Supporting the digital readiness of library science graduates

Two-year review of a pilot project in Ethiopia, Kenya, Malawi, Tanzania and Zambia

Strong research and teaching at universities relies on good access to up-to-date information, and this, in turn, requires a strong library and information service.

One of the major barriers faced by university libraries in developing countries, in the support and services they provide to their researchers and students, is a lack of staff with the knowledge and skills to work in a rapidly changing information environment. Without digitally competent librarians, libraries will struggle to cope with the ever-evolving information landscape.

INASP has provided training for librarians for many years and continues to do so. This 'in-service' training addresses key skills or knowledge gaps in managing access to online information. In all of its work, sustainability is a primary objective. One way to ensure this is to address skills-needs closer to the source, by ensuring that newly trained librarians have the skills that they and their future institutions will need. To this end, INASP launched a pilot project in 2013 designed to investigate ways to improve

Workshop participants in Kenya give their full attention

the postgraduate curricula and teaching in library and information science (LIS) in five countries. This is part of INASP's ongoing efforts to improve access, production and use of research information and knowledge, to enable developing countries to solve their development challenges.

The Library and Information Science (LIS) Pilot Project

The LIS Pilot Project aimed to ensure that professional librarians graduating from African library schools have the knowledge and

About this document

As this was a pilot project, INASP built in a structured review process to capture lessons learned, both to assist in designing the next phase of the project and to inform other similar projects. This publication has two parts: part one is a brief summary of the project and the review, with suggestions for the way forward; part two gives more detail from the review itself, outlining what worked, as well as what might be improved, and including comments from project participants. The document could be useful to anyone working at or with LIS schools in developing countries, or to others working on curriculum review or course development projects.

Over 16 million people live in urban areas in Ethiopia

skills to grow and improve libraries, and in turn to support research and teaching. The first phase of the project involved library schools at Kenya Methodist University (KeMU), the University of Dar es Salaam (UDSM) in Tanzania, the University of Zambia, Jimma University in Ethiopia and Mzuzu University in Malawi.

INASP staff worked with librarians and international experts to review and update postgraduate LIS courses at these institutions. They helped teaching staff improve their teaching skills, offering them opportunities to update their subject knowledge through continuing professional development (CPD), enabling them to teach new and evolving subjects in the curricula.

Highlights from the two-year review

The first two years of the project raised awareness among library school staff about the gaps in their knowledge and skills, provided a degree of pedagogy support, and reinforced the review of curricula.

However, efforts are still needed to help library science students to become not only technical experts, but critical thinkers and library leaders, who could adapt and manage in the changing digital environment, something that is beyond the scope of the current work.

The CPD component of the project was intended to help fill knowledge and subject gaps among teaching staff, ideally as part of a departmental plan for ensuring that staff members could teach all aspects of the revised curriculum. It was discussed with the heads of departments, and individual staff members could apply for CPD opportunities. However, there was less impetus to pursue CPD as a

strategic approach at departmental level, and when this did not materialize, individuals were more reticent than expected to pursue CPD opportunities themselves. CPD may be more attractive if offered via a grant, so that library school teaching staff could, for example, make a study visit to another university or to a conference. Other suggestions from the review process included creating 'champions' to drive change, such as a 'Champion for Digital Archives'.

While the project recognized the need for high level buy-in from the start – and the Memorandum of Understanding (MOU) was signed by the Vice Chancellor at the highest institutional level, the review revealed that this was not enough to develop institutional change. Greater strategic effort is needed to get universities committed to, and ready for, curricula change at all

levels, beyond one-off workshops. In some institutions, the people facing the problems are not those who can realistically change things. This suggests a strong need to encourage and support internal strategies for change at the universities, to ensure more institutional buy-in and solid commitment.

Overall, the review highlighted that the activities INASP supports, which aim to ensure that library schools can produce suitably skilled graduates, is only part of a bigger, more complex picture. Developing 'digitally ready' LIS graduates who can work in modern libraries will be achieved through a broad range

of improvements to postgraduate programmes. This will come about in part through curricula review, pedagogy support and CPD, but also by improvements in organizational management and scope to cover a wider range of subjects, than we had envisaged.

The way forward

The next phase of the project needs to consolidate and deepen institutional support, and ensure that changes are not linked to individuals, but have broader, long-term impact. INASP could help to achieve this in the following ways:

- Ensuring institutional readiness and commitment to change. Key indicators of institutional readiness might include the existence of quality assurance, teaching and learning or staff development units, or developing stronger links between existing units and LIS schools.

- Ensuring there is someone with vision at each institution who understands the key role that the library and librarians can play in growing research and strengthening teaching, who understands the library as being at the centre (rather than the periphery) of the institution, and someone who can manage change.

- Offering a 'deeper' or 'lighter' version of support depending on how ready the university or department is, and how much commitment and investment they are prepared to give. Universities that cannot give the necessary commitment might then decide to withdraw from the second phase of the project.

- Fostering relationships between LIS staff, senior managers and university leadership, and helping to develop links between universities, including one-to-one peer support relationships. This may also involve identifying experienced LIS leaders from other institutions who could mentor department heads. Linking library schools may take the form of a consortium of library schools, or convening a meeting to enable common problems to be discussed and effective strategies and approaches to be shared.

- Taking a more strategic approach to continuing professional development by working with LIS department heads to strengthen their approach to staff-development planning, identifying needs and matching these to available opportunities. This would also involve developing a better understanding of the barriers to CPD take-up, and identifying 'learning champions' such as 'Champion for Digital Archives', to incentivize staff members to continue learning.

- Integrating curriculum development and pedagogy support through the use of 'constructive alignment', which bridges the gap between the curriculum review and the pedagogy workshops. This approach considers how to design a curriculum so that the learning activities and assessment tasks are aligned with the learning outcomes that are intended in the course. At the pedagogy skills workshops several course modules were reviewed against this approach and may represent a positive way forward.

Detailed review of the LIS Pilot Project

Purpose and methodology of the review

The aim of the two-year review was to assess the project so far and the lessons that have been derived from it, and to assist in designing the next phase of the project. The overall questions asked were:

- what should INASP invest in over the next three years?
- what will it take to make the kind of changes INASP and its partners are aiming for?

Information for this review was gathered through interviews and email exchanges with staff in the library schools involved in the project, and reports from the workshops (from the workshop administrator and from the workshop facilitators).

Data collection was hampered by a number of issues, including a lack of response from interviewees and low response from vice-chancellors to invitations to either speak on the phone to discuss the project or to answer questions by email. Interviews were conducted with: Samuel Sisay (Head of Department) of Jimma University, Ethiopia, and Salome Mathangani (Head of Department) of Kenya Methodist University (KeMU). Benson Njobvu (Head of Department) of the University of Zambia gave brief replies to questions via email. Jon Harle and Julie Brittain of INASP also collected valuable information from Julita Nawe (Coordinator, Library and Information Programme), Emmanuel Elia and Kelefa Mwantimwa of the University of Dar es Salam (UDSM) during their November 2014 visit to the university.

Activities so far

Curriculum review workshops

Over the past two years there have been five workshops to review postgraduate LIS curricula. While changes and revisions to curricula following most of these workshops have been modest, the pilot project has reached its milestone for this year, which was to update curricula in LIS schools in five countries.

Each review workshop was facilitated by an experienced LIS academic from the UK. Understandably, a postgraduate course (lasting two years) cannot be reviewed and modified in its entirety over the course of a three-day workshop. However, in most cases a revised curriculum had already been prepared and discussed internally within each institution prior to the workshop. The aim of these workshops was primarily to:

- Consider the overall balance and content of the syllabus
- Recommend possible additions to specific modules, particularly focusing on 'digital skills', or to suggest modules which were outdated, or should be core rather than elective
- Advise on up-to-date reading materials

External validation by an experienced LIS academic was part of the expected outcome of each workshop. In addition, the facilitator encouraged schools to put into place a process to regularly review the curriculum to ensure that it was kept up to date.

The curriculum review workshops were not training events, but instead more of a discussion between academic peers. They occasionally veered off into unanticipated areas, which sparked interesting discussions relevant to

the development of postgraduate courses, on subjects such as:

- Minimum qualifications of teaching staff
- Field work or attachments for students
- Course content: theory vs. training-on-the-job
- Generalist vs. specialist content
- International vs. indigenous knowledge
- Outdated reading lists and access to relevant digital content

The results of workshops have been variable. For example, with the guidance of the facilitators, the University of Zambia workshop (February 2014) recommended that all of the nine courses needed to be revised. Two were fully revised during the workshop and comments were made on the other seven. Work was to be done after the workshop to revise the other seven courses. At other institutions, including UDSM and KeMU, more work would be needed to implement the changes that were identified.

Pedagogy workshops: Strengthening the teaching skills of academic staff

Three pedagogy training workshops took place, at the Universities of Dar es Salaam, Zambia and Mzuzu, with one scheduled to take place at Jimma University in Ethiopia in April 2015.

During the project, it became clear that curricula needs to focus not only on developing students' technical expertise, but also supporting them to become critical thinkers and future library leaders. Such critical thinkers and future library leaders would be better equipped to adapt and manage in the changing digital environment. It was important, therefore, that approaches to teaching provided

Participants in Zambia take a midday break

opportunities for students to develop these skills, rather than simply to acquire new knowledge.

Although the provision of pedagogy workshops was originally considered a secondary element, the need for enhanced teaching skills among lecturing staff quickly became clear, and therefore the workshops have emerged as a core part of the project.

Continuing professional development

During the design of the project, INASP identified a need to support lecturing staff to develop their skills and knowledge in key aspects of library and information science. A CPD strand was therefore incorporated into the project. Although this is still felt to be important, academic staff members have not yet shown readiness to engage in CPD, and heads of departments have generally left it to individual staff members to pursue opportunities directly with INASP rather than coordinating it at departmental level. Possible reasons for this are explored as part of this review.

Findings of the review
Relevance

Many of the project partners indicated that they understood and were committed to the goals of the project, but there were some partners who had broader aims than the project was designed to deliver, such as development of undergraduate programmes. Overall, the participants agreed that the project activities were appropriate and needed, but there was sometimes a mismatch in what the project partners wanted or expected, and what was intended when the project was designed.

Partner readiness and motivation

Project partners, on the whole, displayed an understanding of the project goals. Salome Mathangani (KeMU), who helped draft the project proposal (and who has a long history of working with INASP), indicated a keen awareness of the project aims:

"The project aims to try to ensure that curricula are in place to have qualified librarians, enabling them

to deal with challenges of change coming through IT. Making librarians able to cope is central to adequately serving clientele."

Benson Njobvu (University of Zambia) saw the project as having a more modest aim:

"The major aim of the project is to strengthen the content and delivery of our Masters programme in the Department of Library and Information Studies within the School of Education."

Even though Samuel Sisay (Jimma University) was not employed in his current post (Head of Department) when the project proposal was written, and is still quite new to his post, he was aware of the project aims and enthusiastic about its merits. However, he also indicated his institution's aims were broader than the specific project goals:

"Helping universities so they can have educated professionals and also building a post-graduate programme; offering CPD, including pedagogical skills, to build the capacity of staff; helping students ... Need for quality research publications – linked to INASP name – as our goal is to have a strong scientific quality and research output."

There were also cases where participants indicated that their primary interest was developing their undergraduate LIS programme, rather than focusing solely on postgraduate curricula.

The incentives for individuals to take part in the project seem to be that they want to learn and improve: they are young and eager to learn. This is also seen in how UDSM and University of Zambia staff responded to pedagogy training (see below) as they took it upon themselves as individuals to incorporate some of their newly acquired skills and knowledge into their work.

Expectations & Motivations

Appropriateness of project activities and aims

Project participants agreed that there is a need for the project activities, but the nature of the need differs between project partners and INASP in the following ways:

- Motivations to be involved: INASP wants to help produce high calibre graduates to improve the research system, whereas universities want to attract students to their courses.

- Expectations of change: there seems to be a divergence between the extent of the support that INASP is offering compared to the far-reaching needs and aspirations of the university departments.

- Competencies: INASP's initial goal was to help improve competencies of the students and teaching staff in the area of digital skills and expertise. However, the schools seek to develop wider competencies, and the core competencies identified by professional library associations are not limited to ICT skills alone.

Of course, part of attracting students is having a reputation for courses that produce high-calibre librarians. As Salome Mathangani explained, KeMU is a relatively young university with "youth and flexibility" and "in that regard our curriculum is trying to be on top of new things coming…. [We] need as many students as possible - [we] have to prove ourselves so need to be quality."

Similarly, colleagues at UDSM explained that the university pushed them to develop an undergraduate programme, because it is seen as more marketable.

The universities' motivation for developing quality courses also differs from INASP's motivation. INASP is working to strengthen access to research, and support the production and publication of new research, and librarians can play a crucial role in this. The LIS schools, on the other hand, want to develop attractive and relevant courses which will enable them to increase their number of (often fee-paying) students to strengthen their position within the institution.

Effectiveness

The curriculum development workshops were largely seen as effective for reviewing and tweaking curricula at several of the institutions involved, but at others more work is needed to implement the changes that were identified. In some cases, the objectives of the workshop did not appear to meet the expectations of the participants. Also, curriculum changes were not always seen as being as important as some unintended, positive outcomes of the workshops, such as raising awareness within institutions of the importance of LIS programmes. Efforts to promote CPD opportunities were less successful, suggesting the need to explore ways to engage departmental heads and staff members in CPD in the future. The pedagogy workshops were viewed very positively, and credited by a number of participants with inspiring them to make constructive changes, such as introducing new course material.

Curriculum development workshops

In some cases workshops were deemed to be effective in terms of reviewing and updating curricula. "Courses were revised and we are currently offering the revised curriculum," said Benson Njobvu. For UDSM and KeMU, more work would be needed to implement the changes that were identified.

In one instance there seemed to be a disconnect between the objectives of the workshop and what participants expected. Although many of the lecturers who participated in the UDSM curriculum review workshop indicated that they planned to review the courses they taught or the overall master's degree curriculum, they had initially expected the workshop to assist them in launching an undergraduate course. The workshop was not designed to do this; it was also not designed to review the master's level course in its entirety, but to initiate a review process which the department could then continue.

The people interviewed for this review highlighted some unexpected benefits of the workshops, such as sensitization and awareness-raising around certain issues. Salome Mathangani commented that the workshop caught the attention of management and prompted them to "look at library professionals in a new light." Overall, the workshop brought people together and initiated an informal network.

One of the main benefits of the curriculum development workshop at Jimma University was that the library school staff were made aware of the quality assurance (QA) unit. According to external facilitator Paul Sturges (OBE, Emeritus Professor of Library Studies, Loughborough University):

"The overall impression of the workshop was positive, despite the serious problems it revealed. The main reason for this was the contribution of QA. Staff had not previously met the senior staff responsible for QA, and they were obviously pleased by the full, helpful and open interventions made by QA."

Echoing this, the Head of the Jimma Library School (Samuel Sisay) said:

"Paul really helped us a lot. [We've] seen big problems and how we can solve them. We need to sit with staff now and see how we can improve, and then check with the Quality Assurance unit. The Quality Assurance unit is not new, but I did not know about it before."

The Library and Information Programme staff at UDSM explained that the first workshop helped them to approach other curriculum review and design work.

In summary, the actual development of and changes to the curriculum were not highlighted as being key outputs from these workshops, rather respondents emphasized the unintended or 'secondary' outcomes. Specific follow-up of these workshops is needed to strengthen/change curriculum. As Salome Mathangani said, "we needed someone to come and prompt us."

Continuing Professional Development (CPD)

Some staff members at Jimma University have expressed an interest in CPD opportunities, as they are young and eager to learn, according to Samuel Sisay. Indeed one staff member had a paper accepted for the forthcoming IFLA World Library and Information Congress in Cape Town. However, this enthusiasm has not resulted in people identifying and registering

Participants at pedagogy skills workshop, Mzuzu university, Malawi

for courses or other opportunities through which they could develop new skills or deepen knowledge in key areas.

The project partners suggested that the reason CPD opportunities were not being taken up was that online learning, which is a popular means of developing skills and knowledge for people who are employed full time, is an unknown, new and somewhat intimidating way of learning. The other consideration is that heavy workloads do not permit enough time to commit to CPD. According to Salome Mathangani (KeMU): "Personally, as much as I would like to, I am overwhelmed."

Samuel Sisay (Jimma) commented: "We are 18 staff but almost half are on study leave so 10 are doing the work of 18. Staff [members] have to cover a lot of different responsibilities." Benson Njobvu (Zambia) noted: "We are 10 members of staff against around 1300 students in the Department. Staff spend most of the time teaching, marking and supervising students."

Benson Njobvu (Zambia) suggested that opportunities to undertake

CPD outside of the university would be valuable. Both Samuel Sisay (Jimma) and Salome Mathangani (KeMU) would like to have exchanges between their institutions, and other universities, to learn more about their curricula and how it is delivered. They believe that they would benefit from opportunities to share knowledge and good practices.

These findings suggest a strong need for INASP to explore ways to engage people in CPD in the next phase of this project and in future programmes. However, it is equally, if not more, important to determine how to engage heads of departments in efforts to promote and use CPD opportunities as part of a strategic approach to filling knowledge and skills gaps within the department.

Pedagogy workshops: Strengthening the teaching skills of academic staff

The pedagogy workshops were well-received by participants, who described the workshops using words such as 'impressed', 'eye-opener' and 'exceeded expectations'. There was praise for the active learning, timekeeping,

level of student participation and number of themes and activities that were covered.

According to Samuel Sisay (Jimma): "Most staff [members] are young and new and need these skills. They do not have much experience of teaching." Benson Njobvu commented: "LIS graduates in Zambia and elsewhere are not drilled in pedagogy. This is a great opportunity for us to learn and improve our content and delivery modes."

UDSM also appreciated the pedagogy workshop run by Dr Mike Calvert, an external facilitator, which was felt to have had a "huge impact" and led individual staff members to make changes in their approaches. For example, one participant introduced peer assessment into their course as a result of the workshop. UDSM proposed a follow-up workshop to include coverage of further topics such as:

- Good practice in teaching and learning
- Peer observation as a route to dialogue and improved practice
- Plagiarism

- Learner autonomy
- The concept of 'flipping the classroom' – a pedagogical model where the lecture and self-study elements of a course are reversed, so video lectures are watched in advance and class time is devoted to discussion and collaborative work
- More work on peer support and assessment
- Student motivation
- Giving effective lectures
- Assessment criteria and grade integrity

Following the workshop, UDSM introduced ICT aspects into its teaching, and noted that more lecturers are now choosing to lecture in the room equipped with internet connections, so they can show YouTube clips and utilize other online offerings. UDSM teachers are also now using Google Groups to communicate with students and send assignments or materials, and moving from traditional to action learning. UDSM participants also indicated that the section in the workshop on intended learning outcomes had been influential, particularly the need to express

these better so that students were clearer about what they could expect from a course.

Similarly, at the University of Zambia, individual lecturers are making use of their newly acquired skills and knowledge: "Our lecturers were not trained in pedagogy and this was the first encounter. It was very beneficial and lecturers are already using the skills learnt." (Benson Njobvu)

At present, practical changes are being made to individual lecturers' courses, but not the overall programme.

Impact

This review has not been able to address issues of project impact given the long lead-in time needed for changes supported by the project, to be implemented and have an effect on students. However the review found that the activities of the project represented an appropriate 'direction of travel' to the long term goal as discussed above, although this view is restricted to those who participated in the review, INASP staff and supporting experts. ●

Conclusion

Creating Meaningful Change

The past two years have 'opened the eyes' of participants and made them aware of the commitment needed to make significant improvements to their postgraduate courses. The three components of support–curricula review, pedagogy training and CPD—were deemed relevant, but some changes are needed to CPD for it to be effective.

Achieving meaningful change will require greater commitment on the part of institutions and their leadership. INASP will need to deepen support to those institutions that demonstrate the willingness and readiness to make these changes.

Greater attention to institutional change, strategic planning, incentives and alliances to enable change, such as engaging university leadership, Quality Assurance and learning and teaching centres, is likely to be important if real and sustained improvements are to be realized.

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