

Expansion of Information Studies (IS) Programme at the University of Dar es Salaam: A Feasibility Study

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Abstract

The objective of this feasibility study was to explore strategies for expanding the Information Studies Programme with a focus on curriculum content and delivery mode. It explored stakeholders' requirements in terms of curriculum content and delivery modes. Multiple strategies were used to collect data and information. The methods used included review of secondary sources, questionnaires, interviews and focus group discussions. All these methods were triangulated in order to complement each other as each method has its strengths and weaknesses in data collection. Respondents were drawn from 26 institutions. The findings of the study indicated that there is great diversity in skills and knowledge required for professional and career development as information provision services diverge from the traditional four-wall structures. The training needs call for a wider coverage than what is currently provided and the delivery mode also needs diversification. The study recommends that the structure of both the core and optional courses of the current MA programme be revised; postgraduate diploma and taught PhD programmes be introduced and delivery modes be diversified.

Key words: LIS education: education delivery mode: Tanzania

INTRODUCTION

Library and information science (LIS) programmes in Tanzania started with a certificate course in 1972, followed by a diploma programme in 1989, offered by the Tanzania Library Services Board (Nawe, 1995). Prior to this date, LIS training was undertaken abroad through the support of foreign organizations or governments. The common study countries included the UK, USA, Canada and Australia.

Intakes were limited to 40 (certificate) and 30 (diploma) due to inadequate physical infrastructure. In early 2000, the Tanzania Library Services Board acquired additional premises and since then, the intake has expanded to over 200 for each programme.

The schemes of service for various cadres in the information profession demand professional qualifications for progression in the career. However, there were no opportunities for further education within the country. Several other factors contributed to the review of library and information training in the country, and among them was a general review of higher education in Tanzania vis-à-vis the challenges of the 21st century. One of the outcomes was the expansion of higher education. The University of Dar es Salaam on its part found a niche in advancing postgraduate programmes, particularly for providing the requisite human resource for the expanded higher education.

In the area of library and information science, similar reviews were carried out nation-wide. Several gaps were identified in the professional training, particularly at undergraduate and postgraduate levels. An initiative by the Open University of Tanzania (OUT) that was supported by the British Council brought together library professionals from higher learning institutions to deliberate on strategies for an education progression from certificate, diploma, baccalaureate, to postgraduate level. Within this framework, the University of Dar es Salaam established MA and PhD degree programmes in Information Studies, while Tumaini University established undergraduate programme.

Rationale for the Study

The Tanzanian government's move to drastically expand both primary and secondary education has led to an increased need for para and professional library staff to spearhead library development so as to facilitate the learning process. But opportunities for training such staff are constrained by limited enrolment. At paraprofessional level, training is done by the Tanzania Library Services Board, SUA, Mzumbe University and RUCO.

Currently, the UDSM Information Studies Programme runs a master's and PhD programmes, and started a full-time bachelor's degree in 2014/2015 academic year. The programme started in 1998 with two privately sponsored students but it immediately gained popularity, attracting more than twenty applicants in the second year. Since then, the number has been growing over the years. The 2010/2011 academic year had 22 second year and 15 first year master's students, and 17 PhD students, while 2011/12 academic year had 28 and 15 MA students under a regular and evening programmes and 22 PhD students at various levels of study. The programme, currently under the College of Arts and Social Sciences, is earmarked for expansion to the level of an Information Studies School.

ICT developments in the country provide opportunities for flexible programme delivery modes that may accommodate the needs of employees at different career levels. These include

provision of opportunities for those who need to develop their careers but cannot take a study leave to attend full-time courses because of the work and family commitments. Foundation courses may be needed by those who obtained certificates and diplomas that do not meet admission requirements for degree programmes. Short modular courses are of interest to those who want specific skills for specific reasons, and for those who want to update their skills (professional growth/career development). Because of developments in technology, there are some who prefer to study online, while they work since technology supports such flexibility.

LITERATURE REVIEW

In Tanzania, human resource development is still one of the goals of higher education. The government's move to drastically expand education at all levels has led to an increased need for para and professional library staff to provide service at various public and educational institutions. Increased enrollment means more workload and readiness to face the challenges associated with the expansion of the educational sector.

Employers' Expectations of the LIS Graduates interms of Skills and Attitudes

An investigation of the knowledge, skills and other preferences of prospective employers is of interest to LIS practitioners, job seekers and educators in any country (Msuya, 2005). Practitioners and job seekers are interested in career pathways and possibilities, and educators are focused on the success of their graduates in gaining employment and what makes graduates attractive to the employers. Employers also have an interest in identifying developments in the LIS field and inform the content of their own position advertisements. Interpersonal skills, behavioral characteristics and responsiveness to a changeable environment were identified as critical employer requirements from LIS graduates in America and Australia (Marion *et. al.*, 2005).

According to Cullen (2002:19, quoting Cronin *et. al.*,1993) "the market for information professionals ... can be defined in terms of the *heartland* - traditional library or information units, ... the *hinterland* - world of libraries-without-walls and distributed information systems where disciplinary pedigree and professional affiliation matter less than perceived competence and adaptability; the horizon – the natural habitat of software engineers, business computing specialists, and telecommunications managers, whose focus tends to be the hardware or systems component, rather than information content and packaging". This reality is unfolding in Tanzania. It is therefore necessary to get stakeholders' view of this trend in order to inform the programme expansion strategy.

The literature review on employer requirements has revealed that, besides the foundation courses that instill core professional competencies, the most sought after skills were ICT skills, training skills and interpersonal and communication skills. For those managing digital collections, ICT knowledge and skills and management abilities were most sought by employers. Librarians' instructional role was found necessary in educational/academic settings while on the overall, employers found ability to work in multifunctional environments very important (Marion *et. al.*, 2005).

Programme Delivery Modes

It is presumed that conventional delivery of programme content is the traditional weekly scheduled classroom-based meetings, held on campus at times when library and other support services such as access to computing facilities and instructor consultation are provided. Flexible programme delivery refers to alternative and/or distance delivery such as print, electronic and the internet supported delivery to individuals at their homes, designated centres or work places.

According to the University of Sydney's postgraduate programme delivery policy (1998), flexible approaches lead to students primarily carrying out their coursework studies off-campus, and may offer increased opportunity for learning to occur in context, particularly in areas of study related to professions. Most postgraduates taking up coursework options offered in non-conventional delivery modes are likely to be mature-age students, studying part-time and frequently enrolled in programmes relevant to their employment or community activities. Accordingly, flexible delivery modes require more preparations for both teachers and students to accommodate lack of scheduled classroom meeting context and group expectation and informal peer interaction, which draws along weaker and/or less organized and well organized and self-directed students. Assessment strategies may vary, but learning outcomes should remain the focus of attention rather than strategies by which these are achieved.

It is worth noting that programme modules that have been approved for class-based delivery may be used in flexible delivery environment. However, additional information concerning the distance delivery in the sections concerning delivery location, learning and teaching strategy, notional student workload, and resources for distance learning delivery should be provided. Other considerations include issues of copyright, disability access, infrastructure, equipment, download time and software requirement (Northumbria University Academic Registry, 2004).

RESEARCH METHODOLOGY

Multiple strategies were used to collect data and information. The Methods used included review of secondary sources, questionnaires, interviews and focus group discussions. All these methods were triangulated in order to complement each other as each method has its strengths and weaknesses in data collection. Respondents were drawn from 26 institutions. Details on distribution of respondents are given in Table 1.

FINDINGS AND DISCUSSIONS

Distribution of Respondents by Gender and Level of Education

Out of the 97 respondents, 44 were males and 53 were females. Six respondents were PhD holders, 44 Master's holders and the rest were either first degree holders or pursuing the first degree programme or possessing a diploma (See Figure 1). This composition was specifically sought for obtaining credible recommendations for developing relevant courses and designing appropriate delivery modes in line with their needs as stakeholders of interest.

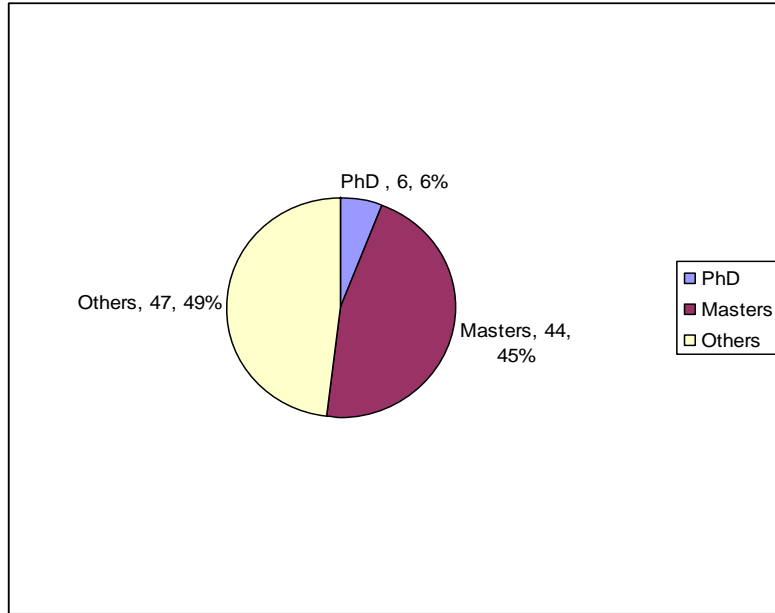


Figure 1: Level of Education

Source: Field survey 2011

Distribution of Respondents by Institutions

Most (77- 79%) of the respondents were drawn from institutions that have a strong interest in library and information studies programmes, either as recruiters or trainers or both. These institutions are: Tanzania Library Services Board, including School of Library, Archives and Documentation Services; Tumaini University; and the University of Dar es Salaam and other institutions of higher learning. Other institutions covered in the study had respondents varying from one to two. See Table 1 for details. This sampling strategy was used for two reasons. First, as most of the professionals in these institutions are alumni of the Programme which is currently run, their input was considered critical for the development of the programme, through sharing experiences as well as getting feedback on the quality of the Programme in meeting market demands. Secondly, some of these alumni are also prospective candidates for the PhD programme. Main markets of the Programme’s products and institutions training library and information science at various levels were considered important for gauging their views on the Programme, both for marketing purposes and for improvement of the product.

Table 1: Distribution of Respondents by Institutions

Institution	No. of Respondents	Percentage
Tanzania Library Services Board	15	15.5
Tumaini University, Dar es Salaam College	14	14.4
University of Dar es Salaam	11	11.3

Ardhi University	6	6.2
Open University of Tanzania	6	6.2
School of Library, Archives and Documentation Services	5	5.2
Sokoine University of Agriculture	5	5.2
Arusha University	4	4.1
Agency for Development of Educational Management, Bagamoyo	4	4.1
Hubert Kairuki Memorial University	4	4.1
University of Dodoma	3	3.1
Tanzania People's Defense Forces	2	2.1
Ministry of Education and Vocational Training	2	2.1
Mzumbe University	2	2.1
Muhimbili University of Health and Allied Sciences	2	2.1
Kilimanjaro Christian Medical College	2	2.1
Tanzania Institute of Accountancy	1	1.0
Institute of Finance Management	1	1.0
Mwalimu Nyerere Foundation	1	1.0
Kinondoni Municipality	1	1.0
Makambako Township	1	1.0
Ministry of Education Zanzibar	1	1.0
Institute of Rural Development	1	1.0
Public Services College	1	1.0
St. Joseph University of Technology	1	1.0
Dar es Salaam Institute of Technology	1	1.0
Total	97	100

Source: Field survey 2011

Training Needs in the Area of Library and Information Science

In assessing the training needs in the field, the study looked at the degree of adequacy of the programme which is being currently run, in meeting the market requirements and identifying the gaps with an ultimate aim of improving on the current course content and structure, and introducing new courses in line with the market demands. The degree of adequacy for all the nine core courses and seven optional courses was assessed by using a matrix of three choices: adequate; fairly adequate and inadequate. The summary of the responses for each category are given in Table 2.

Degree of Adequacy of the Current Curriculum in Meeting the Required Skills for Work

The respondents were asked to indicate the degree of adequacy of the MA in Information Studies Programme curriculum in meeting the skills required for their work, and suggest any additional courses or modifications on what is currently offered. The list of courses (Each student is required to take all core courses and at least two optional courses) offered was provided and they were given three options: adequate, fairly adequate and inadequate. All the nine core courses, except one (collection development and management), were considered as having adequate skills for work by more than two-thirds of the respondents. Collection development and management course was considered adequate by 58.8%, fairly adequate by 21.6%, and inadequate by 7.2%. 12.4% did not respond in this case. These responses are indicative of a weakness in some areas that need to be addressed. See Table 2 for details. The responses for the seven optional courses indicate that less than two-thirds of the respondents considered them adequate. This is understandable since not every student takes every option, thus this might be a reflection of the opinion of those who opted for each particular course. It is worth noting that none of the respondents considered information sources and reference services course inadequate and it had the highest ranking (78%) of adequacy.

Table 2: Degree of Adequacy of the Current Curriculum in Meeting the Required Skills for Work N=97

Core Courses	AD		FA		IA	No Response		
	F	P	F	P	F	P	F	P
IL 634 – Information and Communication Theory	66	68	18	18.6	2	2.1	11	11.3
IL 635 – Information Sources and Reference Services	78	80.4	10	10.3	0	0	9	9.3
IL 636 – Information Technology and Its Applications	72	74.2	10	10.3	5	5.2	10	10.3
IL 637 – Organization of Knowledge	69	71.1	14	14.4	3	3.1	11	11.3

(Cataloguing)								
IL 603 – Research Methods	73	75.3	12	12.4	2	2.2	10	10.3
IL 623 – Records Management and Archives Administration	70	72.2	12	12.4	3	3.1	12	12.4
IL 638 - Organization of Knowledge (Classification)	64	66	22	22.7	2	2.1	9	9.3
IL 639 – Management for Information Professionals	70	72.2	13	13.4	3	3.1	11	11.3
IL 640 – Collection Development and Management	57	58.8	21	21.6	7	7.2	12	12.4
Optional Courses								
IL 618 Analysis, Design And Evaluation Of Information Systems	61	62.9	16	16.5	1	1.0	19	19.6
IL 633 Digital Libraries	57	58.8	14	14.4	2	2.1	24	24.7
IL 643 Knowledge Management	59	60.8	14	14.4	2	2.1	22	22.7
IL 617 Information User Studies	46	47.4	19	19.6	3	3.1	29	29.9
IL 631 Legal Information Services	36	37.1	23	23.7	3	3.1	35	36.1
IL 642 Information in Science and Technology	56	57.7	14	14.4	2	2.1	25	25.8
GE 633 Geographical Information Systems	33	34	22	22.7	8	8.2	34	35.1

Key: AD – Adequate; FA – Fairly adequate; IA- Inadequate

F- Frequency; P- Percentage

Source: Field survey 2011

Modifications/Improvements

Additional courses suggested by respondents through questionnaires, interviews and focus group discussions included: Ethics in information management, Information sources to people with disabilities, Information packaging and repackaging of information, Software management, Customer care in information delivery service, Sectoral information needs, E-commerce, Information policy analysis and design, Documentation, Information society, Information storage and retrieval, Web 2.0 Technologies, Mass communication for journalism and related courses, Computer programming and networking, Database design and management, Management information systems, Copyright and intellectual property rights including OAI, Legal and human rights information service, Public relations and marketing of library services, Sectoral information management, Information services to special users, Museum and antiquities studies, Multimedia studies and publishing, Communication skills and philosophy, Information literacy, Evaluating and organizing digital information, Project planning and management, Monitoring and evaluation, analysis and design of online interaction environment, ICT laws, Report writing, Public speaking, Development of information programmes and projects, Developing funding proposals, School library and school librarianship, Archives management, Data analysis using software packages such as SPSS, and Evaluation of information. Modifications suggested included restructuring of some of the courses, adjusting course contents increasing practical sessions and introducing field attachment in the structure of the programme.

Restructuring

In addition to suggested additional courses for improving the Programme, the respondents also suggested restructuring of the courses by either reorganizing the course contents and combining some of the courses, or revisiting the constitution of core and optional courses. For instance, it was suggested that courses IL 618 Analysis, design and evaluation of information systems, IL 631 Legal information services, IL 633 Digital Libraries, IL 642 Information in Science and Technology, and IL 643 Knowledge Management be shifted to core courses category and IL 634 Information and communication theory and IL 640 - Collection development and management be shifted to optional courses category.

Increasing practical sessions

It was recommended that more practical sessions be conducted for courses IL 636– Information technology and its applications, IL 637- Organization of knowledge (Cataloguing) and IL 638 - Organization of knowledge (Classification) to suit work environment. It was also recommended that students should go for field attachment to give them experience of what is happening on the ground.

Adjusting course contents

IL 634 - Information and communication theory and IL 635 - Information sources and reference services were too loaded. It was recommended that course content be reconsidered by removing some of the topics.

Merging courses

It was suggested that IL 640 - Collection development and management be merged with IL 639 - Management for information professionals.

Preferred and Feasible Course Delivery Mode

Preferred Delivery Mode for MA Programme

Respondents were informed that currently all the courses are taught using the conventional face-to-face mode. They were asked to prioritize their preferred mode of delivery out of the three options provided: the current face-to-face course delivery, online/electronic delivery mode or a mixture of the two (blended). The findings indicate that the respondents' preferences were split between face-to-face (41.2%) and blended (49.5%) modes in the first category and online option seemed to stick out (26.8%) as compared to the other two (3.1% for face-to-face and 7.2% for blended) in the last category preference. More than 50% did not respond to the online option. The no response for other options is less than 50%. See Table 3 for details. This indicates that the Programme may be able to attract adequate numbers for the face-to-face and blended modes of delivery and unlikely to attract adequate candidates for online mode of delivery. Nonetheless, developing online programme where both face-to-face and blended modes are offered would still be cost-effective in terms of resources.

Preferred Delivery Mode for Postgraduate Diploma Programme

The respondents were informed that the Programme is also considering the introduction of a Postgraduate Diploma in Information Studies and that they were required to indicate their preferred mode of delivery, indicating their level of preference out of the three levels given: First preference, Second preference and Last preference. The respondents were almost equally split between face-to-face and blended modes of delivery (where first and second preferences are put together), with a few opting for online mode of delivery as compared to the other two modes. 59 (60.5%) opted for face-to-face mode of delivery and 58 (59.8%) for blended mode of delivery (see Table 4 for details). Although the number for the online mode of delivery is relatively small (25-25.8%), it is also worth considering it since the mode would not need a significant input where courses are offered through blended mode of delivery.

Table 3: Preferred Delivery Mode for the MA and Postgraduate Diploma Programmes According to Priority N=97

Preference	Face to Face				Online				Blended			
	Master's		Diploma		Master's		Diploma		Master's		Diploma	
	F	P	F	P	F	P	F	P	F	P	F	P
First Preference	40	41.2	48	49.5	4	4.1	9	9.3	48	49.5	43	44.3
Second Preference	18	18.6	11	11.3	12	12.4	16	16.5	13	13.4	15	15.5
Last Preference	3	3.1	4	4.1	26	26.8	20	20.6	7	7.2	8	8.2

No response	36	37.1	34	35.1	55	56.7	52	53.6	29	29.9	32	32
Total	97	100	97	100	97	100	97	100	97	100	97	100

F- Frequency; P - percentage

Source: Field survey 2011

Preferred Delivery Mode for the PhD Programme

The results of the study indicated that more respondents (54=55.7% as first preference and 11=11.3% as second preference) preferred to follow a coursework and dissertation path than the current PhD by thesis only (See Figure 2). This option also had a lower number (32=33%) of undecided respondents, that is, those who did not respond to the question as compared to that of PhD by thesis (48=49.5%). This implies that this would be a more popular mode of delivery as compared to the current PhD by thesis only. Nonetheless, response of 32% is not insignificant, bearing in mind that this approach does not require a regular attention and may be popular for those who want to follow the programme on part-time basis.

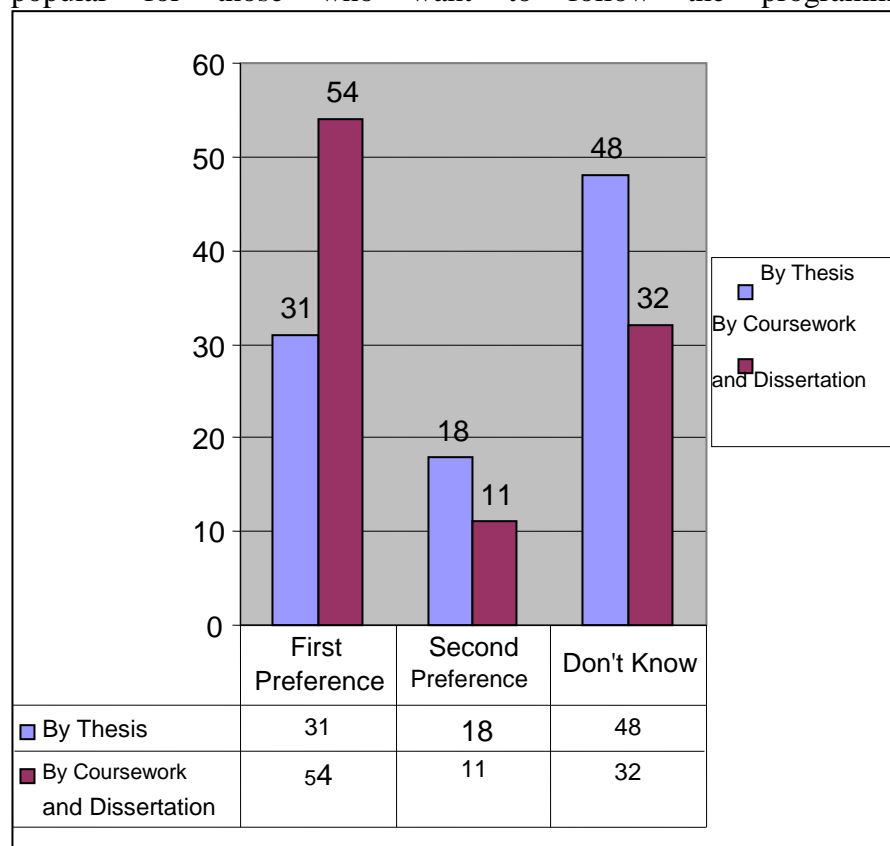


Figure 2: Preferred Delivery Mode for the PhD Programme

Source: Field survey 2011

Possibility of Concurrent Conduction of All the Postgraduate Programmes

As shown in Table 3, the pattern of preference of delivery mode for both the master's and postgraduate diploma show no significant difference. Thus, these programmes could be run concurrently at coursework levels and then separated at report writing stage. The PhD by coursework can also be included at the first level of coursework and split in the second year by offering additional courses for those pursuing the PhD programme.

Training Needs for Updating Professional Skills

One of the objectives of the Programme is to update professional skills through conducting short courses. The respondents were asked to indicate areas that they would like to be covered from the list provided and give suggestions for other areas not listed that they would like to be included. They were also asked their preferences; first, second or last. All the courses were listed as first preference by more than fifty percent (ranging between 58.8% and 71.1%) and as second preference by between 18.6% and 26.8% of the respondents. See Table 4 and Figure 3 for details. This indicates that all listed courses are relevant for enhancing professional skills and thus likely to attract students for short courses. Some of these courses were also suggested for inclusion in the degree programme as one of the ways of improving the programme which is currently run. Inclusion of some of these courses in the degree programme would require revision of the programme in terms of structure and content.

Table 4: Priority Areas for Updating Professional Skills N=97

Area	First Preference		Second Preference		Last Preference				No. Response
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
Records Management	57	58.8	26	26.8	4	4.1	10	10.3	
Monitoring and Evaluation	62	63.9	23	23.7	3	3.1	9	9.3	
Management Information Systems	62	63.9	19	19.6	1	1.2	15	15.5	
Project Planning and Management	61	62.9	20	20.6	4	4.1	12	12.4	
Library/Office Automation	69	71.1	18	18.6	1	1	9	9.3	
Proposal Writing	59	60.8	19	19.6	3	3.1	16	16.5	
IT for Information Professionals	63	64.9	22	22.7	2	2.1	10	10.3	
Report Writing	58	59.8	22	22.7	1	1	16	16.5	

Source: Field survey 2011

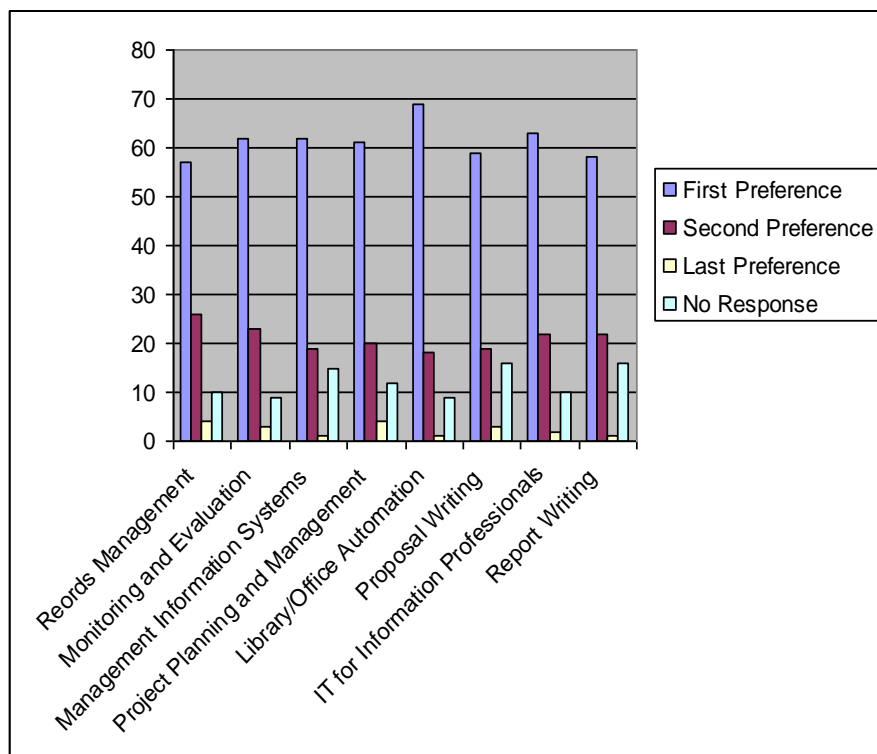


Figure 3: Priority Areas for Updating Professional Skills

Source: Field survey 2011

Suggestions for other areas to be considered include: management for information professionals, data analysis using various data analysis packages, knowledge management, conducting online courses, customer care multimedia of children information, school library and school librarianship, archives management, bibliometrics and citation, mass communication, digitization, database design, creation and management, news reporting and mass media communication, evaluation of information, and knowledge processing and organization (classification and cataloging).

Recommended Strategies for Programme Expansion

Recommended strategies for Programme expansion are centred around auditing of market requirements as reflected by respondents' suggestions on improvements required on the current programme and areas that they would like to be covered to meet skills requirements. Also responses on preferred delivery modes indicate that the programme needs to take on board opportunities offered by developments in information and communication technologies in delivering its programmes. In terms of actual running of the programmes; the three programmes could be offered in the first year by having same core courses and required options for all in the course part of the first year and then splitting done in the second year as per requirements of each programme followed.

CONCLUSION

Two main conclusions can be drawn from the study: the Programme needs to be revised in terms of restructuring and expanding the courses offered to include suggested new areas; and

diversification of delivery modes to accommodate interest and convenience of various stakeholders in line with the opportunities offered by developments in information and communication technologies. Constitution of core and optional courses as well as content of various courses needs revisiting. In terms of delivery modes, the current face-to-face and blended modes appear to be competing, while online per se attracted only a small percentage, indicating that delivering through the two modes needs to be considered seriously, and online delivery mode also needs a further study.

RECOMMENDATIONS

The study recommends that the structure of both the core and optional courses be revisited and suggestions made be incorporated to improve the quality of the current MA programme. Also postgraduate diploma programme be introduced as well as taught PhD programme. Additionally, the suggested professional enhancing courses be run first on short-term programmes and gradually be incorporated as diploma/degree programmes under appropriate programmes in consultation with the stakeholders. Since ICT developments in the country provide opportunities for flexible programme delivery modes, delivery modes should be diversified to accommodate needs of employees at different career levels.

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