

## **IMPLEMENTATION MULTIMEDIA LEARNING PRINCIPLES INTO PT KONIMEX SALESPERSON TRAINING MODUL**

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### **Abstract**

Training activities by company's Human Resources Division as objectives of improving employee's knowledge and skills is fundamental part for strengthening the company competitiveness. PT Konimex salesperson training related to sales activities, product knowledge, and consumer knowledge. This training material is provided on the training modules that can be accessed online by employees internally. However, much of the material content in the form of a long article written in a powerpoint document that did not considering the visual and information aspect. Making it difficult for employees to understand the material.

Research methodology in data collection are observation, interviews with HR staff and literature studies. In conclusion, training materials for salesperson of PT Konimex requires multimedia-based training modules, that have the element of interactivity so the information can be delivered effectively.

Creative concept is using multimedia learning principles to creating these training modules. The combination of multimedia components i.e. picture, text, animation and audio make this training module effective in conveying information. Because multimedia uses two channels of human sensors (vision and hearing sensor), so the information provided can last in the long term memory. Focusing in the animation component simplify the situation illustration, so it is easier for employees to understand the situation.

**Keywords :** *Training Module, Multimedia Components, Multimedia Learning.*

### **1. Introduction**

PT Konimex, is one of the national pharmaceutical company founded by Djoenaedi Joesoef on June 8, 1967 as a trading company pharmaceuticals, chemicals, laboratory equipment and medical devices. In 1971, PT Konimex began producing their own medicine. The company now produces a wide range of products namely pharmaceuticals, confectionery and food Along with the increasing tendency for people to return to nature, Konimex began to develop products based on natural ingredients.

Sales person as a crucial component of marketing need to develop their knowledge both soft skills and hard skills. PT Konimex human resources division plays an important role in the development of their employees including sales person. By doing training, sales person can have proper knowledge to be applied in day-to-day work activities.

Trainee currently use training modules created by Microsoft Powerpoint. The module will be placed in online e-learning system. The weakness of the modules, it presented visually unappealing, many modules contains long articles. So trainee becomes less interested in content of the modules. As a result, the training process becomes less effective and targeted.

The training modules will be accessed online. Trainee can learn these modules at the specified training time then modules contained in the e-learning may not be copied. However, there is a possibility of this material may be copied module by trainee.



**Figure 1.** Powerpoint Interface  
Source: HRD PT Konimex



**Figure 2.** Powerpoint Interface  
Source: HRD PT Konimex



**Figure 3.** Powerpoint Interface  
Source: HRD PT Konimex

Along with these problems, the training division required an interactive learning media, with attractive visuals and multimedia based. By using multimedia elements, consisting of images, text, animation, and audio will strengthen memory for audience, so that the material can be maintained in their long-term memory.

## **2. Problems**

2.1 Training module using bad content and visually unappealing layouts, with long body text and improper placement. So it is not effective in transferring knowledge of company information.

2.2 The existing module when placed in an e-learning system page, there is possibility to be copied. Perhaps trainee will be learn it later. But training time provided by the company will be less effective

## **3. Theological Problem**

How to develop multimedia learning modules for PT Konimex sales person. Using multimedia components that can help learning process for the trainee

## **4. Data Collection**

Data was collected through observation, interviews, literature study and analysis of data. Observations by directly visiting to PT Konimex training division. Viewing and analyzing the training modules that have been made. Learn what are the weaknesses of the module.

Interviews were conducted with Mr. David as the HR Manager and Mr. Iwan as Training Manager PT Konimex. From the interviews it was found that training modules that have been made are still many weaknesses. The problems are layout, design, composition and arrangement of the text. This was likely that the staff of training division PT Konimex have no graphic design background.

A literature study of the literature related to the field of multimedia, and multimedia learning Data analysis was performed by SWOT analysis to Weakness-Opportunity formulation to resolve the existing problems.

## **5. Theory**

According to Waterworth (1991), multimedia is a combination of various media in a logical system. The key element in this multimedia is interactivity. Multimedia according to Andleigh (1996) consists of a media media texts, images, audio, holographic and full-motion video.

According to Mayer (2001) defining multimedia as the presentation of textual and image. Textually in the form of printed text and spoken text, the image is in the form of illustrations, photographs, animations and video. It also said that in the words of multimedia materials displayed in the form of verbal forms such as printed text and spoken text. In the picture, the material presented in pictorial form using still images (illustrations, charts, diagrams, maps, photographs) and moving images (animation and video).

Multimedia broadly divided into categories of linear and non-linear. Multimedia with a linear category presented without navigation controls such as a cinema presentation from the

beginning to the end of the movie. Multimedia with non-linear categories allow users to perform controlled interactivity presentation with navigation controls. Usually found in computer games and computer based training. Non-linear category is also known as hypermedia.

Recker et al. (1995) who evaluated the multimedia-based learning software said that a multimedia system should provide access to information and activities that support the construction of knowledge and effective learning for students. To evaluate the effectiveness of the design, considered a variety of factors including the structure of the system, access to information, and the goals and strategies of students in learning. Cognitive Media including details of the physical media, ie text, animation, images and sound. For text components consisting of component abstraction, instructions, explanations, and citations. For the animation component consists of an interactive visualization presentation and visualization constructive. For image component consists of a graphical display components, examples and diagrams. For voice component consists of voice to text, warnings, and conclusions. In this study, it was found that the navigation strategies in the use of cognitive media a software multimedia-based learning is strongly influenced by how a module was organized.

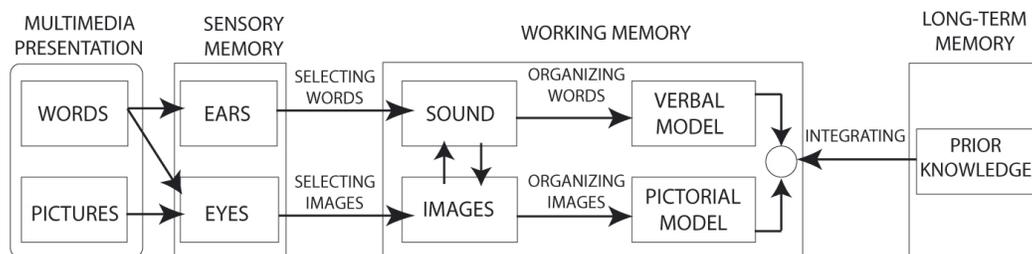
Research of Hedberg et al. (1997) on interactive multimedia applications “Exploring the Nardoo” found that students need to be familiar with the module interface and how it works before the students conduct experiments to establish investigative response.

This study suggests that in designing multimedia-based software required a section that encourages students to explore and investigate the multimedia system.

Mayer et al. (2003) conducted a study of learning effectiveness in a multimedia-based learning software. In the study it was given advice, that in designing multimedia software, a software designer must consider these elements:

1. Components of animation should be included with a sound explanation and not just the printed text.
2. Students are given the freedom to control the flow of the presentation and learning.
3. Encourage students to answer questions during the conceptual learning.

Multimedia learning is based on multimedia learning tool. The term multimedia learning is popularized by Richard Mayer (2001). Other studies have also used the term multimedia



**Figure 4.** Cognitive Theory Multimedia Learning (Mayer, 2001)

learning for explanation learning which combines elements of text, images, audio, video, animation and interactivity in the learning module. The study of it in Jan Plass and Bruce Homer (2002) which examines aspects of Cognitive Load in multimedia learning using a multimedia software which focused on verbal and visual components and their combinations. Another study

conducted by T Seufert and R. Brunken the Cognitive Load Theory refers to constructing information in learning modules into a mental representation in long-term memory.

According to Mayer (2001) cognitive theory of multimedia learning is based on three principles of cognitive science of learning. First, assuming dual channel which includes the human information processing system that is two lines for visual and verbal. Second, the limited capacity assumption which states that human beings are limited in the amount of information that is processed at a time. And third, active processing assumption which states that humans process information to construct a mental learning that includes the manufacture of structural knowledge, ie processing, comparing, generalizing download, register, and classifying.

In the cognitive theory of multimedia learning (Mayer, 2001) also outlined five cognitive processes. The first process includes the selection of relevant words from the text and narration are presented. The second process includes the selection of images illustrate the presentation.

The third process includes organizing text that has been selected into the verbal representation. The fourth process includes organizing images that have been selected into a visual representation.

And the fifth integrating visual and verbal representation of the knowledge gained. Cognitive theory of multimedia learning is illustrated in Figure 4.

## **6.Data Analysis**

Based on the SWOT matrix analysis, designing multimedia learning using strategies Weakness- Opportunity as a reference. Training Division PT Konimex seeks to take advantage of opportunities that exist to minimize weaknesses.

### **6.1. Weakness**

- Modules that are not considered elements of visual aesthetics and information.
- Text content on the module are still a lot of copy-paste from the original post, it makes eyes tired for trainees to read long article on the screen.
- Not considering the different abilities for each employee in receiving information.
- Existing modules utilizing only visual memory line sensors, there's no sensor for verbal memory. This would weaken the long-term memory.

### **6.2. Opportunity**

- Internet connection is getting smoothly. Access the online materials are not confronted with obstacles.
- Information technology, especially the growing field of multimedia.
- The development of e-learning system is getting better.
- The development of graphic design can help produce interesting content material

Based on this analysis PT Konimex training division need to create a training module based on interactive multimedia. Designing with the right layout and setting and focus to esthetic elements and information so that learning objectives can be achieved effectively.

## 7. Design Concept

### 7.1. Communication Concept

The communication concept is conveying through multimedia learning modules which sales person sales of PT Konimex provided with access to knowledge and information related to other technical matters related to the work in the field of sales.

With interactive multimedia concept, trainees can easily access the desired material more freely and not linear navigation through the training module.

#### 7.1. Creative concept

Creative concept is to creating the materials that contains a combination of text components, images, animation and audio.

The application of text components in multimedia module is using short and clear text. Text settings and placement is creating as efficiently as possible because there will also be included other multimedia components that can support the text component.

Drawing figure using PT Konimex employees and staff, also display the company building to create content modules become familiar with trainee.

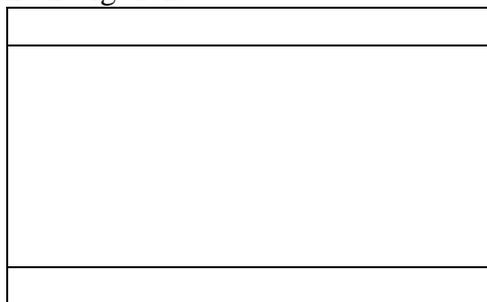
Animation components used in the module that needs further explanation. Using the animated components would simplify and shorten the text explanation.

The audio component is a component that optimizes verbal memory line sensor. The audio component supports other multimedia components to simplify the explanation of the training materials. Narrative style in this module is using corporate narrative style but with teaching approaches.

#### 7.2. Visual Concepts

Visual concepts were obtained from the concept of communication and creative concepts as described previously. Visualization is used as a result of observation, interviews, questionnaires and data analysis reinforced the premises of the theory.

Layout style model is using the top index style, content will be placed on central section. The lower part is used for menu navigation.



**Figure 5.** Layout

The colors implementations of layout module are red, blue and gray. The red color (#c41a1a) for the top navigation that contains the logo of PT Konimex menu navigation buttons. The blue color (#1e2f48) for the navigation below the content contains navigation buttons and title for each material. Gray color (#c5c5c5) for the content materials.

Typography for this module is using *Myriad Pro Condensed* font that contained in the whole module for text description. This font have clear style, professional and corporate style. For the main title for each module is using *Collegiate* font that have correlations to campus style

Illustration used vector illustration that describing a salesperson and staff person of PT Konimex. There are also other characters associated with the material such as an object or consumers characters to help explaining learning material. Illustration style is using cartoon illustrations with corporate element.

### **7.3. Media Concept**

The application used SWF Flash format. Swf file can be attached to the e-learning system. The resolution is using 800 x 600 pixels with 24 fps frame rate.

Material contains JPG and PNG format images. It previously processed first by Adobe Photoshop CS5 software. Vector material processed using Adobe Illustrator CS5 and Corel Draw X4.

Audio narration edited and processed by SoundForge Pro 10 with mp3 format compression.

All these processed materials was collected to be designed and developer by multimedia and animation software using Adobe Flash CS5 software. Final files using SWF files format.

## **8. Results of Designs**

Based on the formulation of problem, the data gathering and theoretical analysis, analyzed into the design concept, then the visualization of the design is as follows.

The character is using cartoon-style vector illustrations with the representation of PT Konimex employees.

### **8.1. Character**



**Figure 6.** Character  
Source: HRD PT Konimex

Consists of the sales person, the men and women staff, and also executive character.

### **8.2. Welcome Screen**

Welcome screen is shown here a teacher character that represents the HRD staff. There are animation on the teacher character. The background consist of the company building and title of the module. There is a narrator who read welcome greating and the title of the modules that will be learned.



**Figure 7. Character**  
Source: HRD PT Konimex

### 8.3. Main Menu



**Figure 8. Character**  
Source: HRD PT Konimex

On the main menu, the teacher character is using the greenboard to show the material contained in the module. Teachers also made by animated character which pointed to the material on the board. User may choose their desired material. Each selected material will sound narrated.

### 8.4. Content Material

When entered into the content material, there is a narrator who reads the topic to be discussed. There is a display of images, text and animations in every part of this material, to clarify the explanation.



**Figure 9.** Character  
Source: HRD PT Konimex

## 8.5. Content Material



**Figure 10.** Character  
Source: HRD PT Konimex

## 8.6. Content Material



**Figure 11.** Character  
Source: HRD PT Konimex

## 9. Closing

PT Konimex training division need to create multimedia learning module that have interactivity, good design and layout. The using of multimedia components such as images, text, animation, and audio will facilitate the transfer of knowledge to trainees. So the training material can be embedded in long-term memory training participants.

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