



Final Report: TRANSFORM - Improving Research Capability in HE Lead: Dr Sophie Foley, Associate Professor, Edinburgh Napier University



Project Duration: April 2018 - Oct 2019

Project Outputs: The project outputs were changed significantly at the request of the British Council, following a meeting with the chair of the University Grants Commission (UGC) of Sri Lanka and the chair of the UGC Quality Assurance and Accreditation Council. The most significant change was the replacement of output 3 – evaluation of the current research capability of the higher education sector with two new outputs – a workshop on Quality Assurance Enhancement and an exposure visit by members of the UGC and university representatives to Edinburgh Napier University. While this resulted in additional time commitment for Edinburgh Napier University, it was deemed necessary in order to deliver a project that is pertinent to the UGC's current priorities. So the final agreed outputs were as follows:

Output 1: Three-day workshop focusing on enhancement of the quality of research outputs. Participation invited from each of the 15 state universities.

Output 2: Implementation and management of a call for seed-funding for the initiation of new research collaborations between Sri Lankan state Universities and UK Higher Education Institutes/Research Institutes. Participation limited to participants of output 1.

Output 3: Two-day workshop on 'An Enhancement-Led Approach to Quality Management', focussing on the university QA framework and quality enhancement. Participation invited from the UGC, and the Vice-Chancellors and Director of the Internal Quality Assurance Unit of each of the 15 state universities.

Output 4: Four-day exposure visit to Edinburgh Napier University on Quality Assurance and Enhancement. Participation included the chair of the UGC, the Director of the UGC's Quality Assurance and Accreditation Council and members of the UGC's Standing Committee on Quality Assurance.

Report on Output 1: Workshop-'Achieving Impact through Quality Research'

A three-day workshop was held in Colombo 13-15th Nov 2018. Each university was invited to send <u>four</u> individuals. Based on the lack of response from some universities we opened up additional places to the nine participating universities. In total, we had 47 participants including





Group A - Staff who contribute to the strategic development of research capacity and quality of research degree provision in their institute [5 participants].

Group B - Senior academics with a significant responsibility for training of research degree students and probationary lecturers, and for research degree supervision [8 participants].

Group C - Senior Lecturer Grade 2 and Probationers (including PhD and non-PhD holders). These participants were expected to submit an application for the seed funding (output 2 of the Transform project) [34 participants].

The expectation for Groups A and B was that participants will identify key learning of value for implementation in their institute, while for Group C participation in the workshop will contribute to direct development of participants with the expectation that acquired learning will impact immediately on their own current research activity.

The overarching theme of the workshop was the achievement of research impact through improving the research culture and the quality of research linked to international benchmarking. Each session focussed on a specific element of the research process, selected on the basis of its contribution to the enhancement of the quality of research outputs. The details of each session are listed below:

Session	Learning Outcomes
Why research?	 Explore benefits of research to individuals, students, universities & society Identify the broader environment which universities work in and its impact on research (funding landscape/need for outputs/international rankings) Consider how universities can align research to local/national/international agendas
Supporting a research culture that enables high quality research	 Evaluate common strategies for supporting a research culture and how they might work in SL institutions Discuss case studies of different research cultures Reflect on what the main challenges and barriers are to research Consider what enables high quality research
Enhancing the doctoral degree	 Consider how regulations and quality frameworks can drive enhancement Explore the context (UK and SL) of research degree processes Discuss the role of research supervision in a doctoral degree
Developing proposals and winning funding	 Identify the stages of proposal development Review how the 'study design' can impact on the quality of a proposal Understand how funders assess proposals Consider the characteristics of high quality proposals
Project management of research	 Explore the basic aspects of project management (scope, cost, time) Consider how to design a project for success Consider what can go wrong in a research project and understand risks identify critical factors for project success
Creating high quality publications	 Explore how to choose appropriate target journals & formats for publication Identify the main elements of effective publications in different disciplines Discuss the writing process – tricks and approaches to make it easier
Open access publications and authorship conventions	 Discuss authorship conventions in different disciplines Understand the ethics of authorship attribution Explore the move towards open access publications
Impact and outreach /Public Engagement	 Explore the What, Why and How of impact, public engagement and knowledge exchange
Building collaborations	 Identify your key skills and potential contributions to a collaboration Discuss how to approach new collaborators Examine how best to maintain and build collaborations for long term benefit





Some of the activities in the above sessions were designed to support group C participants in their application for seed-funding (output 2 of the Transform project). So with this in mind the workshop included a Q&A session on the final day specifically focussed on the seed-funding call.

Throughout the workshop there was an emphasis on group discussions to identify current practice and priorities around a number of given themes. The groups were constructed such that each group had representation from different universities and different levels of seniority. Verbatim comments from the discussions listed below are provided in Appendix A:

- 1.1 What are your expectations of this workshop? What do you want to obtain from this? *Both collation and transcribed comments provided.*
- 1.2 What are the benefits of research undertaken at university to individuals, students and society?
- 1.3 What does my University expect of me?
- 1.4 What are the perceived challenges/barriers to research at Department (Faculty) /Institutional/Sector level?
- 1.5 What can support the enabling of high quality research within universities in Sri Lanka?
- 1.6 Doctoral Degree supervision What approach does your institution take to supervisor arrangements?
- 1.7 SWOT analysis What are the strengths/weaknesses/opportunities/ threats of research and of the research culture at my institution and in Sri Lanka as a whole?
- 1.8 Capturing Ideas (end of each day) & action planning (final day) colleagues from each University regrouped to undertake this

Core themes and priorities identified across the sector:

The notion of 'Research Culture' is in its infancy across the university sector. A key conflict is the heavy emphasis on the undergraduate teaching provision, with relatively little postgraduate provision (taught Masters or Masters by Research; PhD programmes). However, tangible actions were identified that can be taken to support/enable and address barriers to developing a research culture within universities including the following:

- Appropriate mechanisms for allocation of research budget from national level
- Workload management/protected time for research ideas included release of teaching staff for one year for research early-mid career; at department level, have one day per week (or equivalent throughout the year) free of teaching/administration (i.e. protected for research); feasibility to work off-hours
- Address the reality of limited funding:
 - Encourage private sector collaborations/consultancy
 - Improved efficiency of administrative process move on-line
 - Improvements to procurement move on-line
 - Access to publications currently universities have limited access to databases
 - Pooling of resource nationally and access to shared resource could apply to databases, cutting-edge technology, analytical services
 - Leadership and development of shared values/collective
 - Introduction of a new layer of post-doctoral research positions





PhD supervision and quality of PhDs:

Addressing the quality of PhD supervision was identified as a key priority by participants from all of the universities represented in this workshop. From the discussion (verbatim comments are provided in Appendix A), it was evident that there is a large variation in practice across the sector. The following were identified as required actions:

- Improvement of the quality of supervisory teams including developing robust policy regarding the number of supervisors, and the qualifications, supervisory experience and subject expertise of the team
- Articulation of the responsibilities of the supervisory team in relation to the development of a robust research project and the support of the PhD student.
- Implementation of a compulsory training programme for all supervisors. This appears to be absent across the sector.

Regarding the quality of PhDs, the majority of PhDs in the Sri Lanka university sector are undertaken by newly appointed academics (many of which may only have a Bachelors qualification) on probationary contracts during which PhD completion is a requirement. These academics also have a heavy teaching and administrative burden during the probationary period. It can therefore be expected that these factors, combined with points raised above in relation to PhD supervision, will compromise the quality of PhDs and concomitantly the training received by junior academics. Given that these junior academics are then expected to become independent researchers, applying for research funding etc, this may have a longer term impact on the ability of a university to improve their status in relation to research. In addition to addressing the quality of PhD supervision, appropriate mentoring for newly recruited academics needs to be considered.

Impact of UGC and University policies on quality of research outputs:

In the activities and discussions held during the event, a number of UGC circulars and/or University policies were highlighted as negatively impacting on the quality of research outputs. Circulars in relation to promotion appeared to be highly contentious. Potential impact on research outputs included:

- Research publication strategy particularly in relation to authorship contribution, possibly
 discouraging collaboration within the home university and also between Sri Lankan universities
 and internationally. This may be to the detriment of an ambition for high impact international
 peer-reviewed journals.
- International collaborations the approvals that one must seek for international collaborations are seen as an impediment.

In addition to promotion criteria, the requirements for PhD completion and stipulations set by national funding bodies in relation to publications may inadvertently be driving lower quality research publications, encouraging researchers to aim for a higher number of publications rather than an ambition for publication in international journals and/or higher ranking journals.





Centrally-provided support services

All universities represented identified a need to improve the performance of key support services operated centrally within universities in order to increase efficiency and responsiveness to researcher and funding body requirements. Procurement and ordering practices were identified as kay barriers due to levels of bureaucracy and delays incurred. Required improvements included:

- Updating of procurement and ordering practices, together with the associated governing regulations
- Modernisation to reduce paper-based communication and requests/approvals. This requires investment to move processes on-line.
- Professionalisation of administrative staff including consideration of the entry qualification at point of recruitment and the requirement of a postgraduate qualification for some posts. This point was also raised in relation to technical officers, laboratory workers etc.

Securing research funding: When it comes to securing research funding, there is an over-reliance in terms of expectation on internal funding (i.e. internal to the university) and national funding from government bodies. There are a number of factors influencing this including, but not limited to, lack of exposure by academics to high quality research and to international research, lack of incentive (and possibly disincentivisation) to collaborate (collaboration being key to increasing opportunities for actual grant applications to certain funding bodies and to the success rate in securing funding), and a lack of confidence in seeking international collaboration. The latter was quite evident from the FAQ session run as part of the training event and focussed on supporting category C participants in their seed-funding applications, the degree preparedness of these participants in advance of coming to the workshop (all were tasked with bringing an outline of proposal to the training event and to have identified a UK partner or as a minimum the type of contribution required by a UK partner), and in the final number of applications submitted (only eight applications, of which five were fundable). In the FAQ session, participants had difficulty seeing the reason for a researcher at a UK university to be interested in collaborating. The seed-funding call aside, from the sessions on writing research proposals, participants had not considered risk and mitigation of risk as a way to improve quality of bids for funding. Participants also framed impact as activities within academia - rather than a more widely held view of impact being influence beyond the university.

It was encouraging to see some senior academics (groups A and B) also supporting colleagues by also participating in days 2 & 3 of the workshop. All of the materials used in this workshop, including Powerpoints were provided to participants to use as the basis of training programmes to be delivered subsequently to a wider audience at their own universities. Feedback received from participants was positive and verbatim comments are provided in Appendix A.

Output 2: Implementation and management of a call for seed-funding

This funding call was specifically targeted at the early career academics (Senior Lecturer grade 2 and probationers) who participated in the research workshop (output 1 above). The purpose of the call was to provide a context for applying some of the learning from the workshop and to support participants in initiating new international collaborative research partnerships. The call was limited to a collaboration between a minimum of one Sri Lankan state university and one UK HEI; and criteria included (i) addressing economic priorities for Sri Lanka); (ii) own personal development as a





researcher and (iii) potential impact of the proposed research collaboration through provision of a plan for accessing either future funding and/or translation to application. Many of the activities in the research workshop (output 1) were designed to support participants in their application.

Key observations – Pre-application stage:

- It was evident that preparation of a research proposal that meets the criteria for this funding call was challenging. Many participants (eligible applicants) had a previously written PhD proposal to hand but found it difficult to compose a proposal for a small project that fits within the criteria of this funding. This was also reflected in the observation that few participants came with the required advance preparation, although participants were asked to come to the workshop with a draft proposal for the seed funded call. While we recognise the challenging timescales (many of the category C participants were late registrants as we opened up the number of places to participating universities following a lack of response from other universities), tight deadlines are often a feature of research funding calls. Researchers need to develop their potential network of collaborators and be adaptable, creative and resilient in order to be able to respond to these calls as and when they arise.
- Participants were expected to undertake some work in advance of the workshop in identifying potential collaborators. It was evident on day 1 of the workshop that the majority of participants had not progressed with this. Some of this may be due to the lack of progress in drafting a research proposal but lack of confidence and lack of a sense of value probably also accounted for this. At the end of the research workshop (output 1), a Q&A session on the seed-funding call took place. As previously mentioned, it was evident from this that participants could not understand the attractiveness to a UK institute to act as a collaborator.

Given the lack of progress made by participants in identifying a UK collaborator, the ENU team invested effort in approaching ENU colleagues and other UK contacts. In the end, from 34 category C participants only eight applications were received. Of these, five were funded (two of which required the applicant to address specific concerns of the review panel prior to final approval), following the decisions of the review panel which consisted of two ENU academics, an independent UK academic, and the British Council (Sri Lanka). Individual feedback was given to each unsuccessful applicant. Details of the five funded applications are detailed below and ranged from life science to marketing and the social sciences:





Principal Investigators	Collaborating Sri Lanka and UK Universities	Project Title	Project Outcomes
Dr Iroja Caldera/ Dr Janice Lake	University of Colombo/University of Sheffield	Pilot study on water use efficiency of Arabidopsis thaliana grown using CCm, a novel product resulting from state of the art carbon capture technology	Data demonstrated that CCm has a positive impact on efficiency of plant water usage. The funding allowed the SL PI to access specialist equipment not available in home institute. It also provided the PI with experience in working in a state-of-the-art laboratory and plant growing facility. Planned activity: Writing of manuscript for Journal of Experimental Botany. Planning application for research funding to extend collaboration and apply knowledge to rice cultivation.
Dr Renuka Attanayake/Prof Ian Singleton & Dr Maciej Kaczmarek	University of Kelaniya/Edinburgh Napier University	Comparative genomics of <i>A. niger</i> strains to uncover genetic basis of the recent appearance of a particularly aggressive lineage	The project has been extended to include collaboration with institutes in India and the US. A research paper is planned based on comparative analysis of fungal strains from three continents. A common research platform for genome sequence analysis has been identified that all collaborators can use and plans are developing for an application for research funding from the Newton Fund and TWAS.





			The project allowed the SL PI to develop skills in NGS technologies for which there is no established pipeline currently in Sri Lanka. This knowledge will also be used by the PI in advancing her teaching.
Dr. W.A.R.T.W.Bandara (Perera)/Dr Lucy Lu	University of Kelaniya/Edinburgh Napier University	Evaluate the market potential of biomass briquettes produced from <i>Eichornia crassipes</i> , an aquatic invasive weed	Plan to apply for further funding from the National Science Fund to expand the project. The collaboration has provided the SL PI ((biologist) with exposure and skills in market evaluation, an important element in being able to extend project to product development and eventual commercialisation.
Mr A.C. Karunaratna/Dr Nathalia Tiandra	University of Ruhuna/Edinburgh Napier University	Exploring Street Vendors' Lifestyle and Transforming Their Living Standard: The Empowerment of Street Vendors in Sri Lanka	Analysis of collected data is still ongoing and the International Journal of Emerging Markets or the Journal of Macromarketing have been identified as potential target for publication. The team is also exploring potential for conducting public engagement activities to share research findings with relevant stakeholders.
Dr A Rameez/Dr Sam Pehrson	South Eastern University of Sri Lanka/University of St Andrews	Impacts of Socio-Economic Development on Women's Empowerment in the Post War Context of Sri Lanka: A Case Study of Batticaloa District in Eastern Sri Lanka	Data analysis is ongoing with planned publication in an indexed journal. Discussions are ongoing regarding seeking follow-on funding to extend project and also the collaboration to other joint research projects.





Output 3: Two-day workshop on 'An Enhancement-Led Approach to Quality Management', was held in Colombo (27-28th Feb 2019) focussing on the university QA framework and quality enhancement. In total we had 34 participants including Vice Chair of UGC, Director and Assistant Secretary of the QAAC (UGC), members of the Standing Committee on QA (UGC), Vice Chancellors, Directors of University Internal Quality Units, Deans of Faculty, Deputy Director of Accelerating Higher Education Expansion and Development Operation (AHEAD), and Director of the National Science Fund, with 14 universities represented.

The workshop ended with an action-planning session. The collated contributions, including feedback on the workshop, are provided in Appendix B. Participants were asked to **identify one element from the workshop that they found particularly pertinent to the enhancement of the QA process in Sri Lanka state university sector**—the dominant responses were *Student Engagement (26 comments)*, *Internal Review (17 comments)*, *Enhancement-Led Approach (6 comments)*, *Industry Linkages (6 comments)*, *Graduate Employability (4 comments)*. In terms of elements that could be actioned at institutional level for immediate action—*Student Engagement*, *Internal Review* and *Graduate Employability* were prioritised. The group also explored aspirations and priorities for the future (3-5 years ahead). These fell into two priority areas: *Development of a national level policy on the use of student engagement in QA/QE and curriculum design* and *Enhancement-led approach to develop a vibrant internal QA system using an evidence-based approach*. Suggested mechanisms that emerged from the group discussion to achieve these are given in Appendix B. A key outcome of Output 3 was the request to organise an exposure visit to Edinburgh Napier University (UK) for more in-depth exploration and discussion (output 4).

Output 4: Four-day exposure visit (17-20th June 2019) to Edinburgh Napier University. Participation included the chair of the UGC, the Director of the UGC's QAAC, members of the UGC's Standing Committee on Quality Assurance and Manager/Assistant Manager - Higher Education and International Education Services at the British Council (Sri Lanka) [10 participants in total]. The visit include the following key themes:

Quality Assurance Framework In Practice

- How does a University interpret the QAA quality framework and put into practice? Who supports
 process what does the quality assurance unit look like; role of professional services vs academic
 units? How are QA processes at ENU structured? Where is responsibility held? The detail of QA
 processes held at School-level
- Enhancement Led Institutional Review (ELIR) exploring elements of ENU's previous review and the report received, and current preparations for the ELIR taking place at ENU later this year

QAA Scotland – Director Nations and International, Quality Assurance Agency for Higher Education
 The QAA perspective throughout the UK

Research Degrees Framework and associated training/support

University Leadership Perspective: Conversation with Senior Vice Principal and Deputy Vice Chancellor (ENU)

SPARQS (Student Partnerships in Quality Scotland)

- Introduction to SPARQS and role of students in Scottish Higher Education Sector
- What do we mean by the terms **Student Engagement and Student Partnerships**? What tools do we use to support this activity?
- Benefits of engaging with students at an institutional and national level
- Overview of the National Union of Students





Student engagement/student voice Show-casing of approaches from ENU

- Students as colleagues: a staff-student peer review of teaching initiative:
- Staff Student Liaison Committee student voice in programme management and enhancement
- The Personal Development Tutor Role: Supporting staff to support our students

Employer engagement: Show-casing a range of approaches from ENU

- Use of employer liaison panels/Skills Passport
- Integrated work placements in Masters programme/input of employers/practitioners in design of the programme and in delivery/assessment
- Career Mentoring

The exposure visit also included participation in the University's Annual Research & Innovation and Learning & Teaching conferences. In response to specific requests received from participants during the visit, additional sessions, including lunch-time conversations with relevant staff, were added. These included contextualised admissions and entrepreneurship. The feedback from participants was overwhelmingly positive, with participants particularly appreciating the access given to direct conversations with relevant individuals and to documentation. All materials (including Powerpoints) used during this exposure visit were provided to participants for their own use.

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A.1 - What are your expectations of this workshop? What do you want to get from this?

Topic	Responses
Build international network / collaboration	14
Impact of research	8
Networking with colleagues	7
Insights into conducting high quality research	6
Research Funding	5
Multi-discplinary research	4
Improving research culture	3
Research methods	3
Quality of education	3
Technical writing / good paper writing	2
Improve university ranking	2
Publish in high quality journals	2
Efficiency / researching with limited resources	2
Enhanced knowledge of QA framework	1
Understanding challenges of research	1
Data analysis methods	1
Increase H index	1
Predatory / fake journals	1
Qualitative research methods	1
Learn about UK practice	1
Identifying good research practices	1
Benefits to individuals	1

Please see next tab for transcribed comments

Appendix A.1 What are your expectations of this workshop? Transcribed comments

How to conduct quality research

How to conduct "impactful" research in Accounting and Corporate Governance

To gain insights into best practices of conducting and presenting research

Knowledge-sharing/To gain new innovative ideas from participants

Sharing the research experience

To network with colleagues and contribute to the production of knowledge

Strengthening multidisciplinary collaboration in research among academics

How to achieve quality research in multidisciplinary way which directly impact on community, enhancing their ife, also the economy

Multidisciplinary research on disease control involving medicine, social sciences, computing, and technology

Identify possibility of having joint research activities

How to connect local research with ENU

Initiate good quality collaborative research with ENU

Explore the possible opportunities to improve the quality of our study and research programmes with sharing of knowledge/facilities etc

Collaborative research on infectious disease of public health interest in Sri Lanka

Networking

To meet Sri Lankan delegates from different subject areas and find how to solve the problems with a broad perspective

Building a good network to do future research projects

To develop links with a UK university

To make good collaboration with the UK delegation

I hope I will find good partner/investigator from UK and proceed my research at an international level

Collaboration with a co-applicant (researcher) from a UK university

To find pathway to collaborate between two countries

To collaborate with other researchers

To engage in a joint research project, subsequently a publication, thereby hopefully enhace personal research impact and to increase university ranking Possibility of collaborative research

How to overcome difficulties while doing collaborative research with overseas universities - financial, language (communication) and travelling

Build a network with scholars from ENU and others from across Sri Lankan universities

Understanding the nature of partnerships expected from each and every university

To understand the challenges of research field

Enrich our research knowledge during these three days

To learn about quality research and outcome-based research

To see what are the modern approaches of quality research and to see how should we as academics incorporate such practices in active learning and research

How to become more involved in good quality research How to maintain quality in research with less facilities How to achieve quality and impact in research with the constraints/limitations set

Formulating high impact research and achieving the outcomes of high impact research Complete a single objective of a big project that cannot be done or difficult to do in Sri Lanka Improving the effectiveness of my research activities

Resources - access to databases

How can I publish my research papers in ISI journals as soon as possible

To know publication opportunities

How to identify predatory/fake and invalid journals which we encounter while browsing for scientific works

To know how to write quality paper

Utilizing **quality assurance** in research as an impetus to improve skill development in students Enhance knowledge on Quality Assurance Framework How to regulate/set standards for quality in research

Collaboration for standard laboratory analysis for high tech equipment

Get exposed to new cutting edge techniques in molecuar biology

Impact of sociological research in Sri Lankan context

How to make a difference in the society [accounting /corporate governance discipline]

How do we use/implement our research fror the benefit of public and policy making

Do some substantailly impactful applied research

Increasing impact of our research

Research methodologies and sampling techniques

Research methodologies
Data analysis methods
Qualitative research methods and techniques
To develop research skills
To learn how to become a good researcher while teaching in the University
Improve my current research activities
How to identify research problems and questions

Starter funding

Finding an opportunity for grants to conduct a research study
Possible research funding sources/mechanisms
How to write a successful research proposal for competitive grants
To compete for funding opportunities

Research proposal writing skills

How to write a research proposal requesting funding appropriately

Students/education

Strengthening technical writing capabilites of postgraduate students (also undergraduate students) Clear work plan on how to conduct research and enhance students knowledge on this

Strategy

To develop a longer term plan to become involved in research and increase the quality of my institute
To make the University a research univerity
As a University, what can we do to improve quality of resaerch?
What can we do to improve the University rankings?
Direct benefits to the ECRs in this workshop
How to improve the quality of education in the University

Appendix A.2 Benefits of research undertaken at university to individuals, students and society

Individual:

To be recognised as an effective academic

Social satisfaction/self-satisfaction

To develop and achieve top level in their career; Promotion/Career development

Explore the best ELT methods to become a great language teacher

To undestand the existence of human beings and the world

Promote human intellectual capacity

Satisfaction and build individual confidence/self-satisfaction of contribution/goodwill/moral satisfaction/motivation

Improve research skill

Promotion/Career-development /career change

To expand existing knowledge

To gain experience

Research findings will widen the angles of thinking and innovations of a person/enhance my thinking ability

End results of research will benefit society at large/address social issues/implications for socio-economic and political development of the country

Enthusiasm/Fun/My passion/makes me happy

Reputation

Extra income/better livelihood

Recognition/Image building

Keep up with developments /keep moving to new research aspects

To understand myself as a teacher/researcher, the requirements of my students and deliver better; disseminating new knowledge in teaching; to understand the students errors/mistakes

Publish papers/good quality publications

To gain new experience

Enhance knowledge

Behavioural change

Informal decision-making

Self-esteem/confidence

Competitiveness among other researchers

Enhance curiosity, innovativeness and think originaly

Obtain greater insight of reality (realise reality)

Society:

End result will benefit society/address soial issues

Address social issues

Implications for socio-economic and political situation of country; Doing academic research and disseminating in the academic community has very little or no impact on society!

If we use our research to make interventions in social and health issues then we can better the life of people

Can ensure a sustainable development to the society

Peace-building through networking/Peace and order in society

Development of next generation researchers

Change living standards with innovation/Prosperity

Environmental impact of certain activities can be minimised

Supports policy making

Contribute to the shaping of public opinion through awareness

Find solutions for unsolved problems

Exposure to new thinking (inspiration)

To gain better understanding of the world

Students:

Students can focus on what to learn and what would be the profession accordingly.

Learn to benefit economically through their expertise

May benefit from resources which Principal Investigator receives

Enhanced learning /help academic achievements

My research enriches the students learning experience

I can inspire them to develop inquiring minds

Incorporte new experiences/knowledge into teaching

Being a role model to encourage students towards research

Increase students involvment in academic discourse

To motivate students for innovative actions and ways forward from theoretical aspects into practical aspects

They will know how to transfer theory into practice, for a better world

Enable students to access current knowledge

Hands -on experience for students to the scientific process

Build solid foundation for the students in research and experimentation

Give students academic credentials

My research leads to professional development and better undertanding of my students - students will benefit by my better delivery, and my more empathic attititude

Develop creative thinkers who can face unexpected and make the best of it

Good research to change the community outcomes

Skills development

Behavioural change/thinking in a different manner (for innovation)/maturity

Help students to higher studies

Find good jobs/to find new opportunities for their life and career/increase employability

Research helps students to develop specific skills - analytical, critical-thinking, writing skills

Build confidence/self-satisfaction

Opportunity to serve back to country

Giving real-world exposure

Appendix A.3 What does my University expect of me?

Research is a must for university academics

For professional development - promotion

Research allowances

To promote/create research culture within university

Ranking: To be ranked in higher position in international/national levels; University world rankings

Generate publications to elevate university (international) rankings; High impact publications

Reputation/Recognition - to attract students/staff; Image building among general public

To build up connectivity with local/international HE institutes; Internal/external collaborations; International collaborations

Circular 05/2018

Community services/development

Generating new knowledge; Innovation and patents

Income generation/ generate revenue through research commercialisation; attract external funding

Infrastructure development

Quality enhancements (staff development)

Skill development of students/staff

To improve quality of teaching and learning through research/enhance university portfolio through research

Industry collaborations; Technology transfer to industry

Contribution to the national economy

National level research engagement

Improve quality of teaching process

To influence policy makers

Appendix A.4 What are the perceived challenges/barriers to research at Department (Faculty)/Institutional/Sector level?

Department Level:

Lack of proper guidance for newly joined academics; Lack of guidance by senior members

Individual research is encouraged/No motivation for collaborative research

Fractions in Group research

High cost for required resources (physical)/Insufficient infrastructure for high quality research

Undergraduate focus; high student-teacher ratio; Less motivation for postgrad students

High workload - teaching, administration and examination; Workload should include research allocation; ECR have heavier admin burden

No workload models are used

Problem in setting priorities

Outdated regulations

Attitude problems/lack of interest

Lack of funding/infrastructure

There is a focus on "employment" and "employability" - in vocational context, and not on research

Institutional Level

No link with different disciplines

Inter-department/Inter-faculty collaboration should be further encouraged

Isolation in conducting research

Lack of sharing of experience & knowledge

Grants allocation issues

No vacation is defined - like in other countries, other people get summer break

Procurement issues - delays; rigidity

Need to recruit qualified adminstrative staff

Full reliance on government funding

Bureaucracy

Lack of infrastructure

Strict rules and regulations for funding

Poor administrative structures/ few HR facilities

UGC circulars - MoUs

Sector Level

Lack of collaboration in universites in the system (inter-university collaboration)

Limited resources

Highly competitive nature of research grant funding

Prioritising undergraduate teaching

Promotion scheme does not promote research collaboration

Reliance on government funding

Non-performance based

Incentives/promotion schemes are not aligned

Financial regulations

Problem in governing policies - policy change based on individuals (personal preferences)

Too low investment for HE research (%GDP)

Strict rules for overseas opportunities

Lack of funding and motivation to participate in foreigh research conferences, etc

A lot of disparity between universities

Circular 914 - QR council: Academic Acc Policy - "not measurable"/2018-05 Circular based on research tiers/ Circualr 916 - collaboration demotivated

Appendix A.5 What can support the enabling of high quality research within universities in Sri Lanka?

Proper mechanisms in budget allocation for national-level R/D

Releasing unnecessary workload from academics - bureaucratic support (dept and faculty level

Proper balance between research & teaching/Research allowance

Improving exposure to research culture for junior level of staffing

Simplification of procurement procedures which affect research; Need flexible procurement procedures;

Establishment of advanced, technological and updated physical resources/Infrastructure

Collaboration with industry in conducting research

Research supportive system (academic/administrative) within universities

Need to implement postgrad requirement for recruiting to higher education sector, e.g. technical officers, lab

Synchronise timetable across university with fixed start date for academic year

Lay-off inefficient staff - academic and non-academic

Encourage/motivate collaborative research - Remove/modify circulars that inhibit collaboration

Effective time management - dedicated time for research; allow individuals a day a week for research

Recognition given to electronic communications, e.g. letters

Need private and non-government collaborations

More freedom and accountability

Performance (Research) based incentives (e.g. research awards)/salaries

Conference grants/Travel Grants/Small Grants

Organising seminars and conferences

Proper training for both academics and adminstrators

Interdisciplinary research

Mentorship

Appreciate researchers

Increase academic staff members

Minimise admin meetings

Weekly research meetings

Proper mechanisms for allocation of research budget from national level

Introduce a new layer of postdoc positions

Release teaching staff for 1 year for research early-mid career

At department level, have a single day per week (or equivalent throughout the year) with no teaching/admin duties, protected for research

Access to publications – currently universities have limited accede to databases

Improved efficiency of administrative process – move on-line

Rebalance of teaching/research time

To address reality of limited funding, encourage private sector collaborations/consultancy

Feasability to work off-hours

Leadership

Development of shared values/collective

Appendix A.6 Doctoral Degree Supervision

What approach does your institution take to supervisor arrangements?

The comments below are verbatim from 6 groups, with each group made up of representation from different universities.

One-to-One supervision

Two supervisors - a main supervisor and a co-supervisor

Requirement for 5 years post-doctoral experience for the main supervisor /3 years post-doctoral experience for the co-supervisor

Supervisor training - NO!!

Regulations: SLQF

Supervisor arrangement: Single/Team (dependent on the research)

Requirements to become supervisor: Having a PhD - for the Director of Studies/main supervisor); having research experience

Supervisor training: No specific training available; Specific faculty-led training in some faculties (e.g. Faculty of Graduate Studies)

Regulation: A maximum stipulated time in which to complete; Proposal defence, progress reviews, thesis defence, public defence (in some universities); publications in indexed journals.

Supervisor arrangement: Ranges from single to two supervisors; Requirements - doctoral degree or equivalent; Guide book provided but no training.

Regulation - align to SLQF; SLQF does not include DBA

Supervisor: Be of same level or a higher level of academic qualification;

Be knowledgable in terms of thematic area or metholodological approach

Single or team supervision

Regulation: Progess reviews every 6 months; Qualifying exam (only some universites); required to finish in 3 years full time/ 5-7 years PT

Examination panel of 3 examiners (2 external/1 internal)

Viva

Supervisory arrangements: two to three supervisors

Regular supervisory meetings (monthly)

Use of a supervisory report logbook

Conduct conference (annually) to present progress

Encourage number of articles/conference proceedings/abstracts

Supervisory training to be given

Can have more than one supervisor (local and foreign)

Supervisor requirement: PhD holder with journal indexed publications/research professor

No supervisor training provided

PhD regulation - two indexed journal publications and abstract publication

Progress meeting, thesis defence - viva

What should the priorities be to improve quality of PhD supervision?

Two (as a minimum) or more supervisors; All must be PhD holders

New PhD holders should have more exposure of research prior to supervising PhDs - e.g. Starting with MPhil supervision. This will enable capacity building.

Supervisor training is a must - regulations, communication, role and responsibilities as supervisors



Appendix A.7 SWOT analysis - What are the strengths/weaknesses/opportunities/ threats of research and of the research culture at my institution and in Sri Lanka as a whole?

Strengths

Identification of need for research

National Research Council/National Science Fundation Grants - recognition of research

External funding organisations and collaborative research agencies

Open & democratic country for academic freedom

MoUs

Appreciation/rewards for best researchers/Research incentives given by

Research allowance for researchers

Research friendly environment

Research link with academic career progression

Institutional support

Intellectual capacity/capable, motivated and committed human resource

Publication avenues

Expansion of ICT

Academics accepting challenges

Weaknesses

Insufficient opportunites for funding/small amount of funding

Proportional allocation of funds is less, not satisfactory.

Lack of research/development training for many academic disciplines

Lack of exposure to international research culture (in some disciplines)

Lack of physical resource/human resource (expertise)

Lack of technical facility

Academic staff spend too much time on administrative/teaching duties rather than

research

Research materials/equipment not obtained in proper time - custom clearance

issues

Lack of strong research culture/lack of incentives for research

Absence of institutional system for postgraduate-studies

Poor access to databases

Lack of priority for research in HE

Language barrier (English)

Lack of foreign students

Low staff:student ratio (postgraduate research)

Low priority for research (teaching focussed)

Inefficient adminstrative structures

Inadequate technical support from support staff

Lack of conducive research culture

Opportunities

International research collaborations

MoUs/inter-university collaboration

Being a middle-income country - huge potential for seeking funding

Available international funding

Tropical biodiversity/natural resources

Experts in buddhist studies in Sri Lanka

Publication avenue

Network (local/international)

Wider scope for research in several fields in Further Education

Good students

Threats

Job insecurity for individual researchers

Economy/politics of government/political situtations

Violation of research ethics

Inappropriate government interference on academic freedom

Brain drain

Too much administrative workload for early career researchers

Poor research quality

More value on development research

Rules & Regulations:strict/inflexible financial and administrative R&R

Heavy workloads - no time for research

No intellectual property law (to secure research output/patents)

No national system to utilise research findings/not enough recognition

Lack of research-based policy making

Lack of collaboration with industry

Unstable government policy

Agenda of funding sources

Most industries are service-oriented - lack of R&D

Limited competition/access for international research grants

Decreasing state funding allocations

Low stipend for research students - therefore good staff/students migrate

Appendix A.8 Capturing Ideas & Action Planning

Regrouping of colleagues from each University - each coloured block below represents a different University

Key learning from workshop: Research culture/significance of research/SWOT on research/enhancing PhD

Common grouses as a University:

- Need to establish a research culture
- Enhance allocation of research funds
- Promote collaborative research
- Remove red-tape on the administration
- Spur staff to engage in research & publication
- May have to initiate postgraduate studies, particularly PhD
- Build network with foreign universities, like Napier University.

University must consider the quality of journal in evaluating research performance of staff, promoting publication in high indexed journals and raising awareness of quality of journals

University to provide training in proposal writing, considering the criteria of key research funding bodies - identified as priority

Collaborative research must be promoted for impactful research, needs to be supported by international exposure for researchers - identified as priority

Key Learning from workshop: Proposal development – training workshop in writing proposals; poor awareness of research Red tape on research grants and associated with circulars discouraging collaborative research;

Heavy workload of academic staff

Publications: Challenge and support; create awareness of publication opportunities;

Proper planning, identifying a particular number of hours per day (or equivalent) for each activity including research. Developing this into a policy decision. Identified as priority.

Key Learning from workshop: writing for high quality research journals: how to find appropriate journals, predatory journals, common mistakes in writing; SMART deliverables; Publication ethics - authorship; PhD supervision

Research Culture/Research Quality should be improved

Moving from a 'Teaching' university to a 'Research' university

24/7 access to research facilities

PhD supervision should be improved – 1. Qualifying exam; 2. Supervisor training; 3. Proposal defence

Institutional support to achieve work-research balance

Introduce a programme of PhD supervisor training - identified as priority

Create more funding opportunities

Train junior academics in writing proposal and grant applications

Improving academic writing skills for academics

Proper mechanism for identifying predatory journals creating awareness among academics

Establish a vibrant research culture

Regular supervisor training

Regulations for PhD degree and supervision

Reward scheme to encourage high impact research

Training workshop for writing high quality research proposals

Collaboration with overseas universities - develop collaborative links based on targeted matching of local and overseas expertise for research areas that exploit strnegth of region - identified as priority

Improve research infrastrucutre and policy

Encourage/create high quality publications – through reward schemes for publication in recognized journals (indexed Web of Science, Scopus etc)

Peer review of research within department

Less administration work allocated for researchers/teachers

Conducting surveys of students (research students)

Different approaches to curriculum development

Researcher development (transferable skills development)

Supervisor training programme

Doctoral supervision guidance

Action plan to build-up research culture within the university

Facilitation of research grants handling - support from service

Appendix A.9 Feedback from Participants

Many thanks for organising such great workshop. Worshop was live and discussions were really interesting and facilitating. Very informative workshop. Real British teaching which I like a lot, got an opportunity to Todays session (14/10) was very useful. I have learnt a lot about developing a good research proposal and how to seek and win funding. I have developed clear understanding of 'aims/objectives/hypothesis' . Very good explanations of outputs/outcomes/deliverables'. Great slides. After the lunch, it was a fantastic presentation. Happy to know more about publications

Mark's sharing of his research experience was wonderful - great insights as well as motivational. The workshop in general was OK - but not very new things! Last day was the best! Hope this workshop would help to develop long-term collaboration with UK universities

The programme was very informative and brainstorming. Hope to attend more workshops in this format. Simple to comprehensive

The workshop was helpful to gain some in-depth understanding of the importance of developing deep research culture, collaborative research works and strengths & weakneses we have as an institution. Sessions were conducted in interesting way, more interactive manner and with many activities - good:-) The full programme could have been done in full 2 days, maybe with some late sessions as well with accomodation provided for all. It would be more effective if we get more resource persons with many diverse areas. If there were direct ways to get collaboration with our partners, during the workshop would have been more effective [cf presume this comment relates to starter funding applications?] Finally, The workshop is really good opportunity to get know European researchers. We had a good time with nice UK professors. I met good Sri Lanka academics too. The programme could be shorter than this - the final day discussions were having less meaning. There was no resource person from engineering/physics. Thank adopt research culture.

Career starters (category C people) got an amazing chance to visualize the challenges and opportunities they might have to encounter in future based on the shared thoughts and experiences of category A & B academics. Made aware of the conditions related to international university rankings; Expanded the thinking beyond the level of SL in producing PhD gradautes and their future. Very informative discussion on research proposal writing /publications. This was a good platform to develop the network among universities and got to

I personally expected much more experience from this programme. But I got to know good ideas and thoughts of other academics. Got to know about good practices to inspiring ideas of research; opportunities /threats/strengths/weakness of our own universities; challenges faced by the research; research culture. This programme could have been improved by addressing some of the issues faced by the senior academic members present today.

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An Enhancement-Led Approach to Quality Management

27th- 28th February 2019 Colombo, Sri Lanka

Notes from final action planning session - Aspirations and Priorities

Please note that these are the comments of participants, taken directly from post-its, flip-chart paper and from the closing discussion around aspirations and priorities.

Task 1

Identify 3 elements from this week's workshop that you found particularly pertinent to the enhancement of the QA process in Sri Lanka state university sector

Select one element that you would like to have the opportunity to explore in greater detail*

Collation of Post-It Comments	
Each comment below is a direct transcription	
Responses have been grouped into themes (highlighted in bold below)	
Numbers below indicate number of identical statements given by different individuals	
Student engagement	4
Student engagement in Teaching and Learning for an enhancement-led quality process	
Student engagement in curriculum development	
Student engagement in QA process	3
Promote student engagement in medical faculty	
Introduce' student engagement concept at module level	
Representation of student views in curriculum review	
Increase awareness of staff/students in QA process at programme level	
Student reviewers to enhance QA aspects in programme reviews (internal review - strengthening of process)	2
Student reviewer	2
Student reviewer in review panel	
Student partnership - involve students as much as possible in quality enhancement work; Programme design to be done taking employability into consideration	
Student partnership	2
Student participation in decision-making	
Establish a mechanism to utilise student feedback	
Mechanism of implementation of student feedback to have a better development of QA aspects (i.e. to convince students that their feedback has been taken positively in QA)	
Sharing feedback outcomes with students	
Student feedback on teaching & learning	
Enhancement-led approach to QA - where do we start?	
Enhancement-led student engagement can be customised to have a great impact on the quality of education	

Appendix B

Enhancement-led student engagement	
Quality enhancement with the perspective of relevance/fit for purpose	2
Elements of the quality enhancement framework	
What type of student representation should be taken in QA process and what do we expect from them?	
Internal Review/Internalise internal review	8
Routine monitoring and review by universities	
Continuous/regular internal review	2
Internal Review - how it should be formalised and internalised	
Annual internal QA review (by the University itself)	2
Incorporate internal reviews in programme review	
Training on internal review process	
External examiner system/for the subject	2
Graduate employability	
Graduate employability - explore aspects of curricula with high employability that can be translated to others	
Curriculum is designed to fit into employment opportunities available in market	
The employability challenge	
Industry linkages	
Industry linkages within the study programme and allow students/graduates to cultivate their professionalism	
Work-based learning	
Sector collaboration/linkages	3
Having tutors	
Engaging all teachers in personal development tutors	
With access to the world of work by students, and investment of parents, prime youth, society and state, we hold the key to get students interested in in student centered, purposeful learning. Also fact-based teaching resulting in quality enhancement	
Promote evidence-based decision-making through research - form an Academic Association	
Collaborative work with other universities	
Professionalisation of teachers	
Learn from ENU experience of lateral entry and credit transfer	
How to develop an active model to develop a sustainable creative arts	
Empowerment of QA Centre	
Develop more learner support for courses	
Toolkits developed for focus group studies	
Innovative approach to Quality Assurance (toolkit)	
Outcome agreements	

Appendix B

From the above list, the following were selected by individual tables for further discussion based on the ability of individuals in this room to action at institutional level and therefore in the immediate timeframe

- Student Engagement (for enhancement-led quality management)
- Internal Review (regular/internal review of study programmes/formalized mechanism including policy development)
- Explore how to improve graduate employability

Student Engagement-

Why? Students are primary beneficiaries (main stakeholders) but at present have minimal involvement (not engaged enough)

Requirements? Increased awareness amongst academic and administrative staff, and students Conversations needed? Consultation with academic staff in the development of circular for UGC acceptance through following process: QASC to develop guidelines and communicate to Universities, then VC/Dean, then FROAC (academics/students) to feedback to QASC Required Resources? Training workshops/publicity/dissemination resources

Re-examine Programme/Institutional review with grading

Internal Review

Development of Internal review policies, with Terms of Reference for reviewers. Decide on frequency. Then implement with monitoring and feedback. Closing the loop (i.e. reporting on actions taken).

Capacity building for QA staff team, reviewers, student reviewers – development of trainers and resource materials.

Explore how to improve graduate employability

Employer and Alumni surveys /Faculty views /Student input – on 4 year cycle. Followed by analysis and implementation of recommendations. Monitoring and reviewing.

Redevelop subject benchmark statements to encompass graduate attributes and employability

Task 3 Sector level – Aspirations and Priorities

Looking 3-5 year ahead, what are your aspirations for the future for the university sector in Sri Lanka? Why?

What is required to progress with this? What conversations and with whom? Resources? Further training needs?

Development of a national level policy on the use of student engagement in QA/QE and curriculum design. At the moment, different mechanisms exist in different universities for student engagement in QA, e.g. some use student representatives in QA of delivery. Student engagement exists in some universities or in some programmes within a university. However there are no formal mechanisms. Also Faculty staff are alien to the use of students in curriculum development/QA. So, how prepared are staff and, in particular, students, on the ability of students to add value to curriculum design? A national policy is needed along with training in place for staff/students so that students see themselves as key stakeholders, and respect/value given to the student. Need training for trainers (mentors, counsellors). Need to create opportunities for staff to learn international best practices in relation to QA/QE and student engagement. Also

students/student unions need to be exposed to international best practices. Need to use alumni also who are working in industry. Need to restructure current practices. Need a legal framework and agreed realistic timeframe.

Comment from co-participant on above – rather than a national policy, a circular needs to be developed with the Standing Committee (UGC) developing guidelines for VCs to implement, i.e. responsibilities devolved to universities.

Enhancement-led approach to develop a vibrant internal QA system using an evidence-based approach

An on-line database needs to be developed with all the data that has fed into Programme and Internal Reviews across all universities and disciplines 2017-2019. We have a considerable amount of raw data that is underexploited. Need to analyse the data objectively and in-depth. Need to identify gaps/ issues to inform revision of QA processes and also to inform revision of curriculum and of degree programme offering in order to have programmes with high employability. Also need to establish an internal QA system for all programmes in all universities. The resource currently available in Sri Lanka includes highly motivated QA staff in each university but they need to be able to mobilise others. Using existing resources we need to develop representation at board meetings, obtain feedback from students, and develop standards for PR/IR. We need to develop training to support the formulation of mechanisms for student engagement and collaborative research studies on available evidence/experience. Resources are required for database development, capacity building and staff exchanges.

Building on previous point, a second table prioritized the use of Programme Review data/reports to undertake quantitative and qualitative analysis to identify both low and high performing programmes, and possibly identify the contributing factors. To undertake analysis at national and regional level. Greater sharing of reports and also the follow-up on actions emerging from PR. Then move to an enhancement-led approach. Also need analysis by experts other than academics to undertake market analysis and more importantly forecasting. Need human resource development. Also need implementation of Management Information Systems. Need to identify timeline and performance indicators.

Comment from co-participant on above - Improving graduate employability in areas where this is a problem. Lack of graduate employability is seen as a social and economic problem as these graduates are seen to be a burden in society. Undertake an exploratory study of graduates from selected disciplines (at present) (e.g. from agriculture programmes – these students seem to fit into a wide range of jobs). Also undertake some research with alumni who have been in industry for 4+ years – use of surveys/focus groups/dialogue to identify aspect that helped them to get there and that have the potential to be translated to other programmes with lower employability. This also introduces the professionalization element into curriculum and programme design.

Resources: Funding for tracer study; Expertise in research on graduate employability

Subject Benchmark Statements

Current statements were developed some 10 years ago largely based on UK system. Significant updating is required for which we would benefit in learning from the UK approach to updating, for subsequent implementation in Sri Lanka.

Appendix B

- Highly productive workshop on enhancement-led approach to Quality Management. Very good practical sessions. Need further best practice sharing workshops on how to empower QA centres/Units/QA bodies in HEI. Very good venue, food and refreshments.
- This workshop was excellent for sharing experience of ENU with Sri Lankan academics. The group discussions/toolkits are excellent.
- Excellent workshop. Efficient presenters with very audience friendly powerpoint slides and materials. Posters on the table were very and truly insightful! Thank you!!
- Excellent workshop conducted over last 1 and 1/2 days. However it could have been much productive if the discourses had centred on Sri Lankan Quality Assurance process with that of the UK. We have had such discourses but it is not enough.
- Refresher on Quality Management. Very good. Effective 2 days. Grateful to organizer. Other QA officials also get the opportunity. Good net-working. Reinvigorating the knowledge on QA. Action planning for the future and very good practices.
- This is the most needed topic. The method of delivery and the method of conduct are excellent. Thanks for your work.
- Dear Friends from the UK. It has been a great opportunity for us to share your thoughts and ideas related to QA matters. Further we learnt a lot from what you have been practicing over there.
 Hope you will help us to uplift the current situation of HE sector here in Sri Lanka. Thanks again.
- Good opportunity to understand how QA takes place in Scotland. Captured good points that can be tested in Si Lankan context. Look forward to continuing cooperation with Napier University. Very pleasing and pleasant workshop atmosphere.
- Thank you for a very stimulating and thought-provoking workshop. The opportunity for discussion with fellow participants and resource persons in a focused manner is much appreciated.
- I identified the session on graduate employability is the most relevant one of the whole workshop. Regarding the enhancement-led approach has the built-in danger of being subjective, if applied to the Sri Lankan context. Current QA system with dozen of standards seems more suitable as it helps reduce subjectivity to a great extent. Issue of employability in Sri Lanka is more complex than it is seen superficially. Political, social, economic factors also contribute to this issue. So the relevance of the degree alone cannot be considered as the only factor. Workshop was very well organised.
- We learned a lot on QA process in UK! Excellent workshop. Very competent presenters/resource persons. Nice arrangement. All facilities provided – hats off to organizing staff. Thank you. Well done British Council.
- Day 2 is productive and we shared thoughts, experience and vision. Day 1 just awareness of QA systems in Scotland. Better if participants explored Scottish system rather than just listening to it.