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ABSTRACT
E-TRAINING DEVELOPMENT APPLICATION PROJECT BASED ON INTERACTIVE MULTIMEDIA AT MCDONALD'S STORE

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ABSTRACT

Recruitment crew at McDonald's has three stages that must be passed, namely Interview, Training and OnFloor. Almost all McDonald's Indonesia average - average crew new experience difficulties at stage two, namely Training, although at this stage of training given Hands Out (module) material about the procedure of making the product and the use of equipment at McDonald's, crew new experience difficulty in understanding module, form of delivery of material by the method of reading Hands Out is not enough, practicum plays a very important, because the crew will gain an understanding and a better experience to the assigned material. In fact, practical activities can not be carried out as planned, because the material conveyed in the Hands Out and practical use of equipment is not easily understood, which results in errors and feel awkward in the use of equipment at McDonald's while deployed directly spaciousness.

E-training is an abbreviation of Electronic training is a new way in the training process which uses electronic media, especially the internet as a learning system. E-Training itself is part of a collection of e-learning training were used to help participants / employees achieve the learning objectives of the institution as a condition improve their skills and performance, delivered through a combination of electronic audio, animation, and interactive multimedia-based instruction. Software development method used is the waterfall model, which is an approach to software development is a systematic and sequential start at the level of progress of the system.

Based on this research, E-Store Training at McDonald's can help the crew in order to understand how to use the equipment, as well as give you an idea how to cook the products with the simulation at any given material being studied by a combination of audio, animation, and instruction.

Keywords: E-Training, Training, Hands out, Store McDonald's, Multimedia Interactive

1. PRELIMINARY

Along with the development of McDonald's store in Indonesia is so rapid, in each each - each store definitely needed a crew (employees) have to be placed in each store that was needed. Recruitment crew at McDonald's has three stages that must be passed, namely Interview, Training and OnFloor (deployed directly spaciousness so qualify at this stage of training). Based on the interview with Mr. Galina Nanggara as the representative of the store McDonald's Simpang Dago, who served as 2nd Assistant Manager, he said that almost all McDonald's Indonesia many crew new experience difficulties ditahapan into two, namely training, although at this stage of training given Hands Out (module) material on the procedure of making the product and the use of equipment at McDonald's, crew new experience difficulty in understanding module, the form of delivery of the material by the method of reading Hands Out is not enough, practicum plays a very important, because the crew will gain understanding and experience more both to the material provided. In fact, lab activities can not be carried out as planned, because the material is conveyed in the Hands Out and practice the use of equipment is not easily understood, which results in errors and felt awkward in the use of equipment at McDonald's while deployed directly spaciousness.

Based on the problems - these problems, we need a media learning support to the crew new to become an alternative media training activities, so the lab and delivery of content will be more attractive and easy to understand can be used by all the crew who are newer to conduct the training in each each - each store. Applications that will be built will be made in the form of a website are simulated on the use of equipment and provide examples of how to cook according to existing procedures in Hands Out, to be accessed by all new crew who are conducting training activities. Simulation method is a learning process using the process of combining images and sound so as to visualize the picture of how the equipment at McDonald's. Therefore in need an application that can assist and stimulate thought crew understand that crew are not passive towards the material given in the

Hands Out, simulation method can be a way to stimulate and increase the interest crew to better understand the use of how the use of equipment.

1.1 E-Training

Use of Internet technology in learning should be promoted as one of the new innovations in the use of instructional media and learning resources. Various forms of application and the facilities available on the Internet can be fully utilized to improve the quality and the quality of learning. It also can facilitate learning activities if viewed from the aspect of media use. One of them is training with E-training. Training with real e-training is also one form of the use of instructional media and IT-based training or Internet-based.

E-Training itself is a piece of e-learning in the form of a collection of training (content, curriculum, instructional design) that is used to assist the participant / employee achieve the learning objectives of the institution as a condition improve skills and performance, delivered through electronically through oral, written, illustration, animation, video or any combination thereof.

Basically, the same as the E-Training E-Learning which has two types: synchronous and asynchronous.

a. Synchronous Training
   Synchronous means "at the same time". Thus, synchronous training is the type of training, where the process is teaching and students are learning. It enabled direct interaction between teachers and students, either through the internet or intranet. Synchronous training requires teachers and students to access the Internet simultaneously. Teachers provide the paper with a slide presentation and web conferencing participants can listen to the presentation via Internet connection. So synchronous character similar training classroom training. However, the class is virtual (virtual) and participants scattered around the world and connected via the internet. Therefore, the so-called synchronous virtual classroom training.

b. Asynchronous Training
   Asynchronous training means "not at the same time". So, one can take the training at different times with teacher training. This training is more popular in the world of E-learning because it provides more benefits for trainees as it can access training anytime and anywhere. Training a package of lessons that can be run on any computer and does not involve interaction with teachers or other students. Therefore, students can start classes and finish every time. Package-shaped reading lessons with animations, simulations, educational demand, as well as ata practice tests with answers.

1.3 Multimedia

Multimedia can be regarded as a new form in the manufacture of computer programs with penggambungan more than one media. According to Turban "Multimedia is a combination of at least two media input or output of the data, this media can be audio (voice, music), animations, video, text, graphics and images".

There are four essential components of multimedia, namely:
1. There should be a computer that coordinates what is seen and heard that interact with users
2. There must be a link that connects users with information
3. There should be a navigation tool that guides guides
4. Multimedia provides a place to gather, process, and communicate information and ideas of users.Jika salah satu komponen tidak ada, maka bukan merupakan multimedia dalam arti yang luas.

Multimedia terdiri dari beberapa elemen, yaitu teks, suara (audio), gambar (image), video dan animasi. Here's the explanation.

1. **Text**
   Text is the submission of the data elements that are common and simplest because it requires little space in storage when compared to other elements. Here is a text image can be seen in Figure 1.



Figure 1 Text

2. **Audio**
   Sound is an element of delivering enough data interactive, because the user can obtain information simply by using the sense of hearing alone. Eg, songs, instrument-instrument, audio formats such as WAV, MIDI and MP3. Here is a picture Audio can be seen in Figure 2.



Figure 2 Audio

3. **Image**
   Image is an element that is capable of delivering the data representing the message in text form. Pictures do not require a particular movement, because without gerakanpun man can know the information submitted. Some image formats include JPG, PNG and BMP. Here are pictures Pictures can be seen in Figure 3.



Figure 3 Image

1.4 Interactive Multimedia

Interactive Multimedia is a multimedia equipped with a controller that can be operated by the user, so the user can choose what you want for the next process.

Examples of interactive multimedia are: multimedia interactive learning, gaming applications, and others.

2. RESEARCH CONTENT

2.1 Procedures System Running

Before designing the system, the need for an analysis of the current procedures, which aims to evaluate the error to be fixed, where this procedure would be a reference to be made into an E-Training program. Here are some of the procedures of training new employees at McDonald's.

To determine the process flow system that is running on training new employees at McDonald's, it will be portrayed in the form flowmap in Figure 4.

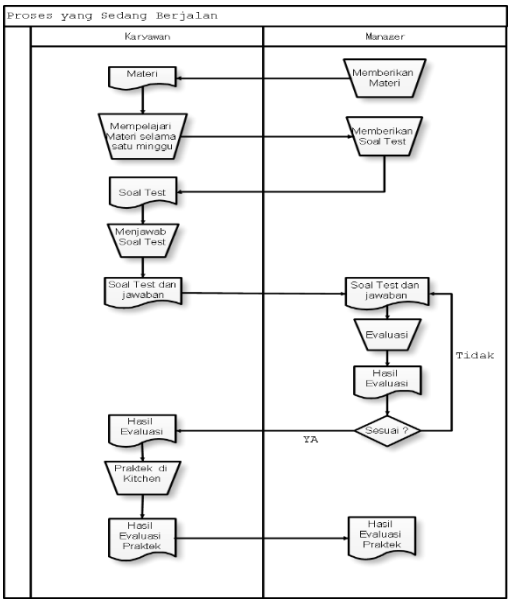


Figure 4 Flowmap Process Activity Training The Progress On New Hires McDonald's

2.2 Procedures System Proposed

To determine the process flow of the proposed system on training new employees at McDonald's, it will be portrayed in the form flowmap in Figure 5.

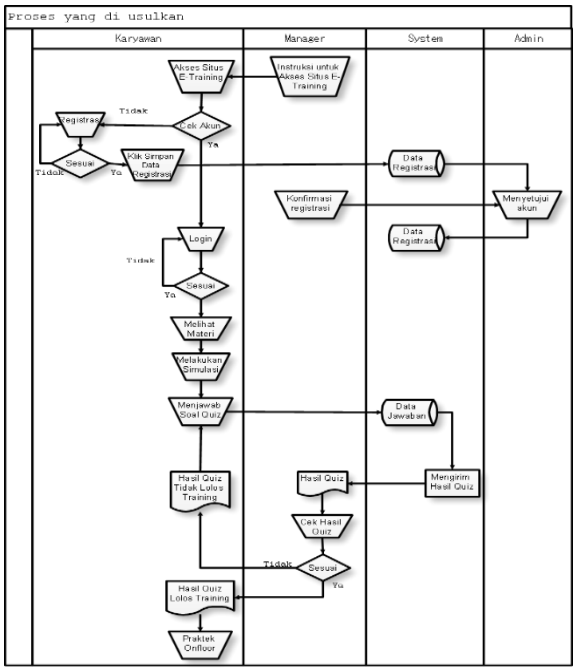


Figure 5 Flowmap Process Activity Proposed Training New Employees At McDonald's

2.3 Analysis of E-Training

The system will be built on the fundamental concept of e-training, which has three main components:

1. **Infrastucture**
   Insfrastucture e-training a systems analyst to be built on the application of e-training. Here is a picture e-training network architecture can be seen in Figure 6.

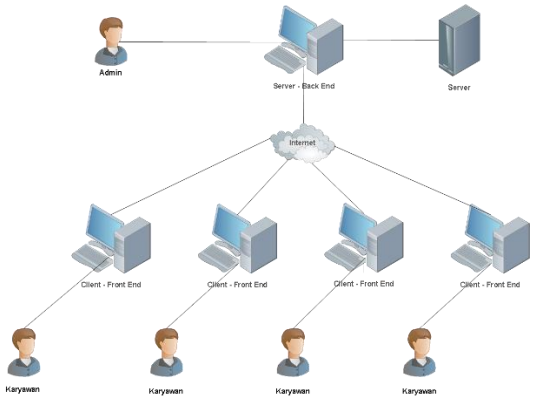


Figure 6 E-Training Network Architecture

2. **E-Training System**
   Covering a software system that will be built to virtualize conventional teaching and learning process. How to manufacture the material,

content, and online examination system and all the features associated with the management of the learning process.

3. E-Training Content

Content will be built in e-training system is divided into two parts:

a. Multimedia Based-Content

Multimedia which will be applied to the application of e-training to be made is in the simulation of cooking products that include a combination of auido, animations and instructions. Here is a picture groove-based multimedia content can be seen in Figure 7.



Figure 7 Flow-Based Multimedia Content

b. Text Based-Content

Text-based content on a handout given to new employees during training activities take place, will be incorporated into the application of e-training in the form of material menu shaped .pdf file. Here is a picture of the flow of text-content can be seen in Figure 8.



Figure 8 Flow Text-Based Content

2.4 Analysis of Interactive Multimedia

E-Training Application Development McDonald's In Store-Based Interactive Multimedia has the following objectives:

1. Making e-training application based interactive multimedia as an additional medium for training activities.
2. Helping new crew to be easy to understand any material on how to cook the products given in handsout, to provide a simulation on any material, combined with audio, animation, and instruction.

2.4.1 Description System

The system to be built has two user is admin as the system manager and crew as system users, each - each have different access rights. It required a security mechanism by providing Log In different facilities. This facility is used as a verification of user access rights and admin crew in the system. Verification is used there are two username and password, which the user name is used for crew wear NIK (Employee Identification Number) and for admin wear a special ID.

E-training that will be created will be a web-based interactive multimedia provide material, simulating some equipment at McDonald's by making their products and provide an overview how the equipment suitable product to be made and exercises. This application can be accessed by all new crew at McDonald's all over Indonesia who are conducting training activities.

Application will be made to have two systems of front end and backend. Here is a picture of the flow of e-training system can be seen in Figure 9.

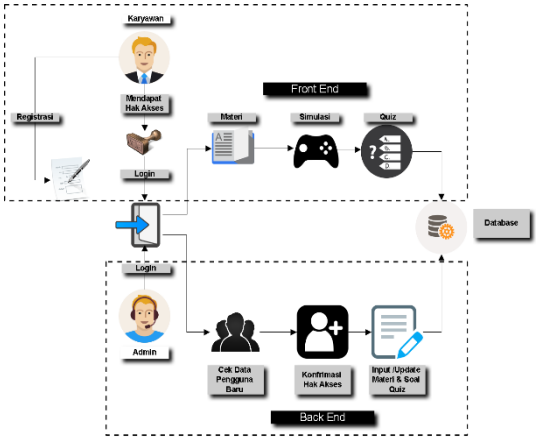


Figure 9 Flow Systems E-Training

2.4.2 Description Concepts Built

E-training who built an application that can be used by employees for ease in understanding the process of training activities that had previously been applied. Below is a table description of the concept of applications to be built can be seen in Table 1.

Table 1 Description Concepts Built Applications

The Building Elements	Description
Title	E-Training Application Development McDonald's In Store-Based Interactive Multimedia

The Building Elements	Description
User	New crew and Admin
Matter	The material is applied to the material in the application is a handout that was given during the training, but by converting into e-training in the form of .pdf
Audio	Audio in adapts to applications built on the menu animated simulation
Animation	Animation in built applications are 2D animation.
Interactivity	Interactivity in e-training application that is built is doing quizzes, perform simulations and reading material

To produce an interactive multimedia application that is used to convey messages (information and skill) with visual media. Here is a visual concept of e-training application based interactive multimedia.

1. **Format screen size**
   Applications built is designed with a size of 1366 x 768 pixels. Here is a picture format size of the screen can be seen in Figure 10.

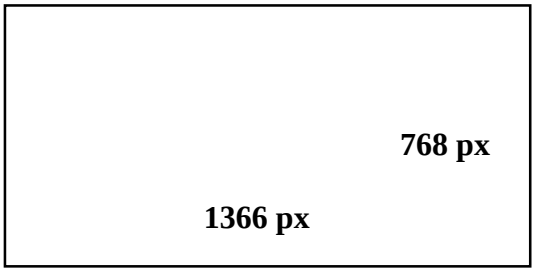


Figure 10 Format Screen Size

2. **Layout**
   Layout is an arrangement position of an element - element applications such as image, animation, and text. So the message or the information contained in the application can be conveyed properly. Here is a sample image layout can be seen in Figure 11.

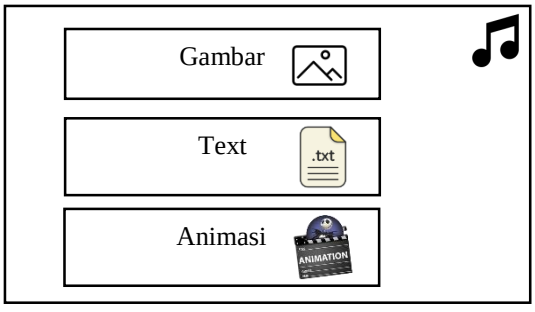


Figure 11 Sample Layout

Sound elements that are in the background section, while elements - other elements such as images, text, and animation placed according to need. So comes the interrelated combination of elements - elements.

3. **Letter**
   The letters that are used in applications that are created are letters that are easy to read and interesting to see.
4. **Color**
   Color is an important element in multimedia applications. Suitable color used is red and yellow as tailored to the origin of the McDonald's backround. Here is a McDonald's backround color image can be seen in Figure 11.



Figure 11 Color McDonald's

2.5 Examination

The software testing is a stage to find mistakes and shortcomings in the software that is built so that the bias is unknown whether the lunakk devices have met the criteria in accordance with the purpose or not. The test methods used in perangkatl this software is a black box method. Black box testing focuses pda software functional requirements. Black box testing method is composed of two phases, namely testing phase of alpha testing and beta testing phases.

2.5.1 Alpha Testing

Alpha testing is functional testing held in neighborhood development by a group of users who will be using the software. Parties to accompany development and noted the mistakes and problems perceived by users. Alpha testing is done on the development of e-training at McDonald's store-based interactive multimedia, the scenario testing, case and test results as well as the conclusion of testing.

2.5.1.1 Scenario Testing

Test scenario describes the sequence and it tested the tests performed on the "Development of E-Training At McDonald's Store-Based Interactive Multimedia". The scenario that is done can be seen in Table 2.

Tabel 2 Skenario Pengujian

No	Component Tested	Scenario Testing	Types of Tests
1	Login Karyawan	Entering Employee ID	*Black Box*
		Entering Password	*Black Box*

No	Component Tested	Scenario Testing	Types of Tests
		Selecting the "Login"	*Black Box*

2.5.1.2 Cases and Test Results

Here is a case to test the software that has been built using the black-box testing based on tables 2 scenarios that have been made previously.

Tabel 3 Cases and Test Results Login Karyawan

Cases and Test Results (Normal Data)			
Scenario Testing	**Expected Results**	**Observation result**	**Test Result**
Entering Employee ID	Listed on the employee ID text box	Can input employee ID in the employee ID field as expected	[√] Accepted [ ] Rejected
Entering the password	Listed on the password text box	Can fill password in the password field as expected	[√] Accepted [ ] Rejected
Click the "Login"	Employee ID and password data is received by the system and go to the main page for the "login"	"Login" button may function as expected	[√] Accepted [ ] Rejected
Kasus dan Hasil Uji (Data Salah)			
Scenario Testing	**Expected Results**	**Observation result**	**Test Result**
Employee ID or password blank	Unable to login and displays the message	Displays an "employee ID or password is required	[√] Accepted [ ] Rejected
Employee ID or password is incorrect	Unable to login and displays the message	Displays an "employee ID or password is incorrect"	[√] Accepted [ ] Rejected

2.5.1.3 Conclusion Testing System

Based on the results of testing the system with test cases above it can be concluded that the E-Training Application Development McDonald's In Store-Based Interactive Multimedia is not there fault and functional process is running as expected.

2.5.2 Beta testing

Beta testing is testing conducted objectively where the testing is done directly to the respondent by giving questionnaires or interviews to potential users of the software is built.

2.5.2 Interview

Interviews were conducted in which the user has admin user should type. The results of the interviews that have been conducted with Mr. Dani Hamdani, as potential users with admin user types. Here is a table of questions and answers interview with the admin can be seen in Table 4.

Table 4. Interview With Admin

No	Questions and Answers
1	**Questions:** Is this application can help in the training activities?
	Answers : This application is very helpful in training activities for new employees, given the e-training facility based interactive multimedia with given such materials, simulations and quizzes.
2	**Questions :** Is the view of the application look more appealing?
	Answers : Yes, it is very interesting because it looks like a McDonald's with a concept that already exists.
3	**Questions :** Whether the application is interactive?
	Answers : Yes, because it is served with a simulation that combines animation, audio and instruction.
4	**Questions :** Whether the application is easy to use?
	Answers : Quite easy to use, because it looks pretty user friendly.
5	**Questions :** Is this application can manage data - the data material, quizzes, user data properly?
	Answers : Yes, with this app I as an admin can manage material, matter quiz, quiz results, and organize data of users who will use the application's e-training as needed.

Based on the interview with the admin, it can be concluded that the application of this study can assist in training activities, has a very interesting, interactive, easy to use, can manage the data data-

material, quizzes, and user data properly, and can help get info the ability of employees results from the quiz.

2.5.3 Questionnaires

The questionnaire was given to several potential users of the software is built. As for some of the points examined in the E-training applications are as follows:

1. The application is as an additional medium in the process of training activities.
2. Ease to understand the material presented.
3. Interesting or not this application.
4. Is this interactive application.
5. Ease of using the application.
6. Measuring the employees' ability to use this application.

Answer Scale:

SS : Sangat Setuju
S : Setuju
CS : Cukup Setuju
KS : Kurang Setuju
TS : Tidak Setuju

Here are some of the questions posed to the user employees. Here is a table of questions employees can be seen in Table 5.

Table 5 Questions Employees

No	QUESTION	SS	S	CS	KS	TS
1	Whether the application has been included as an additional medium for training activities?					

2.5.4 Conclusion Beta Testing

Based on the results of questionnaires given to new employees at McDonald's Simpang Dago as sampling, can be searched percentage of each answer by using the formula:

Information :

Y= P/Q*100%
Y : Percentage Rate
P : Total Score
Q : Top Scores

To measure the attitude of the applications that have been built to use a Likert scale. Likert scale is a scale used to measure the perceptions, attitudes or opinions about a person or group events or social phenomena, based on the operational definitions have been established by researchers. Here is a score given to answer the questionnaire that was given to the study authors:

Table 6 Score Questionnaire Answers

Answer Scale	Info	Score
SS	Sangat Setuju	5
S	Setuju	4
CS	Cukup Setuju	3
KS	Kurang Setuju	2
TS	Tidak Setuju	1

To know the interpretation of the score calculation results can be seen in the following table:

Table 7 Interpretation Score Calculation

Value	Info
0% - 20%	Tidak Setuju
21% - 40%	Kurang Setuju
41% - 60%	Cukup Setuju
61% - 80%	Setuju
81% - 100%	Sangat Setuju

Here are the results the percentage of each answer already calculated value using the formula described above. The questionnaire was tested on 20 new employees who are in the McDonald's Simpang Dago as an example of the sample.

Table 8 Results of Questionnaire Employee

No	Qestion	SS	S	CS	KS	TS
1	Whether the application has been included as an additional medium for training activities?	5	15			

1. Whether the application has been included as an additional medium for training activities?

Table 9 Percentage of Employee Questionnaire Question 1

Question	No	Info	Respondents Answer	*Score*	*Percentage (%)*
1	1	Sangat Setuju	5	*25*	***(85/100)*100% =85***
	2	Setuju	15	*60*	
	3	Cukup Setuju	0	*0*	
	4	Kurang Setuju	0	*0*	
	5	Tidak Setuju	0	*0*	
Amount			**20**	***85***	

The percentage of the number 1 is as much as 85% with respondents 20 employees of 100% is expected. Thus the calculation of the mean value of employees strongly agree that this application could be included as an additional media training activities. The following scale of assessment number 1 shown in Figure 12.

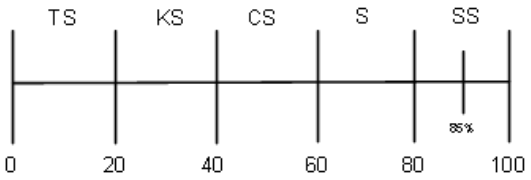


Figure 12 Scale Assessment No. 1

5. CONCLUSION

Based on the results of the implementation and testing has been done, then the conclusion of a thesis entitled "Development of E-Training At McDonald's Store-Based Interactive Multimedia" is as follows:

1. To assist the training for new employees at McDonald's stores, by utilizing application-based e-training interactive multimedia created.

2. Can Help new employees understand the procedures for the use of equipment, as well as give you an idea how to cook the product with a given simulation on each of the materials studied by a combination of audio, animation, and instruction.

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