

Postgraduate Tracking System:

Student Research Progress Tracking Tool

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Abstract

The Postgraduate Tracking System (POSTRACKER) has an ambitious goal of providing the ultimate comprehensive students data management and monitoring system for postgraduate research students of an academic institution. The POSTRACKER is completely a unique invention and it is developed to track students' progress towards graduation (*e.g. data on registration, working title, supervisor(s), defence research proposal (DRP), progress to date, Viva-Voce, examiners, deadlines for correction (after Viva-voce), etc.)*. This automated



tracking system is believed to be effective in monitoring the postgraduate research students' progress and in reducing the amount of time that students take to graduate. Such information made it possible to see if students are achieving their academic goals and administrator could see, as soon as possible, if a student is not progressing. The POSTRACKER is also useful in helping the postgraduate department to plan their educational activities every semester and improve data communication between administrator and the students. In this way, the progress of the students (*both in terms of research outputs and educational activities*) is frequently monitored and measures such as counseling will be taken if progress is lacking. Close tracking and monitoring of individual student using POSTRACKER is particularly useful for all postgraduate schools in public and private universities especially when all the universities in Malaysia are heading toward the 4-year Graduate on Time (GoT) Phd program.

Keywords: Tracking System, Postgraduate, Graduate on Time

1. Introduction

Monitoring research students is a complex task that requires advance innovative efforts (Ismail, Zainal Abiddin, Hassan & Ro'is, 2014). Wamala, Oonyu, and Ocaya (2011) studied the completion time of doctoral study at Makerere University, Uganda and found that the university has dismissed 69 out of 295 students because of poor performance and lack of progress since the commencement of the program. This condition indicates that even at the highest level of education, which is the postgraduate level, students still need to be monitored.

2. Postgraduate Tracking System (POSTRACKER)

The issue regarding the declining rates of timely study completion among research students, particularly doctoral students, has received considerable attention from the government and academic institutions throughout the world. To address this issue, several studies have been conducted on the factors associated with the successful and timely study completion of students in research programs (i.e., Latona & Browne, 2001; Lessing & Lessing, 2004).

Latona and Browne (2001) developed a framework that defines three factors that can influence the timely study completion of students. These three factors are institutional or environmental factors, individual supervision arrangements, and certain student characteristics. In another study, Lessing and Lessing (2004) identified several factors that may influence the graduation time of students; these factors include student-friendly environment at the institution, excellent administrative support from the faculty, strict entry requirements for entrants, and support from supervisors. Tinto (2004) posited that increasing student retention and graduation is possible and recommended the implementation of a mechanism to monitor student progress and performance. Postgraduate students, particularly those undergoing research programs, require an external monitoring mechanism that can guide them in their studies.

An excellent monitoring system and support will help the administrators of postgraduate departments implement postgraduate research programs efficiently. Aside from increasing the

motivation of students to complete their research in a timely manner, such a monitoring system will also enable the management to observe the progress of postgraduate students in a timely manner (Woon, 2011). Studies have shown that automated student progress tracking systems help reduce the amount of time students need to graduate; consequently, excess hours of study are also reduced. An effective monitoring system is crucial for students who undergo research programs. Ismail and Zainal Abiddin (2009) recommended that this issue be seriously observed to guide postgraduate students in completing their studies.

The data gathered by the Faculty of Accountancy, Postgraduate Department, Universiti Teknologi MARA (UiTM), from 2002 to 2012 show that the faculty has faced continuing problems in monitoring the work of its research students (Ph.D. and Master by Research or MBR students). This problem has caused difficulties in achieving the targeted graduate on time (GOT). The following are among the major problems identified.

- 1. Increase in the number of students scheduled for Defense of Research Proposal (DRP), i.e., after the third semester for Ph.D. students and after the second semester for MBR students.
- 2. Increased amount of time required by students to complete their study. On the average, Ph.D. students complete their study within 5.84 years; MBR students complete their studies within 2.69 years.

The presence of only a few or the complete absence of mechanisms to track the progress of postgraduate students has created negative implications and indirectly caused delays in study completion, particularly for part-time students (Woon, 2011). This scenario is worrisome and has elicited concern from the management. Therefore, the faculty initiated the development of a postgraduate tracking system (POSTRACKER) in May 2013. This system is a unique invention that can track the progress of students in completing their study. POSTRACKER is a comprehensive integration of student data management and a monitoring system for research students and it is currently being handled by the administrators of the Postgraduate Department, Faculty of Accountancy. The system includes student registration data, research working titles, supervisor(s), DRPs, student progress to date, viva voce, examiners, and deadlines for correction (after viva voce). This automated tracking system is effective in monitoring the progress of postgraduate research students and reducing the amount of time that students require to graduate. Such information thorugh a series of escalating "alerts" would notify if students are achieving their academic goals and allows the administrator to see if a student is not progressing well. The tracker is also useful for the postgraduate department because it helps in the planning of educational activities, may act as a single point of information retrieval on suggested topics and available supervisors, and can produce standardized reports for quick and timely decisions.

Continuous monitoring will not only help track the progress of students but will also help measure the need for counseling if the progress is found lacking or behind schedule. Close tracking and monitoring of individual students through POSTRACKER is useful for all postgraduate schools in public and private universities, given that all universities in Malaysia aim for a GOT of within four years for the Ph.D. program. POSTRACKER has been



recognized as an effective system and has received the Silver Award in the Research Invention and Innovation Design (RIID) Competition (UiTM Melaka, Malaysia) in December 2013.

3. Deployment of POSTRACKER

Although academic institutions consistently attempt to attract more students to enroll in their programs, the quality of education, particularly helping students achieve GOT, should not be ignored. Academic institutions should consistently meet the expectations of students by providing support and guidance to keep them in track and complete their study within the appropriate time frame (Zainal Abiddin & Ismail, 2011). Thus, the Faculty of Accountancy, UiTM, implemented POSTRACKER. POSTRACKER was introduced in May 2013, and its implementation was conducted in stages. Table 1 shows each type of tracking system that the Postgraduate Department has deployed and the date of the first implementation of each system.

Table 1.	. Implementation	of POSTRACKER
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No	Type of Tracking System	Date of First Implementation
1	Ph.D. Student Tracking System	May 2013
2	MBR Student Tracking System	May 2013
3	Students' Scheduled for DRP Tracking System	June 2013
4	Students Waiting for VIVA Tracking System	June 2013
5	Submission of Correction Tracking System	July 2013

POSTRACKER has begun to show effective results, as evidenced by the following improvements and indicators.

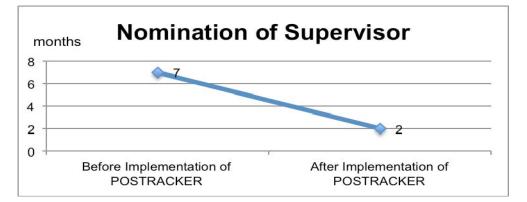
1) Reduction in the length of time for the supervisor nomination process (for newly registered students).

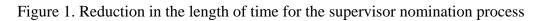
- 2) Reduction in the percentage of students scheduled for DRP.
- 3) Reduction in waiting time for students going for viva voce.

4. Trends and Comparison

The implementation of POSTRACKER has resulted in improvements in the indicators listed above. Since the implementation of POSTRACKER in May 2013, monitoring processes have improved significantly, as presented below.







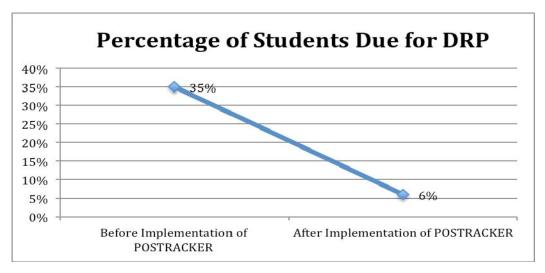


Figure 2. Reduction in the percentage of students scheduled for DRP

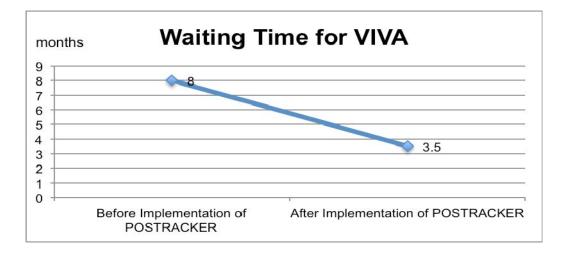


Figure 3. Reduction in waiting time for students going for viva voce



The tracking system has contributed to the reduction in the length of time for the supervisor nomination process (71%), reduction in the percentage of students scheduled for DRP (83%), and reduction in waiting time for students going for viva voce (56%). This finding is supported by the study of Woon (2011) on a student progress tracking tool in University of Malaya; Woon's study revealed that such a tracking mechanism allows the management to be involved in managing and monitoring postgraduate student progress. According to the study, other benefits include accelerated growth though appropriate instruction, documentation of student progress for accountability purposes, and efficient communication.

Aside from the improvements reported above, POSTRACKER can also identify "off-track" students. The following mechanisms were adopted by the Faculty of Accountancy, Postgraduate Department, UiTM, to address the issue.

- 1) Regular meetings with the dean and postgraduate administrators.
- Non-performing students/students who lack progress are given a warning (Warning 1, Warning 2, and Warning 3) in their Research Progress Evaluation, which has to be submitted to the faculty at the end of each semester.

5. Conclusion

Providing effective resources and guidance to postgraduate students is primarily the responsibility of institutions and their management. Students at the postgraduate level survive with support from the institution and its management. The learning process becomes convenient when proper services and resources are provided. Postgraduate students require different resources and support at different phases of their graduate study. Various means can be implemented to meet these student needs. This situation should be addressed properly based on the abilities and needs of students.

The Faculty of Accountancy in UiTM has been facing problems in monitoring the progress of postgraduate students. The faculty found that manually tracking the progress of postgraduate students is a challenging task. The lack of a single point of reference and repository for student progress data and reports also makes it difficult to quickly mine data and make prompt decisions. With the improvements and positive indicators reported above, the Faculty of Accountancy in UiTM is hopeful that the issues mentioned earlier will be resolved. POSTRACKER is an important tool to track and monitor the overall student progress to promote the four-year GOT emphasized by the Malaysian government.

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