

# The role of academic libraries in facilitating postgraduate students' research

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## ABSTRACT

*Universities are seeking to play a key role in the research and development process. An important element in the research process is the accessibility of information resources and services provided by libraries. Postgraduate students are key producers of research in universities, and an important element in their research process is the access to information. This study examines postgraduate students' views on the role of the academic library services in facilitating their research and their satisfaction with the sources and services currently provided. Data was collected from 375 randomly selected postgraduate students in four Malaysian public universities. The findings show that the majority (90.1%) of respondents acknowledged the important role of library in facilitating research, and 72.5% of the respondents were satisfied with the current role being played by the libraries. However, certain areas needed to be improved such as longer opening hours for physical visits, in spite of the facilities for remote access assistance for supporting students' research. The findings will be useful to academic libraries in providing better services to postgraduate students for their research.*

**Keywords:** Academic libraries; Research facilities; Postgraduate students; Malaysia

## INTRODUCTION

In recent years, universities have started paying greater attention to research. Universities do this by developing appropriate policies, making funds and facilities available for research, and encouraging their staff and students to do research. In many postgraduate programmes at universities, students are required to carry out a research project and submit a report as a pre-requisite for completing their degree. Faculty members are also required to do research themselves, take on more postgraduate students, and are assessed based on the outputs of their research. This has led to researchers making greater demands for access to information and on the quality of information provided (Singh 2007). Academic libraries within universities have long been known as gateways to information. In line with the changing role of universities, the vision and mission of academic libraries has to alter to meet these new requirements. As indicated by Foo (2002), academic libraries now take on the key role of providing a competitive advantage for the university and they are positioning themselves to be the learning and research centres of universities. Therefore, the traditional role of academic libraries to support teaching and learning only is being challenged. Campbell (2006) argued that academic libraries are complex institutions with multiple roles. They

provide not only books and space for students to study, but also provide services for facilitating research activities, such as bibliographies, reference services and information literacy classes.

At the same time, academic libraries are experiencing another challenge as a result of changes in scholarly communication. Researchers now have ability to get more online materials at no or low cost, and are more confident in accessing online resources. The library is no longer seen as the only or even the primary provider of information to scholars (Consortium of British Libraries in the British Isles (CURL) 2006). For example, researchers are turning to Google in growing numbers, even though the libraries has provided the latest research materials to them (Law 2009). Chiemekwe (2007) conducted a research study on the perceptions of postgraduate students and results showed that universities students visit the Internet more often compared with the academic library facilities to fulfill their research needs.

To better meet these challenges, academic libraries need to keep the connection with researchers and further develop the functions and remain viable and competitive in this new information environment so that researchers could effectively learn and apply the full capabilities of resources and services offered, while at the same time recognize that academic libraries offered quality research resources for them (Moyo 2004). Otherwise, university libraries cannot contribute to the competitiveness of its university's research (Haglund 2008). Thus, it is appropriate for academic libraries in universities to re-examine how they can play a more relevant role in facilitating research (Singh 2007).

Postgraduate students form a significant group of researchers in a university. Hence, a starting point would be to examine how this group of students views the role of their university library in their research. This study was designed to examine the current role of academic libraries in facilitating research in Malaysia from the perspective of postgraduate students. This study was designed to explore which library resources and services were of important to the postgraduate students and to assess the satisfaction level of these students on the role of academic library in facilitating research.

## **LITERATURE REVIEW**

Previous literature on the role of academic libraries in facilitating research has acknowledged that academic libraries play a pivotal role in ensuring the success of research. With greater attention on research given by universities, the considerable amount of literatures has showed that libraries have put more emphasis on their services as compare to research facilities. Kaufman (2005) highlighted that what academic libraries are doing today is not like those of the past, even the future.

Ka (2005) suggested that university libraries play a significant role in supporting research. University libraries do not just store books and journals and offer space for student learning, but they also provide systematically digitized information. University libraries, as they become more and more digitized, will play an important role in offering a greater support service for young professors and PhD students which will help in the development of their academic careers. Singh (2007) showed that research is taking on increasing importance in universities and colleges. Universities are making larger allocations for research and the rank of university is based on their research outputs. In order to satisfy the stakeholders of academic libraries, the role of academic libraries in facilitating research have to be re-

examined. In doing so, academic libraries could provide more effective services and supports to their users.

Webb (2007) highlighted that the effective academic library are gateways to academic knowledge through their own collection and by facilitating access to material. In the line with its core purpose, providing effective library services could support the research activities of researchers. Haglund (2008) indicated that university libraries are dedicated to what they perceive as the needs of students and researchers at the university. Otherwise, they could not effectively assist the research activities, nor could they contribute to the university's research. Even though the literature has indicated that academic libraries play a significant role on facilitating research, the overall support of academic libraries for research was not strategic. Instead of developing an extensive research collection, the libraries relied heavily on inter-library loans to support research (Patterson 2009).

Simmonds (2001) found that the use of academic libraries is influenced most by users' perceived familiarity with the library and its resources. Those who are more familiar with the library are more likely to use academic libraries. To motivate the greater usage of libraries, librarians need to educate users on how to use library resources not only in the confines of the library building, but even when they access the resources remotely.

Rowley (2004) pointed out that librarians can promote the research culture among researchers. Currently, libraries are undergoing continual changes and development as library managers, information professionals, and knowledge workers need to manage and understand these changes to respond to the dynamic environments. Researchers could benefit from these changes.

As the academic environment is constantly changing, and with universities increasing their emphasis on research, academic libraries need to re-examine their role in assisting the users in their research. While there is much literature on the importance of academic libraries in assisting university research in general, there is little on the needs of specific groups of researchers, including the postgraduate students. Apart from Ka (2005) and Singh (2007) mentioned above, little was found on the needs of postgraduate students, their perceptions, usage and assessment of academic libraries. This study attempts to fill that gap.

## **RESEARCH DESIGN**

To examine the role of academic libraries in facilitating research at four research universities of Malaysia, a paper base questionnaire survey was designed and pre-tested on 20 postgraduate students. The final questionnaire was formed based on pre-tested comments.

The revised questionnaire was distributed among postgraduate (Masters and Doctoral) students of four research universities of Malaysia, namely Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM), and Universiti Sains Malaysia (USM). The researchers visit the above four universities for data collection purpose. The main libraries were selected for the distribution of questionnaires, because, libraries are considered as a hub of research activities in academic environment. Researchers randomly select respondents from the reading halls & thesis sections of main library.

A total of 437 questionnaires were distributed among postgraduate students and analysis was based on 375 (85.8%) respondents returned questionnaires.

## **RESULTS**

### **Respondents' Background Information**

A total of 375 respondents were selected from four research universities in Malaysia, which comprise 101 (80.8%) from Universiti Malaya, 86 (81.9%) from Universiti Kebangsaan Malaysia, 95 (95%) from Universiti Putra Malaysia, and 93 (86.9%) from Universiti Science Malaysia. Of the 375 respondents, 196 (52.3%) were male and 179 (47.7%) were female. A total of 172 (45.9%) students were Malaysia citizen and the other 203 (54.1%) respondents were international students. In terms of faculty of study, the largest number of respondents 67 (17.87%), were from education faculty, followed by 58 (15.47%) from computer sciences, and 55 (14.67%) were from social sciences. As to the level of study, a total of 233 (62.1%) respondents were studying at master level, while the remaining 142 (37.9%) were in their PhD program.

Among these respondents, majority of the postgraduate students (366, 97.6%) were required to do thesis\ dissertation, while only 9 (2.4%) were enrolled in full coursework programme. In addition, a total of 89 (23.7%) students were doing their literature review and 90 (26.1%) have started writing their thesis\ dissertation. In terms of previous experience at conducting research, 55(14.7%) have completed one conference paper, 93 (24.8%) were writing conference papers, 10 (29.3%) were in the process of writing journal paper, and only 42 (11.2%) of students have completed their first journal paper.

The students were given three questions relating to the option to how they access the library resources. Majority of them (247, 65.9%) indicated they access the library resources through both ways, 84 (22.4%) preferred to physically visit the library, while the remaining 44 (11.7%) accessed the resources by remote access. A total of 92 (24.5%) students visit the library 5 times a week.

### **Library Resources and Services for Research**

The respondents were asked to specify which library resources have more importance and which level of satisfaction they have. In this part, a 5-point Likert scale was used to measure the importance and satisfaction level of respondents on nine main library resources in research.

Table 1 reported the descriptive statistics of the importance level of academic library resources for research. On a scale of 1 to 5, the highest mean score (4.5) was shown that electronic resources were considered the most important library resources for research activities. The results in Table 1 are found to be similar to the study conducted by Ka (2005), who found that electronic resources are becoming more popular and university libraries play a significant role in supporting research. Law (2009) found that students and faculty researchers primarily conducted their research online, and indicated that they expect to rely more heavily on library electronic resources. Computer facilities (mean score 4.2) was ranked as the second most valuable library resources. Print resources (mean score 4.1) and thesis (4.0) were also rated as an important library resources for research, respectively. The results show that respondents considered newspaper archives (mean score 2.9) and audio visual materials (mean score 2.9) important for their research activities.

Table 1: Importance Level of Library Resources (n=375)

<b>Resources</b>	<b>Mean</b>	<b>Std. Deviation</b>
Electronic resources	4.55	0.869
Computer facilities	4.22	1.041
Print resources	4.11	1.098
Theses / Dissertations	4.09	1.138
Online Catalog (OPAC)	3.90	1.245
Special collections	3.65	1.217
Institutional repository	3.48	1.238
Newspaper	2.96	1.274
AV materials	2.90	1.272

*1= Not at all important    2= Not important    3= Neutral    4= Important    5= Very important*

Table 2 highlighted the respondents' levels of satisfaction with library resources and shows the results in mean, median and std. deviation. The respondents were highly satisfied (mean score 3.7) with electronic resources as compare to other library resources for research. Respondents also show their satisfaction with library's computer facilities (mean score 3.6); and less satisfied with print resources (mean score 3.4). Respondents suggested that academic libraries need to update their print resources especially books and journals. Respondents were also less satisfied with the library's thesis collection as well as access to them and not very satisfied with newspaper archives (mean score 3.0) and AV materials (mean score 2.8).

Table 2: Respondents Level of Satisfaction on Library Resources (N=375)

<b>Resources</b>	<b>Mean</b>	<b>Std. Deviation</b>
Electronic resources	3.78	1.078
Computer facilities	3.67	1.180
Online Catalog (OPAC)	3.51	1.256
Print resources	3.43	1.130
Theses / Dissertations	3.25	1.221
Institutional repository	3.23	2.383
Special collections	3.06	1.094
Newspaper archive	3.05	1.276
AV materials	2.83	1.192

*1= Very dissatisfied    2= Dissatisfied    3= Neutral    4= Satisfied    5= Very satisfied*

Table 3 reported the ranked list of importance of academic library services for research. The majority of the respondents (mean score 4.5) considered library opening hours as highly important to access library resources, followed by Wi-Fi internet speed (mean score 4.44), and the library website (mean score 4.4) to access library resources and services for their research. The postgraduate students indicated that library opening hours during semester break, printing, photocopy, reference services, information skill sessions, and training on bibliographic citations were important for their research activities and they have rated less importance to document delivery and library social networking sites for their research.

Table 3: Importance Level of Library's Services (N=375)

Services	Mean	Std. Deviation
Opening during semester	4.50	0.865
Wi-Fi speed	4.44	1.003
Web site	4.40	.890
Opening during Break	4.34	2.300
Printing, photocopy & scanning	4.14	1.029
Reference services	4.12	1.035
Information skills session	4.05	1.078
Training on Bibliographic citation	4.03	1.160
Study room carrels	3.95	1.144
Current awareness services	3.94	1.059
Interlibrary loans	3.93	1.158
Training on data analysis	3.92	1.261
Document delivery	3.84	1.201
Social networking sites	3.25	1.245

1= Not at all important    2= Not important    3= Neutral    4= Important    5= Very important

Table 4 showed the results of respondents' level of satisfaction on their university library services for research. The highest mean value (mean score 4.12) indicated that majority of the respondents of this survey were satisfied on library opening hours, but at the same the respondents showed their less satisfaction on the opening hours during semester breaks as academic libraries usually shorten their working hours during semester breaks and students cannot access library resources as usual. A number of respondents suggested that academic libraries should open 24 hours, or extend opening hours till midnight.

Table 4: Respondents' Satisfaction Level on Library Services (N=375)

Services	Mean	Std. Deviation
Opening hours during	4.12	1.128
Web site	3.79	1.136
Reference services	3.58	1.201
Information skills session	3.52	1.197
Training on bibliographic citation	3.38	1.230
Study room carrels	3.35	1.289
Wi-Fi speed	3.33	1.302
Current awareness services	3.31	1.106
Interlibrary loans	3.30	1.235
Opening during semester Break	3.29	1.305
Printing, photocopy & scanning	3.28	1.244
Document delivery	3.16	1.226
Social networking sites	3.13	1.168
Training on data analysis software	2.92	1.252

*1= Very dissatisfied    2= Dissatisfied    3= Neutral    4= Satisfied    5= Very satisfied*

Respondents also highlighted being satisfied with current Wi-Fi internet speed for their research activities. As Housewright (2008) mentioned, that academic libraries have been faced with the challenge of ubiquitous change, largely driven by technological developments like the personal computer and the Wi-Fi internet. Changing technologies have been accompanied by changes in research habits of researchers. These changes offer exciting new opportunities, but also pose significant challenges for those who serve the higher education community. The results show that postgraduate students were less satisfied with document delivery services (mean score 3.1) and with the current library training for data analysis software.

### **Role of Academic Libraries in Facilitating Research**

The respondents of this study were given a 5 point Likert scale to indicate that how academic libraries were playing an important role in facilitating their research. Table 5 shows that respondents rated high on the importance of the library's role in conducting research (mean score 4.52) and perceived that university libraries have great value for facilitating research activities and these libraries helped them in finding reliable information sources.

Table 5: Role of Academic Libraries in Facilitating Research - Importance Level (N=375)

Statements	Mean	Std. Deviation
The library plays a role in my research	4.52	0.830
The library is a getaway for learning and research	4.21	1.091
The library helps me find reliable information	4.33	0.940
The library enables me to be more efficient in my academic research	4.32	1.005
The library provides assistance in searching information resources	4.31	0.967
The library creates awareness on plagiarism among researchers	3.95	1.177
The library helps me in publishing my research	3.69	1.248

1= Strongly Disagree      2= Disagree      3= Neutral      4= Agree      5= Strongly Agree

Table 6 presented the results of respondents' level of satisfaction on the role of academic libraries in facilitating their research. Results show that majority (mean score 3.8) of the respondents of this survey were satisfied with their university library role in conducting research. Respondents indicated that they believe university libraries have reliable research resources (mean score 3.7) and were efficiency in assisting them in conducting research. Respondents showed low satisfaction with current library activities to create awareness on plagiarism (mean score 3.3) and on library's help in publishing their research.

Table 6: Role of Academic Libraries in Facilitating Research – Satisfaction Level (N=375)

Statements	Mean	Std. Deviation
The library plays a role in my research	3.84	1.057
The library helps me find reliable information	3.73	1.093
The library enables me to be more efficient in my academic research	3.69	1.157
The library is a getaway for learning and research	3.67	1.193
The library provides assistance in searching information resources	3.62	1.121
The library creates awareness on plagiarism among researchers	3.31	1.222
The library helps me in publishing my research	3.06	1.215

1= Strongly Disagree      2= Disagree      3= Neutral      4= Agree      5= Strongly Agree

## CONCLUSIONS

This study was intended to examine the perceptions of postgraduate students on the role of academic libraries in facilitating research. The findings indicate that academic libraries in four public universities of Malaysia play a relevant role to assist students on their research activities. Respondents were generally satisfied with the resources and services, which are available at libraries. For instance, respondents of this study acknowledged that electronic resources of academic libraries have greater value for helping their research and they have

turn towards electronic resources to conduct their research. This trend implies academic libraries have to continually improve their electronic resources with the development of digital environment to deal with information needs of researchers.

In addition, respondents were dissatisfied with certain facilities provided by the libraries such as with the print resources. They suggested that libraries should update their print collection with latest books and journals and students could obtain the latest information for their research. Patterson (2009) indicated that resource sharing is one of the main sources in academic libraries to facilitate research especially the supply of the latest thesis in their collection, and providing access the theses freely.

Postgraduate students perceived that the library opening hours were more important for their research activities and wanted the current opening hours during semester break to be extended or opened for 24 hours Table 6 presented the results of respondents' level of satisfaction on the role of academic libraries in facilitating their research. The results show that majority (mean score 3.8) of the respondents of this survey were satisfied with their university library's role in facilitating research. Respondents indicated that they believe university libraries have reliable research resources (mean score 3.7), were efficient in assisting them in conducting research. Respondents showed low satisfaction on current library activities to create awareness on plagiarism (mean score 3.3) and on library's help in publishing their research.

The majority of respondents suggested that libraries should provide training sessions on bibliographic citation and data analysis software for researchers as well as introduce channels where postgraduate students could publish in. As Bourg (2009) suggested that academic libraries needs to offer alternative scholarly publishing and dissemination platforms that are integrated with appropriate repositories. There is need to organize more discussions on plagiarism to cultivate awareness among researchers.

The findings of this study would help academic libraries to re-evaluate their resources and services for research activities. The results could assist libraries not just to improve their services and launch new services, but to avoid frustrations and difficulties faced from research activities. The environment is unpredictable changing; academic libraries have to maintain their position as key partners in research by anticipating, understanding, and stressing the challenges in new research activities. Undoubtedly, this opens up possibilities for libraries in improving the quality of existing services and making flexible new services to effectively support research activities.

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