SUPPORTING MATERIALS BASED ON MICROSOFT EXCEL AND MICROSOFT WORD IN PROCEEDING PROGRAM IN UPBJJ-UT MAKASSAR

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Abstract: This study aims to determine the obstacles encountered in the manufacture and use of applications charging materials support exams based on Ms. Excel and Ms. Word is done through three stages. The first stage is preparation which includes development and pilot activities. Furthermore, it is followed by the implementation of the use of Excel and Ms. Word based application support materials. The last stage is to evaluate the utilization of Excel and Ms. Word support application materials. Application development is built on spreadsheet Ms. Excel for data processing and pages Ms. Word to display the test material supporting materials. In this study the document is facilitated by the application of the only supporting test material that involves the process of calculation or recapitulation. Based on the findings and inputs on application trials, several improvements were made before the application of this test material was used in the implementation of the Non-Pending Test of the 2015 test period. The results of the implementation of the application of the supporting material of the exam on the implementation of Non-Pendas 2015.2 program test in Sidrap Regency, obtained some positive statements related to the outcome of the application of the test supporting materials. In general, the exam committee gets significant benefits with the use of application of exam support materials. In addition to the validity of the data issued by the application is very good, on the implementation of the application activity of the exam committee runs optimally in accordance with the rules that have been set by UT Pusmintas. The implementation results also provide clues that the use of Ms. Excels and Ms. Word based exam support application. This Word will be very effective if the mobile supervisor can play an optimal role as a data collector in accordance with the time required by the administrative officer, as well as the validator of the document filling out the application documents and documents of manual filling by the inspector of space and administrative officers. In future research required applications that can support the processing of test results involving databases throughout UPBJJ-UT.

Keywords: Application, Exam Support Materials, Ms. Excel, and Ms. Word.

1. INTRODUCTION

Open University (UT) is one of the organizers of Distance Learning (PTJJ). In conducting its learning, UT uses both print and non-print materials that are designed to be studied independently. Furthermore, in order to evaluate the students' competence after learning the teaching materials independently, UT students must take the final exam of Semester (UAS) at the test location closest to where they live.

According to Rahayu, Sigit, & Dianiyati (2011), since the Registration Period (MR) 2011.1, UT has used UAS-based digital printing script that aims to reduce the level of student error in filling his data on the Examination Answer Sheet (LJU). Although the MR was only tested in the Non Basic Education Program (Non Pendas) in seven Units of Distance Learning Program (UPBJJ) only, but the results of research Rahayu, Sigit, & Dianiyati (2011) showed a decrease in error rate from an average of 1.1 % error when UAS script has not been duplicated using digital printing, to 0.05% after using digital printing. Therefore, improving the quality of UAS manuscript copying and student's accuracy in filling out the LJU is expected to eliminate the errors that can not be processed LJU.

Improving the quality of the UAS script should also be followed by the speed of packaging and recapitulation of test results, so that the process of sending LJU to UT Central can be accelerated to avoid delays in processing grading by the UT Testing Center (PUSJIAN-UT). Obstacles experienced by the exam committee in the packaging process is generally caused by the process of re-checking (validation) data field news events (BA) which involves the process of recapitulation of the test results file. In addition to the three types of event news files per exam room that must be completed by the exam committee, there are 25 types of documents of supporting test materials per room / per location / per exam place that must also be completed by the exam committee. The completeness of such documents is required to meet the requirements of ISO Test Materials that have been developed by UT's Quality Assurance Center (Pusmintas) UT (Pusmintas-UT, 2013a).

The process of calculating and preparing a summary of test result file data from the Examiner Participants List and Exam Locations can be done with the help of some of the techniques and formulas available to Ms. Excel. The basic technique and the use of the formula can be learned through the Basic Matter Book (BMP) of PAMA3329 Computer 1, which is a printed material for students of Mathematics Education Faculty of Education and Science UT (FKIP-UT) (Polla, 2007). Although not all the necessary steps in processing and preparing a summary of the test result file data are available in BMP PEMA4206, the basics described in BMP PEMA4206 can be implemented and developed as required.

In order to produce the Ms. application Excel and Ms. Word that can be used in data processing of test results documents and ISO Test Materials extensively (not only in one location or place of exam only) hence required deep study in development process and effectiveness of its utilization. This is required in order to make the application of Ms-based exam support material support Excel and Ms. This Word can help the exam committee in completing the exam support materials and does not create new problems that may affect the exam implementation process.

Conducting the Open University Semester Exam:

The final exam of the semester (UAS) conducted by the Open University (UT) is one of the evaluation tools to measure the learning outcomes of UT students in addition to the value of the tutorial task. Implementation of UAS is implemented in the Distance Learning Program Unit (UPBJJ) where UT students apply. However, if the student is unable to follow UAS at UPBJJ-UT where he / she is applying for a reasonable reason, then the student can take the exam at other possible test places. This can be done by the students after obtaining permission from UPBJJ-UT where they register and UPBJJ-UT where the exams will be followed.

Implementation of written UAS for Non-Elementary Basic (Non-Minimum) program at the Registration Period (MR) 2015.1 will be held on May 3, 2015, May 9, 2015, and May 10, 2015 (Open University, 2015a). On the other hand, the written UAS for the Pendas program is held on 20-22 June 2015 (Open University, 2015b). For students who take courses with written examination hours in two courses or more at the same time, then the student can take an online exam conducted on MR. 2015.1 for Non-Pending programs in the period of May 17, 2015 to June 13, 2015 (Open University, 2015a). As for the Pendas program, online exam on MR. 2015.1 is held on June 29, 2015 until August 15, 2015.

Implementation of written UAS carried out in place of examinations that have been established by the Rector III. In general, the examination site is a campus building, a junior high school or high school (SMA) in a district / municipality that has been agreed by UPBJJ-UT and local Education Office. At one exam site there is one person in charge of the Examination Site (PJTU) which is in the Examination Execution Procedure and the Examination Criteria (Pusmintas-UT, 2013b) explained that the UPBJJ-UT staff should have experience in the exam committee for at least two years in a row or UT-Center staff who have attended the PJTU briefing.

One test site may consist of one or more exam locations depending on the number of required exam rooms (Pusmintas-UT, 2013a). UAS activities at a test location will be coordinated by an Examiner Site Location (PJLU). According to the Examination Execution Procedure and Examination Criteria, PJLU must be a UPBJJ-UT staff with experience in the minimum two year consecutive exam committee or UT-Center staff who have attended PJLU (Pusmintas-UT, 2013b). In the implementation, PJLU will be assisted by the Mobile Controller (Pengantauas Gili). Explanation on Execution Exam Procedures and Execution Testing Criteria, Mobile Supervisors are UPBJJ-UT staff or other agency staff who have had a one-year exam committee experience. Meanwhile, each examination room will be supervised by a Space Inspector. Selection of Space Supervisors is based on the recommendation of authorized agencies or organizations that have cooperated with UPBJJ-UT.

In general, the duties and responsibilities of PJTU, PJLU, Mobile Controller, and Space Supervisor are regulated in the Examination Exam Procedure (Pusmintas-UT, 2013b). However, for PJLU there is PJLU Work Guideline which explains the series of activities that PJLU must perform before the execution of the exam, during the execution of the exam, and after the execution of the test (Pusmintas-UT, 2013f). In addition, there is also a Mobile Monitoring Guide that confirms the duties of a traveling supervisor (Pusmintas-UT, 2013d). Similarly, the explanation of the activities to be followed by the space supervisor is further elaborated on the Working Guidance of the Examiner of the Test Room (Pusmintas-UT, 2013c).

In the implementation of written UAS, both for Pendas and Non-Pendas program, PJTU, PJLU, Mobile Supervisor, and Space Supervisor not only have the obligation to conduct UAS in an orderly, safe, and controlled manner. However, furthermore, the exam committee is also required to fill out the recapitulation document of the exam materials and exam support materials that have been made by the Quality Assurance Center of UT (Pusmintas-UT) both for the purpose of sending the examination result and the ISO document of the Test Material (Pusmintas-UT, 2013a) .

2. RESEARCH METHODS

This research application development of Excel and Word exam support materials will be done by using qualitative research method. Stages to be implemented in this study include the preparation stage, implementation phase, and evaluation stage of the use of Excel and Word exam support material.

1. Research preparation phase:

Preparation stage in this research will be carried out trial and utilization activity of application of Excel and Word exam support material in limited way. In this trial we will use the data of Participant Exam Participants and Examination Room of Pendas Program at UPBJJ-UT Makassar Registration Period (MR) 2015.1. As an evaluation of the results of the application of Excel and Word-based exam support materials then the data will be compared with the file material of the MR 2015.1 exam support stored in UPBJJ-UT Makassar.

If the output of the Excel and Word test-based application materials is valid then the application of Excel and Word-based exam support materials can be used at a later stage. However, if the output of the application of Excel and Word based exam support materials is not valid enough, it will be repaired until it can produce valid results.

2. Implementation Phase Research:

At the implementation stage of the research, the application of Excel and Word-based exam support materials will be used on the implementation of the Non-Pending UAS MR 2015.2 program. On the implementation of the UAS will be provided CD Excel and Word exam support material support and printed test print support materials used to continue to be used. The use of manual support materials is useful to get a comparison of the application of Excel and Word-based exam support materials.

3. Evaluation Phase Utilization of Application Supporting Materials Exam Based Excel and Word

This evaluation phase will be used in the study to get an overview of the constraints and effectiveness of the use of Excel and Word-based exam support materials. The results of this stage are expected to give birth to the recommendation of application development of Excel and Word-based exam support materials.

3. RESULTS AND DISCUSSION

1. Limited Testing of Application Supporting Material Testing Based Word and Excel:

Prior to the application of these exam support materials used extensively by the exam committee, the researcher along with the three ICT staff of UPBJJ-UT Makassar conducted a limited trial of the application of exam support materials. This limited trial is intended to validate the applications that developers have created. Trials are conducted on all forms that have been developed using any data. This is done to know the outcome of the application. If the document is filled with the correct data but there is an error on the outcome of the application, then the application needs to be fixed. Similarly, if the data entered is incorrect but the app displays unexpected output, then the application needs to be fixed.

Based on the results of the limited trial, found some initial error of the application of exam support materials. First, on filling out the exam form and exam day, Pivot Table function can not run properly. This is indicated by the Excel notification when opening both files of the document. The notification states that the Pivot Table function can not be performed if the Excel sheet is locked using another Pivot Table report from the same data source.

The statement on the notification indicates that in the application of the examination of the test material it is necessary to consider the use of the Pivot Table should be placed on a sheet different from the form of document to be accessed or used by the exam committee. However, on the exam form and exam day, this is a dilemma, because the Pivot Table can not be separated from the document form of the examination of the examination place and the exam day.

The second problem that appears in this limited trial is on printing the UJ02-RK02-RII.0 document form that uses the Mail merge facility in Word. The problem occurs either on the form of data filling in Excel that will be used as a reference and documents in Word that will be displayed for printing the document. In Excel, the form of charging becomes a file that is read only so that it can not be saved. If forced by storing with a different name, the Word document can not facilitate any changes to the data being made.

From this second problem, a temporary conclusion can be drawn that Mail merge facility in Word can not be used for dynamic data. Therefore, applications for UJ02-RK02-RII.0 document printing should be created in Excel like any other document.

The next problem, if done filling the data due to no data changes or data filling on a document, then there will be recapitulation errors in the next form. This is indicated by an incorrect application outward display and an error message (#NA). Therefore, it can be concluded that while in the linking of data between files (link file) to note the possibility of the data will be accessed by the exam committee. If it is not possible (What is not possible?) It is necessary to establish a directive that requires the exam committee to access all documents even if there is no change or data filling.

2. Follow-Up Results of Findings on a Limited Test of Excel and Excel-Based Test Support Materials:

Based on the findings of three problems in the limited trial above, the researcher considers it necessary to make some improvements to the application of the test support material. The first improvement is to move the Pivot Table results with documents that will be used by the exam committee to another sheet. In order for the sheets not to be confused and not changed by the exam committee, the sheets containing the Pivot Table are hidden. This is done in order to avoid the inability of Pivot Table data if cell locking is done on a sheet. But for the form of election document where the exam and exam day is not done locking. In order for the committee to remain focused on the selection of examination venue and examination day only, the explanation on the use instructions is confirmed not to make any changes other than choosing the exam site and the day of exams only.

The second change is to change the form document UJ02-RK02-RII.0 in Excel. The form of the document form is similar to the form document UJ02-RK01-RII.0. But the data used is data needs UJ02-RK02-RII.0. In this new form the exam committee simply select the exam room number. Other data on the form will change automatically. Furthermore, the committee can copy and paste the necessary documents in Word for printing.

The third change made in the application of exam support materials is to examine the relation data on a file with other files so as not to cause data errors if there is a leap charging data on a form. Also checking the Pivot Table settings to refresh every opening document file. This is intended to avoid data errors due to not done refresh data.

3. Trial of Application Supporting Material Testing Word and Excel based on UAS Non Pendas Test Period 2015.1:

After some improvements to the application of the test materials, the results of the experiments are limited, the next step in this research is to conduct a trial involving the examination committee assigned to the implementation of the 2015.1 test exam in UPBJJ-UT Makassar. To get respondents who are willing to take this test, the first step is to provide socialization to all PJTU / PJLU who served on UAS Non Pendas 2015.1 test period. Although the target in this research is the filling of the supporting material of the Examination, the utilization of the application of the test supporting material on the Non Pendas program anticipates if there are any things that need to be fixed in the application of the test supporting material before used in the test of the application of the supporting material of exam in the Pendas program.

In socialization, PJTU / PJLU assigned to UAS Non Pendas 2015.1 testing period in UPBJJ-UT Makassar area is given an explanation regarding the utilization of application of supporting material of exam. After an explanation, PJTU / PJLU is asked to provide relevant comments if the use of the application is used during the execution of the exam. This is done by using Focus Group Discussion (FGD).

4. Follow Up of Findings on Trial of Supporting Materials Test Exam Based on Word and Excel Non-Pending Program Test Period 2015.1:

Based on inputs obtained from FGD activities and testing of filling application of Non-Pending test program test material in 2015.1 test period, the researcher did follow up to improve the program on the application of the supporting material of the exam. The first improvements were made on the UJ02-RK01-RII.0 document form UJ02-RK02-RII.0, UJ02-RK07-RII.0, and UJ02-RK09-RII.0. In each of these documents, the choice of exam room is removed and replaced by presenting documents for the entire exam room. The number of possible documents presented is done by looking at the maximum number of spaces on the 2015 Test period test landing venue.

However, in order to avoid the display of empty data, each cell starts with a command if (IF) there is no test room on the data requirement recapitulation form in UJ02-RK02-RII.0 document then no data (empty) as shown below this. This is done in order to give instructions to the committee that the page does not need to be printed. Although cell-bounding (table box) and exam clock circles can not be hidden, but at least the absence of text on the sheet can be a clear sign.

5. Testing of Application Supporting Material Testing Word and Excel based on UAS Pendas Test Period 2015.1:

After trial and repair of application of test supporting materials using the data of the implementation of Non-Pendas test program test period 2015.1, the research continued by conducting trials using the test data of the 2015.1 Length test program. This needs to be done to see the validity of the application on each test program (Non Pendas or Pendas). In addition, testing on this Pendas program is also needed to see changes in the behavior of the exam committee when inputting the test results data, because the data on the results of the exam Pendas program more than the data that must be filled by the exam committee on Non-Pendas program.

Initial findings obtained from the results of this trial is the exam committee can fill the test result data faster than ever. In addition to knowing what data should be filled in the application of exam support materials, they also have known some form of documents that must be filled as well as the strategy of filling, printing, and storage.

6. Follow-up of Findings on Trial of Supporting Materials for Word-and-Excel Exam Testing Program 2015.1 Testing Period:

Responding to the results of the findings on the trial use of the application of the supporting material of the test using the data of the test results of the 2015.1 Pending Test program, a few follow-up steps were taken. In relation to the technical constraints faced by the exam committee in using the application document for the use of a PowerPoint Slide Show exam application, the committee is given guidance on how to solve the problem if the exam committee will exit the PowerPoint slide and return to the last page it has accessed. This is done by accessing the application's usage instructions by opening the Ms. application. PowerPoint to then select the file to be opened is a document for the use of the application of the exam support material. The view will be presented in the form of a regular PowerPoint slide (not the PowerPoint Slide Show).

Furthermore, following up on the pdf file selection issues that are not available in the Excel file storage facility under version 2007, the on-the-go CD Test Support Materials comes with the program file "Save As PDF" which allows storage in Excel 2007 downwards in pdf file format. The updater file is downloaded for free from the https://www.microsoft.com/en-us/download page. Installation of the updater program is relatively easy, but in anticipation of the installation process assisted by ICT staff UPBJJ-UT Makassar.

7. Implementation of Application Supporting Materials Exam Based Word and Excel Non-Pendas Program Test Period 2015.2:

After multiple test runs, MSS, Excel and Word exam support material applications are used in the implementation of the Non-Pending Test of 2015 test period. In these implementation activities, the exam committee is not only equipped with a CD containing only applications, but also comes with a technical manual on the use of application of exam support materials and checklists that will be useful in using the application of exam support materials effectively.

Information obtained based on observations, questionnaires distributions, and interviews conducted to the exam committee is the basis for drawing conclusions on the effectiveness of the use of these developed exam materials. Considering the readiness of PJTU / PJLU which is in charge of the implementation of UAS Non-Pendas program of 2015.2 testing period in terms of computer usage, especially the use of application of exam support materials, the PJTU that will implement this application can only be done at the Sidrap District exam site. This is because PJTU assigned at other test places in UPBJJ-UT Makassar area reasoned that the data that must be filled in Non-Pender program test support material is only a few, so the recapitulation process can be done quickly manually.

4. CONCLUSION

Based on the results and discussion above, it can be concluded as follows.

1. Constraints faced in making applications such as

a. Mail Merge facility in Word can not be used in documents containing dynamic tables and data,

b. Pivot Table Excel facilities have limited functionality if the Excel sheet will be locked (Protect Sheet),

c. Formatting documents in Excel is not as easy as creating Word documents, and

d. Attribution of data to a file from another file needs to take into account the possibility of access to data changes by the exam committee so that the document leapfrog does not cause errors in the next recapitulation.

2. The use of application of exam support material is considered very helpful for the exam committee in filling out the document, validating the data, and speed up the process of packing the exam result and the test supporting material.

3. Obstacles that will be faced by the exam committee in the use of the application of exam support materials such as administrative staff skills in the use of computers, especially Ms Excel and the availability of facilities such as laptops and printers.

4. The use of Excel and Word-based exam support materials will be very effective if the mobile supervisor can play an optimal role as a data collector in accordance with the time required by the administrative officer and the validator of the document filling out the application documents and documents of manual filling by space supervisors and administrative officer.

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