyzing activities performed at this stage are
- 1) Analysis of problems and needs in teaching or training.
- 2) Analysis of environmental systems and organizational conditions To consider resources and obstacles.
- 3) Study of characteristics of population groups.
- 4) Analysis of goals and objectives as learning in a manner such as learning content Learning skills Or learning that is a specific requirement.
 - Step 2: Designing activities that perform at this stage are
- 1) Targeting Objectives that can be observed, measured.
- 2) Ranking of goals and objectives for easy learning and practice.
- 3) Planning, evaluation, learning and practice.
- 4) Consideration of instructional strategies to suit the content Grouping of students' activities in various ways in groups and individuals.
- 5) Selection of instructional media.

Step 3 Development of activities that perform at this stage are

- 1) Creating media / activities or teaching programs as designed
- 2) Test (try out) media / activities or teaching programs with target groups
- 3) Improving media / activities or teaching programs

Step 4: Implementation of activities performed at this stage are

- 1) Publishing media / activities or teaching programs created such as installation, maintenance of media Training for teachers to know how to use media / activities or teaching programs that are created. Providing advice and supervision in the use of media / activities or teaching programs
- 2) Assistance Encourage teachers to accept the media / activities or teaching programs that are created and use the media.

Step 5 Evaluation of activities performed at this stage are

- 1) Creating tools to assess media / activities or teaching programs according to the stated objectives.
- 2) Try-out tests, media / activities or teaching programs and evaluation tools with samples To diagnose learning outcomes caused by learners And gather information about the successes and failures in using the instructional programs created by friends To improve.
- 3) Assessment after Use media / activities or teaching programs to use with groups Demographics, design patterns, Dick and Carey's instructional design model.

5. Database

Is the source that is used to collect data that is in the same file format. Including the need to have a data dictionary to provide a description of the structure of the database And because the data stored must have a relationship with each other, enabling retrieval, editing (modified), updating the data structure (update), and sorting (sort) more easily by the actions mentioned above Requires application software for managing databases The database system consists of 3 main components: database (database), database management system and people.

Database System

Is a system that collects various related information together in a systematic way. There is a clear correlation between various data in the database. It consists of multiple data files containing data. Relate together in a systematic manner and allow users to use and maintain, protect these data Effectively With software that is like a mediator between users and programs

related to the use of a database, called a database management system or DBMS (data base management system) that helps users access information easily, conveniently and efficiently Access to user information may be the creation of a database. Database editing or asking questions to get information The user does not need to know about the details within the database structure.

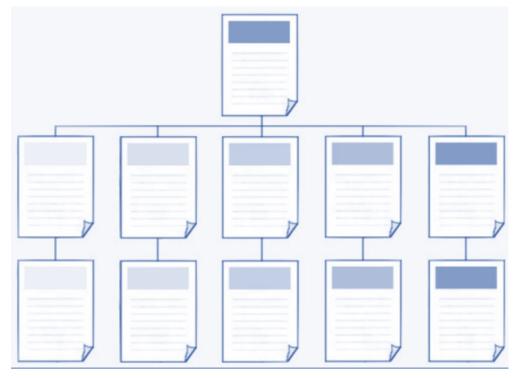


Fig. 2.20 hierarchical data system structure

Due to the widespread use of database systems like this When we apply to the information on the website, it will make users understand the structure of complex information on the website easily and quickly. Which is considered a structure that is suitable for the information on the web, because every day the web will always start from the home page first. And then divided into subsections and with a hierarchical arrangement from top to bottom Allowing you to quickly define the scope of content within the website by starting from defining the main topic of the data And then choose to use the data system pattern (Organizational Scheme) that best suits your data.

Principles of hierarchical data system structure design

- 1. Each group of information should be clearly separated. There is no part or duplicate in the form of a type of information system. You have a duty to balance or not include items in a particular group.
- 2. Considering the width and depth of the database system structure Here refers to the number of items available in each layer. Depth information refers to the number of layers of data in the structure. If the data structure is very narrow and deep Users have to click many times to access what they need. on the other hand If the database structure is very broad and shallow Users will have to face a large number of items in each menu.

Data stream symbol

Diagram showing data flow (data flow diagram: DFD)

Symbol	Symbol Name		
	Source Destination : Symbol of things outside the system		
	Process : Evaluation symbol		
	Data Store : Data collection symbol		
•	Data Flow : Data flow symbol		

Table 2.21 shows the symbol of the data stream system

Is a system analyst tool that helps to understand the work processes of each unit, which is aware of the data transmission, coordination between activities in the operation, which is a model of the system, showing the flow of information, both Input And the output between the system and the source, as well as the destination of the data transmission, which may be a person department or

another system, depending on the work system and operation Coordinating within that system In addition, it helps to know the need for information and defects (problems) in the original work system for use in the design of new system operations (Data Flow Diagram (DFD) as images showing changes in data while flowing through the work process. DFD is the structure of the information system that communicates the work system in the form of a relationship between the data stream and the DFD process within DFD. We understand the components of Understand the use of information in each process. And the data resulting from the process work, which the structure starts from a high level, which shows the parts that are outside the system.

This part is important because it is the part that tells the system where the information is received. And where are the results and where the results are sent? The deeper levels of DFD do not show what is outside of the system. Will place the source of information on the left hand side of the DFD and the external part that receives the results of the system will be on the right In order to be in the form of data streams from left to right, but in many cases we will place the appropriate internal data and results Which may be above the process or under the process. The second-level DFD (Low-Level Data Flow Diagram) is the part that displays the subsystem from the DFD mentioned above, also known as the parent level. When the mother level is unable to display all the details, it is necessary to break out the sub-level to show that processing according to the working procedure more clearly.

Definition of data structures

Data structure is the relationship between the data in that structure, including the process of managing data in a structure or preparing a data collection form in memory, in a systematic way, instead of the data in the form. The correct form As well as the process of accessing information in the structure to be effective

Structure or characteristics of data sets used in computer systems Caused by bringing various types of data together until becoming a structure Data management in the internal computer memory To have a relationship within the data group to have a clear format or specification for determining qualifications To create relationships within the data group Which has many forms such as ARRAY, LINK-LIST, STACK, QUEUE, TREE etc.

Information Architecture In the process of developing a website that is going to be studied, the following is based on the principles of data structure system called Information Architecture in many parts, from the first step to the step of the structure. Final Architecture Plan, which is a very important process that will make the website achieve its goals.

Information system structure, considering what website should have information and work by creating a structure map before developing a web page. By starting with the target of the website and the target user group, then consider the necessary content and usage and then group it into a system. Then it's time to design the data structure on the page to be ready to continue to design graphics and look.

Data structures, algorithms and theories involved in data structure design.

Symbol	Name	Meaning
	Termination	Symbol for beginning and end
	Process	Process symbols such as declarations, variables, additions, etc.
	Decision	Condition symbol
	Data	Symbols communicate with users by receiving information and displaying information.
	Manual Input	Symbols for receiving information from users
	Display	Display symbol on the screen
	Predefined Process	Sub-operation symbol or sub-function
	Connect	Connection point symbol
→ ↑ ↓	Arrow	Operation route symbol

Table 2.22 using symbols in database design

2.5 Implementing computer systems in use

- 1. Use computers to decorate pictures, make websites, using Adobe Photoshop CS6.
- 2. Use computers to create websites using Adobe Dreamweaver CS6.
- 3. Put the computer in the use of Banner and Logo.
- 4. Use the computer to find information on the internet.
- 5. Use the computer to write PHP language as a website development language.
- 6. Put the computer in storage and create the Server AppServ 8.5.0 program database.

Chapter 3

Computer System Design

3.1 System Design (DFD Context Diagram)

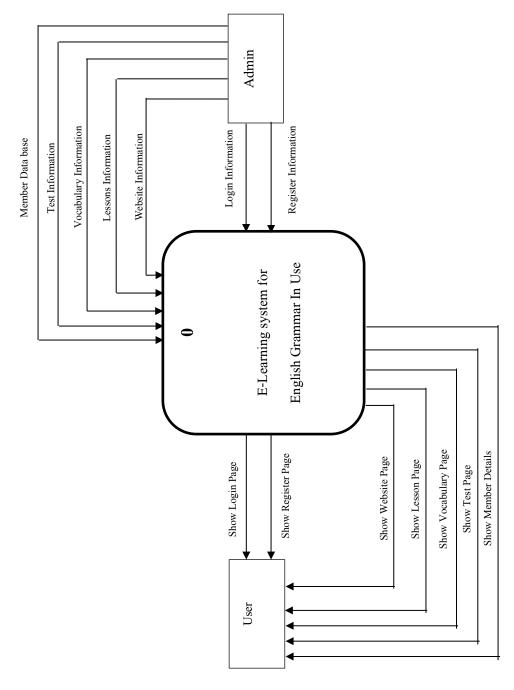


Fig. 3.1 DFD Context Diagram

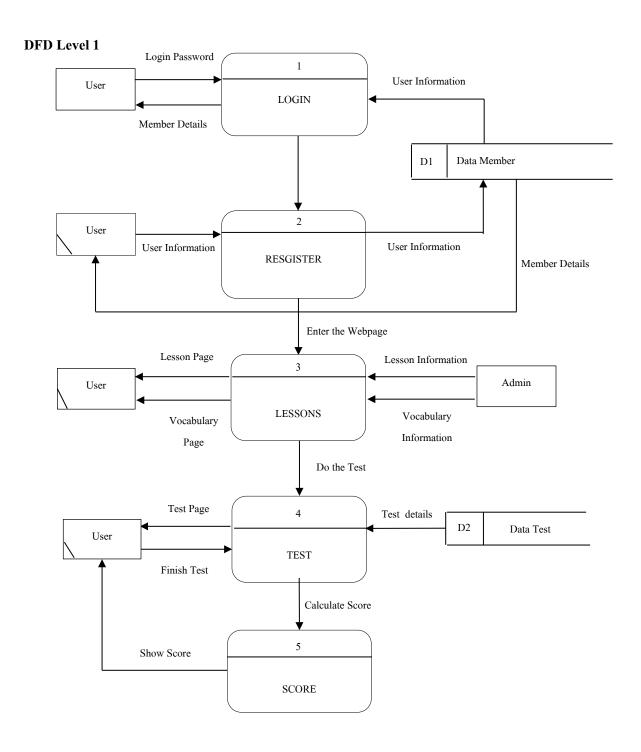


Fig. 3.2 Data Flow Diagram Level 1

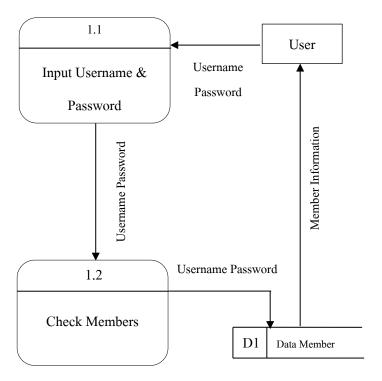


Fig. 3.3 Data Flow Diagram Level 2 Process

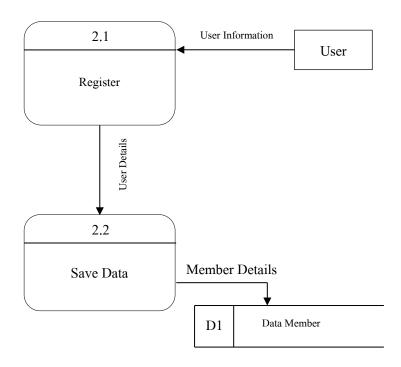


Fig. 3.4 Data Flow Diagram Level 2 Process 2

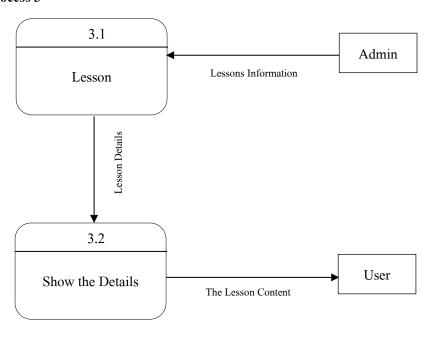


Fig. 3.5 Data Flow Diagram Level 2 Process 3

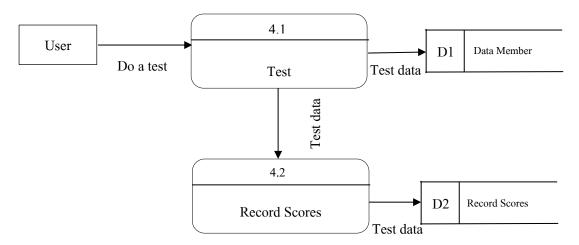


Fig. 3.6 Data Flow Diagram Level 2 Process 4

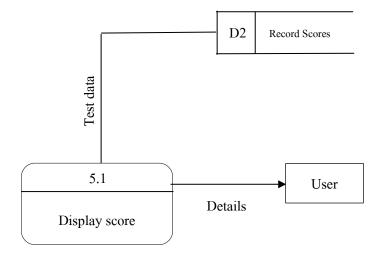


Fig. 3.7 Data Flow Diagram Level 2 Process 5

3.2System Flow Chart and Program Flow Chart

1. System Flow Chart

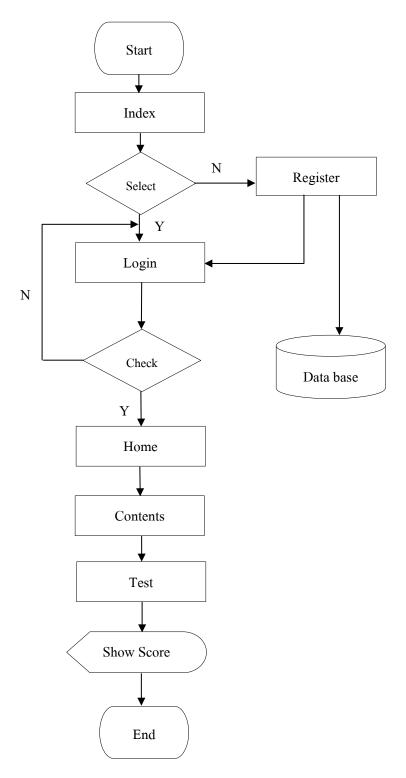


Fig. 3.8 System Flow Chart

2. Program Flow Chart

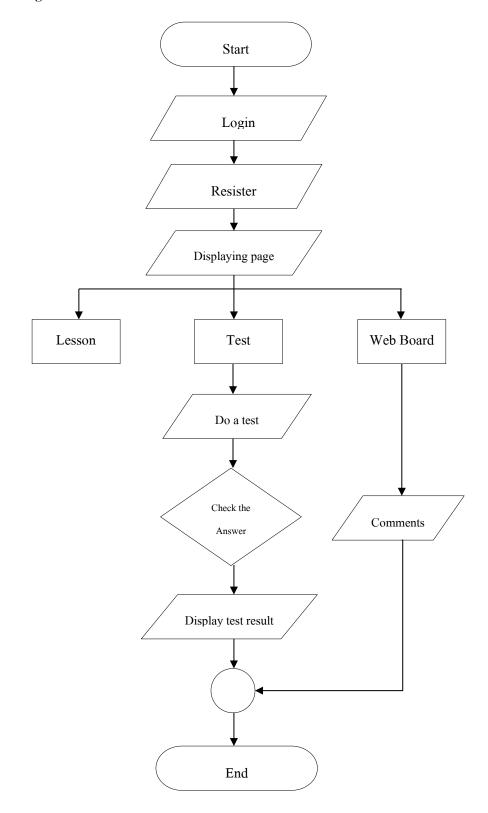


Fig. 3.9 Program Flow Chart

3.3 Entity Relationship Diagram

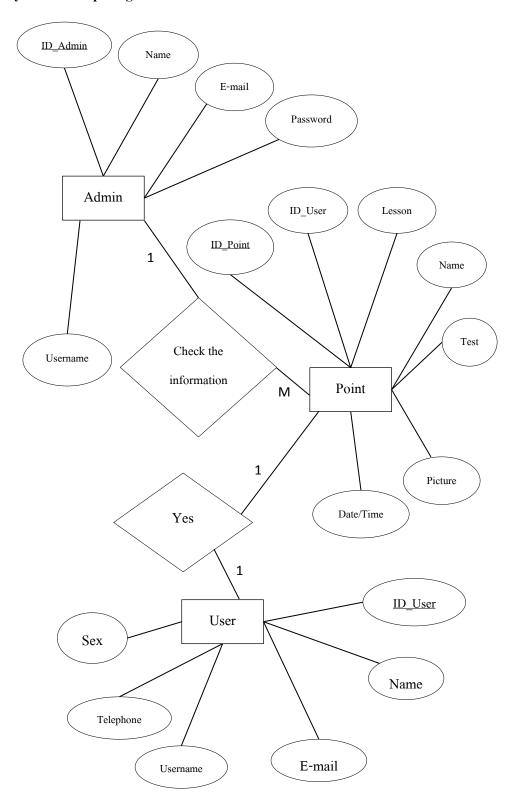


Fig. 3.10 E-R Diagram

Data Dictionary

1. The table shows the database administrator. (Admin)

No.	Attribute	Attribute Description	Type	Size	Key	Reference
	Name					Taber
1	ID_Admin	The code administrator.	Text	5	PK	
2	Name	Name-surname	Text	20		
3	E-mail	Email	Text	30		
4	User	The name used to login	Text	20		
5	Password	Code login	Text	20		

Table 3.1 Administrator's database table (Admin)

2. The table shows the database of scores.

No.	Attribute	Attribute Description	Type	Size	Key	Reference
	Name					Taber
1	ID_Point	Code points.	Text	5	PK	
2	ID_User	Member ID	Text	5	FK	User
3	Name	Name-surname	Text	50		
4	Lesson	Lesson	Varchar	-		
5	Test	Test	Varchar	1		
6	Picture	Pictures	Text	-		
7	Date/Time	Date and time.	Date	-		

Table 3.2 Shows the database table of points

3. The table shows the database of members. (User)

No.	Attribute	Attribute Description	Type	Size	Key	Reference
	Name					Taber
1	ID_User	Member ID	Text	5	PK	User
2	Name	Name-surname	Text	20		
3	E-mail	Email	Text	30		
4	Username	Login name	Text	20		
5	Telephone	Tel	Varchar	20		
6	Sex	Sex	Varchar	5		

Table 3.3 Shows the database table of members (User)

3.4 Site map

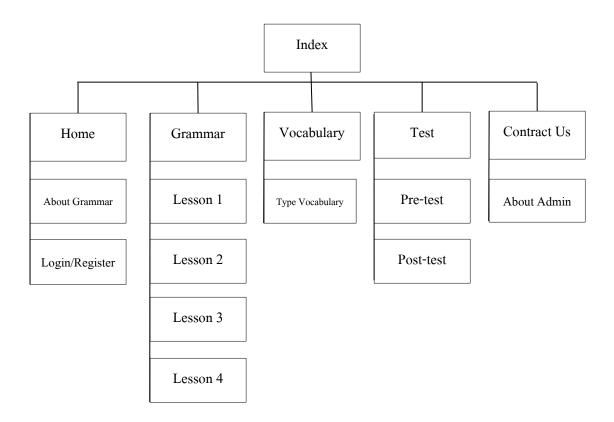


Fig. 3.11 Site map



Fig. 3.12 Index page



Fig. 3.13 Login page



Fig. 3.14 Register page

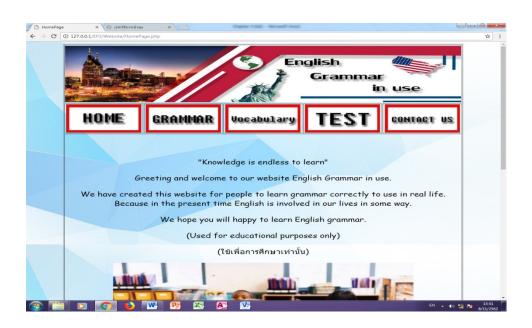


Fig. 3.15 Homepage page



Fig. 3.16 Grammar page



Fig. 3.17 Vocabulary page

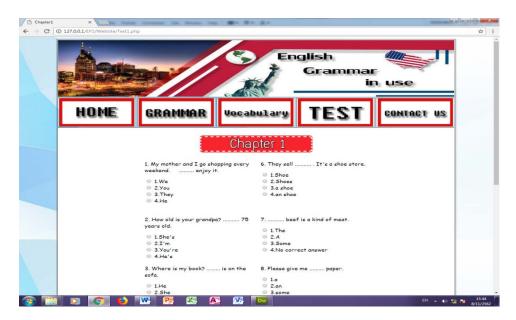


Fig. 3.18 Test page



Fig. 3.19 Contact us page

3.5 Input Data and Output Data

1. Input Data

1.1 Data comments Import by keyboard

-Category: text

1.2 A test import using the keyboard

-Category: text

1.3 Username Password input by keyboard

-Category: text

1.4The lesson content. Import by keyboard

-Category: text

1.5 Lesson information Import by keyboard

-Category: text

1.6 The data member. Import by keyboard

-Category: information.

2. Output Data

2.1 Subscription information released by the monitor.

-Category: The data member.

2.2 Detailed membership information released by the monitor.

-Category: The data member.

2.3Test details released by the monitor.

-Category: text

2.4 Test scores released by the monitor.

-Category: Number data

2.5 Detailed comments Released by the monitor.

-Category: text

2.6 Lesson details released by the monitor.

-Category: text

Chapter 4

E-learning for English Grammar in Use

4.1 Tools and Equipment used

- 1. Notebook ASUS
- 2. Mouse
- 3. Keyboard
- 4. Printer
- 5. Computer PC
- 6. Monitor

4.2 The Programs used in the Development

- 1. Microsoft Word 2016
- 2. Microsoft PowerPoint 2016
- 3. MySQL
- 4. Adobe Photoshop CS6
- 5. Adobe Dreamweaver CS6
- 6. AppServ Program Version 2.5.10

4.3 Installation of the program System

1. Click My Computer > Drive C > AppServ > www > EP2 > website > IndexPage.php



Fig. 4.1 Index

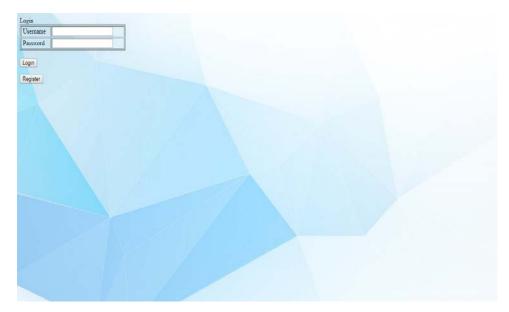


Fig. 4.2 Login

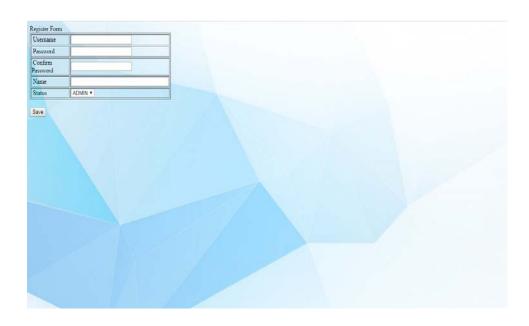


Fig. 4.3 Register



Fig. 4.4 Home



Fig. 4.5 Grammar

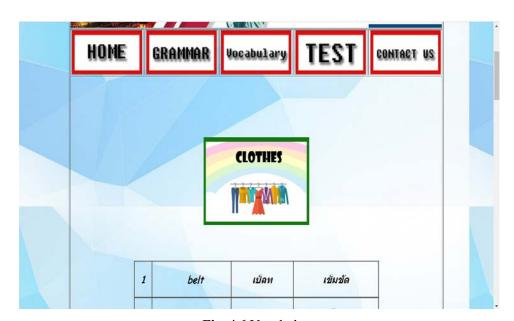


Fig. 4.6 Vocabulary

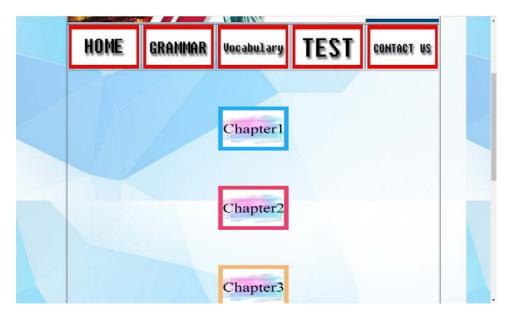


Fig. 4.7 Pretest

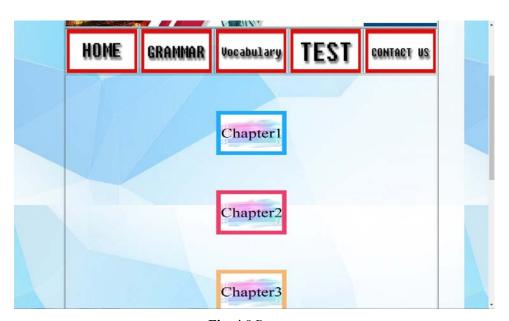


Fig. 4.8 Posttest



Fig. 4.9 Contact us



Fig. 4.10 Lesson 1



Fig. 4.11 Lessons 2



Fig. 4.12 Lessons 3



Fig. 4.13 Lessons 4

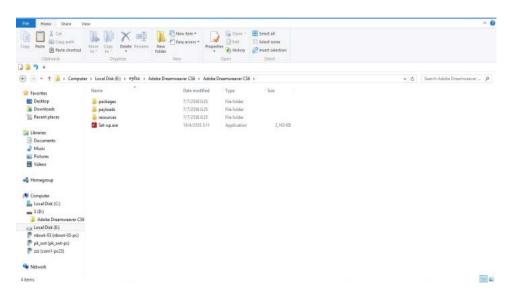


Fig. 4.14 Open the Adobe Dreamweaver CS6 folder

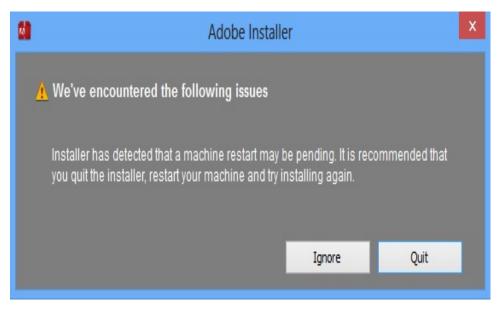


Fig. 4.15 Double click the Set-up.exe file and the program will notify you to restart. We choose Ignore to proceed as in the picture

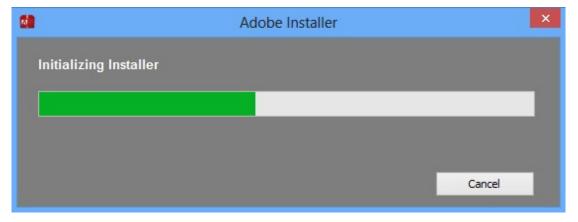


Fig. 4.16 The program will check before installing the program

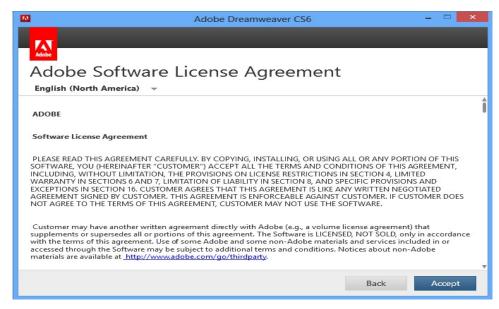


Fig. 4.17 When the program has finished checking Will be taken to the screen to install the program for us, click Accept



Fig. 4.18 Enter the Serial Number and click the Next button

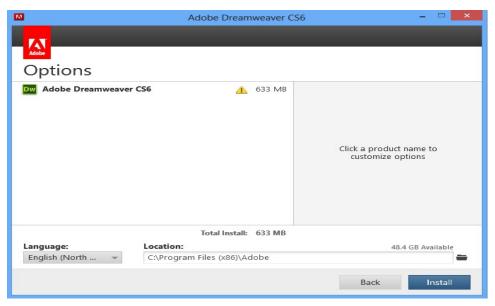


Fig. 4.19 Will enter the program options page, select Installs

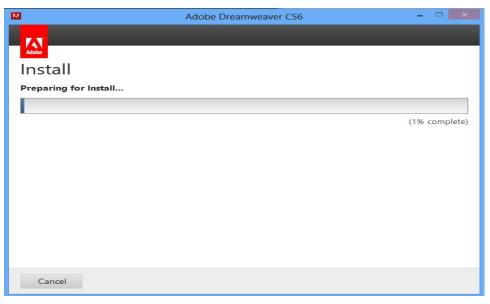


Fig. 4.20 Wait for the program to finish installing

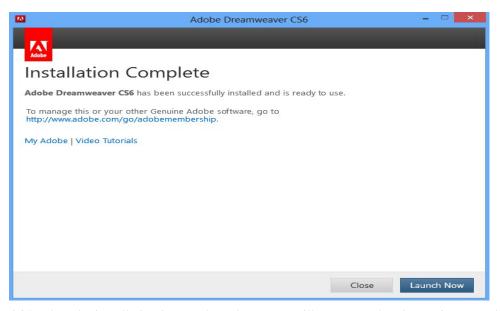


Fig. 4.21 When the installation is complete, the screen will appear as the picture for us to click

Close

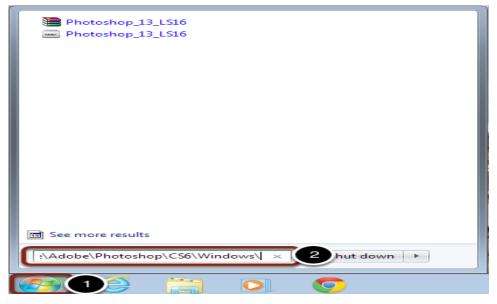


Fig. 4.22 Connect to the server

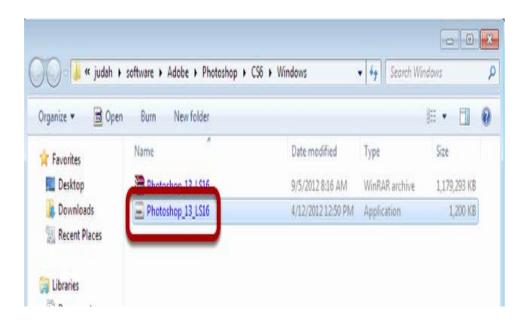


Fig. 4.23 Open the Photoshop Installer

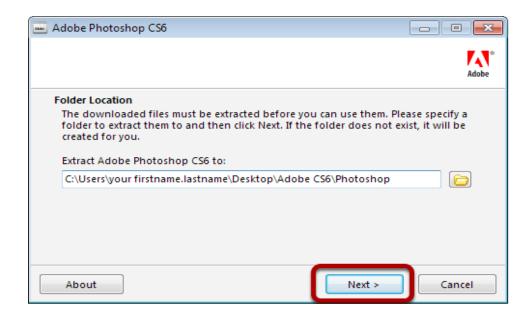


Fig. 4.24 Choose Location for Download

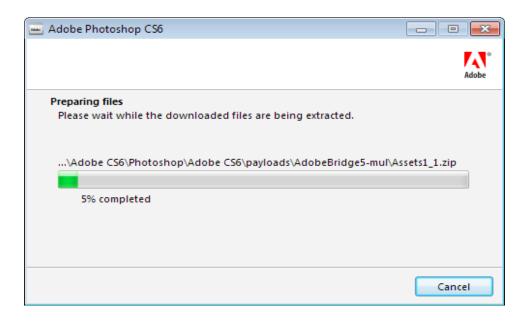


Fig. 4.25 Allow the Installer to Load



Fig. 4.26 Open the "Adobe CS6" Folder

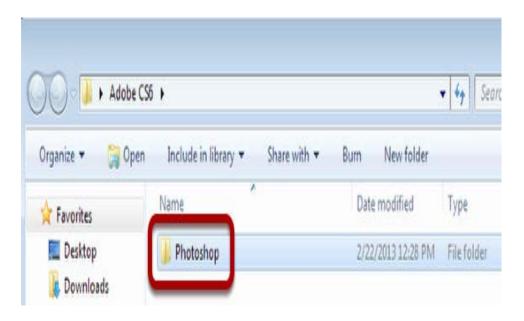


Fig. 4.27 Open the Photoshop folder

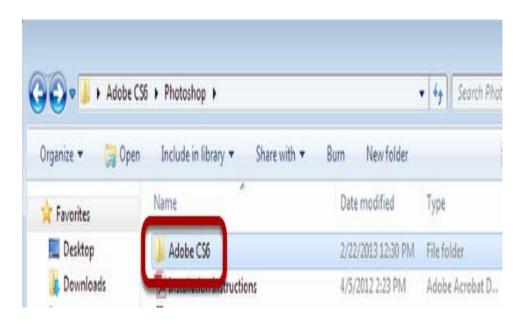


Fig. 4.28 Open the Adobe CS6 folder

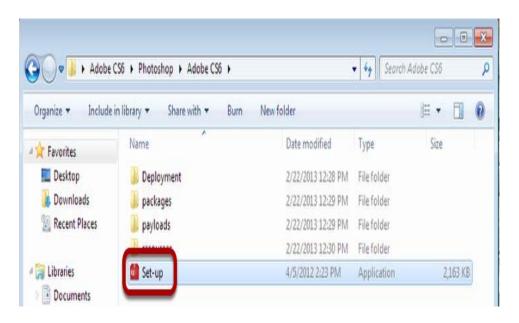


Fig. 4.29 Open the Set Up Wizard

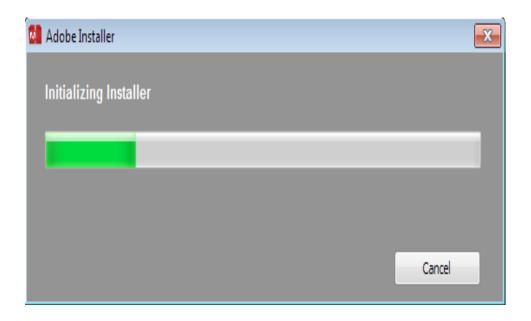


Fig. 4.30 Allow Initializer to Load

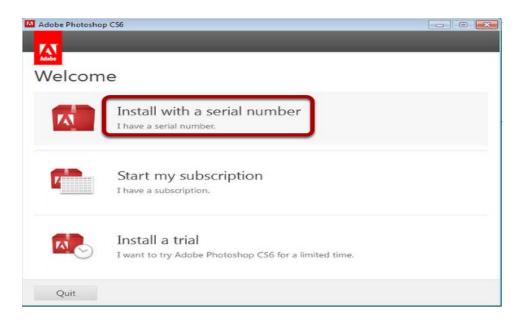
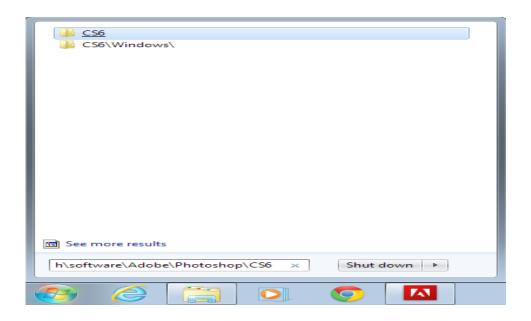


Fig. 4.31 Choose Install



 $Fig.~4.32~Connect~to~\woftware\dist\adobe\InDesign\CS6\\$

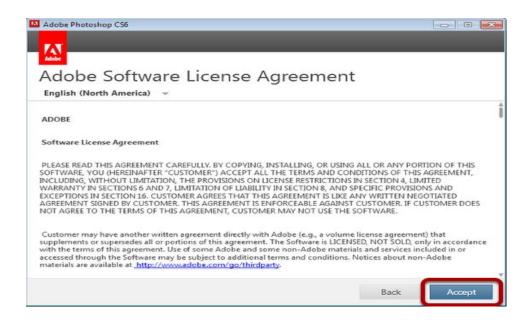


Fig. 4.33 Accept the License Agreement

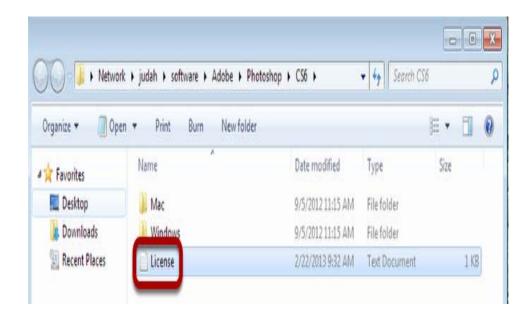


Fig. 4.34 Open the License file

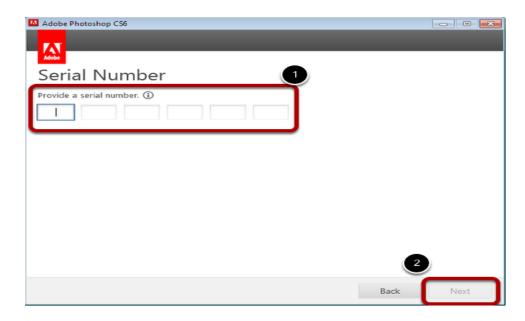


Fig. 4.35 Enter the serial number



Fig. 4.36 Sign in to Adobe

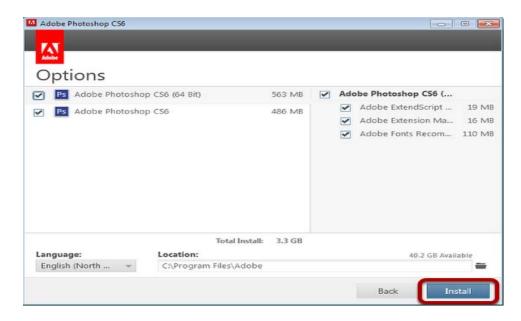


Fig. 4.37 Install Photoshop

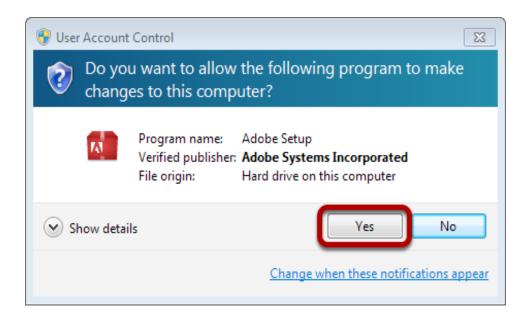


Fig. 4.38 Allow changes

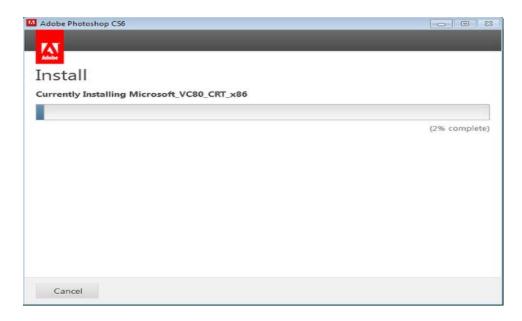


Fig. 4.39 Allow Adobe to Install

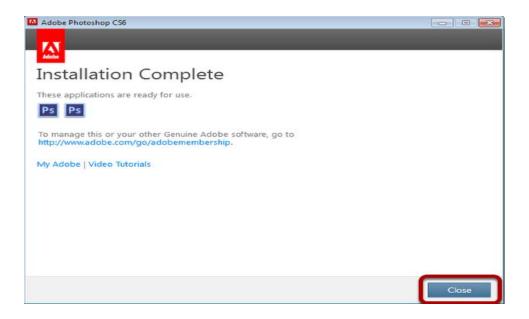


Fig. 4.40 Installation Complete

Chapter 5

Summary of the Project

5.1 Summary of the Project

- 1. This project is E-learning about E-learning for English Grammar in Use.
- 2. Use AppServ Program version 2.5.10 to create the database for the E-learning Web.
- 3. There are four units in the E-learning Web.
- 4. Use Adobe Photoshop CS6 to created pictures in the E-learning Web.
- 5. Use Adobe Dreamweaver CS6 to created webpage in the E-learning Web.
- 6. There are pre-test to evaluate the learner's knowledge before learning and post-test to evaluate the learner's knowledge after learning.
- 7. There are Login and Register system for who want to be our member.

5.2 Problems and difficulties during developing the system

- 1. The developers are not expert in using php coding, Adobe Photoshop CS6, and Adobe Dreamweaver CS6 which took much time to complete the system.
- 2. The group members live far away from each other and difficult to arrange the time to work together.
- 3. Group members don't have enough knowledge to develop the E-learning web design.
- 4. The time to complete the project is too less and developers have to be hurry to finish it.
- 5. Developing the E-learning web system is very difficult and complicated.
- 6. For the English Grammar in Use, there are several lessons to input into the system, which needed a lot of time to spend for the system developers.

5.3 Actual Time Schedule

List	June 2019			July 2019		August 2019		September 2019			019	Date					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Date
Project Title Approval Round 1		+	•														10 - 14 June 2019
Submit Chapter 1			•	*													21 - 26 June 2019
Submit Chapter 2						,	•	•									15 - 18 July 2019
Submit Chapter 3								+	+								22 – 26 July 2019
Submit document and PowerPoint (Chapter 1 -3)									,	† *	*						15 - 16 August 2019
Submit progress 50%														*	•		9 - 13 September 2019
Submit progress 60%															4	*	24 - 26 September 2019
List	November 2019		December 2019			January 2020		February 2020)20	Date						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Submit progress 80%	† •	•															4 - 8 November 2019
Submit progress 100%		+	•														12 - 15 November 2019
Submit document and Project program		,	+	†													15 - 16 November 2019
Submit Chapter 4					•	+											2 - 16 December 2019
Submit Chapter 5						←→	+										11-16 December 2019
Submit the complete Project							•	+									16 - 20 December 2019
Submit CD								•	†	→							6 – 10 January 2020
Purchase for Report Book									•	+	-						13 - 17 January 2020

Table 5.1 Actual Time schedule

Planning operationActual working time

5.4 Actual Budget

List	Description	Number	Price (Bath)
1	Copy Paper A4 80 GSM.	2 Ream	220
2	Printing Ink	1 Bottle	500
3	CD	2 Disks	20
4	CD Bx	2 Box	30
5	Binding Values	1 Book	250
6	Printer	1 Machine	500
		Total	1,520

Table 5.2 Actual budget to complete the project

Reference

- Adobe Incorporated. (2015). **Adobe Dreamweaver CS6**. Search January 13, 2020, From https://en.wikipedia.org/wiki/Adobe_Dreamweaver
- Amorn Cherngroongroj (2016). **Vocabulary**. Search January 13, 2020, From https://www.tonamorn.com/category/vocabulary/
- Hannah Whitfield. (2017). **Website design.** Search January 13, 2020, From https://www.websitebuilderexpert.com/designing-websites/
- Jill Morton. (2019). **Colors theory.** Search January 13, 2020, From https://www.colormatters.com/color-and-design/basic-color-theory
- Oracle Corporation. (2020). **Database.** Search January 13, 2020, From https://www.guru99.com/introduction-to-database-sql.html
- Panupong Punyadee. (2019). **Appserv.** Search January 13, 2020, From https://www.appserv. org /th/
- Refsnes data Company. (2020). **PHP.** Search January 13, 2020, From https://www.w3schools.
- Refsnes data Company. (2020). **HTML.** Search January 13, 2020, From https://www.w3schools.com/html/default.asp
- Richard Culatta. (2020). **Addie Model.** Search January 13, 2020, From https://www. Instructionaldesign.org/models/addie/
- TechTarget Incorporated. (2020). **Definition data structure.** Search January 13, 2020, From https://searchsqlserver.techtarget.com/definition/data-structure
- Thomas Knoll and John Knoll. (2018). **Adobe Photoshop CS6**. Search January 13, 2020, From https://en.wikipedia.org/wiki/Adobe_Photoshop
- Zongyue Li, Pingqi Cai and Lihui Yang. (2015). **Grammar Mind Mapping**. Search January 13, 2020, From https://www.se-ed.com/

Appendix

- ATC.01 Project Title Approval
- ATC.02 Request Permission to be a Co-Advisor
- ATC.03 Progress Project Presentation
- ATC.04 Progressive Report of Computing System
- ATC.05 Record of Submitting Documents
- ATC.06 Requesting permission from advisors to create documents

Biography

Mr. Peerapong Kunnisai (Pong) was born on 10 June 1999,

Finished vocational education from Attawit Commercial Technology. College

And now studying in higher vocational school, English Program,

Major in business Computing at Attawit Commercial Technology College,

Home address: 27/415 Jasod 20 Bangna Bangkok 10260

Telephone no.: 099-287-4650

Email: Peerapongspy@gmail.com

Mr. Pachara Morawan (Bank) was born on 27 September 1999,

Finished vocational education from Attawit Commercial Technology. College

And now studying in higher vocational school, English Program,

Major in business Computing at Attawit Commercial Technology College,

Home address: 30 Lasalle 32 Bangna Bangkok 10260

Telephone no.: 095-790-2694

Email: Pachara.morawan@gmail.com







Project Title Approval

Major in Business Computing
Attawit Commercial Technology College

				June 14, 2019			
Subject:	Project title Approval						
To:	The committee member						
Group Membe	ers: 1.	Mr. Peerapong	Kunnisai	Student Code 37111 Level EP.2			
	2.	Mr. Pachara	Morawan	Student Code 37333 Level EP.2			
We are developing the computer system with E-learning							
Thai Name:		สื่อการเรียนก	ารสอนออนใลน์	เรื่อง หลักไวยากรณ์อังกฤษ			
English Name	:	E-learning for	r English Gramm	ar in Use			
Advisor : Mrs	. Ohma	ır Thwin					
We would like	We would like to request your approval for our project's tile.						
Please	e kindly	y check and approve					
				SignatureStudents			
				(Mr. Peerapong Kunnisai)			
				Group Leader			
Appro	ve [Not Approve					
The E	oard o		ers				
Signa	ture			Signature			
	Con	nmittee Member		Committee Member			



Major in Business Computing

Request Permission be a Co-Advisor

		Attawit Commercial Technology College	
		June 26, 2019	
o-Advisor.			
Kunnisai		Student Code: 37111 Level EP2	
Morawan		Student Code: 37333 Level EP2	
irat Naiyapat i	is a project cor	nsultant of my group. Which has created the	
name "English	n Grammar"		
ing document	ts for the proje	ct topic.	
.Student	Signature	Student	
		(Mr.Pachara Morawan)	
			_
	Morawan irat Naiyapat name "Englisl	Kunnisai Morawan irat Naiyapat is a project con name "English Grammar" ing documents for the proje	June 26, 2019 No-Advisor. Kunnisai Student Code: 37111 Level EP2 Morawan Student Code: 37333 Level EP2 irat Naiyapat is a project consultant of my group. Which has created the name "English Grammar" ting documents for the project topic. Student Signature

Signature......Committee Member

(Mrs.Thitirut Naiyapat)



Progress Project Presentation

Major in Business Computing
Attawit Commercial Technology College
November 16, 2019

Subject: Progress Project Presentation to defend the project related to business computing system To: Committee members of Board Group Members: 1. Peerapong Kunnisai Student Code: 37111 Level EP2 2. Pachara Student Code: 37333 Level EP2 Morawan We would like to make the project of E-Learning Thai Name: สื่อการเรียนการสอนออนไลน์ เรื่อง หลักไวยากรณ์อังกฤษ English Name: E-learning for English Grammar in Use Committee Members: Mrs. Ohmar Thwin Mrs. Thitirat Naiyapa With attached materials to materials to evaluate the project. **✓** Software 1 Set Document (Chapter1-3) 1 Set Please kindly check and approve.

Signature.....Student

(Mr. Peerapong Kunnisai)

Group Leader



Progressive Report of Computing System

โครงการ สื่อการเรียนการสอนออนไลน์ เรื่อง หลักไวยากรณ์อังกฤษ

E-learning for English Grammar in Use

.....

Project Advisor: Mrs. Ohmar Thwin

Project Co-Advisor: Mrs. Thitirat Naiyapat

110,0	Froject Co-Advisor: Initiat Inalyapat						
No.	List	Date	Advisor	Co-Advisor			
Semes	ster 1/2562						
1	Project Title Approval Round 1	/					
2	Submit Chapter 1	/					
3	Submit Chapter 2	/					
4	Submit Chapter 3	/					
5	Submit document and PowerPoint	//					
	for Presentation (Chapter 1 – 3)	//					
6	Submit progressive program 50%	/					
7	Submit progressive program 60%	/					
8	Submit progressive program 80%	/					
Semes	ster 2/2562						
9	Submit progressive program 100%	/					
10	Submit document and Project	/					
	program for Presentation						
11	Submit Chapter 4	/					
12	Submit Chapter 5	/					
13	Submit the completed Project	/					
14	Submit CD	/					
15	Purchase for Report Book	/					



Record of Submitting Documents

Major in Business Computing

Attawit Commercial Technology College

Page4

Group Members:

1. Ms. Peerapong Kunnisai Student Code: 37111 Level EP.2

2. Ms. Pachara Morawan Student Code: 37333 Level EP.2

Project Category: E - Learning

Name of Project: E-learning for English Grammar in Use

Project Advisor: Mrs. Ohmar Thwin

Project Co-Advisor: Mrs. Thitirat Naiyapat

No.	Date	Topics	Signature	Remarks



Requesting permission from advisors to create documents

			Major in Busine	ess Computing
			Attawit Commercial Techn	nology College
			Feb	ruary 18, 2020
Subject : Requesting	permission from the	advisor to make a j	oint document, chapter 4-5	
To: Ms. Thitirut	Naiyapat			
Group Member: 1.	Mr. Peerapong	Kunnisai	Student Code 37111 Level	EP.2
2.	Mr. Pachara	Morawan	Student Code 37333 Level	EP.2
Wishing to 1	request permission to	prepare the doctor	al documents chapter 4 and chapter	r 5 because the
program has been co	mpleted according to	its objectives		
Please kindl	y determine and allo	w.		
Signature		Student	Signature	Student
(Mr. Peer	rapong Kunnisai)		(Mr. Pachara Morawan)	