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ATTENDANCE RECORD OF COLLEGE ACTIVITIES (ARCA) WITH INTEGRATION OF SCRUTINIZATION AND REPORT GENERATOR MODULE

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ABSTRACT

Students' attendance in all academic institutions are very important and cannot be overlooked because there are pre-determined criteria for attendance in class, college activities and examinations. Manual method of taking student attendance activity is not effective due to several challenges. Data collected through conventional method is difficult to manage, time-consuming to be scrutinized, and causes wastage of human and material resources. Therefore, aim of this project is to integrate a developed system, Attendance Record of College Activities (ARCA) with a scrutinization of college application and report generator modules. The project involved three main phases which are requirement identification, design and development, and testing phases in part of the research methodology. The study also involves usability and functionality testing by using unit test, script testing and distributed post-task questionnaires respectively to the college manager, college staff, staff resident college and to the students in UiTM Perlis branch. The results of usability testing show that most users satisfy with the integration of modules in ARCA system to full fill their day-to-day work. This shows the modules integration provide significant impact and present very promising results.

Keywords: attendance record, college activities, scrutinization, web-based application, report generator

1. INTRODUCTION

Attendance Record of College Activities (ARCA) is a web-based system used to record student attendance for college activities [1] conducted by Student Affairs Division (HEP) college management or organizers in UiTM Perlis where the organizer can be staff or students. The system is established and developed by earlier team members. In this project, two main modules scrutinization and report generator will be developed. Based on the data stored, report generator module will generate the list of students that are legible or illegible to get college placement in the following semester after automated scrutinization process. Current system has an inefficient scrutinization function that can cause an inaccurate list of students additionally, scrutinization function is that the activities attended by students are not grouped by semesters which made sorting and organizing data related to activities for each student inaccurate. The existing function for scrutinization also lack of feature to review, accept or reject the college application. Report generation is necessary when dealing with large number of students. It is very time-consuming when

work is done manually and it makes generating the report for management requirements due to the unethical behavior of some students [2].
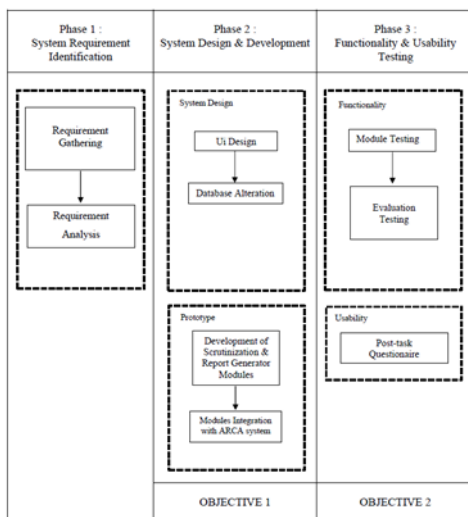
2. METHODOLOGY

Figure 1. Phases in Module Development and Integration.

To achieve the objectives of this project, three (3) phases are involved. There are two (2) activities that involve in Phase 1 which is to identify the requirements that are needed to design and develop this project. Meanwhile, in Phase 2 involves four (4) activities that are done to design and develop a new module. The purpose in Phase 3 are to test the functionality and usability of the system. Three (3) activities were carried out in order to evaluate the constraints of the system in term of the system functionality and usability. This involved 4 administrators, 4 college staffs, 4 college resident staffs, 28 organizers and 3 experts.

3. RESULT AND CONCLUSION

Result from usability testing can be summarized in Figure 2. System's usefulness and satisfaction achieved very good result with greater than 90% for each type of participants. In term of ease of use, lower percentage is observed from administrator with 88.4%. It is believed that many functions and features integrated in administrator dashboard leads to lower value for ease of use. As a conclusion, the integration of scrutinization and report generator module in ARCA system have a significant impact and highly accepted among various level of users.
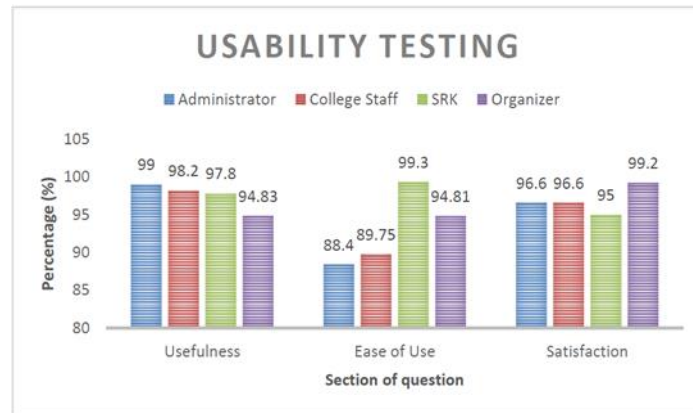
Figure 2. Usability Testing Result

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Kelulusan daripada pihak YBhg. Profesor dalam perkara ini amat dihargai.

Sekian, terima kasih.

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