

## MULTIMEDIA BASED APPLICATION DESIGN OF SELECTION EXAMINATION AS A SUPPORT FOR PAPERLESS OFFICE IN PPKD EAST JAKARTA

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### ABSTRACT

Selection test potential trainees an early stage that must be passed by the prospective trainees PPKD Vocational Computer Operator in East Jakarta . If they pass the test of selection then they will be declared acceptable in Vocational Computer Operator PPKD East Jakarta . Exam selection of participants aimed to screen potential participants vocational training Computer Operator to produce the trainees who have the ability to match qualifications set by PPKD East Jakarta.

Selection is done through two kinds of tests, the first test on paper contains questions about the basic knowledge of the computer after it conducted the interview. Application design exam multimedia-based selection we made is aimed at reducing the use of paper at the reception the selection of trainees so that the concept of paperless office that has been socialized can also be applied in East Jakarta

PPKD albeit merely in vocational Computer Operator

Application design exam multimedia -based selection is expected to bring some positive impacts, among others, about the inspection saves time and also save paper exams and answer sheets, further away from the exam application design multimedia-based selection can help preserve nature because it saves material usage raw paper derived from nature that the trees in the forest.

**Keywords:** Application Design, Selection Examination, multimedia, paperless office

### 1.1 Introduction

Since in recent years the government and the private sector has much to invest for the procurement and use of Information and Communication in organizations/institutions.

PPKD East Jakarta as one part of the government is required to participate implement and utilize information and communication technology in its operational activities in accordance with the duties and

scope of vocational training as a place for the community, especially for the graduate from SLTA.

Paperless Office is one of the benefits of the application of Information and Communication Technology in the office, which is saving the use of paper in the activities of daily work in the organization.

The design of multimedia -based application was created as a form of support for the movement of the "paperless office" in PPKD East Jakarta. About the use of multimedia applications is expected to reduce paper consumption in East Jakarta PPKD although it is still limited to the small scope is the selection exam in Vocational Computer Operator, but can be the first step for the implementation of Paperless Office movements in other parts.

### **1.2 Problem Formulation**

The formulation of the problem in this research is how to reduce the use of paper for the exam process selection in PPKD East Jakarta to support the movement of the paperless office ?

### **1.3 Scope of Research**

This study is limited regarding the design of application programs exam participant selection PPKD multimedia based in East Jakarta to support the movement of paperless office through the use of the Adobe Flash.

## **2. Review of Literature**

### **2.1 Multimedia**

According to William Ditto in Ariasdi ( 2013 ) that " the definition of multimedia in science include some aspects of synergy , between text , graphics , static images, animations , movie and sound " .

One of the research on multimedia is the research conducted by Francis M. Dwyer in Ariasdi ( 2013 ) as follows : " After more than three days in humans generally can remember the messages conveyed through writings by 10 % , 10 % audio message , visual 30 % and when combined with doing , it will reach 80 % " .Some multimedia elements are Text , Voice ( Audio ) , Graph ( Figure ) , Animation , Simulation , Video.

### **2.2 Evaluation of Learning**

Sutopo Hadi (2009 ) says that " teaching evaluations ( exams ) is required to measure student learning outcomes in a particular subject " . In general, the evaluation of learning is done manually , using paper media .

Agus Santoso , et al (2010 ) says that along with the development of ICT , testing using the computer starts much done . Computers used to perform test automation activities , initially using paper and then transferred into the computer so that the security of the exam becomes more assured,

look better exam, exam results counting error becomes smaller, accelerating the provision of a test result value , reduce waste paper after exam lasted so it would also reduce the cost of procurement of paper.

## **2.2 Paperless Office Concept**

### **2.2.1 Paperless Office Definition**

The concept of " paperless office " was first introduced by George Pake , head of Xerox Corp. 's Palo Alto , California , USA . Pake (1975 ) predicts that there will be major changes in the management office . In 1995 , in the offices will be available screen monitor and keyboard for the purposes of search and display documents necessary so that the entire process was still using paper will be replaced by computers .

Ragnet (2008 ) proposed the concept of the less paper office , namely how to use the paper more responsibly , reduce the amount of paper used and effectively promote the improvement of business performance from the standpoint of communication , cost and the environment .

A study conducted by Coopers and Lybrand in McIndoo ( 2009) showed that :90% tugas perkantoran adalah pengelolaan dokumen kertas,

- a. the average office made 19 copies for each document ,
- b . offices have lost one of the 20 documents ,

- c . require the filing cabinet at USD 25,000 with maintenance costs of USD 2,000 , and
- d . a working unit lost 15 % of all of the documents they handle and spend 30 % of their time trying to locate the missing documents

In addition , wages are to be allocated is equal to :

- a. USD 20 for management of a document ,
- b . USD 120 to search the missing documents , and
- c . USD 250 for a remake of the missing documents .

*" Paperless Office " is a work environment which greatly reduced the use of paper to a minimum and not eliminated altogether . For the purposes of internal documentation of the company / institution , may be made the concept of " Paperless Office " . But the form of paper documentation is still required for external parties companies / institutions . Therefore , the implementation of the concept of " Paperless Office " is not really 100 % eliminate the use of paper , but only reduce their use to a minimum . The concept of " Paperless Office " conducted by converting documents and other papers into digital form .*

### **2.2.2 Steps Achieve Paperless**

According to Walker (2009 ) in an article entitled " AchievingThe Paperless

Office " there are three steps to realize the concept of Paperless , namely :

- 1) *Recognize your cost savings and revenue gains from eliminating paper. Without the right incentive, no organization will choose to evolve*
- 2) *Look for systems that can eliminate the paper or reduce the need for paper in the first place.*
- 3) *Partner with a company who can provide the infrastructure, technology and service to deliver on the promise of a paperless office.*

### **2.2.3 Benefits to the Company's implementation of Paperless Office**

According to Bambang Supradono (2010 ) there are some benefits offered by the use of paperless among others : cost efficiency , time efficiency , reduced paper stacks , Assuring document security , document management and better working comfort , support the better decisions , monitoring document into better , improvement in the image of the company in connection with the improvement of management and service .

### **2.2.4 Barriers to Implementation of Paperless Office for the Company**

According to Bambang Supradono (2010 ) that humans as users still like the

smell of analog though everywhere pampered with digital products . This may be caused by the following:

1. The use of paper as a medium of writing is still more practical than the digital product .
2. The use of small amounts of paper as a medium of writing is still considered to be more efficient when compared to digital products .
3. The digitization process requires a certain skill that not everyone is able to do so .
4. The level of public confidence in the use of paper is still larger than the digital product .
5. Most people are still not so fond of reading materials that are serious in front of the screen . They assume that for materials that are seriously better in paper form that can be read anytime and anywhere .

### **3. Research Objectives**

The purpose of this research is to reduce the use of paper in the process of selection tests in East Jakarta PPKD melaluipembuatan a draft application exam - based selection of multimedia which is no longer required a lot of paper dalam pelaksanaan selection test so as to support the paperless office movement which is also one way to help preserve nature so that we can bequeath a sustainable nature green

with trees that make the cool air and healthy to our children in the future .

#### 4. Research Methodology

##### 4.1. Methodology

The methodology used in this study is simple descriptive qualitative methodology by means of observation and interviews to compare the timing and amount of paper procurement selection given exam using paper media to the test results using a selection of multimedia -based application program , as well as see the benefits resulting from the application of matter based multimedia .

##### 4.2 Method Of Collecting Data

###### 4.1.1. Observation

Observation is a method of data collection by way of a direct view of the work going on in the field. Observations made at the time of the prospective trainees work on the problems of selection entrance exam . In addition , the observation was also done when the participants were in the computer lab .

###### 4.1.2. Interview

The interview is one method of data collection is done through a question-and-answer directly to the interested parties , such as the selection of participants and the executive committee selection tests as well as an instructor in PPKD East Jakarta

###### 4.1.3 Questionnaires

The questionnaire is one method of data collection is done by providing written questions with answer options that have been provided . Based on the questionnaire , the collection of the data processing is done the results are analyzed and become inputs in making the selection of the application program entrance exams based on multimedia .

###### 4.1.4 Literature Review

Literature Review is the method of data collection through literature , books , scientific journals , and the Internet .

#### 5.1 Results Program Application

##### a. The initial view

Figure 5.1

##### Description:

Participant Selection Trials must include the full name and click Ok

##### b. View 3

After filling the full name and clicking Ok button then comes the display as shown

below. In this view the test participants were asked to read the clue



Figure 5.2  
List Menu

**c. View 3**

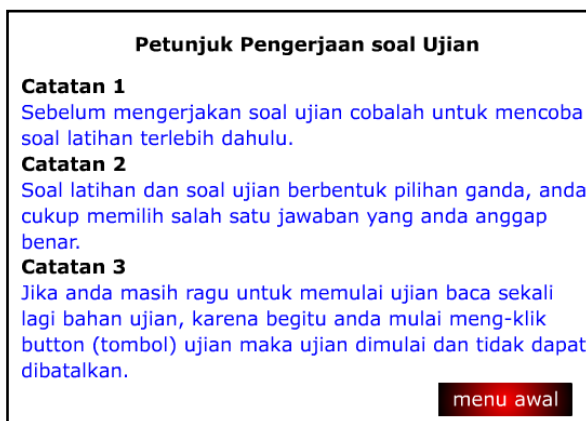


Figure 5.3  
Instruction Examination

As a matter of processing instructions for examinees .

**d. View 4**

Furthermore, the test participants are encouraged to choose the exercises , so comes the display as shown below.



Figure 5.4  
View of exercises

These exercises intended to make trainees familiar with the model exam . If examinees have tried the exercises then the next trainee clicking the exam so comes the display as shown below.

**1. View 5**



Figure 5.5  
View of the Examination

Agar soal ujian tidak dapat digunakan oleh sembarang orang maka dibuatlah menu password.

**2. View 6**



After entering the password then start the process of examination , the examinee simply select the correct answer to the question by clicking , if it has been completed then the next comes the display as shown below.

**3. View 7**

Having completed the exam then comes the results are as follows :

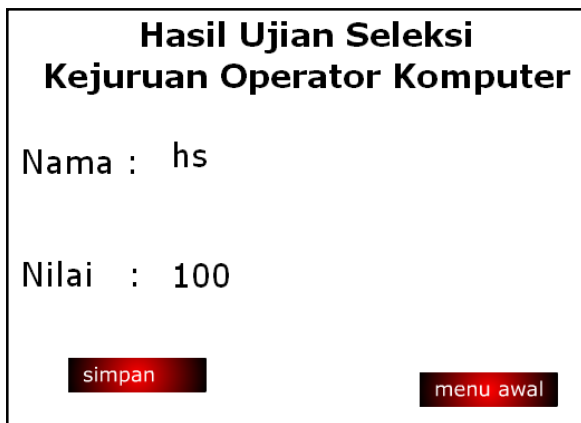


Figure 5.7  
Examination Result

**4. View 8**

Test results can be stored and viewed as follows :

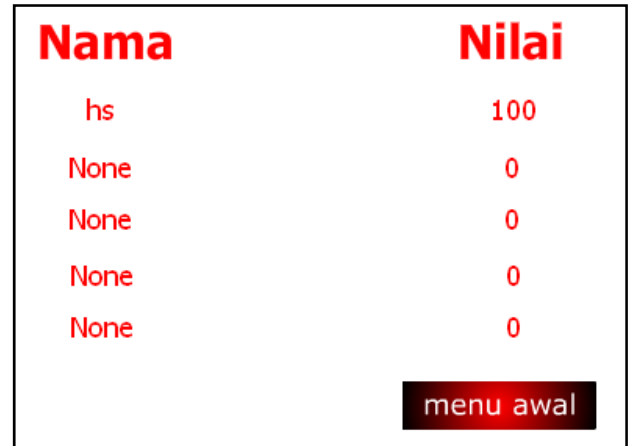


Figure 5.8  
List of exam results

**5.2 Discussion Result**

1. Trainees stated that the matter clearer view , particularly questions that accompanied the picture in the original color , in contrast with the results of photocopy paper display that is sometimes blurred and unclear .
2. The Instructors no longer need to make corrections answer because the value has been automatically stored and can be viewed at any time needed .
3. Saving the use of paper or Paperless Office can be achieved with the use of these multimedia -based application programs .

## 5. Conclusions and Recommendations

### a. Conclusions

Based on the trial about the use of the multimedia -based selection , the time wasted for sharing questions and answers correction no longer need to be done because the value is automatically able to dilihat.Selain itupenghematan paper usage can be done so that the movement of paperless office is able to be applied in East Jakarta PPKD.

### b. Recommendations

Multimedia -based selection exam is expected to be developed further in order to provide facilities essay questions in a simple form so that more varied forms of matter not only multiple choice questions .

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LAMPIRAN

Lembar ke-1 : Untuk Pembeli BKP/Penerima Ji  
sebagai bukti Pajak Masukan  
Lembar ke-1 : Untuk Pembeli BKP/Penerima JK  
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No. Urut	Nama Barang Kena Pajak/ Jasa Kena Pajak	Harga Jual/Penggantian/ Uang Muka/Termijn (Rp.)	
1	Printer HP 2520	1,499,000	
Harga Jual/Penggantian/Uang Muka/Termijn (*)		1,499,000	
Dikurangi Potongan Harga		-	
Dikurangi Uang Muka yang telah diterima		-	
Dasar Pengenaan Pajak $(100/110) \times \text{Rp. } 1,499,000$		1,362,727	
PPN = 10% x Dasar Pengenaan Pajak		136,272	
<b>Pajak Penjualan Atas Barang Mewah</b>			
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..... %	Rp. ....	Rp. ....	
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Jumlah:		Rp. ....	

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\*) Coret yang tidak perlu.