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Quality assurance and LIS education in the GCC countries

Sajjad ur Rehman

Professor, LIS,
College of Social Sciences,
Kuwait University
rehman05@gmail.com

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ABSTRACT

This paper investigates the situation and evaluation strategies and processes of eight LIS education programs in the six member nations of the GCC (Gulf Cooperation Council), namely Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Muscat, and Bahrain. These nations make a homogenous unit in relation to historical, religious, cultural, ecological, linguistic, and politico-economic domains. Eight of the nine schools in region provided information through an email-based electronic questionnaire. Saudi Arabia's four universities have six LIS programs; Kuwait has two, and Qatar and Oman have one each. Primarily these are undergraduate programs except the graduate program at Kuwait University that has a structured 36 credit hour program.. Two Saudi universities offer research-based Master and Ph.D, programs. The paper describes the situation of the eight LIS programs in terms of their organizational placement, strategic plan, students, faculty, and resources and facilities. It also describes the evaluation efforts undertaken in these programs through self study and external assessment and the outcomes of these exercises. Perceptions about the desirability of accreditation and certification were also explored.

BACKGROUND

Changes in library and information science (LIS) education have been profound, pervasive and universal. During the last couple of decades, this process of change has accelerated as new areas of studies have emerged in the field and many inter-disciplinary academic programs have

surfaced that include information management, knowledge management, content management, information architecture, digitization, and archival and record systems. Few years back, TFPL completed surveys of the market and identified how the field has opened new opportunities in the areas of information and knowledge management (TFPL, 1999). Abell (1998), the principal consultant of TFPL, emphasized that there were many new opportunities for the information professionals and if they did not benefit from them, new opportunistic professions may take lead. The hallmark study of KALIPER (2000) had identified key factors that had prompted new trends in the LIS education. These factors included demands of students, employers, graduates, and professional associations for graduate competencies; growth and expense of supporting emerging technology; internal campus relationships and positioning; availability and/or presence of faculty with new subject expertise; competition from other LIS programs; and availability of financial support for innovation. The six trends delineated in the report indicated the LIS schools are increasingly:

1. Addressing broad-based information environments and information problems in curricula;
2. Emerging with a distinct core that is predominantly user-centered;
3. Increasing the infusion of information technology into their curricula;
4. Experimenting with specialization within the curriculum;
5. Offering instruction in diverse formats; and
6. Expanding curricula by offering related degrees at the undergraduate, master's, and doctoral levels.

It is understood that in order to introduce changes in the LIS programs, these efforts must be preceded by systematic evaluation of the context, strategies, curriculum, facilities and resources, and other related factors. In this regard, studies of the perceptions of students, faculty, alumni and other stakeholders play an important role. A number of perception-based surveys are found in literatures (Blankson-Hemans & Hibberd, 2004; Edomi & Ogbomo, 2001; Edzan, et al., 2004; Genoni, Exon & Farrelly, 2000; Genoni & Smith, 2005; Jefferson and Contreras, 2005;

Loughridge & Speight; 1996; Mohai, 1999; Yen, et al., 2003). We can derive the following points of significance from these studies:

1. Changes in the information market are pervasive.
2. LIS education has undergone major changes during the last few decades.
3. New fields of study and areas of practice have influenced the LIS education programs. These have an inter-disciplinary nature.
4. Academic programs of LIS are re-configured in the light of market needs, based on fresh efforts of competency definition and validation.
5. Competencies are defined on the basis of market needs' assessment, demands of the employment market, situation and profile of the academic programs, and percepts of graduates and other stake-holders.
6. The academic programs of LIS need to be rejuvenated and redesigned, based on continuous efforts of strategic planning, implementation, and evaluation.

Tammaro (2005), working on the behalf of IFLA's Education and Training Division, proposed a model of quality assurance. She applied this model in an international survey and reported the findings. In 2007, Tammaro studied evaluation and quality assurance among LIS programs in the European Union. Four types of criteria of inputs, activities, outputs and outcomes were used for this assessment. The study covered the areas of accrediting agency, frequency and the areas covered. This study is worth replication in other regions with appropriate adjustments. Sarkhel (2006) investigated the role of University Grants Commission in accrediting LIS programs and ensuring quality assurance in India. The author developed a set of indicators on the basis of an understanding of the global developments in the activities and services of libraries and information centers, the national environment, the outcome of National Assessment and Accreditation Council (NAAC). A number of recent studies about the evaluation and quality assurance assessment have been conducted in Thailand, Poland, and Latvia. These indicate the significance of these studies and how local contexts warrant adjustments in the use of criteria and role of different agencies in the accreditation process (Holma & Pakalna, 2007; Saladyanant, 2006; Wozniczka-Paruzel, 2003).

Problem

The primary premise for this study is that library and information education programs need to be evaluated periodically in a systematic and comprehensive manner. Further, it is assumed that evaluation exercises must lead to logical outcomes for introducing meaningful changes in the areas of strategy, academic policies, and curriculum revisions. Another assumption is that the academic programs need to ensure quality assurance so that minimal uniformity is maintained among those programs that share inherent affinities. Based on these understandings, it was noted that the six nations of the Gulf Cooperation Council (GCC) have fundamental similarities in linguistic, socio-politico-economic, and cultural domains. The LIS programs introduced in the region during the last three decades are mostly patterned on the academic structure of semester system and by and large these have been conducted at the undergraduate level. It is worth examining how the LIS programs in the region are conducting their business in relation to academic programs, student enrollment, faculty, instructional facilities and resources, and library resources. Also, it is pertinent to examine how these programs have practiced evaluation through self-study or external review around the critical areas of performance. The perceptions of the academic management about accreditation and certification are also worth exploration. It is expected that an investigation along these lines would bring forth understandings that might be crucial in adopting strategies and policies for quality assurance.

Research Questions

The following research questions were formulated for this study:

1. What is the situation of LIS programs in the six GCC nations in regard to their organizational placement, student enrollment, faculty, computing facilities, and educational resources?

2. What have been the practices of evaluation of the LIS programs in the GCC nations through self study or external review?
3. What are the perceptions of the leading academics in the GCC nations about certification and accreditation?

Context

There are six members nations of the GCC (Gulf Cooperation Council), namely Saudi Arabia, United Arab Emirates, Kuwait, Qatar, Muscat, and Bahrain. These nations make a homogenous unit, having a common heritage and outlook in relation to historical, religious, cultural, ecological, linguistic, and politico-economic domains. They are considered as a natural strategic block headed toward a common currency by 2010. There also exists a great deal of likeness among these nations in their educational policies and practices. About half of them are more like city-states while others have vast stretches of deserts with immense reserves of petroleum, making them affluent states.

In LIS education, Saudi Arabia, Kuwait, Oman, and Qatar have formal degree programs for the education of professionals. Saudi Arabia has six LIS programs, located in four universities. Two Saudi universities—King Abdulaziz University (KAU) and Umm Alqura University (UAU) have separate programs for males and females, which are independent administrative units. Three universities have both undergraduate and graduate degree programs. Kuwait University (KU) has a graduate degree program in LIS and an undergraduate minor in information studies and the other program of PAEET produces undergraduates with LIS degree. Qatar University (QU) has only undergraduate program. Sultan Qaboos University (SQU) has both undergraduate and graduate degree program. A typical undergraduate program is producing hundreds of graduates a year while there is a wide diversity in the graduate programs and products. Since there exists a

great deal of affinity among the six nations, it was considered appropriate to conduct this study for this group. This homogeneity will allow generalization of the findings of the study.

Procedures

It was decided to collect data from all the LIS programs in the GCC nations. A questionnaire was designed that had the following sections: profile, experiences of self study and review by external assessor, outcomes of the evaluation exercises, and perceptions about accreditation and certification. The questionnaire was pre-tested by administering to two faculty members at Kuwait University. It was revised in the light of their comments.

The questionnaire was administered to the above-identified programs. KAU's male and female wings provided data in one response whereas UQU's male and female sections provided input separately. Each program had one respondent; either the current head or the past head or a senior academic who had the knowledge and expertise to answer the questionnaire. The electronic questionnaire was administered through email. E-mail and telephonic reminders were used. We received responses from all the programs except one school in Saudi Arabia. These responses have been analyzed and the findings are reported in the following section.

FINDINGS

Profile

Table 1 shows a profile of the LIS programs in the six GCC nations. The program founded at KAU in 1973 is the oldest in the region and KU's Master's program, established in 1996, is the latest. The undergraduate program at PAAET (Kuwait) was established in 1977. It seems that the period of 1984-88 was the most fertile for establishing new programs as three Saudi programs at UAU's Men and Women wings (Mecca) and KSU were established during this period. Also the

undergraduate programs of SQU (Oman, Muscat) and QU were founded in 1986 and 1988 respectively.

There appears to be two leading choices for the placement of LIS programs in different colleges. Three of these programs were located in the College of Social Sciences while two others in the College of Arts. SQU program was located in the College of Arts and Social Sciences while QU was placed in the College of Arts and Science. PAEET was the only program situated in the College of Education.

One distinctive feature of the LIS programs is that seven of the eight are predominantly undergraduate programs. It is only KU that does not have an undergraduate major though it has been offering a minor in information studies. Among these programs, KAU is the only one that has three degree programs of bachelor, master, and Ph.D. The graduate programs of this university have 24 and 11 students who are all working on these degree programs in the research track, meaning there is no structured coursework required in these programs. It is worth noting that majors in the undergraduate programs in both the men and women wings of UQU and the minor of KU have a clear orientation toward information science or studies. These programs are not designed to cater for the traditional markets of LIS programs. Master's program at KU is a typical program patterned on the model of ALA-accredited programs with a coursework structure of 36 credit hours. All undergraduate programs are also designed on pattern of the semester system, requiring credit hours for major, minor, and other segments. The two Master degree programs at KU and KAU have 24 and 45 students respectively with an annual intake of 25-30 students at KU.

The undergraduate programs in these universities have large enrollments. UQU reported that it had an enrollment of about 1,800 students in both the wings of men and women. PAEET, Kuwait

also had the enrollment of 700. The number of undergraduate students at QU was 400.

Enrollment of undergraduates at KAU, KSU and SQU was in the range of 200-300.

The largest number of 21 faculty members was found at PAEET that had 700 students, resulting in the student teacher ratio of 1:33. Other high faculty student ratios were noted for men and women wings of UQU that were found to be 1:57 and 1: 73 respectively. This ratio for SQU and QU were noted to be 1:31 and 1: 44. For the combined strength of graduate and undergraduate students of KAU, the ratio was found to be 1:20. The ratio for KSU was found to be 1:11. For KU, ratios could be separated for graduate and undergraduate students, which were 1:11 and 1:20 respectively. These results indicate that five of the eight undergraduate programs had the ratios exceeding 1:30 while two of the five even exceeded 1:50. It shows that there is a serious shortage of faculty members in these programs.

Table 1 Profile

Institution	Year established	College	Number of students	Number of faculty
KAU	1973	Arts	Bachelor: 242 Master: 24 Ph.D. 11	Prof.: 3 Assoc. Prof.:5 Asstt Prof. 4 Lecturer: 2 Ph.D. students: 5
QU	1988	Arts & Sciences	Bachelor: 400	Prof.: 1 Assoc. Prof. : 3 Asstt Prof. 5 TAs: 2
SQU	1986	Arts & Social Sciences	Bachelor: 275 Master: 22 Diploma: 8	Prof.: 1 Assoc. Prof.: 2 Asstt Prof.: 7 TAs: 4 Ph.D. students: 2
UQU Women	1987	Social Sciences	Bachelor and Media Center Certificate: 850	Assoc. Prof.: 4 Asstt Prof. 11 TAs: 7 Ph.D. students: 4
KU	1996	Social Sciences	Bachelor minor: 51 Master: 45 One required service course for 450 students and another required service course for 200 students every year.	Prof.: 2 Assoc. Prof.: 3 Asstt Prof. 5 TAs: 4 Ph.D. students: 5
PAAET	1977	Education	Bachelor: 700	Prof.: 1 Assoc. Prof.: 1 Asstt Prof. 14 Lecturer: 5 TAs: 14 Ph.D. students: 6
KSU	1986	Arts	Bachelor: 200	Prof.: 4 Assoc. Prof.: 5 Asstt Prof. 9 TAs: 5
UQU Men	1984	Social Sciences	Bachelor: 944	Assoc. Prof.: 2 Asstt Prof. 11 Ph.D. students: 4

Resources and Facilities

Information was gathered about computing facilities, electronic classrooms, audio-visual facilities, library resources, and teaching facilities. Tabulated data have been presented in Table 2. It was found that all the eight programs had computing laboratories with varying extent of facilities. Among those that provided detailed information, UQU Women was reported to have

two laboratories with Internet connections. The Men wing of the same university had 80 pcs networked with a server. It is worth mentioning that these two programs have the student strength of about 1,800. SQU reported 25 workstations in the laboratory for the student strength of about three hundred, meaning one workstation for about twelve students. Each of the KSU's four laboratories had 30 workstations and a server while the number of students was reported to be 200, meaning that there was one pc for every 3-4 students. KU reported to have elaborate facilities. Its graduate computing laboratory had 15 workstations; one for about three students. There was a dedicated undergraduate computer laboratory while the undergraduate students shared the college facilities. They however needed larger laboratories with additional pc units in order to accommodate larger classes. All the laboratories had Internet connections.

Five of the eight programs reported that they did not have electronic classrooms. The other three—KU, QU and UQU Men—had projection facilities and Internet connections in these classrooms. None of them reported that these classrooms were connected with the central media facilities of the university. Three programs did not report their audiovisual facilities. KSU reported of having 12 TVs, video equipment, and recorders, etc. Other schools reported projection facilities. At SQU, a central unit was equipped with learning technology and each college also had a small unit to facilitate local needs. This program reported two laboratories for children and bibliographic activities.

As far as library resources are concerned, 4 programs did not report periodical subscriptions and 3 did not report monograph collection. Since all of these programs save KU's MLIS program use Arabic medium of instruction, information was gathered for both English and Arabic resources. Among those that provided information, KSU and QU had subscriptions for 11 and 13 titles; out

of which 5 and 3 were Arabic. KAU subscribed to 9 Arabic and 27 English titles. KU had the largest number of subscriptions of 10 Arabic and 80 English titles. When it comes to monographs, the largest collection of seven and eight thousand volumes for Arabic and English titles was reported at KAU. The second largest collection was at KU, which had 2000 and 3000 Arabic and English language volumes. The respondent from QU commented that the collection was very poor. PAEET, with a student body of 700, reported the monograph collection of 1,500 and 700 for Arabic and English languages. This number was 1000 and 400 for KSU's LIS program. The information for periodical and monograph collections is incomplete, yet it indicates that most programs have inadequate resources while the number of students in these institutions is very high. If per capita number of periodical subscriptions and monograph collections is computed, it will not present an encouraging scenario. It is worth exploring what factors are responsible for this apparent weakness in these oil-rich nations.

It was reported that six of the eight programs used library automation package in the instruction of courses. Four of them accessed the automation package of Horizon while one used Unicorn. At SQU they were in the process of converting from the locally developed system of Afaq to Unicorn. UQU Women also used the digital library system of Dspace.

One important instructional resource is the use of bibliographic databases for search and retrieval and research. Among the databases that were accessible to these programs, all the eight reported of having access to LISA and ERIC. Six of them reported that they had access to Academic Search, ABI Inform, and Dissertation Abstracts Online. Five had access to Library Literature. Four reportedly accessed Emerald Full-text, Ulrich Plus, and General Science Index. Three of them were found to be accessing Encyclopedia Britannica and Readers Guide. Two of them

reported access to Web Dewey, Classification Web, and ISI Web of Knowledge. Only KU's program reported access to BIP, Psychinfo, and LISTA.

Table 2 Resources and Facilities

Institution	Computer laboratories	Electronic classrooms	Audiovisual facilities	Periodical Subscriptions		Monograph collection		Automation package
				Arabic	English	Arabic	English	
KAU	X	None	None	9	27	7000	8000	Horizon
QU	X	X	None	3	10	Very poor	Very poor	Unicorn
SQU	X	None	X	No info.	No info.	No info.	No info.	Afaac (locally developed); library converting to Unicorn
UQU Women	X	None	None	No info.	No info.	No info.	No info.	Horizon; Dspace digital library system
KU	X	X	X	10	80	2000	3000	Horizon
PAAET	X pcs and printers	None	None	No info.	No info.	1500	700	None
KSU	X	None	X	5	6	1000	400	None
UQU Men	X	X	X	No info.	No info.	No info.	No info.	Horizon

EVALUATION PRACTICES

The primary purpose of this study was to examine the evaluation practices of the LIS programs in the six GCC member nations. Two modes of evaluation were identified for this study—self study and evaluation by external reviewers. In the following section, we will analyze evaluation strategies and practices of these programs in relation to self study and external review.

Self Study

Table 3 shows results about self study in the eight programs. UQU Women and KSU indicated that they had not conducted self study. Five programs gave the date of their last self study exercise. Accordingly, PAET program had conducted the self study in 2000, KU in 2001-02, SQU in 2003-4, UQU Men in 2004, and KAU in 2005. Currently, KU is conducting another self study and it will be expecting an external review in late 2007.

Further, it was investigated that what aspects of the academic life were covered in the self study. Eleven variables were identified for this purpose. Table 3 shows which aspects were covered in the self study process. It was reported that the QU and PAAET programs had covered all the listed aspects. UQU Men had examined all the variables except conducting survey of graduates. KU did not cover surveys of graduates and market needs and managerial aspects in its 2001-2002 exercise, but it has conducted an extensive survey of the market and graduate perceptions for the 2007 self study. KAU had only reviewed curriculum and computing facilities. Similarly, SQU program did not cover student evaluations and library resources in its exercise. It appears that most of the programs conducted self study in a thorough and comprehensive manner.

External Review

The same 11 variables were covered in examining the conduct of evaluation through external review. Information was also gathered about who had conducted the review and when was it conducted. Table 4 shows results of external review in the eight programs. It was found that both the Men and Women wings of UQU had not conducted external evaluation. Five of them had used an external expert for review whereas KSU had been examined by an appointee of the Ministry of Education. Only curriculum was examined in the external reviews of the LIS programs of KSU and QU, conducted in 2006 and 2007 respectively. PAAET and SQU programs were evaluated in the respective years of 2000 and 2007 for all the eleven variables. KAU's review, conducted in 2007, examined all the aspects except student perceptions. In 2002 and 2003, KU program was examined for all the aspects except management and student perceptions. An outside expert is scheduled to review this program in late 2007.

Outcome of Review Exercise

The participants were asked to describe if the review exercises had resulted in any changes during the last five years. Outcome was identified through definition of new strategic plan, changes in admission or graduation policies, changes in the provision of resources and facilities, changes in instructional approaches, and changes in curriculum. The responses are displayed in Table 5.

It was found that at PAEET and KAU, no changes were reported in the five areas during the last five years. KU had a new strategic plan, it had introduced changes in graduation requirements, and it revamped its whole curriculum as well as added new courses. QU had a new strategic plan and there had been changes in the admission and graduation policies. At SQU, they had only made adjustments in coursework and some changes in the required courses. In both the Men and Women wings of the UQU, changes in policies for student admission were reported whereby they decided to admit only those students who had majored in science subjects in their high school. Both the wings had revamped their whole curriculum and it was oriented to information science. The Women wing also reported that it had a new strategic plan. At KSU, they had introduced changes in their admission/graduation policies. Also, they reported that whole curriculum had been changed.

Perceptions about Accreditation and Certification

The first question was whether the respondents considered accreditation desirable. All the respondents responded affirmatively. They were asked to mark which agency they considered appropriate for accrediting these programs. Seven of them marked the option of a regional professional body such as SLA/AGC or a new body in the region. Three respondents considered the national professional association as the right forum while another three thought the regional

consortium of universities should conduct evaluation. Only one of them marked the choice of an international agency.

Table 3 Self Study

Institution	Year of self-study	Strategic Plan	Students:	Curriculum	Student evaluations	Faculty	Research output	Academic management	Computing facilities	Library resources	Market needs	Survey of graduates
KAU	2005			X					X			
QU	?	X	X	X	X	X	X	X	X	X	X	X
SQU	2003-04	X	X	X		X		X	X		X	X
UQU Women	None											
KU	2001-02	X	X	X	X	X	X		X	X		
PAAET	2000	X	X	X	X	X	X	X	X	X	X	X
KSU	None											
UQU Men	2004	X	X	X	X	X	X	X	X	X	X	

Table 4 External Review

Institution	Year of self-study	Who Conducted?	Strategic Plan	Students	Curriculum	Student evaluations	Faculty	Research output	Academic management	Computing facilities	Library resources	Market needs	Survey of graduates
KAU	2007	outside expert	X	X	X	X	X	X	X	X	X	X	
QU	?	outside expert			X								
SQU	2007	outside expert	X	X	X	X	X	X	X	X	X	X	X
UQU Women	None												
KU	2002-2003	Two outside experts	X	X	X	X	X	X		X	X		
PAAET	2000	outside experts	X	X	X	X	X	X	X	X	X	X	X
KSU	2006	appointee of the Ministry			X								
UQU Men	None												

Table 5 Outcome of Review Exercises

Institution	New strategic plan	Changes in admission/graduation policies	Changes in resources & facilities	Changes in instructional approaches, etc.	Changes in curriculum			
					Whole curriculum	Course adjustments	Changes in required courses	Changes in elective courses
KAU	None	None	None	None	None	None	None	None
QU	X	X	None	None	X	X	X	X
SQU	None	None	None	None	None	X	X	None
UQU Women	None	X	None	None	X	None	None	None
KU	X	X	None	None	X	X New courses	None	None
PAAET	None	None	None	None	None	None	None	None
KSU	None	X	None	None	X	None	None	None
UQU Men	X	X	None	None	X	None	None	None

When the respondents were asked whether they thought that the LIS programs should seek certification, six of them responded positively. Five of them indicate which agency should certify. Two of them proposed that it should be the Ministry of Higher Education. Two of them considered the professional body to be the appropriate forum. One proposed that it should be a body at the level of the GCC. Another question was whether the LIS degrees in the region should be uniformly accepted for further admissions, academic transfers and employment. Seven of the universities favored the proposal.

The respondents were asked whether they felt the need for changes in assessment procedures. Six of them held the view that changes should be made in the process. The respondents from QU thought that it should be the department that should conduct evaluation and it should not be the college. KAU respondent proposed that the procedures and standards used by the Saudi National Commission for Academic Accreditation and Assessment should be applied. Two respondents

from UQU proposed that the university should invest in the process reward those who perform it.

PAEET's respondent proposed that it should be conducted every five years.

Table 6 Perceptions about Accreditation and Certification

Institution	Uniformity	Need for changes in assessment procedures	Accreditation		Certification	
			Yes		yes	
KAU	Yes	Yes, Using the Saudi National Commission for Academic Accreditation and Assessment	Yes	2, 3	yes	No input
QU	Yes	Yes, it should be done by the department and not by the college	Yes	2,3,4,5	no	
SQU	No	No	Yes	2	no	
UQU Women	Yes through regional accreditation agency	Yes, invest in the process and reward those who perform it	Yes	2, 5	yes	Through professional association
KU	Yes	No	Yes	2	yes	Ministry of Higher Education
PAAET	Yes through GCC certification process	Yes, it should be conducted every 5 years	Yes	1,2,3,4	yes	A body at the GCC level
KSU	No	Yes	Yes	1	yes	Ministry of Higher Education
UQU Men	yes	Yes, Invest resources and rewards those who work on it.	Yes	2,5	yes	Prof. association and committee of experts

CONCLUSIONS

It has been noted that the LIS programs in the six GCC nations primarily offer undergraduate degrees. There is only one school that is offering a structured Master's program. The salary structures and position classifications of LIS professionals, enforced by the civil service authorities in these countries, also provide that the LIS professionals should have an undergraduate degree. During the last few decades, the professional education has shifted to graduate education world-over. However, in this region, all the programs developed during the last three decades have a different setup of intake and graduation of LIS professionals. As a

result, we find that the professionals in this region are deeply concerned about their status and their overall image in the society. A great deal of that might be attributed to the education and preparation of these professionals. The educators in this region need to critically examine this situation and find out what strategies might be appropriate to bring the education and preparation of professional at par with the international trends. Undergraduate education might be more appropriate for the purposes of creating information literacy and having workforce for vocational and technical jobs.

Another point of apparent concern is that most schools in this region have a very high student faculty ratio. The intakes and enrollments in these programs are very high, but the number of faculty members is relatively modest or weak. In order to create conducive learning culture and having a meaningful engagement between the teacher and the taught, this ratio should be brought down to the global norms. The ratios of 1:30 or above pose serious problems and need to be brought down. It has also been noted that in Saudi Arabia and many other countries, employment of graduates has been a serious problem. The academics need to revise their admission and intake policies and strike a balance between supply and demand.

It has been found that monographic and periodical subscriptions in many of these programs are on the weak side. Having very few periodical subscriptions in three schools indicates a serious paucity of serial collection. It seems that these schools have little to encourage their faculty members for research as their collections are weak and student teacher ratios are high. Only one program with a graduate degree had 80 periodical subscriptions in English language. All others programs had less than 25 subscriptions, which might be an indicator of low value attached with research and scholarship. This study did not take into consideration research productivity of the faculty members, but an earlier study had indicated that the research periodicity was very low

among these graduates (Al-Ansari, Rehman and Yousef, 2001). This situation of resources explains this situation to a certain extent. Three schools were found to be having the classrooms that were not electronically prepared. Some schools were subscribing to two databases. The fact that only two schools subscribed to Web Dewey and Classification Web also indicates that these might still be using the print version. In two programs, a small number of computing workstations were available whereas the number of students exceeded five hundred. All these factors indicate that the policy makers need to pay serious attention to the availability of resources and facilities that are crucial for making learning effective.

Policies and practices of evaluation through self study or external reviewer largely vary among these programs. Use of the results of these exercises in improving their situation also varies from school to school. It was found that almost all the programs had used either of the two strategies for evaluation during the last 5-7 years. One school had a policy of a 5-year evaluation cycle. Five programs reported that they had used the results of this exercise for overall curriculum revamping and other adjustments. However, none of them had used these evaluation exercises for improving their computing facilities and instructional resources. The result of this study may provide a better insight to the academic policy makers to attend to the areas in which they can use the results of these evaluation exercises. It is worth mentioning that two programs have switched over to the information domain from the traditional LIS orientation in their academic programs. It has yet to be seen how their graduates make a mark in the employment market in the near future.

Five programs favored that there should be uniform policies for student intake, acceptance, credit transfer, and employability among these schools. The schools that did not favor had already

shifted to information science and systems and did not feel comfortable that their curriculum, graduation requirements, and employability of the graduates would permit a uniform treatment. All the programs favored that an accreditation system should be in place. However, there was little agreement who should be the accrediting them. However, the largest number marked the option of a regional body such as SLA/Arabian Gulf chapter. Likewise seven of the eight programs were in the favor of certification and two of them proposed that it should be the Ministry of Education who should assume responsibility for that. Keeping in view that the largest number of graduates are employed in the public sector schools, this recommendation is quite viable. It may not be as easy to propose an acceptable system of accreditation; it is only through continued interaction and engagement of the stakeholders that these programs may approach a common ground of understanding.

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