

Chapter 4

A Needs Assessment Study to Support Academic Research: The Experience of the Open University of Hong Kong



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Abstract Research support will significantly affect the research development of an institution. To provide proper research support services, it relies on an effective channel for collecting feedback from academics on their needs and stakeholders on the impact of research. This paper presents a needs assessment study conducted by the Open University of Hong Kong to identify its academics' needs for research support. The study aims to identify the extent to which current research support of the university is adequate for the academics and whether other kinds of support are preferred by them. It includes three sessions of focus group discussions, covering academics from a broad range of disciplines and at different levels of activeness in research. Following the Researcher Skill Development framework (Willison J, O'Regan K: The researcher skill development framework. Accessed from <http://www.adelaide.edu.au/rsd/framework/rsd7/>, 2008), the needs of participating academics in different facets of research, from initiating a research study to presenting research findings, were shared and discussed systematically in the focus group sessions. Results show the diverse needs of academics at different levels of activeness in research. There were needs highlighted by research-active academics such as activities for generating research ideas and identifying partners for research collaboration. Academics who were previously not active in research expressed wishes to have more activities for experience sharing of research and successful funding applications. There were also suggestions made by all groups of participants, such as provision of training on research software and quantitative data analysis. Based on their feedback, new or refined research support services have been provided to cater for academics' research needs.

Keywords Needs assessment · Research support · Researcher Skill Development framework · Research development

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Introduction

Research support is an integral part of the research development of a higher education institution. To deliver proper research support, it must take into account the diverse needs of academics in research. There has to be an effective channel for collecting feedback from academics on their specific needs.

This paper reports a needs assessment for research support of the Open University of Hong Kong (OUHK). As a university featuring provision of open and flexible learning, OUHK has planned to systematically develop its research capacity. It is expected that its academic staff members, through engaging more in research, will keep themselves abreast of the developments of their disciplines and transfer new knowledge into teaching and learning. The diverse profile of academics, however, presents challenge in formulating policy of research support. For example, there are research-active academics, experienced teachers not having involved in research for many years as well as junior academics without much research experience.

The needs assessment attempted to identify the various needs of academics in research. It covered a wide range of areas related to the research environment of OUHK. Academics participated in the study shared their views and provided suggestions on aspects such as the research culture, infrastructure and resources of the university and needs of research support. Findings of the study will facilitate formulation of appropriate research support policy and provision of relevant services that may be applicable to institutions in virtually all parts of the world sharing similar background.

Related Studies

There have been many needs assessment studies (or needs analysis) reported in the literature, usually conducted together with programmes related to research development. As stated in Zaščerinska and Melnikova (2015), 'needs analysis provides the crucial information to ensure that education and/or professional development is purposeful, appropriate, valid and relevant' (p. 216). Bazeley (1994) also expressed that it is necessary to 'identify first where staff felt they were 'at' with regard to research, and what their research development needs were' (p. 122), before devoting resources to the development of a research culture and research capability of academics.

Previous studies of needs assessment have suggested a broad range of dimensions for identifying academics' needs of research development. For example, they can be used to examine participants' perception of their development needs. Wood (1990) reported how academics conducted and perceived their research, for determining the issues for development of a research policy. Conrad (1998) presented a needs analysis which came together with a research development programme. It consisted

of interviews with senior faculty members to determine their perceptions of staff development needs and seek advice on how the needs might be met.

Needs assessment helps to determine the motivation factors and resources required for research promotion. For example, Gething and Leelarthaepin (2000) illustrated a needs assessment as the first step to promote research participation. It explored the proportion of work time academics spent on research and their self-evaluation on their level of research skills. The results served as a basis for the development and implementation of a series of strategies to promote research. Akerjordet, Lode and Severinsson (2012) examined the participants' interest in and motivation for research and identified the management and organisational resources required in order to improve their research capacity.

It also serves to identify the training needs of participants. For instance, Lee, Gowers, Ellis and Bellantuonoa (2010) assessed the training needs of researchers and claimed that such assessment is important to 'establish what skills should be improved and as a benchmark to relate back when measuring progress' (p. 270). Ekeroma, Kenealy, Shulruf, Nosa and Hill (2015) also presented a needs analysis to inform and refine the objectives and curriculum of a training workshop.

These needs assessments served as part of development programmes and inform the programmes the specific needs of the participants. Their dimensions covered were taken into account in the present study.

Framework

This study adopted the seven-level Researcher Skill Development framework (RSD7) (Willison & O'Regan, 2008). The framework addresses the needs of researchers at different stages of research. It is designed as 'a conceptual tool for diagnosis and planning, promoting understanding and interpretation of . . . research skill development' (Willison & O'Regan, 2007, p. 401). The framework covers six aspects of research:

- Embark and clarify—respond to or initiate research and clarify or determine the knowledge required.
- Find and generate—find and generate the information or data required using appropriate methodology.
- Evaluate and reflect—determine and critique the credibility of selected sources, information and data and reflect on the research processes.
- Organise and manage—organise the information and data to reveal patterns and themes and manage research teams and research processes.
- Analyse and synthesise—analyse the information and data and synthesise new knowledge.
- Communicate and apply ethically—write, present and perform the processes, understandings and applications of the research and respond to feedback, accounting for ethical, social and cultural issues (Willison & O'Regan, 2008).

In addition to RSD7 for identifying the needs of academics in research, the research culture and research infrastructure and resources of the university were also included as part of the needs assessment.

Research Method

The study aimed to explore the following questions:

- To what extent is current research support of the university adequate for academic staff to conduct research?
- What kinds of further research support are preferred by academics?

There were altogether three focus group sessions conducted in January 2015, with a total of 17 full-time academic staff members participating in the group sessions. Each session consisted of five to six participants. All the participants were at the rank of assistant lecturer or above, from the four schools of the OUHK.

The participants were categorised into three groups based on their activeness in research, according to their number of submission of research funding applications in the past 3 years:

- Group 1 (active in research)—submitted two or more research funding applications, with at least one to the Research Grants Council (RGC) of the Hong Kong Government
- Group 2 (semi-active in research)—submitted one application to the RGC or one or more applications to the OUHK's internal research funding
- Group 3 (inactive in research)—did not submit any research funding application in the past 3 years

This categorisation helps us to understand various needs of research support among academics from diverse backgrounds, with different degree of prior experience in research.

The participants shared views and opinions regarding (1) the research culture of the university, (2) the infrastructure and resources for research and (3) the research support services preferred. The RSD7 was adopted to understand participants' needs of research support in different facets of research.

Findings

Research Culture

As summarised in Table 4.1, the participants shared their views of the research culture of the university, which revolves around the areas of teaching, collaboration, funding and administrative support.

Table 4.1 Academics' views of research culture

Category	Subcategory	G1	G2	G3
Teaching	Teaching load	✓	✓	✓
	Teaching quality			✓
Collaboration	Collaborations across disciplines	✓	✓	
	Establishment of research teams			✓
Funding	Sufficiency of research funding	✓	✓	✓
Administrative support	Research funding policies	✓		✓
	Administrative procedures	✓	✓	

G1, active in research; G2, semi-active in research; G3, inactive in research

Teaching

All groups of participants expressed their concern about teaching duties, which is regarded as a major challenge to promote the research culture of the university. As a teaching-oriented institution providing various education modes, academic staff of the OUHK are well-prepared to devote most of their time in teaching. Some of them have to teach both full-time and distance-learning courses throughout a year, without any specific period of time in a year (e.g. summer break) for them to concentrate on research. Given this background, most participants shared the challenge to reallocate their work time to conduct research. Some academics shared their experience that it is hard for them to attend the seminars or other training activities for research development.

Participants also raised their concern to achieve a balance between teaching and research. Academics from the inactive group expressed their worry that putting more effort in research may affect their teaching quality.

Collaboration

Academics from the active and semi-active groups in general appreciated the research environment of the OUHK that, being a relatively small-scale institution, they can easily reach and find colleagues as collaboration partners across disciplines.

For those from the inactive group, they suggested that intra-unit research teams could be formed to encourage academic staff to engage in research.

Funding

All groups of participants recognised the increasing availability of research funding available to apply, which is conducive to promote research participation. As the amount of internal funding may not be sufficient for time-consuming tasks such as interviews and transcriptions, the availability of external funding would be essential

support for large scale and in-depth studies. Updated information on external sources funding was regarded as important by the participants.

Administrative Support

The academics raised enquiries about research funding policies. For example, some of them were not familiar with the differences between policies of various funding on issues such as recruitment of research support staff. This suggests a need to strengthen relevant administrative support to assist academics to be familiar with the research funding policies.

The participants from the active and semi-active groups also indicated their insufficient familiarity with the administrative procedures relevant to research, such as recruitment of student helpers and purchase of equipment and experimental tools. Further administrative support for this aspect is needed.

Research Infrastructure and Resources

Table 4.2 summarises the participants' opinions of their needs for research infrastructure and resources, which are grouped into facilities, IT resources and library resources.

Facilities

All groups of participants agreed that one of the major challenges is the work space for research support staff. More research support staff are expected to be hired as a result of the university's increasing engagement in research. Some research-active participants commented that more storage space is needed for physical research data and documents such as completed questionnaires; as such records have to be kept for a number of years. For laboratory space for research, all groups of academics

Table 4.2 Academics' views of research infrastructure/resources

Category	Subcategory	G1	G2	G3
Facilities	Work space	✓	✓	✓
	Storage space	✓		
	Laboratory space		✓	✓
IT	Sufficiency of computers and licences of research software tools	✓	✓	✓
	Computing power	✓	✓	
Library	Library resources			✓

G1, active in research; G2, semi-active in research; G3, inactive in research

considered that the space is very limited. A further constraint was that staff members have to share the laboratory facilities with students.

IT Resources

All groups of academics raised the need for central provision of computers and software licences for research. At present, some academic staff may have to share their computers with their research support staff due to the limited number of software licences. Academics conducting computation intensive research may need more powerful computers for heavy data processing.

Library Resources

Along with the growth of the university, the academics of the university are conducting more research projects, and thus they have a greater need for library resources. Participants from the inactive group indicated their need to have access to academic journals and field-specific resources which are currently not subscribed nor provided by the library.

Research Support Needs

Table 4.3 summarises the research support needs raised by the participants, which are grouped following the various facets of research in the RSD7 framework.

Embark and Clarify

Academics from the research-active group would like to receive notifications of the updates of library databases. Participants from the semi-active and inactive groups preferred to have further support, such as seminars sharing research ideas in various disciplines and research software tools and relevant trainings (e.g. EndNote for bibliographic management).

Find and Generate

It was suggested that approaches of data collection in various disciplines could be introduced. For example, participants from the field of drama education presented the challenge of conducting research in their field. They wished to know how data could be collected from activities such as drama plays.

Table 4.3 Academics' research support needs

Category	Subcategory	G1	G2	G3
Embark and clarify	Notifications of updates of library databases	✓		
	Sharing research ideas of various disciplines		✓	✓
	Provision of and training in software for referencing		✓	
Find and generate	Approaches of data collection in various disciplines		✓	
Evaluate and reflect	Information/training of software for transcription	✓	✓	✓
	Information/training of software for statistical analysis	✓	✓	
Organise and manage	Consultancy on research project management		✓	
	Platform for research collaboration		✓	
	Identification of potential research partners		✓	
Analyse and synthesis	Consultancy on statistical modelling	✓	✓	✓
	Field-specific sharing of qualitative research experiences			✓
Communicate and apply ethically	Language editing	✓	✓	✓
	Skills sharing of constructing high-quality proposals		✓	✓
	Experiences sharing of successful funding applications		✓	✓

G1, active in research; G2, semi-active in research; G3, inactive in research

Evaluate and Reflect

Academic staff reflected that they would like to have more information and training of research software for both qualitative and quantitative studies, such as software for transcription and that for statistical analysis.

Organise and Manage

Academics from the semi-active group would like to have consultation service on research project management. They also wished to have a platform for research discussion and collaboration across disciplines and identification of potential research partners.

Analyse and Synthesis

Participants from all groups suggested that they need support in quantitative data analysis especially statistical modelling. The inactive group participants wished to have experience sharing of field-specific qualitative research.

Communicate and Apply Ethically

Participants of all groups showed a strong desire to have language editing service. They indicated the needs to have manuscripts edited following convention of language use in specific disciplines and formatted for requirements of different publications. Participants would like to have activities for experience and skills sharing of writing proposals and applying research funding.

Discussion

This study has revealed the diverse needs of academics at different levels of activeness in research, which contribute to determine proper research support services. The importance of research support was illustrated from our research findings. The academics who were previously not active in research also expressed wishes to have more activities for experience sharing of research and research funding applications. This suggests that they may be willing to engage more in research when proper research support services are provided.

The diverse needs of academics also present how provision of specific research support is necessary to cater for their needs. For example, for generating research ideas, the research-active academics preferred to have updates of library databases, while the inactive ones (who are mostly junior academics in this study) wished to have more opportunities to attend activities that share research ideas in various disciplines, as they were looking for good exemplars to follow in order to achieve utmost performances in their research projects. The academics previously inactive in research also indicated their interests in opportunities to consult forming research teams in order to learn from them. As suggested in the relevant literature (Hanover Research, 2014), support for research collaboration can be offered for these academics which helps to develop an active research culture.

The wide range of academics' needs involves cooperative endeavours by various units in the university to provide relevant support (DFID, 2010). For example, the administrative policies and procedures have to be explained to academics by different relevant units. Provision and coordination of research facilities and resources also involve collaboration of various units.

Given the limitation of resources, it is unrealistic that all the needs and issues raised by the academics will be met and resolved. Among the various suggestions, we have to set priorities, such as promoting the research culture, providing training of using research software tools and research skills and facilitating research collaboration.

Conclusion

As an integral part of research capacity development, this needs assessment helps to ensure that the research support services would be ‘purposeful, appropriate, valid and relevant’ (Zaščerinska & Melnikova, 2015, p. 216).

Based on the findings of the study, relevant research resources and support are being provided systematically. For example, the software tool for bibliographic management has been purchased for academics’ use with relevant training provided. Regular roundtable meetings are being organised for gathering academics to generate research ideas and facilitate research collaboration. A series of seminars and workshops for quantitative data analysis are being held, which have been well-participated by academics. Their positive feedback suggests that the implementation of the research capacity development programme at the OUHK is on the right direction.

As the academics gradually develop their research capacity, it is expected that their needs of research support may change, and new needs may emerge. Periodic needs assessment will be required to update their latest developments and adjust the provision of research support accordingly.

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