**Quality through Global Connectedness**

**Benchmarks and Strategies for Universities in Small Developing Countries**

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*"**By 2020 globalization is likely to take on much more of a 'non-Western' face**…"*

Global Trends 2020, National Intelligence Council, USA

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**Preamble**

During the course of the project I had the pleasure of working with members of the university community who are committed to change through global connectedness. However, I write this report knowing that the larger context within which these individuals work could be very different. If the posters that cover the walls and trees in university campuses are any indication, Sri Lankan universities are anything but global or connected. These posters follow an identical template of graphic design and ideas – graphics that are homogeneous and ideas that are inward looking, defensive and anti-change. There is little evidence of the rich diversity of views that characterize a university.

The objective of this report is to present data and analysis sufficient to create an awareness of and initiate a dialogue on global connectedness. We use data from universities across Asia, and outside of Asia, where necessary, to develop benchmarks of connectedness.

Finding ways to connect globally while nurturing local roots and being responsive to local concerns is a challenge, but the IDRC study demonstrates it is an achievable challenge. We had to deal with, for example, the issue of recognizing books in Sinhala or Tamil that are lovingly produced by many university faculty in various areas of study. Typically these works are not validated by peer-review because there are at most a few native scholars in any one of these areas of study. We chose to take the wider acceptance, if any, of one or more recent works by a scholar as a validation of all other related works in the local language produced by that scholar. True scholarship has no boundaries, but its assessment has to be responsive to local needs.

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## Acknowledgements

**Executive Summary**

Global connectedness is represented by the international relationships of individuals, organizations or countries. The extent and the quality of these relationships is a measure of the ability of individuals, organizations or countries to access and use knowledge for development. For knowledge-intensive enterprises like universities global connectedness means connectedness to global knowledge networks. Universities serve as windows to the global knowledge society for their students and for the society at large. Universities in developed countries are in the center of the global knowledge society, but for those in developing countries, connectedness cannot be taken for granted. Universities in developing countries need to regularly assess their connectedness and continually strive to stay connected.

The e-readiness indicators developed by Center for International Development and others focus more on the ICT aspects of global connectedness (GITR, 2000). Knowledge capacity indicators developed by UNDP, World Bank and Rand focus more the human resources and other related conditions necessary for global connectedness.

In this study we combine e-readiness and knowledge-capacity indicators to develop a set of global-connectedness indicators, and embed those in an existing framework for assessing academic quality, thereby making global connectedness an integral part of academic quality. Next we develop performance targets, using regional benchmarks to the extent possible; moderate the targets to suit the needs of small developing countries; and present the data in easy to understand formats such as score cards and ranking reports.

**Measures of Academic Quality**

In *Section 1* we look at indicators of academic quality from around the globe. Academic institutions vary in size and mission with some more research-intensive than others, but almost all major surveys used around the globe define academic quality essentially as the quality of the undergraduate education experience. Modifying the indicator to emphasize global connectedness, we define academic quality in terms of an institution's ability to give the students the knowledge, skills and attitudes that are necessary for success in a global society.

The quality of the undergraduate experience is determined by the quality of the inputs (people, resources, rules and rewards) and processes that contribute to the experience. We focus on inputs and identify (a) the quality of faculty, (b) access to knowledge resources, and (c) promotion criteria as areas that can benefit from global connectedness.

**Quality of Faculty**

*Section 2* is devoted to the topic of faculty quality. The faculty members in a university are the people with the most impact on the undergraduate education experience, and their quality is determined by their (a) academic preparation, (b) current professional standing and (c) the extent to which they are "occupied in learning". 'Academic preparation' is indicated by the quality of the post-graduate qualifications.

'Current professional standing,' as indicated by the rank of a faculty member, is a measure of academic quality since faculty with professor or associate professor rank would bring a higher level of expertise and experience to their teaching.

We used the "percent of faculty with international publications" as an indicator of a faculty body that is "occupied in learning," since faculty in small developing countries need to make special efforts to validate their scholarly work through the scrutiny of a larger peer-group outside of the country, if they are to be effective teachers. As an educator famously remarked in 1851:

> He who learns from one occupied in learning, drinks of a *running stream*. He who learns from one who has learned all he is to teach, drinks "the green mantle of the *stagnant pool*"

> *A. J. Scott, the first Principal of Owens College, Manchester, 1851*

We derived performance targets for each faculty quality indicator using a set of Asian universities as benchmarks. To estimate the current level per each indicator we used the results of a survey of faculty in humanities and social sciences (H&SS) that was initiated by the Committee on Humanities and Social Sciences at the University Grants Commission of Sri Lanka. Faculty quality data should be presented in the context of other academic quality indicators in a **balanced scorecard** format, for example, as in Figure-A where we present faculty quality data on left hand quadrant with two other input measures ( in the bottom two quadrants and the desired output in drark grey in the top right hand quadrant.

Secondly, we use the data for each indicator to derive a composite faculty quality score for each H&SS academic program in each university in the public sector in Sri Lanka and rank the universities and the academic programs accordingly to present as a **ranking report** (Figure B). Details of the score card and the ranking report can be found in the body of the report in Section 2.

**Access to Knowledge Resources**
Data on knowledge resources in other universities in Asia are limited. In *Section 3* we derive performance targets for knowledge resources using the results of several action research studies. We identify two types of knowledge resources relevant to the academic community--research resources and teaching and learning resources. With the advent of powerful search engines, the internet enables researchers to browse abstracts of research papers online and identify the literature they need. Various online vendors are now able to supply full-texts of journal articles or book chapters on demand at reasonable costs. The action research study revealed that the demand for research resources in the Sri Lankan university system is rather small but diverse. We estimate that the researchers in the university system can have full-texts of journal articles delivered to their desktop computers, with 80% of the deliveries done within a week of the request, for a total cost of Rs: 20 million per year.

In terms of teaching/learning resources there is a great need for up-to-date teaching and learning resources. We estimate the cost of maintaining up-to-date teaching and learning materials for all course units offered in the university system to be about Rs: 180 million. Taken together with the cost of meeting the demand for research resources, adequate access to knowledge resources would cost about Rs: 200 million per year. These estimated expenditures are well within the current budget allocation of Rs: 210 million for books and periodicals for 2005 in the university system, but institutions currently may spend as much as 90% of resource allocation on the acquisition of journals and research databases and 10% for teaching and learning resources--the

exact opposite of our demand estimates. We strongly urge the university community to consider the findings of our action study and:

(a) further study the implications of the assertions here for their individual institutions
(b) adopt a purchase-as-needed strategy for securing research resources, if that ideas are relevant to them and,
(c) use the savings to increase the allocations to teaching and learning resources to about 90% of the total knowledge resources budget.

**Faculty Promotion Criteria**

In *Section 4* we examine rules and rewards as they apply to individual faculty promotions. A review of the literature followed by consultations with opinion leaders in the university community helped us identify three key deficiencies in faculty promotion processes in Sri Lanka:

(a) lack of recognition for quality of teaching,
(b) poor quality of scholarly outputs, and
(c) weaknesses in the application of review criteria.

Deficiencies in the faculty promotion processes are part of a bigger issue of lack of governance in developing countries. Universities are not islands. Their processes are affected by standards of governance in the larger society. A key requirement for improving governance in developing countries is the wide availability of information on institutional performance (Kaufmann, 2003). Lessons from other countries tell us that universities can change their organizational culture if performance data are made available on a regular basis in a simple format and shared with the university community and all stakeholders. For developing countries it is critically important to use international/regional benchmarks for reference.

**Possible Solutions and Useful Tools**

In summary, for global connectedness in the academia in developing countries it is necessary to

(a) Regularly monitor the performance of the higher education system
(b) Ensure that global connectedness indicators are well represented in the performance measures
(c) Use global or regional standards for reference
(d) Publish the information in an easily understandable format (score cards and ranking) and,
(e) Share the performance data widely

In Sri Lanka, the University Grants Commission already makes available a comprehensive set of data on enrollment, graduations, staffing and funding in the public university system on its website.[1] All administrative circulars are also posted there for public information. The Quality Assurance Council is expected to complete the subject review of all academic programs by the end of 2006. A directory of private institutions has been compiled.

Through this study we developed two tools, a scorecard and a ranking report, that can add value to these existing efforts. These additional efforts do not necessarily have to be led by governmental institutions. In fact, these secondary efforts are typically led by a reputable newspaper or a magazine or other appropriate private and non-profit entity.

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[1] www.ugc.ac.lk

# Academic Quality Scorecard

Humanities and Social Science Disciplines
in the Public University System in Sri Lanka

| **Input 1** (Quality of Faculty)**:** Faculty have the scholarly capability to engage with global knowledge network | | | **Desired Output** (Quality of Graduates): Graduates have the knowledge, skills and attitudes to succeed in a global society | | |
|---|---|---|---|---|---|
| Goals and Objectives | Target | Actual | Goals and Objectives | Target | Actual |
| Qualifications[1] <br> • % PhD, Local unis <br> • % PhDs, Other unis <br> • Percent Masters, Local unis <br> • Percent masters, other unis <br> • Percent with no PhD or masters <br><br> Rank <br> • Percent professors <br> • Percent associate professors <br> Publications[1] <br> Percent with intl pubs | <br>40% <br>10% <br>40% <br>10% <br><br>0% <br><br><br>20% <br>30% <br><br>50% | <br>8% <br>22% <br>13% <br>33% <br><br>23% <br><br><br>9% <br>7% <br><br>11% | Rating by <br> • Local businesses <br> • Local professional societies <br> • Other local universities <br> • Other regional universities <br><br> Student success <br> • Percent of graduates employed <br> • Median income of graduates <br> • Alumni contributions | <br>5 <br>5 <br>5 <br>5 <br><br><br>N/A <br><br>N/A <br><br>N/A | <br>N/A <br>N/A <br>N/A <br>N/A <br><br><br>N/A <br><br>N/A <br><br>N/A |
| **Input 2 (**Access to Knowledge Resources)**:** Curricula, teaching and learning resources, and research resources are up-to-date and available | | | **Input 3** (Promotion Criteria): Criteria that recognize and reward global connectedness in teaching and research are in place | | |
| Goals and Objectives | Target | Actual | Goals and Objectives | Target | Actual |
| Knowledge Resources[2] <br> • Delivery of full-texts of research resources <br><br> • Teaching/learning materials <br><br> • bandwidth per student <br><br> • Access to computers | <br>80% <br><br><br>100% <br><br>100% <br><br>100% | | Promotion Criteria <br> • Satisfactory performance in teaching required? [3a] <br> • Satisfactory performance in research required? [3b] <br> • Frequency of teaching evaluation <br> • Frequency of research evaluation | <br>Yes <br><br>Yes <br><br>annual <br><br>annual | <br>No <br><br>No <br><br>No <br><br>No |

Key: Uni: university; Intl. international; pubs, publications
Notes: 1. 'With masters' means with masters as the highest post-graduate qualification; 2. Knowledge resources for research are journal articles and book/chapters; Teaching/learning materials required for each course unit taught in the academic unit under consideration; Bandwidth in kilo bytes per student; Access to computers for students, say, at least 10 hours of use per week; 3a. Satisfactory performance in teaching means a teaching portfolio that documents evidence of preparing students for success in a global knowledge society. 3b. Satisfactory performance in research means a scholarly portfolio that documents evidence of at least one internationally peer-reviewed scholarly output within the most recent 5 years; Average of the teaching performance scores received by the faculty body in academic unit in question

# Faculty Quality Ranking Report

For the Humanities and Social Science Disciplines in the Public University System in Sri Lanka for 2004/5
(Top figure: Ranking of H&SS Faculty by University; Bottom figure: Ranking of H&SS Faculty by Discipline;
Maximum possible score is 30.0.)
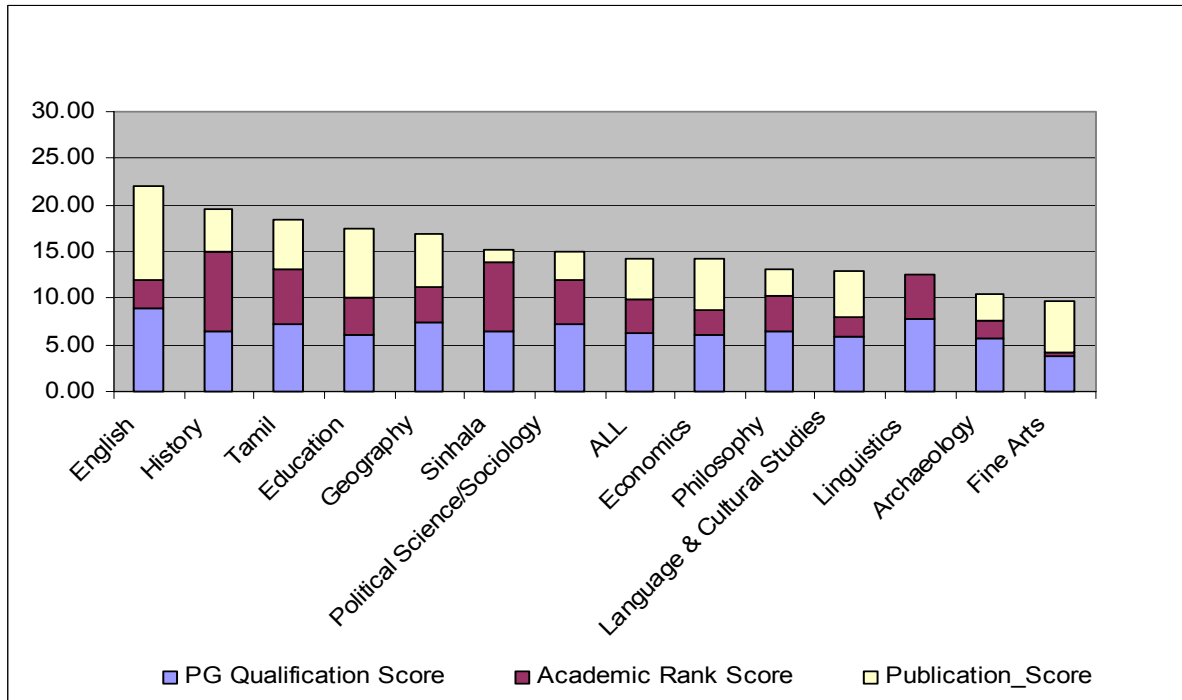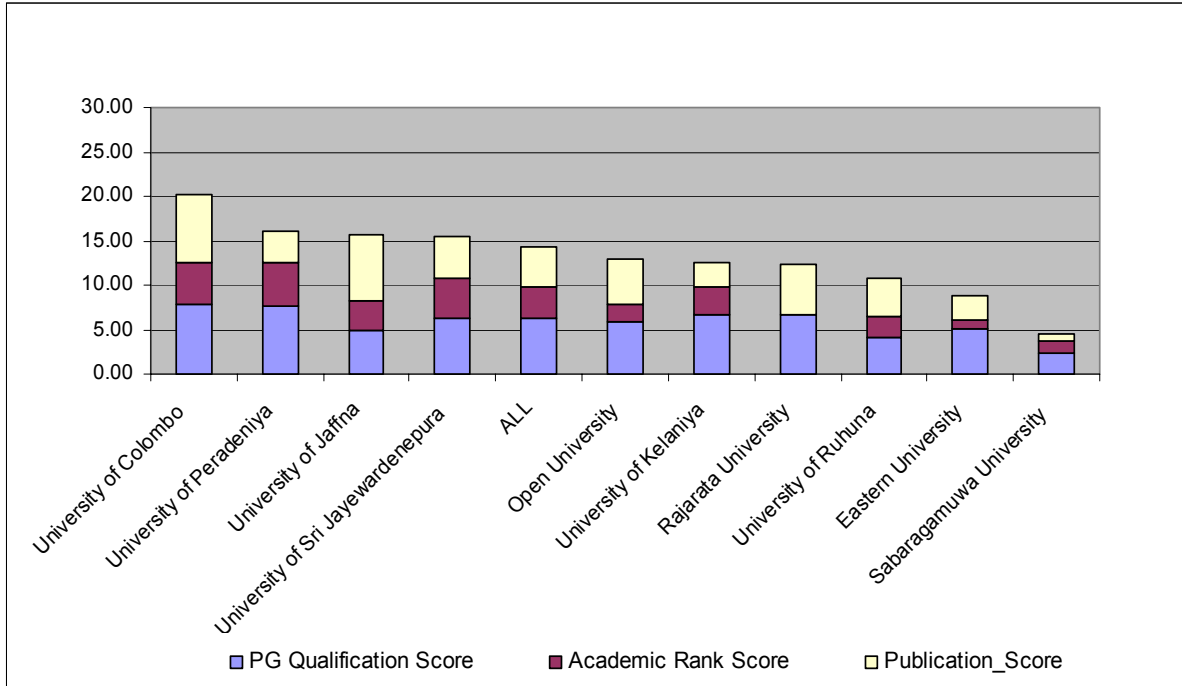
**Summary of Recommendations**

1. Benchmark at regular intervals the performance of universities and colleges relative to their peers in Asia and elsewhere:

   - Use **academic quality scorecards** that focus on global connectedness relevant indicators
   - Present the information as an **academic quality ranking report** for quick comparisons between programs
   - Publicize the information widely among parents, students, the business community, international donors and the general public, and make the information available on the internet
   - Give priority to achieving performance targets in ICT

2. Encourage universities to realign their 'books and periodicals' expenditures in the following manner:

   - Purchase full-texts of journal articles and book chapters on demand and use the savings from the books and periodicals budget to purchase up-to-date teaching/learning resources for all course units in the university system
   - Set up a self-supporting unit in the university system, or outsource to a selected entity, the procurement of teaching and learning materials, with the unit/entity charging a cost plus service fee for:
     - Purchasing text books and supporting materials for all course units
     - Supplying the university teaching and research community in Sri Lanka with full-texts of research literature on demand

3. Require the following attributes of global connectedness in promotions to associate professor or professor positions:

   - Ability to connect to global knowledge networks demonstrated through at least one international publication produced with the most recent five years
   - Teaching portfolios that demonstrate success in giving undergraduate students the knowledge, skills and attitudes for living and working in a global knowledge society.

# 1 Measures of Quality in the Academia

A responsive higher education system tries to meet the demands of its stakeholders. In a 100% state-funded model -- the prevalent model in UK, Europe and the associated colonies – the responsiveness of higher education institutions reflects the overall level of governance in the country. When there is good governance, state regulatory systems demand and receive quality of service from higher education institutions. Such is the case in UK and Europe.

In the American model of higher education, student fees are an important source of funding. Even in state-funded institutions about one third of the operating costs are met through student fees. Therefore the most important stakeholders in higher education are undergraduate students and their parents. Even though the government may pay part of student fees in the form of grants and/or low-interest loans awarded to students or their parents, students and parents have the freedom to choose and higher education institutions are forced to be responsive to their needs.

Until the 1950s and 1960s the European model of higher education was prevalent in most of the developing world but systems in these countries have been struggling or failing largely because the European model is not sustainable in societies that do not have the level of affluence and state of governance that Europeans possess.

The present study is based on the idea that connectedness to global knowledge networks will break down to some extent the economic, social and cultural barriers that keep universities in countries like Sri Lanka stuck in backwaters. The objective is to develop performance targets that prioritize global connectedness and identify strategies to achieve those targets. First we will look at measures of quality under ideal conditions.

## 1.1 Quality Assurance and Rankings

There are two main ways that students and their parents receive information about standards and quality in higher education. First, a recognized quality assurance agency will set academic standards and ensure that institutions adhere to those standards and that they have all the systems, resources and information necessary for maintaining and improving standards and quality.

Secondly, ranking surveys or league tables provide further information for students and parents to compare between institutions. Although quality assurance certificates give the assurance for parents and students that higher education institutions and their process are under some quality control, they do not provide the level of detail required by the consumers of education. Rankings allow potential students and their parent to compare and contrast all available opportunities using information collected, collated and analyzed by a third party such as a reputable newspaper. If quality assurance gives a pass or fail grade, a ranking gives the standing of one institution relative to all others. Although ranking methodologies have been criticized for their shortcomings (Dill and Soo, 2004 and references therein), rankings have become an essential part of the higher education sector in any country.

In USA, UK, Canada and Australia, systems of national league tables or national rankings have evolved over time Table 1-1Universities outside of USA and Europe are increasingly becoming players in the international arena, with China having adopted a national policy of emerging as a leader in higher education in the world.  The ranking survey by the Shanghai Jiao Tong University (SJTU) signifies this shift.  The Times Higher Education Supplement (THES) of the UK has recently introduced a "Top 200 universities in the world". The survey by Asia Week filled the need for regional survey for Asia but unfortunately that survey ended in 2000 with the demise of the magazine.

**Table 1-1** Some Major University Ranking Surveys, International and National

**National**

| Times Good University Guide, UK | timesonline.co.uk |
|---|---|
| Guardian University Guide, UK, | education.guardian.co.uk |
| Good Universities Guides, Australia | ratings.thegoodguides.com.au |
| America's Best Colleges by US News and World Report (USNWR) | www.usnews.com/usnews/edu/college/rankings/rankindex_brief.php |
| Top 10 Colleges of India for five fields of Study* by India Today | Web site not available |
| Canada's Top Schools by Macleans | http://www.macleans.ca/universities/ |

**International**

| Top 500 World Universities by  the Shanghai Jiao Tong University (SJTU) | ed.sjtu.edu.cn/ranking.htm |
|---|---|
| Top 200 World Universities by The Times Higher Education Supplement of UK (THES) | www.thes.co.uk/worldrankings/ |
| Best Universities in Asia by Asia Week | Now defunct. Last conducted in 2000. |

Notes: *Arts, Science, Commerce, Medicine and Engineering

Apart from these educational rankings, there are rankings that focus on research productivity and post-graduate education. The Survey of Research-Doctorate Programs, conducted every 10 years by the National Research Council of USA, ranks universities by the quality of graduate programs in 60 or more disciplines using peer-review as the sole criterion. The next set of survey data will be available in 2007. This survey is used by institutions for internal policy decisions, and by post-graduate students and post-doctoral students as well as faculty members seeking mobility in their professions.

The Research Assessment Exercise of UK is a peer review exercise that evaluates the quality of research in UK higher education institutions. This assessment informs the selective distribution of funds by the UK higher education funding bodies. RAE is a complex process that involves peer-review along with a range of criteria that includes quality and size of research and graduate programs.

Information about research assessments in other countries is limited. In Sri Lanka the annual presidential awards for accomplishments in international publications recognize performance at the individual researcher level. A similar national system for recognition of academic researchers is reported from Mexico (Altbach, 2003). Upali Samarajeewa conducted a comprehensive survey of research and research training in Sri Lanka for the 1991-2000 period (Samarajeewa, 2003).

## 1.2    Rankings and Measures of Institutional Quality

Except for the research and post-graduate education specific surveys such as the NRC survey of the RAE and the unique SJTU survey,[2] all other ranking surveys focus on the quality of undergraduate education. All undergraduate program ranking surveys include measures of inputs to and outputs of undergraduate education. Only the surveys in UK are able to include process criteria such as the quality of teaching because the UK government carries out periodic assessment of teaching in universities in the country. Input measures typically include the quality of students, quality of faculty and the adequacy of academic resources. Output measures include measures of student success such as rates of retention, graduation and employment of students, and measures of institutional reputation. Institutional reputation is typically measured through survey of heads or other academic leaders of peer institutions.

**Table 1-2** Performance Indicators and Weights Used in Some Representative Ranking Surveys

| Performance Indicator | India Today | THES, world | Asia Week | Times, UK | US News | Guardian, UK |
|---|---|---|---|---|---|---|
| **INPUTS** | | | | | | |
| Undergraduate Student Selectivity | - | 5% | 25% | 9% | 11% | - |
| Faculty Quality-qualifications/rank | - | 5% | 19% | - | 8% | - |
| Faculty Quality-research | - | 20% | 20% | 14% | - | - |
| Facilities, resources and services | - | 20% | 21% | 27% | 19% | 15% |
| **PROCESS** | | | | | | |
| Teaching Assessments | - | - | - | 23% | - | 65% |
| Student retention rates | - | - | - | - | 5% | - |
| **OUTPUTS** | | | | | | |
| Student success - graduation | - | - | - | 18% | 21% | 9% |
| Student success - employment | - | - | - | 9% | - | 6% |
| Student satisfaction – alumni giving | - | - | - | - | 9% | - |
| Institutional reputation | 100% | 50% | 20% | 0% | 25% | 5% |

The India Today survey relies exclusively on a reputation score received from the principals of peer institutions. The THES-world university survey relies 50% on peer reputation but attempts to give weight to input measures, including faculty quality, as indicated by their research output. The Asia Week survey is similar to the THES survey in broad criteria but Asia Week puts more emphasis on entering student quality and faculty qualifications whereas THES uses the percentage of international recruits in the faculty body as the only faculty quality criterion. .

The Times-UK survey assigns 14% for faculty research but tips the scale in favor of teaching relevant measures with 23% and 27% of the total score assigned to teaching assessment and student success, respectively.

The Times and Guardian surveys, respectively, of UK and USNWR survey represent the most undergraduate-centered surveys from among the major surveys. Since there is no official body that conducts teaching assessments in the US, the USNWR report relies more on input and

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[2] SJTU survey gives 60% of the score based on publications in Science and Nature, 30% for Nobel laureates and miscellaneous medal holders and the remaining 10% to correct for institutional size.

output measures. A college's ability to retain students is used as a proxy measure of process quality. In the Guardian Survey of the UK, the scores from the quality of teaching assessment that is conducted annually by the Quality Assurance Agency (QAA) of UK account for 65% of the total score.

## 1.3    Quality through Connectedness

Only a handful of universities from developing Asia[3] are found in the two international ranking surveys. SJTU's top 500 universities included only three institutions from developing Asia and all three are from India - Indian Institute of Science, Indian Institute of Technology at Kharagpur and The University of Calcutta. The THES's Top 200 universities included the seven Institutes of Technology in India as one set and the University of Malaya and the University of Science in Malaysia.

The Asia Week survey is the only ranking survey devoted to universities in Asia. Of the 160 universities and institutes of technology surveyed by Asia Week, 73 (or 45%) were from developing Asia. Universities in Japan, Hong Kong, Singapore and Korea are prominent in the rankings. Sri Lanka, Bangladesh, Vietnam and Pakistan fare poorly. University of Colombo, the only Sri Lankan university that was included in the survey, ranked 77 in a group of 77 multidisciplinary universities in Asia. The gap between the top universities in Asia and those in 'developing Asia' are significant.

In the next section we study in detail the gap between universities in Sri Lanka and other universities in terms of a key indicator of quality, the quality of faculty. The objective is to develop a set of indicators and related performance measures that are appropriate for a small developing country such as Sri Lanka. While it is important to measure ourselves against global standards it is also important that we set our targets to suit our own aspirations and capacities.

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[3] Developing Asia in this context includes all countries in Asia with the exception of Hong Kong, Japan, South Korea, Singapore, and Taiwan. China is also excluded because of its size.

## 2    Quality of Faculty

Universities are first and foremost places for learning, learning by students as well as teachers. University teachers not only should be able to "link and synthesize general developments in a subject, using the insights gained from well-developed powers of critical appraisal"[4], but they should continue to be "occupied in learning" and "apply their learning to teaching". As an educator famously remarked:

> "He who learns from one occupied in learning, drinks of a running stream. He who learns from one who has learned all he is to teach, drinks "the green mantle of the stagnant pool".
>
> [A. J. Scott, the first principal of Owens College, Manchester, 1851]

How would we know if the university teachers have the desired attributes? Using several well-established surveys as guides,[5] we selected "*post-graduate qualifications"* and the "*rank"* of each faculty member as indicators of the extent to which a faculty body is able to "link and synthesize general developments in a subject," and the percent of faculty members with "*internationally published scholarly works"* as a proxy indicator of a faculty body that is "occupied in learning."[6]

As for "application of learning to teaching", we decided to separate that from other faculty quality attributes and include quality of teaching as part of an "academic quality report" that captures all quality dimensions.[7]

Quality data are typically presented as performance data in reference to performance of a benchmark institution or a program. A benchmark university or a program is one that is similar in circumstances but is performing better than one's own institution or program. In the present study we selected universities of Dhaka, Malaya and Hong Kong as benchmarks because all three institutions ranked above University of Colombo, the only Sri Lankan university to be

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[4] Newby, Sir Howard (1999), in 'The relationship between teaching, research and the other outputs of higher education institutions', http://www.hefce.ac.uk/research/review/, accessed January 2006.

[5] Times Good University Guide, UK; Guardian University Guide, UK; Good Universities Guides, Australia; America's Best Colleges by US News and World Report (USNWR); Top 10 Colleges of India for five fields of study, by India Today, etc.

[6] This criterion does not devalue scholarly works in the vernacular or works that have only local relevance. However, it is difficult to judge the quality of such works unless the author can point to some form of recognition for his/her work by a larger group of peers. Sri Lankan academia is too small to have a credible peer-group in any one research area.

[7] All reputable surveys look at the quality of teaching separate from quality of faculty, likely because of difficulty of measuring that attribute. The Guardian survey gives 65% of the score to teaching assessment scores received by an institution. Other surveys use proxy indicators to evaluate the quality of teaching.

included in the Asia Week Survey of 2000.[8] Availability of data was another factor.[9] We chose a time frame of 3-years to achieve performance targets.

## 2.1 Post-graduate Qualifications

In terms of post-graduate qualifications, we set the benchmark for "faculty with PhDs" at 50% after noting that even University of Dhaka, the university closest in ranking to University of Colombo in the Asia Week survey, had 47% of faculty holding PhDs while University of Colombo had only 37%. Universities of Malaya and Hong Kong showed 43% and 90%, respectively (Figure 5).[10] With the average for the Sri Lankan university system at 30%[11] and the total number of H&SS faculty in the system being close to 1000, this means that the Sri Lankan system needs 200 more PhDs to reach the lower end of regional benchmarks on faculty qualifications.

We set the desired level of "faculty holding PhDs from a local university" at no more than 10% since the current level is 8%, and in our estimates, given the current capacity,[12] it would be hard to graduate more than 20 PhDs (or realize a 2% increase in the production of PhDs), locally within the next 3 years. This means that the system needs 180 more PhDs with foreign qualifications within the next three years.

Since we set the performance target for faculty with PhDs at 50%, the target for faculty holding a masters degree as the higher qualification becomes 50% by default. Currently 44% of the faculty hold masters degrees as their highest post-graduate qualification with 19% of those having received a masters from the same university that they are employed in. If we leave aside issues of quality of the masters degrees received, the Sri Lankan university system is close to the performance target in terms of masters degree holders.

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[8] The rankings were as follows: University of Hong Kong, 3; University of Malaya, 47; University of Dhaka, 64; and University of Colombo, 77; from among a group of 77 multidisciplinary universities surveyed.

[9] 50 Universities from 10 countries from developing Asia were included in Asia Week Survey (Bangladesh, 1; India, 8; Indonesia, 4; China, 16; Malaysia, 5; Pakistan, 3; Philippines, 4; Thailand, 7; Sri Lanka, 1; Vietnam, 1). We initially focused on countries that made available their university data through the Commonwealth Universities Year Book (Bangladesh, India, Malaysia and Pakistan). Indian universities were not considered as benchmarks because the existence of satellite colleges made Indian universities structurally different from Sri Lankan universities. We selected Bangladesh and Malaysia over Pakistan because of greater familiarity with the former two systems. Hong Kong was selected to get a sense of the upper limit of performance for a university in an Asian country.

[10] The total number of faculty in H&SS in Universities of Colombo, Dhaka, Malaya, and Hong Kong are 113, 254, 381, and 168, respectively. Source: U Colombo: H&SS Survey 2004/5, UGC, Sri Lanka;U Malaya: Commonwealth Universities Year Book 2002; U Dhaka and U Hong Kong: Institutional Web sites, accessed August 2005.

[11] Sri Lankan numbers are from the 2004/5 survey of H&SS faculty conducted by the Standing Committee on H&SS at the UGC.

[12] According to the 2004/5 H&SS survey, of the 85 professors in H&SS, 21 reported publishing in an international journal in the last five years, and 10 of the 61 associate professors did. Together, that gives 31 faculty members (out of a faculty body of 937) with the potential to supervise PhDs. According to a study on Research & Research Training in Sri Lanka by Upali Samrajeewa (2003, published by UGC), during 1991-2000 the number of PhDs produced in the Arts stream averaged at 2.5 per year. If we double the number to take into account the new initiatives by the UGC's research promotion center, we can estimate that it is possible to produce 15-20 local PhDs during the next 3 years (2006-2008).

In summary, our estimate is that Sri Lankan universities may train 20 PhDs locally in the next three years but 180 additional PhDs are needed to reach the level of even University of Dhaka.

UGC is on the right track in having dedicated Rs: 60 million in 2005 for training 60 new PhDs in H&SS, Management, and Education and Law (p.40). With continued funding and annual increases, it should be possible for Sri Lankan universities to have enough PhD trainees in the pipeline within the next three years, and reach minimum regional standards in faculty qualifications within 5-6 years.

| | U Colombo | U Dhaka | U Malaya | U Hong Kong |
|---|---|---|---|---|
| Qualification_PhDs | 37% | 47% | 43% | 90% |
| Rank_Profs&AssocProfs | 23% | | 67% | 90% |
| Pubs_ISI_per Capita | 0.50 | 0.42 | 0.81 | 8.00 |
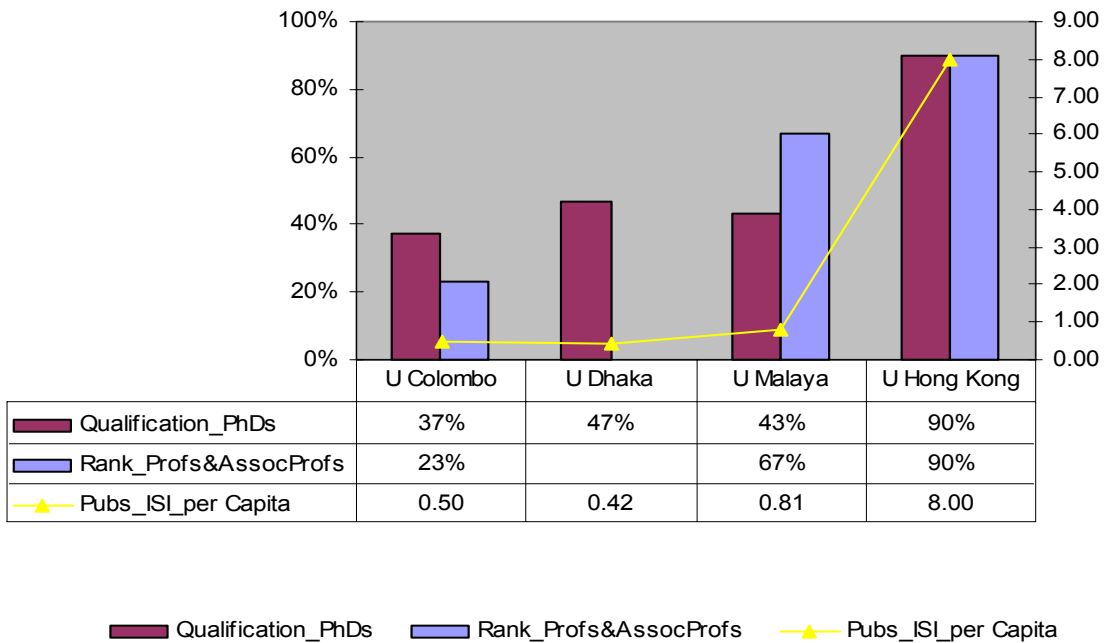
Note: Pubs_ISI-per_Capita is the average number of Institute of Scientific Info rmation indexed journal articles for the most recent five years per faculty member)

**Table 2-1**    Quality of Faculty Comparisons for Universities of Colombo, Dhaka, Malaya and Hong Kong.

## 2.2    Rank

We also set targets for "rank" indicators at "20% of the faculty body holding rank of professor" and "30% holding the rank of associate professor", for a total of 50% of ranked faculty, based on data for University of Malaya since we were able to obtain reliable data from Unikversity of Dhaka or University of Hong Kong. We selected three institutions from Ohio, USA for additional comparisons. University of Colombo was the representative Sri Lankan institution.

The USNWR ranks academic institutions by four categories-Doctoral, Masters, Baccalaureate-Liberal Arts and Baccalaureate-Professional. Ohio University, John Carroll University, Denison

University and Ohio Northern University, respectively, were ranked in the Top 3 in the four categories, respectively, for the Mid-West region of the USA.

Ohio Northern University, a baccalaureate-professional institution, having only 33% faculty with associate professor or professor rank, stands out from among the comparison institutions Table 2-2). Baccalaureate-professional institutions offer half or more of their degrees in professional fields such as business, education and nursing and typically do not have a high percentage of full-time faculty or faculty with the rank of associate professor or professor, and hence the reported percent is not surprising. In the other three types of institutions in Ohio, about 50-60% of faculty hold associate professor of professor positions. University of Colombo, a major university in Sri Lanka, with only 23% percent of faculty with rank points to a serious quality issue in the Sri Lankan system.

From the survey of H&SS faculty in Sri Lanka we noted that the lack of ranked faculty is common to all universities in Sri Lanka with the problem more acute in the newly established universities. In fact, University of Colombo, which was found lacking by international standards, has the highest percent of ranked faculty from among Sri Lankan universities. The national average is 9% for professors, 7% for Associate professors and 84% non-ranked faculty members in the H&SS academic stream in Sri Lanka.
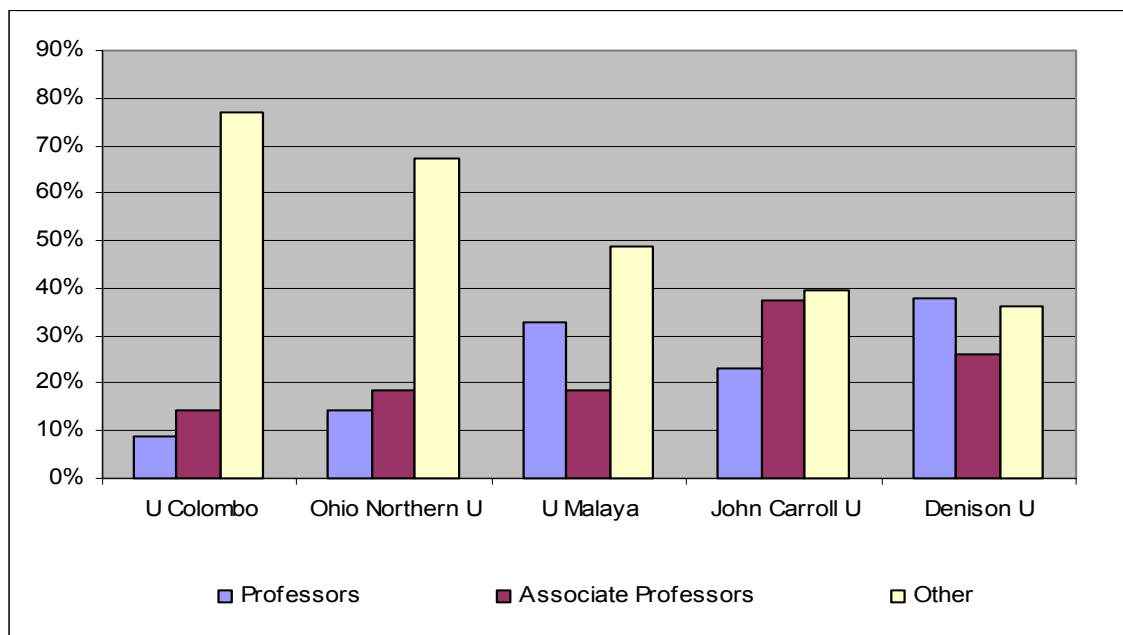


**Figure 2-1**     Distribution of H&SS Faculty by Rank for a Selected Set of Institutions in Asia and USA

**Table 2-2**     Distribution of H&SS Faculty by Rank for a Selected Set of Institutions in Asia and USA

| | Type Institution | Number Faculty | Professors | Associate Professors | Other |
|---|---|---|---|---|---|
| U Colombo | Undefined- National university | 113 | 9% | 14% | 77% |
| Ohio Northern U | Baccalaureate-Professional | 119 | 14% | 18% | 67% |
| U Malaya | Undefined- National university | 381 | 33% | 18% | 49% |
| John Carroll U | Masters | 139 | 23% | 37% | 40% |
| Denison U | Baccalaureate-Liberal Arts | 143 | 38% | 26% | 36% |

Source: U Colombo and U Malaya: Commonwealth Universities Year Book 2002; Ohio Northern U: Institutional tabulations received per request; John Carroll U; Data from institutional Web site (accessed June 2005).

## 2.3   Publications

In terms of publications, we used ISI publications for faculty in the 4 benchmark institutions as a proxy indicator of the general productivity of faculty in those institutions. The publication rate of University of Dhaka at 0.43 publications per faculty per five year period was lower than that of University of Colombo but the rate for University of Malaya was 0.80. University of Hong Kong outperformed all with 8.0 publications per capita. Although we were not able to determine what percent of faculty had ISI publications, we determined that the publication rate of Sri Lankan universities in ISI and non-ISI venues should be roughly double the current levels to reach reasonable regional standards, by using the publications per capita data for University of Malaya.

**Table 2-3** Number of ISI publications per faculty member per 3-year period (2001-2003) for Selected Asian Institutions, all Academic Streams

| | Number of Faculty | Pubs per year, 2001-2003 | Num Pubs per faculty |
|---|---|---|---|
| U Colombo | 431 | 43 | 0.50 |
| U Dhaka | 599 | 50 | 0.42 |
| U Malaya | 1301 | 212 | 0.81 |
| U Hong Kong | 1000 | 1600 | 8.00 |

Key: Pubs is Publications
Notes: Number of Pubs in the most recent five years; the publications record for 2000-2004 was extrapolated from 2001-2003.
Source: Records in the Science Citation and Social Science Citation Indices for 2001-3 with name of each institution in the address field

A few faculty members can drive the publication rate for a university. For example, in Sri Lanka, faculty in medicine and sciences account for 80% (CHECK) of the ISI publications from the university                                                    sector                                                    (

Appendix B). A more useful indicator is the percent of faculty with international publications in each academic stream.

From a survey of faculty in Humanities and Social Sciences in Sri Lanka we were able to determine both the publications per faculty member and the percent of faculty members with publications. For example, the survey showed that that H&SS faculty in Sri Lanka on average published 0.23 international publications and 0.70 national publications per faculty member. The survey also showed that 12% and 23% of faculty, respectively, had one or more international and national publications, respectively.

Using the latter set of numbers and approximately doubling those, we set a target of "having at least 25% of the faculty with at least one international publication during the most recent five years" and "50% with at least one national publication".

## 2.4    Reporting Formats

Two types of reports are useful in presenting performance indicators to parents, students, funders, policymakers and other stakeholders of higher education: scorecards and rankings

### 2.4.1   Scorecards

Scorecards have their origins in the business world but are now increasingly used by universities. A scorecard for an academic program, institution, or a system of institutions typically presents performance data in reference to a selected set of performance targets for each key institutional or system goal. Performance targets are typically set using data for a benchmark university or program.

In Figure 2-2, we present in a **scorecard format** the current performance of H&SS faculty in Sri Lanka, against the performance targets we derived. There are gaps in all areas. The most critical gap is perhaps the gap in PhD degree holders, since rank or the publications record of faculty would be determined very much by the percent of faculty with PhD degrees. Therefore, UGC might pay attention to the need for 18% more foreign PhDs. This can be achieved by getting the 23% of faculty without PhD or masters to obtain their post-graduate qualifications as soon as possible and having some of them continue on to PhDs, and encouraging some of the masters degree holders to initiate PhD training. As for the 2% gap in local PhDs, current initiatives should address that.

In terms of publications, the gap of 24% in national publications should be addressed while giving incentives for those with national publications to get at least one international publication, so that the gap of 14% in international publications can be addressed. The benchmarks we derived here can be the beginning of an informed dialogue on getting H&SS faculty members to achieve minimum levels of publications success.

In terms of qualifications and publications further efforts should be directed towards, (a) ensuring that the university system uses its capacity to produce local PhDs to its fullest, (b) making it a priority to secure funds for training 180 or more PhDs in H&SS outside of the

country, and (c) giving incentives for existing PhDs to publish more and work towards associate professorships and professorships.

| Goals and Objectives | Performance Targets | Current Performance |
|---|---|---|
| QUALIFICATIONS | | |
| • PhDs from foreign universities | 40% | 22% |
| • PhDs from local universities | 10% | 8% |
| • Masters degrees | 50% | 47% |
| • No PhD or Masters | 0 | 23% |
| RANK | | |
| • Professor | 20% | 8% |
| • Associate Professor | 30% | 5% |
| PUBLICATIONS | | |
| • At least one national publication in the recent five years | 50% | 26% |
| • At least one international publication in the recent five years | 25% | 11% |
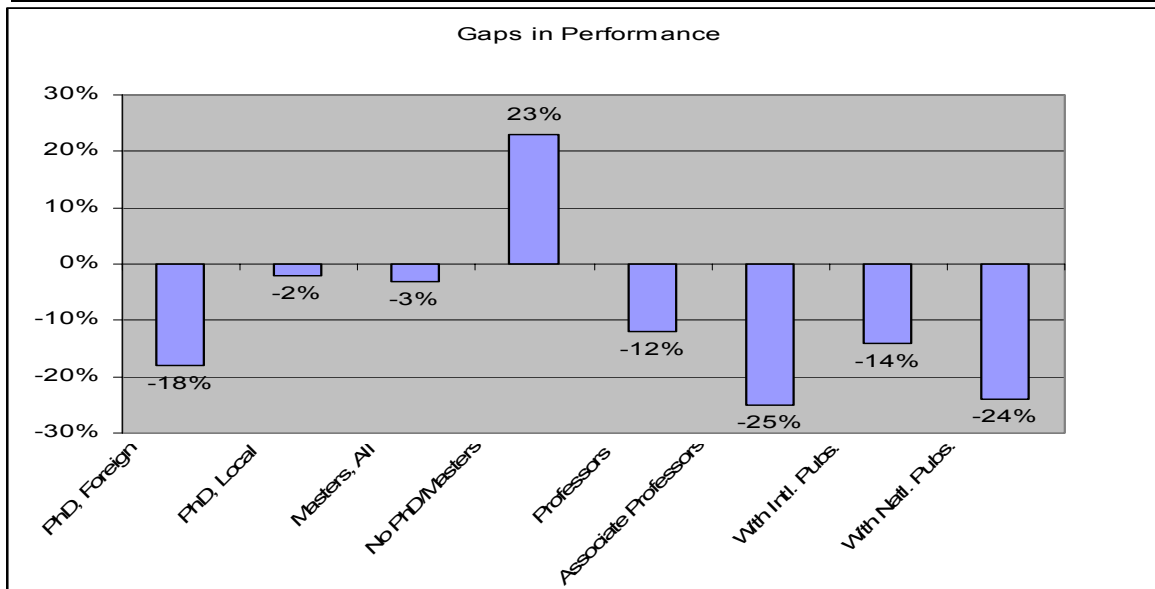


**Figure 2-2**    Faculty Quality Scorecard for Humanities and Social Sciences faculties in Sri Lanka, 2004/5
(Performance targets are based on values for selected Asian and local universities. Current performance is based on 2004/5 Survey of H&SS faculty)

The gap in ranked professors is the largest of all the gaps and may require some out-of-the-box thinking. Giving more recognition to the quality of teaching in the evaluation of associate professorships or professorships would be a strategy worth discussing. Currently, quality of

teaching is not assessed in promotions to associate professor or professor positions.[13] On the other hand, it is technically possible for an individual to receive an associate professorship or a professorship on local peer-review alone, since there is no stipulation in current promotion criteria that a faculty member must have some level of international credibility, by way of internationally peer-reviewed scholarly outputs, before he or she receives the rank of associate professor or professor. The result is low standards in both teaching and research.

We recommend a focus on quality of teaching with a stipulation that all teachers should show accomplishments in teaching for continuation or promotions. These stipulations should be accompanied by realistic performance targets for scholarly outputs to ensure that the faculty members are able to connect to global knowledge networks and let their students learn from a "running stream" not a "stagnant pool," as JA Scott vividly put.


### 2.4.2   Balanced Scorecards

Scorecards should always be presented as balanced scorecards where the quality of faculty, for example, can be viewed in the context of other quality indicators. Quality of a university education is determined by a combination of inputs, processes and outputs.   Faculty accomplishments amount to nothing if the teachers are apathetic, libraries are stocked poorly, the internet is non-existent, or the universities shut down often due to unrest. Therefore it is critical that policymakers view faculty quality in context. Examples of balanced scorecards can be viewed at other university web sites.[14]


### 2.4.3   Rankings

A ranking can be used by students, parents, policymakers and other stakeholders of higher education to get a quick overview of the relative performance of academic programs or institutions. A ranking report is prepared by ordering the composite faculty quality score for each organizational unit in descending order. In this particular study, the composite faculty score is the sum of scores for post-graduate qualifications, rank and publications, for a given academic unit. Each component score is standardized to 10 by dividing by the corresponding score for the benchmark institution and multiplying by 10. The highest possible composite score is 30. A ranking of public universities in Sri Lanka in terms of the quality of H&SS faculty is given in Figure 7. A ranking of disciplines in H&SS in terms of the quality of their faculty is given in Figure 8.

According to our analysis, University of Colombo ranked highest with a score of 20 out of 30, followed by Universities of Peradeniya, Sri Jayewardenapura and Jaffna (Figure 2). Surprisingly, Rajarata University ranked ahead of University of Ruhuna, a more established university. The scores are low across the board.

From among the disciplines in H&SS, English, history and Tamil ranked in the top 3, and fine arts, archaeology and linguistics ranked lowest. All disciplines except fine arts received 50% or more of the highest possible score of 10 for post-graduate qualifications but some disciplines performed poorly in international publications and rank. For example, the Sinhala department

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[13] Circular 723, www.ugc.ac.lk/virtuallibrary
[14] For example, www.osu.edu/academicplan/2005executive.php; http://www.planning.ed.ac.uk/BSC/0405BSC.htm.

performed poorly in international publications[15] although that department scored relatively well on qualifications and rank. Fine arts probably should be judged on different criteria than others. Overall, the intent of this study is not to make a definitive assessment on faculty quality but to create awareness of and initiate a dialogue on quality of faculty.

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[15] Scholarly works, if of value, would not bound by geography.

# 3    Access to Knowledge Resources

## 3.1    Introduction

The World Bank in its knowledge for development program looks at two types of knowledge—attribute knowledge and know-how. Others find the distinction between tacit and explicit knowledge to be significant. In the present case where the focus is on access to knowledge resources we find it useful to look at knowledge as either codified knowledge or new knowledge. Knowledge found in teaching and learning resources such as text books, CDs, DVDs and videos represents knowledge that is established and widely accepted. Newer knowledge, as found in journals and other avenues of scholarly works, is necessary in research.

| Function | Type of Knowledge | Example |
| --- | --- | --- |
| Teaching/Learning | Codified knowledge | Text books, CDs/DVDs, Videos |
| Research | New Knowledge | Journal articles, Book Chapters Etc. |

Both types of knowledge are proprietary. Sale of textbooks and other teaching/learning resources constitute a multi-billion dollar industry globally. Developing countries may produce their own textbooks for use in primary and secondary schools, but there is limited capacity to produce textbooks for use by university students. In small developing countries, students typically share a few textbooks among themselves from the books available in the library. Orders from academic institutions in these countries tend to be small in size and may take months or even a year or more to reach the libraries. In this part of the study we wanted to see whether ICTs have changed the economics of purchasing knowledge resources for developing countries.

## 3.2    Research Resources

In research it is essential to conduct a good literature search at the beginning of the research, and regularly browse the literature as the research proceeds to keep track of new developments. The new or emerging knowledge that is required in research too is largely proprietary with an author of a scholarly work surrendering the copyright of the work to a publisher who then may choose to make a profit from the work. With the advent of citation databases, citation of scholarly works has become the trademark of scholarly quality, and scholarly associations and funding agencies are increasingly becoming aware of the necessity of not only publishing but getting others to read and cite the published works. A scholarly work that is posted on a web site has the potential to be accessible to anybody with access to the internet. With new targeted search engines such as scholar.google it is now technically possible to have the global knowledge base at your finger tips--provided authors and/or publishers choose to open access to their sites.

Open access is not a pipe dream. It is estimated that there are annually about 24,000 journals publishing about 2.5 peer-reviewed articles a year. (Harnard et al., 2004) Eighty percent of these journals are said to allow the authors to self-archive their published works on internet sites of their choosing. The Institute of Scientific Information (ISI) itself indexes 22,000 journals, 12,000 conference proceedings and 5000 books in its citation indexed database. According to an

internal ISI study, 50% of the articles indexed by the ISI could be freely available on the internet if all the authors exercised their right to self-archive. The percentage of open-access journals do not really matter if they are not what the users want. What matters is the percent of actual demand that is met by open-access journals.  **A true measure of openness is the percent of the demand that is actually met through openly accessible scholarly works**.

We report the results of a study to determine the demand for scholarly works and how that demand is met through open access or special programs for access. There are several programs that attempt to bring global knowledge resources to the developing world. INASP is the best known and the most widely used program.


### 3.2.1   Method

We adopted an action research method to estimate the demand and the supply for knowledge resources. From the project we allocated nearly 2.5 million rupees for providing knowledge resources for the teaching and research (CHECK). We worked with three groups of scholars— Top Researchers, Deans' Nominees, and Full Population of Faculty in the Public Universities (Table 3-1).

Top Researchers
We selected 50 of the top researchers in the country using the science citation indexed publications for 1993-2002 with Sri Lanka in the address field.  Of those 30 were identified as currently living in the country. On 2nd of August, 2004, we sent an email inviting those 30 to submit their requests for literature (See Appendix I).  Eleven persons confirmed their participation. Though only three persons sent requests, they made use of the full quota allocated. Two of those persons were from the Institute of Fundamental Studies.

Deans' nominees
We received 33 nominations in response to a letter to the deans of all the 61 faculties in the university system requesting names of recently initiated teaching or research programs that can benefit from global connectedness. Of the 33, we received completed applications from 26. Of those, 21 applicants expressed the wish to receive online access to literature or to receive full texts of journal articles. We sent the invitation on November 22, 2004 noting that the service will be limited to 30 requests per applicant for the duration of Nov 22, 2004 – January 31, 2005. Later we extended the deadline to May 31, 2005.

Full Population: Noting the low demand for research resources and estimating that the total demand from all faculties would be less than 500 articles for the period of the grant, we sent an invitation to all faculty members from the university system through a letter dated December 9, 2004, addressed to the deans of all faculties. The invitation stated that the any faculty member can receive full-texts of journal articles during the project period, subject to a maximum of 10 articles per person. All they had to do was to email their first request with their name, institution, department and designation. We received a total of 428 requests from 49 faculty members (out of a possible 2374) in 9 universities (out of a possible 13).

### 3.2.2 Results

During a period of 6 months we delivered full-texts of 428 journal articles to 51 faculty members in 9 universities. The maximum number of requests received in any given month was 84. Our response time-i.e. the time between the day the email request was received at the project office and the day we deliver the full-text by email or by registered post-improved with experience. Response time in February, 2004 was 6 days after an email request was received from a faculty member. We spent an average of Aus$ 11.48 (US$ 9.08) per article. We tried several vendors including the British Library Document Delivery Service but received but we found Infotrieve based in Australia to be the most effective in terms of cost and efficiency in delivery and billing.

As we received and fulfilled the requests, we created a database rich in information about the demand for journal articles in the Sri Lankan university system. We labeled each request by discipline, rank, type of journal etc. The search protocol and the search results are summarized in Table 3-2.

Table 3-1    Number of Faculty Requesting Knowledge Resources in the Action Research Project to Estimate the Demand for knowledge resources in the Public Universities in Sri Lanka, By Selected Groups

|  | Number contacted[1] (11) | Number who participated | % Participation |
|---|---|---|---|
| Top researchers | 28 | 1 | 2% |
| Deans' nominees | 33 | 3 | 10% |
| Full Population | 2347[3] | 49 | 2% |

Notes: 1. We sent invitations to all the faculty in the university systems through the deans of the 61 faculties in the university system in Sri Lanka. In 2004/5 there were 2347 permanent faculty members in the system.

Table 3-2    Search Protocol and Search Results from the Project on the Demand for Knowledge Resources in the Sri Lankan University system, December 2003-April 2004

| Step | Source | Number | Time, Days | Comments |
|---|---|---|---|---|
| 1 | Scholar.google.com | 14 | 1.1 | Beta version of the scholar.google search engine was launched around November 2005. We found abstracts of the article for 40% of the requests though scholar.google but full-texts were avaialble only for **5%** |
| 2 | INASP | 9 | 13 | An INASP gateway is maintained by the librarian at the University of Colombo. We were able to download full-texts of **7%** of the requests through that gateway. |
| 3 | Union List (ULIST) at www.nsf.ac.lk -Government  -University | 13  4 | 8.5  26 | ULIST is a Database containing 6167 Periodicals & where they are available in Sri Lanka (1997 - present day). We located another **7%** of the requests through ULIST and received through requests to individual libraries. The libraries at government agencies responded quicker than libraries at universities. |

| 4 | Infotrieve (http://www4.infotrieve.com/default.asp) | 267 | 8.4 | Failing steps 1-3 we emailed Infotrieve giving full citation. We secured **79%** of the requests from Infotrieve. The average cost per request was US$ xx. |
|---|---|---|---|---|
| 5 | Author | 3 | 24 | If Infotrieve could not locate the article we tried to contact the author or other sources found on the Web. We located only a fraction of the requests through this method. |
| | Library in India | 1 | 26 | |
| 6 | None | 8 | | If none of the sources worked we emailed and informed the requester. We could not locate **2%** of the requests. |
| | **ALL** | **319** | **8.0** | **The average response rate during the last 3 months of the project was 7 days per request.** |

International Network for the Availability of Scientific Publications (http://www.inasp.info/pubs/index.shtml)
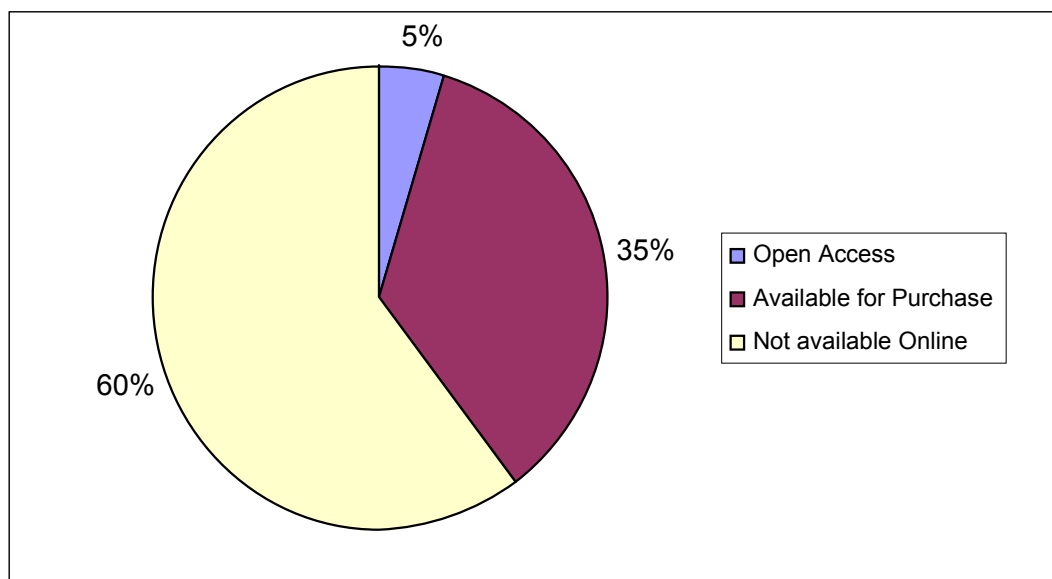


Total number of requests is 408.

Figure 3-1    Online Availability of Abstracts of The Research Literature Per Requests from the Sri Lankan University Community (June 2004-April 2005), by source
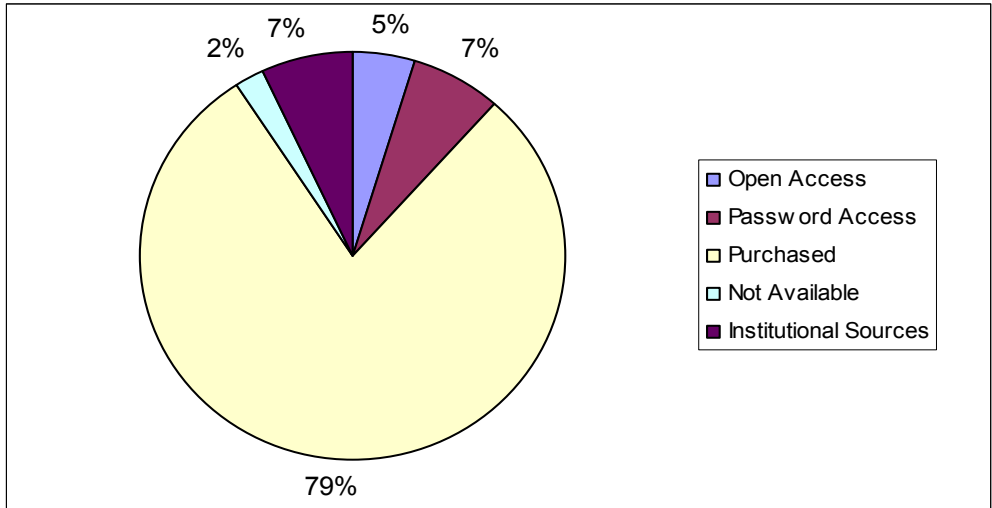
Total number of requests is 408.

Figure 3-2    Retrievability of Full-Texts of Requests for Research Literature
              Received from the Public University System in Sri Lanka. June
              2004-April 2005, by source.

### 3.2.3   Validity of the Demand Data

We were able to extend the invitation for requests for research literature in earnest only for a period of 6 months. Although a longer period of time would have given more reliability to the demand statistics, the data represents the system-wide demand reasonably. The distribution of the observed demand (by field or institution) mirrors the research productivity patterns during 1993-2002 period except for life sciences and physical sciences. If we use past productivity as an indicator of demand, the number of requests received was more than expected in life sciences and less than expected in physical sciences (Figure 3-3). Similarly the demand from Open University and University of Sri Jayewardenepura were greater than predicted from past publication patterns (Figure 3-4). The anomalies can be partly explained by the fact that some participants were given a full quota of 30 requests while all others were given only 5 requests.
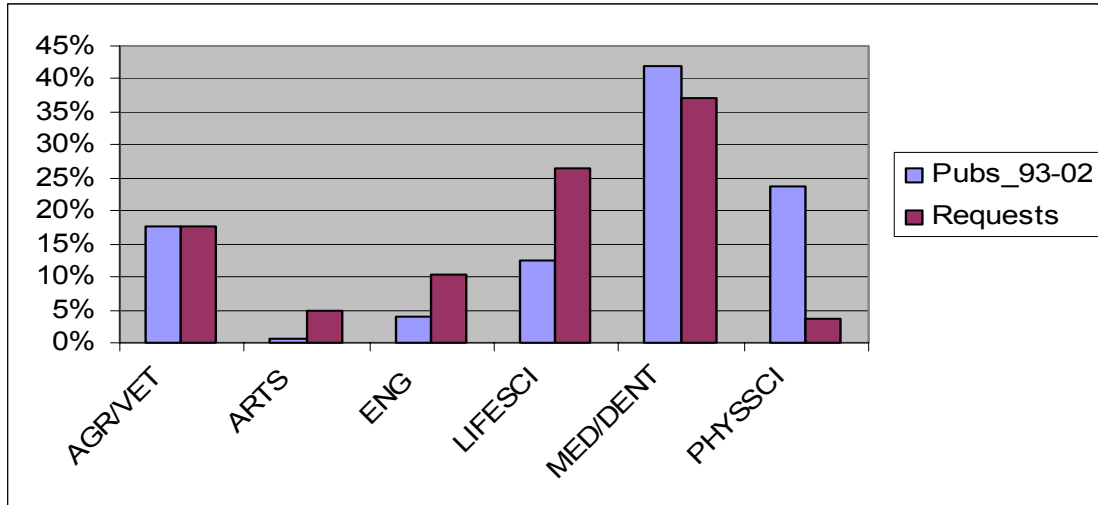
**Figure 3-3** Distribution of Publications during 1993-2002 and their Requests for Research Literature in 2003-2004, by Field in the University Community in Sri Lanka
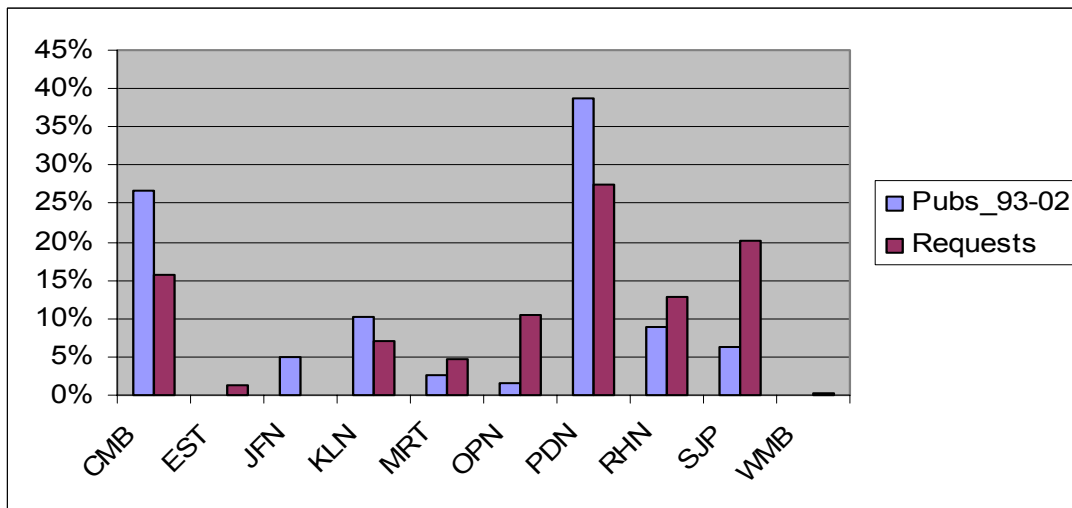


**Figure 3-4** Distribution of Publications during 1993-2002 and Requests for Research Literature in 2003-2004, by Institution in the University Community in Sri Lanka

### 3.2.4 Summary of Observations

- UNICEF sponsored INASP service meets only 7% of the need but fully meets the need for 2 out of the top 10 journals requested. All research-intensive faculty should be encouraged to use these INASP sources.

- The best option for Sri Lanka is to purchase research literature as needed given the following facts:

  o The research literature needs of the Sri Lankan researchers are diverse

  Most journals may not be referred more than 1.4 times per year on average, line 3)

  o The size of the overall request base is small

  The number of requests averaged 84 per month, Table 3-3, row 2

  o Limited and patchy collections

  Only 14% of the need is met through current collections and online resources such as INASP (Rows 2 & 3, Table 3-2. The collection is also rather patchy. The collections are incomplete due to missing volumes, e.g. in the journals JAMA and Gasteroenterology

  o Full-texts of research literature are available on demand at reasonable prices

  There are several choices for purchasing full-texts of research literature. In our study the cost averaged to Rs: 1570 per document.

- The action research project estimate for meeting the university-wide demand for research literature through purchase-as-needed scheme is Rs: 1.6 million per year. Even if we use a multiplier of 10 the total cost would be Rs: 18 million or approximately US$18,000 per year.

**Table 3-3**    Demand Statistics from the Action Research Project on Knowledge Resources in the Sri Lankan University system, June 2003-April 2004

| Total number of requests | 408 |
|---|---|
| Maximum number of requests per month | 84 |
| Number of journals/books covered by the requests | 287 |
| Average number of requests per journal | 1.4 |
| Median number of requests per journal | 1 |
| Maximum number of requests per journal | 13 |

**Table 3-4**    The top10 most requested journals Action Research Project on Knowledge Resources in the Sri Lankan University system, June 2003-April 2004

| Journal | Number of | Open | INASP | ULIST | Purchase |
|---|---|---|---|---|---|

|  | Requests | Access |  |  |  |
|---|---|---|---|---|---|
| JAMA | 13 | - | - | 50% | 50% |
| J ETHNOPHARMACOL | 7 | - | - |  | 100% |
| GASTROENTEROLOGY | 6 | 33% | - | 33% | 33% |
| GLOB CHANGE BIOL | 5 | - | 100% | - | - |
| NEW PHYTOL | 5 | - | 100% | - | - |
| AGR WATER MANAGE | 4 | - | - | - | 100% |
| AM J TROP MED HYG | 4 | - | - | - | 100% |
| ANTICANCER RES | 4 |  | - | - | 100% |
| CLIN CHIM ACTA | 4 | - | - | - | 100% |
| J AGR FOOD CHEM | 4 | - | - | - | 100% |

**Table 3-5**   Cost Estimates for Providing the University Community with Full-Texts of Research Literature

|  | Demand for full text Per year | Average cost per document, SL Rs: | Cost per year |
|---|---|---|---|
| Action research estimate | 1008 | 1570.00 | Rs:  1.6 million |
| Estimate with multipliers | 10,000 | 2000.00 | Rs: 20.0 million |

Used a multiplier of 10 for the demand and about 0.25 for the price per document

### 3.2.5   Procurement

Only two vendors were found to be capable of supplying the full range of documents required -- British Library Document Delivery Service (BLDDS) and Infotrieve.com. A third organization, ISInet.com, turned out to be in partnership with Infotrieve.  Both BLDDS and Infotrieve offered the same basic price of $12 per document but the vendor, Infotrieve, responded faster. The price would vary according to the difficulty of locating the document. Whenever the supplier quoted a price higher than the basic price we inquired and received a quotation from the alternate vendor before confirming the purchase. All correspondences occurred through email and transactions were typically completed within a matter of day or two.

The private vendor, Infortrieve would supply on credit and bill on a monthly basis for any organization that can establish that they have a functioning library. UGC was readily approved as qualifying organization.

This method of procuring materials is highly recommended.

## 3.3 Model Syllabuses

We worked with the Deans' nominee group of faculty to select one course-unit per faculty member. The syllabi for the course units were designed to include skills and attitudes that would prepare students to function in a global knowledge society with increasing confidence. The syllabi are posted on www.globalconnectedness.lk. The planning and designing of these courses would be meaningless if the faculty were not assured of the teaching and learning resources needed. We obtained the wish-list of teaching/learning resources for each participating faculty member and selected the items on the basis of the priority order that the faculty indicated.

## 3.4 Teaching/Learning Resources

The faculty requests per course unit ranged from Rs; 20,000 to Rs; 110,000 per set of required material. Some of the technical books on nuclear medicine and genetics were expensive. Based on the sample of 11 faculty members that we worked with we estimate the cost of meeting the demand for teaching/learning resources for every course unit in the university system to be about Rs: 183 million per year (calculated on the basis of an average of 300 course units per faculty in 61 faculties with one course unit receiving 3 sets of T/L material at Rs: 20,000 per set, every 6 years or (300*61*3*20000)/6).
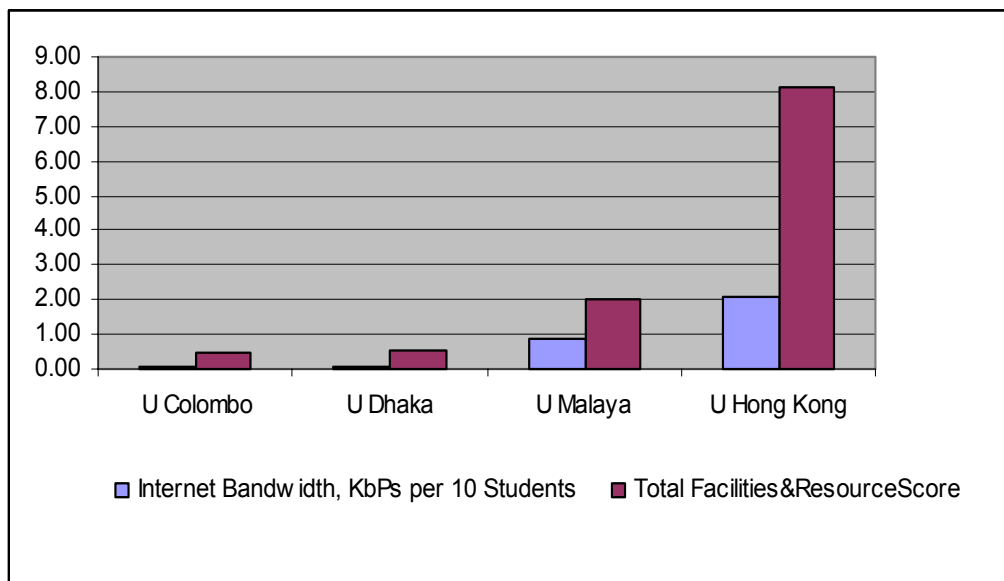


**Figure 3-5**    Learning/ Teaching Resource, Some International Comparisons

### 3.4.1   Procurement of Teaching/Learning Materials

In an ideal world, one or more bookstores near a university would stock the textbooks necessary for each course and each student would buy a copy of the required textbook. The instructor teaching the course would receive a complementary copy from the publisher.  In developed countries, there is sufficient supply to meet the demand. In a small country such as Sri Lanka there isn't a sufficient market for textbooks. Students can't afford to buy text books. Students may not have access to text books unless the instructors take the effort to procure sufficient copies for the library. Our study shows that even when teachers are committed and funds are available, procuring text books can be a problem for small countries.

We received requests from the 11 faculty members in our focus group for 117 items that ranged in subject from Applied Immunology, Current Affairs, English, Scientific Thinking, Food Science, Foundations of Modern Society, Gender and Development, Health Physics, Infectious Diseases, Medical Genetics, to Vector Control of Diseases. The list included an eclectic mixture of textbooks, supplementary readings, CD, DVDs and videos.

As is the practice, we solicited quotations from major book sellers in Colombo. The book sellers were able to give quotes for only 40% of the items. A search on www.amazon.com, a reputed online supplier, yielded an additional 46% of the items. After receiving approval for the selected set of faculty members and their requests we submitted the requests to a tender board for final approval. During the 6-month window that lay between the approval by the tender board and the end of the month the vendor was able to deliver only 44% of the 57 items we ordered.
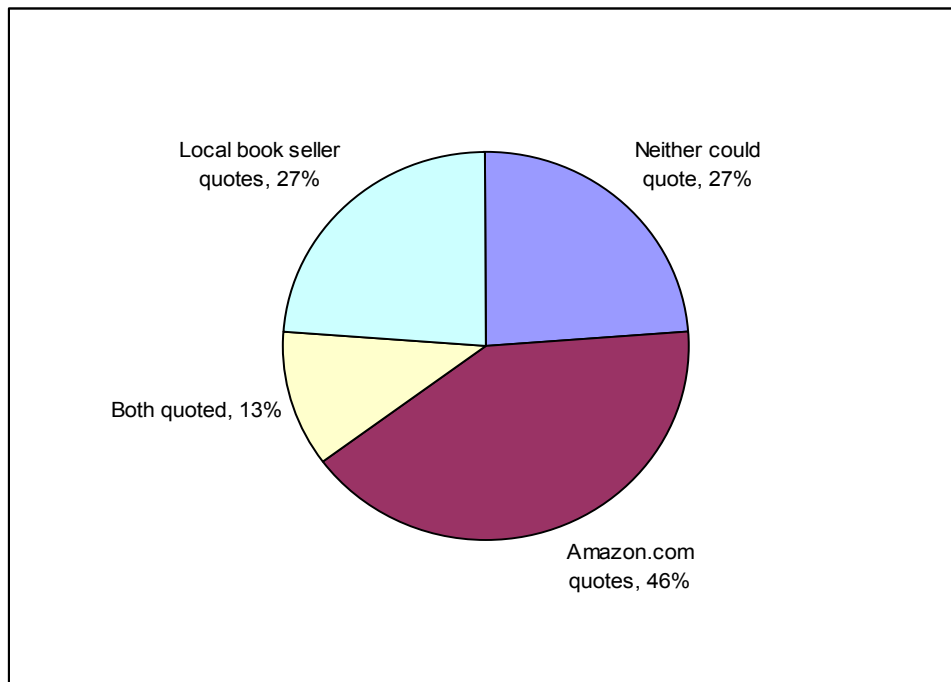


Number of faculty or course units is 11; Total number of requested items is 117.

**Figure 3-6**   Availability of Teaching/Learning Materials Requested by a Focus Group Faculty Members from the Public university System in Sri Lanka

Electronic commerce has the advantage that the decision to purchase, the actual purchase and the confirmation of the purchase is instantaneous. Government agencies are not able to take advantage of electronic commerce because procurement processes are designed with great care to avoid thefts and other misdemeanors. As we saw from our action project, when procuring teaching/learning materials, the inability to make use of electronic commerce has the unfortunate consequence that teachers are not able to procure their teaching needs even if the monies are available.

Booksellers in small countries do not have the reach of international operations such as amazon.com from whom anybody with access to the internet can purchase books. The challenge for the university system is in small countries is to use these resources effectively.

If the universities want to keep their courses up-to-date with the latest teaching/learning materials, the librarians and course instructors need to follow the practices of, for example, the e-procurement initiative of the British Office of Government Commerce (http://www.ogc.gov.uk/index.asp?id=2361).


## 3.5   Internet

In order that the globally-connected-syllabi that we developed with participating faculty could be delivered effectively, we needed to ensure that the instructors and the students had access to the internet that allowed them to browse, download and upload successfully. We heard from faculty that it was not possible to use the existing network during working hours probably because of congestion. We allocated Rs: 1 million to provide internet access to 6 faculties in 4 universities with the condition that the faculty members and students in the course units of interest to the project would be given priority in the use of the internet facilities. Availability of sufficient number of computer terminals was also an issue.

Bandwidth per student is one of 'academic resource' items collected in the Asia Week's survey of universities. From among the benchmark institutions of Dhaka, Malaya and Hong Kong, University of Hong Kong reported providing bandwidth up to 2.0 kbps (kilo bytes per second) per student in 2000. The survey recorded 0.01 Kbps for other institutions.  Although there are many indices that deal with e-readiness of countries there aren't any indices on the e-readiness of universities or schools. E e-readiness is defined as the ability of a country to connect to the Internet and interact with a networked world (GITR, 2002). For the purposes of this study we use 2.0 kbps per students as the benchmark for available bandwidth and 10 hours of computer time as a benchmark for computer access, noting that there is a great need to assess the current e-readiness of Asian universities.

# 4    Assessing and Rewarding Faculty

If universities are to achieve quality through global connectedness, faculty promotion processes should recognize and reward global connectedness in teaching and research. What is the current status of faculty promotion processes in Sri Lankan universities and how do they compare with global trends?

## 4.1    Issues

As part of the IDRC funded project we did a comprehensive literature survey, prepared a concept paper on quality in the academia and convened a group of opinion leaders in the university community to seek their views on those concepts and more. Three major issues in assessing and rewarding faculty were evident from our explorations:

1. Recognition for teaching
2. Quality of scholarly outputs
3. Effectiveness of peer-review

### 4.1.1    Recognition for Teaching

Faculty are assessed on the basis of their teaching, research and services. The emphasis on each varies with the type of institution. USA represents perhaps the best differentiated higher education system in the world.

**USA**
The Carnegie Foundation for Higher Education identifies four major types of degree-granting institutions in the US -- research/doctoral, masters, baccalaureate and specialized.  The type is determined by output (Ohio University, the example of a doctoral/research university given here, is in a class of its own. Although that university is by no means a highly ranked one in terms of research productivity among the other doctoral/research universities in the US, faculty in that university published more, graduated more PhDs and spent more money on research than other three types ((Table 4-1).  In fact, among the four institutions considered here, doctoral degrees were produced only by the Ohio University.

Masters institutions award 40 or more masters degrees a year. Baccalaureate institutions are committed to undergraduate education. Specialized institutions too are mostly baccalaureate institutions.

**Table 4-1**      Outputs of Different Types of Institutions, State of Ohio, USA

| Type of Institutions | Number Of Faculty | Percent Faculty with PhDs | Publications per faculty | Doctoral Degrees per faculty | %Research Expenditure |
|---|---|---|---|---|---|
| Doctoral (Ohio University) | 1158 | 99% | 1.5 | 1.3 | 17% |

| | | | | | |
|---|---|---|---|---|---|
| Masters<br>(John Carroll U) | 397 | 89% | 0.1 | 0 | 3% |
| Baccalaureate-Liberal Arts<br>(Denison U) | 190 | 95% | 0.6 | 0 | 1% |
| Baccalaureate-Professional<br>(Ohio Northern U) | 291 | 76% | 0.05 | 0 | 0% |

Notes:
According to the US Department of Education data for 2004 (http://nces.ed.gov/programs/digest/d04/tables/dt04_214.asp) there were 2411 institutions in all with doctoral institutions accounting for 11% of the total, but enrolling close to half of all undergraduates; The universities were selected from the those ranked in the top 5 in each category for the Midwestern region of the USA in the Best Colleges Ranking Report of US News & World Report of 2004; Percentage research expenditure is the percent of the recurrent budget, averaged for the type of institution.
Source:
Number Faculty and Percent faculty with PhDs: Barron's Profile of American colleges-2004; Number of ISI publications in the most recent five year, 2001-2003 period, extrapolated to five years.; Number doctoral Degrees: Ohio University Web site; Research Expenditure: U.S. Department of Education, National Center for Education Statistics, 2000-01 Integrated Postsecondary Education Data System (IPEDS)


What is noteworthy about the system in USA is that the faculty promotion criteria reflect the mission of each institution with doctoral/research institutions paying more attention to research productivity of faculty but masters and baccalaureate institutions paying more attention to the teaching effectiveness. The faculty promotion criteria at Denison University, a highly ranked baccalaureate institution says,

> "Principal responsibility of faculty is effective teaching informed by the best scholarship [Denison University]."

In the baccalaureate institutions, research and scholarship are valued more as inputs to effective teaching. The Denison statements as well as the following reiterate that thinking.

> "Excellence in teaching [and] the scholarship it entails." [John Carroll University].

The system in the USA is not without its problems. Early in 1990s it was increasingly felt by students, parents and legislators in USA that the undergraduates were neglected in research universities by their teachers who were more interested in advancing in their professions through research publications and citations.

A special report authored by Ernest L. Boyer and titled "Scholarship Reconsidered: Priorities of the Professoriate" was a reaction to the situation in the research universities (Boyer, 1990). In his report, Boyer argued:

> We believe the time has come beyond the tired old teaching vs. research debate and give the familiar and honorable term 'scholarship' a more broader, more capacious meaning, one that brings legitimacy to the full scope of academic work. Surely, scholarship means engaging in original research. But the work of the scholar also means stepping back from one's investigation, looking for connections, building bridges between theory and

practice, and communicating one's knowledge effectively to students. Specifically, we conclude that the work of the professoriate might be thought of as having four separate, yet overlapping functions these are: the scholarship of **discovery**; the scholarship of **integration**; the scholarship of **application** and the scholarship of **teaching**.

Boyer's idea was to redefine scholarship and bring value to teaching. Boyer's ideas were widely acclaimed and quoted repeatedly, but the concept of scholarship of teaching has failed to take hold.

There have been many attempts to identify means of assessing teaching portfolios and other outputs of teaching as scholarly work. A summary of the literature was presented to a focus group of opinion leaders in the university community (Appendix C). There was an enthusiastic response to Boyer's notions and the theories of assessing scholarship too were received well by the participants. The group endorsed the UNISCOPE matrix (**Error! Reference source not found.**) as a particularly useful tool. They also felt that Diamond and Adams's definition of a scholarly work[16] should be applied to assess the scholarly nature of a product, be it a teaching portfolio or a research paper.

There is a gap between their and practice. Teaching Assessments are used in only one out of the 4 regional ranking surveys that we evaluated in Section 1. Baccalaureate institutions in USA carry out comprehensive peer-evaluation of teaching but there are no mechanisms to standardize and index these achievements like one would with a research output. In our own work we did not include teaching portfolios and the like in our quality measures of faculty quality but instead we developed academic quality that we developed in Section 2. A look at developments in some public research universities show that these institutions have responded to concerns that Boyer articulated but not in the way he perceived. They have done so as a response to the market place with an eye on boosting their enrollments.

> [F]or high-quality research universities, the goal is always to have the highest possible student population and the highest-quality research performance by the faculty. The need for balance reflects not a philosophical position on the nature of higher education but rather the structure of funding that supports high-quality universities. The critical limit on the accumulation of high-quality human capital is revenue, and all research universities seek funding from every possible source. Revenue is the holy grail of all research universities. Students are a source of revenue, whether deferred until graduates provide donations (as in the case of private and increasingly public universities) or current from state subsidies (in the case of public and, to a much lesser extent, some private institutions). Students not only pay costs directly but also mobilize the support of many constituencies who want to see high quality students in the institutions they support (through legislative action, federal action, private gifts, or corporate donations).[ Lombardi et al., p.13]

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[16] Diamond and Adam (2004: p. 37) identified eight criteria for assessing the quality and relevance of a work of scholarship. The criteria included both characteristics and the process of scholarly work. We selected the set of characteristic criteria and they are as follows: (a) Requires a high level of discipline-related expertise; (b) The work and its results are appropriately documented and disseminated.; (c) Has significance beyond the individual context; (d) Breaks new ground or is innovative; (e) Is reviewed and judged to be meritorious and significant by a panel of peers.

**Sri Lanka**
Faculty promotion criteria used in the Sri Lankan university system pay little attention to the quality of teaching.  For example, current schemes of recruitment to associate professor in Sri Lanka allocates only 31% of the minimum total of 65 required points and these points do not require a demonstration of teaching effectiveness. Similarly promotions to professor positions require only 22% of the total marks for teaching. Promotions to lecturer and senior lecturer positions do not require any teaching related performance at all. Recently proposed revisions to promotions criteria give recognition to post-graduate training but give only 5 points for student assessment of undergraduate teaching. There are no other provisions for a rigorous peer-review of teaching or any other quality assessment of teaching. [17]

These criteria are driven by an enthusiasm to drive up research and post-graduate accomplishment but, in the process, undergraduate teaching has received the short shrift. By any measure Sri Lankan universities are baccalaureate institutions. Doctoral output for universities of Colombo averaged only 5 per year during the 1991-2000 period (Table 4-2). The system as a whole graduated only an average of 17 PhDs per year. In reality university systems in developing countries cannot be cast into the typologies that apply in the US. It is better to characterize these universities as baccalaureate institutions with pockets of post-graduate strengths.

**Mexico**
The situation is not peculiar to Sri Lanka. As Altbach noted, faculty evaluations in Mexico too ignore quality of teaching:

> Productivity was usually measured by the number of articles or books published, with a premium placed on publishing in international journals: a locally published article was worth much less than one published abroad in English. Innovative teaching methods were not taken into account, nor was "outreach" such as publications aimed at a mass audience or public service. The omission of teaching from performance reviews is due in part to the difficulty of measuring effective teaching. Satisfactory tools for evaluating teaching do not exist anywhere, and developing useful criteria might be especially difficult in Mexico's bureaucratic environment.

**Staff Development Centers**
The situation in Sri Lanka might be changing. The Staff Development Centers that were established in 19xx are beginning to make a case for recognition for teaching in Sri Lankan universities. The comments made by Suki Ekarante, the director of the Staff Development Center (SDC) in the University of Colombo, speaking on the topic of Quality Assurance of Academic Programs, show that Sri Lankan universities may be on the right track:

> Quality in general is 'fitness for purpose' which in the case of a university is teaching, research and community service. Together these comprise scholarly activities of university faculty. The SDC's have a holistic role in meeting the purpose of scholarship in our universities by applying development tools that address the three activities. The development tool for research activities is training in research. The post-graduate requirement for confirmation and the availability of sabbatical leave are existing tools. The tools for developing scholarly, research-

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[17] Revisions to circular 723 are currently underway.

centered teaching and service need to be further enhanced through research into teaching practice and the service responsibility of faculty. The reward system should also recognize all three scholarly activities. Currently, there are practically no rewards for teaching and service. Scholarship that takes into account all aspects of scholarship should be evaluated and universally accepted [Suki Ekaratne, Appendix C, p. 67].

**Table 4-2    Number of PhD Degrees Awarded during 1991-2000 in Sri Lanka, by University**

| University of | Agr/Vet | Arts | Commerce | Engng | Med/ Dental | Science | Total | Annual Average |
|---|---|---|---|---|---|---|---|---|
| Colombo | - | 2+ | - | - | 39 | 10+ | 51 | 5 |
| Jaffna | 4+ | 1+ | 0 | 0 | 5 | 0 | 10 | 1 |
| Kelaniya | - | 5 | 0 | - | 1 | 5 | 11 | 1 |
| Moratuwa | - | - | - | 2 | - | - | 2 | 0 |
| Peradeniya | 12 | 6 | - | 0 | 5 | 35 | 58 | 6 |
| Ruhuna | - | - | - | - | - | - | 11 | 1 |
| Sri Jayawardenepura | | 11 | 6 | | | 6 | 23 | 3 |
| **All Institutions** | **16** | **25** | **6** | **2** | **50** | **56** | **166** | **17** |

Note: did not count a total of 368 MD degree awarded by the Post-graduate Institute of Medicine
Source: Upali Samrajeewa, Research and Research Training in Sri Lanka, 1991-2000, University Grants Commission, Colombo, Sri Lanka, 2003, Table 4.3

**Table 4-3** Distribution of Points Required for Promotion, Sri Lankan University System, 2005

| | Associate Professor | Professor |
|---|---|---|
| Contribution to teaching & Academic Development | 31% | 22% |
| Research & Creative Work | 38% | 50% |
| Dissemination of Knowledge & Contribution to University & National Development | 15% | 17% |
| Any of the above three | 15% | 11% |

Notes: Minimum points required for promotions to associate professor and professor are 65 and 90, respectively.
Source: Circular 723, University Grants Commission, http://www.ugc.ac.lk/virtual_libary.html

### 4.1.2   Quality of research outputs

The second issue is the quality of research. Although research is given a higher priority in Sri Lanka's faculty promotion criteria, they carry no stipulation that a person applying for associate professor or professor position should demonstrate some level of recognition from peers outside of the country. This is very disturbing. Those who hold higher ranks in the university are those who have the responsibility of credentialing others in the scholarly community in Sri Lanka. If we do not expect a certain level global connectedness from those aspiring for professor positions, the implications for overall quality in the academia and the intelligentsia of the country is at stake.

Global connectedness does not mean connectedness to knowledge networks in USA and Europe and the like. In this study we used both ISI citation indexed database as well as self-reported data on international publications. We would estimate the percent of Indian or Asian journals cited by H&SS faculty as about 75%. Unfortunately an Asian or regional indexing system is yet to be developed based on citations. As Altbach noted in his observations about academics in Hong Kong:

> Hong Kong is not alone in its slavish obeisance to Western ideas and institutions. Throughout the region, people look outside Asia, and especially to the academic power centers in the United States and Britain for respectability. ……..There is an urgent need for change. For this to occur, it is not necessary to reject international standards of scholarship or to turn inward. The fact is that Asian academic systems have grown in quality and sophistication. …. The time has come for Hong Kong, and Asia, to declare intellectual independence from the West. This does not mean jettisoning the ideals of quality scholarship and objective evaluation, but rather applying those standards locally and recognizing and encouraging excellence at home [Altbach, 1997].

A related concern was raised by Narada Warnasuriya, Dean of the Faculty of Medicine and acting vice chancellor at the University of Sri Jayewardenepura who felt that universities should give recognition to faculty who publish in Sinhala. One of the major problems of publications in Sinhala is the lack of a credible peer-review for some of these publications. In our survey of publications by H&SS faculty some reported publications through local presses such as Godage Publishers, although that publisher has no scholarly review process. These issues need to be discussed further, but, as a short term measure, publications in Sinhala should be accepted as credible works of scholarship only if the author can demonstrate some evidence of peer review for the work in question or, as a proxy, evidence of acceptance of any publication by the author dealing with the subject matter.


### 4.1.3  Effectiveness of the Peer Review Processes

Changing review criteria is the easy part. Policy makers may be persuaded to give additional points to teaching portfolios or other outputs that demonstrate teaching effectiveness. The university community may also be persuaded to make international publications mandatory for promotions to associate professor or professor ranks. The difficulty lies in implementation.

Any review process in the university requires peer-review. Peer-review requires a system of governance that is based on integrity and professionalism. Universities in developing countries are not islands. Their governance structures and practices reflect norms of the societies in which they function. Sri Lanka was ranked either in the lower end of the 50-75% percentile or in 0-25% in terms of the governance and corruption indicator developed by the World Bank (Kaufmann et al., 2005) Ratnajeevan Hoole, a participating opinion leader at 2005 workshop, speaking on the topic of assessing the performance of academic staff, current status and new directions remarked:

> The Sri Lankan situation is very dismal with no reviews except for professorships, routine promotions/increments. Obstruction and undue influence by unions and the like is the order of the day. Authorities maintain an embarrassed silence or in

some cases actually support this kind of situation. No change is possible in Sri Lanka without a major re-organization.

Although many academics would agree with Hoole in private, not many have made the assertions as strongly. Observations by Phillip Altbach, the head of Center for International Higher Education at the Boston College, on faculty promotion in Mexico suggests that Hoole may not too far off the mark about Sri Lanka.

> The system [of faculty promotions in Mexico] that has developed over the last decade has gotten quite complex and, many argue, nonfunctional in parts. Some academics refuse to participate in the numerous evaluation committees and boards, claiming that the reviews use up time and money that, they say, could be better spent in support of research. The criteria for rewarding professors are criticized as being too narrow. Another charge is that politics and favoritism toward members of particular factions has become part of the evaluation process in some fields and institutions. (Altbach, 2003)

In a case study of Kyrgyzstan's universities by Madeleine Reeves ("Academic Integrity and Its Limits in Kyrgyzstan," *IHE*, fall 2004) draws attention to the need to look beyond the university if the causes of corruption, rather than merely its symptoms, are to be confronted. That approach is beyond the scope of this study. Are there more practical solutions besides systemic changes at the national level?

## 4.2    Some Possible Solutions

How research universities in the USA managed to change their organizational culture in the 1990s may offer some lessons for those looking for changes in organizational culture. Since Ernest Boyer first spoke of the neglect of undergraduate education in research universities, research universities have taken note and changed their behavior. For example, in early 1990 the Ohio State University was known as a monolithic institution indifferent to undergraduate concerns. Fiscal realities have made the university realign its priorities through a strategic analysis process that considered the university's performance in its totality, putting quality of undergraduate experience on an equal footing with faculty research productivity. Later the format was formalized as an academic quality score card where a concise one-page summary of the university's performance allowed one to view the university's performance in faculty quality, institutional reputation, teaching/learning environment, student body, diversity of the university community, and technology transfer.  At the department level, faculty continue to be assessed largely by their research productivity, but a committed central administration can create the conditions for making departments pay more attention to their undergraduate education as well. At the end of 2004, the university proudly claimed success on two major fronts:

> The Ohio State University is indeed on the move. The National Science Foundation ranks Ohio State among the nation's top 10 public research universities on the basis of funded research, and U.S. News & World Report again has named Ohio State the state's best public university and one of the nation's top-ranked public institutions [for undergraduate education].
> [Academic Plan, Ohio State University, 2005]

What we advocate for a higher education system in any developing country is to make every effort to implement some form of systematic quality assessment. These assessments should be at individual faculty member level to institutional or system level. Typically quality assurance agencies and ranking surveys play complementary roles, with the quality assurance work by a government agency providing the base on which the ranking surveys can build. In developing countries, if government agencies are too slow to respond, other non-profit groups or for-profit groups such as newspapers or a reputable magazine can take the lead in informing the public. Meaningful changes are possible if all concerned receive sufficient information.

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**Appendix A   H&SS Survey**
The 2004/2005 Survey of SS&H Faculty in the Public University System in Sri Lanka


During the implementation of the project we were asked by the University Grants Commission to develop a faculty quality score for H&SS faculty based on the results of a survey of humanities and social science (H&SS) faculties in the Sri Lankan university system.  Under the guidance of Prof. Senaka Banadaranayake, the chairman of the Standing Committee on Humanities and Social Sciences at the UGC, we developed a faculty quality score card that can be used by each and every academic program to monitor their progress; and a faculty quality ranking score that can be used by students, parents, policymakers and other stakeholders of higher education to compare between programs.

The unit of data collection in the H&SS survey is an individual academic. The unit of analysis is a university or an academic discipline. We collected data from all the Social Science and Humanities (SSH) faculty members in the public university system in Sri Lanka and aggregated the data at the discipline or the institution level.

**Response Rate**
The First set of survey forms were sent in September 2004. By January 2005 we had received only about 20% of the expected returns. To increase the response rate, we decided to send a short version of the questionnaire (Appended Figure 2) that requested from faculty only their contact information and elements that are necessary to develop the academic quality score—i.e. post graduate qualifications, rank, and publications in the most recent five years. We also gave the faculty members the option of sending their CVs in place of a completed survey form. We received a final response rate of 68%. The low response of 30% from the University of Peradeniya dampened the overall response rate considerably (Appended Table 2).

We were able to get the rank of all the academics and their post-graduate qualifications using university handbooks or with the assistance of helpful administrators in some instances. The low survey-return rate really affected only the publication part of the score.

**Appended Table 1          Response Rates to the H&SS Survey 2004/5, by Type of question**

| Post-graduate qualifications data* | 100% |
|---|---|
| Rank data | 100% |
| Publications data | 62% |

*In cases where the awarding institution was not clear we assumed it to be a local institution.

**Appended Table 2          Response Rates to the H&SS Survey 2004/5, by Type of ques**ata

| University | Faculty | # Total Staff | # Respondents | Percent Responded |
|---|---|---|---|---|
| Eastern University | Arts & Culture | 29 | 20 | 69% |
| Open University | Humanities & Social Sciences | 46 | 35 | 76% |
| Rajarata University | Humanities & Social Sciences | 14 | 14 | 100% |
| Sabaragamuwa University | Social Sciences & Languages | 44 | 35 | 80% |

| South Eastern University | Arts & Culture | 30 | 13 | 43% |
|---|---|---|---|---|
| University of Colombo | Arts | 121 | 100 | 83% |
| University of Colombo | Education | 27 | 23 | 85% |
| University of Colombo | Sri Palee Campus | 9 | 9 | 100% |
| University of Jaffna | Arts | 87 | 56 | 64% |
| University of Kelaniya | Humanities | 78 | 47 | 60% |
| University of Kelaniya | Social Sciences | 76 | 34 | 45% |
| University of Peradeniya | Arts | 196 | 59 | 30% |
| University of Ruhuna | Humanities & Social Sciences | 77 | 63 | 82% |
| ALL | | **937** | **585** | **62%** |

We evaluated the 11 universities and 15 disciplinary fields in terms the post-graduate qualifications, rank and publications of the respective faculty bodies. In order to reduce the overall number of disciplines used in the analysis we included some of smaller departments under broader categories: E.g.

- ELTU units and IT units are not a part of this analysis.
- Department of Demographics is included under Economics.
- Language studies except Sinhala, English and Tamil and Civilization Studies are listed under Language & Cultural Studies.
- Management studies, Legal Studies, and Library Sciences are included under General Social Sciences.

The total number of permanent faculty members in H&SS in the public university system of Sri Lanka in 2004/5 was 937.

**Qualifications**

We looked in detail at the post-graduate qualifications of the 973 faculty (**Error! Reference source not found.**). Within Sri Lanka there are considerable differences in the post-graduate qualifications of H&SS faculty in different institutions. University of Colombo has the highest percentage of faculty with PhDs at 37% and the Sabaragamuwa University has the lowest with 6%. University of Ruhuna has a surprisingly lower percentage (18%) than the Rajarata University (29%), a newer institution.

**Appended Table 3**    **Post-Graduate Qualifications of H&SS Faculty, 2004/2005**

| | Total Number | % with PhDs | % with Masters | % with Neither |
|---|---|---|---|---|
| University of Colombo | 157 | 37% | 41% | 22% |
| University of Jaffna | 87 | 36% | 33% | 31% |
| University of Peradeniya | 196 | 36% | 50% | 14% |
| University of Kelaniya | 154 | 35% | 49% | 16% |
| Rajarata University | 14 | 29% | 57% | 14% |
| University of Sri Jayewardenepura | 103 | 28% | 49% | 23% |
| Open University | 46 | 22% | 54% | 24% |
| Eastern University | 29 | 21% | 52% | 28% |
| University of Ruhuna | 77 | 18% | 53% | 29% |
| South Eastern University | 30 | 10% | 53% | 37% |

| Sabaragamuwa University | 44 | 5% | 32% | 64% |
|---|---|---|---|---|
| **ALL** | **937** | **30%** | **47%** | **23%** |

## Masters as the highest qualification

Forty seven percent of H&SS faculty in Sri Lanka have a Masters as their highest post-graduate qualification with 19% received from own university, 14% from another local university and 13% from foreign universities.

**Appended Figure 1**   Distribution of the Post-graduate Qualifications of H&SS Faculty, 2004/2005



| | PhD_Developed | PhD_Other | PhD_Local | PhD_OwnUniversity | Masters_DevelopedCountry | Masters_OtherForeign | Masters_Local | Masters_OwnUniversity | NoPostGraduate |
|---|---|---|---|---|---|---|---|---|---|
| ☐ Series1 | 14% | 8% | 3% | 5% | 8% | 5% | 14% | 19% | 24% |
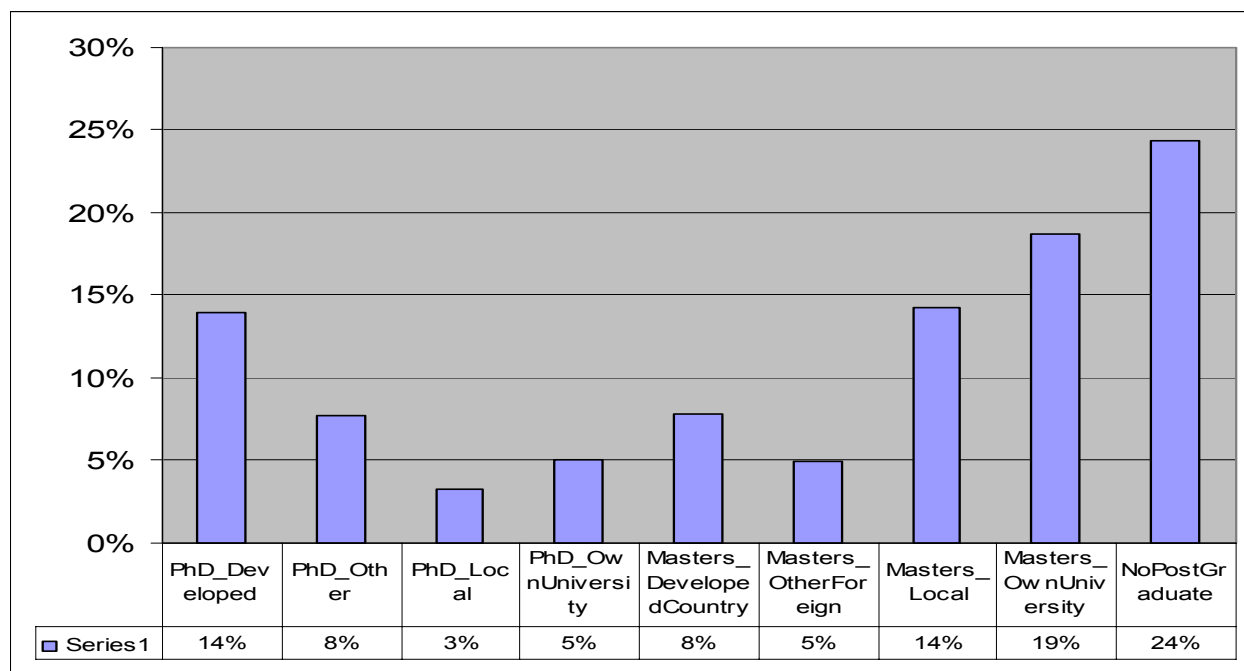
Note: PhD__developed or Masters_developed included a PhD or masters awarded from a university in USA, Europe, UK,Canada, Australia, New Zealand, Japan, Hong Kong and Singapore. Other included other foreign countries.

## Rank

Only 16% of faculty in the university system held the rank of associate professor or professor. The situation was similar across the system with university of Colombo and Peradeniya too having no more than 20% of rankled faculty.

Appended Table 4      Distribution of H&SS Faculty by Rank for all Institutions
in Sri Lanka

|  | Total Number | % Professors | % Associate Professors | % Others |
|---|---|---|---|---|
| University of Colombo | 157 | 11% | 11% | 78% |
| University of Peradeniya | 196 | 15% | 6% | 80% |
| University of Sri Jayewardenepura | 103 | 11% | 10% | 80% |
| University of Kelaniya | 154 | 8% | 6% | 86% |
| University of Jaffna | 87 | 7% | 9% | 84% |
| Sabaragamuwa University | 44 | 5% | 0% | 95% |
| Eastern University | 29 | 0% | 7% | 93% |
| Open University | 46 | 7% | 0% | 93% |
| University of Ruhuna | 77 | 6% | 4% | 90% |
| Rajarata University | 14 | 0% | 0% | 100% |
| South Eastern University | 30 | 0% | 0% | 100% |
| **ALL** | **937** | **9%** | **7%** | **84%** |

Source: H&SS Survey, 2004/2005

## Publications

In the case of publications, we simply counted what respondents reported without any consideration of the quality of the publication, or the accuracy of the assignment as international or national, or whether the publications are indeed peer-reviewed. We did not count a publication if the year was not given and we counted only publications that were dated 1999 onwards. Since the survey was initiated in mid 2004 and continued till early 2005 we used the period 1999-2004 as a five-year period to be fair to those who submitted their surveys early. We counted only the publications dated 1999 or after. (We felt that the marks assigned to the rank of a staff member sufficiently captured the publication record prior to that.). We did not count a publication if the year was not given.

Self-reported data on international publications by faculty members in the humanities and social science (H&SS) faculties in Sri Lanka are given in **Error! Reference source not found.**. University of Colombo , University of Jaffna and Rajarata university lead. University of Peradeniya ranked very low perhaps because the response rate was very poor from the H&SS faculty in that university.

We also got the publications data from the Institute of Scientific Information's (ISI) citation indexed database for 2001-2003 and extrapolated the data for five years (

Appendix B and last row, **Error! Reference source not found.**). As expected, the rate of publication in 'any international venue' as captured through the H&SS survey is higher than the publication rate in 'ISI citation indexed journals,' underscoring the importance of including non-ISI sources  and having methods of validating those sources, so that faculty in Sri Lanka or other developing countries can be given due credit for all their scholarly activities.

**Appended Table 5**   The Total number of faculty, the percent of faculty with international publications (intl. pubs), and the number of intl. pubs per faculty member in H&SS the Sri Lankan public university system, by institutions, 2000-2004

| University | Number | Percent with Intl Pubs | Num Intl Pubs Per Faculty |
|---|---|---|---|
| University of Colombo | 157 | 19.1% | 0.43 |
| University of Jaffna | 87 | 18.4% | 0.44 |
| Rajarata University | 14 | 14.3% | 0.34 |
| Open University | 46 | 13.0% | 0.20 |
| University of Sri Jayewardenepura | 103 | 11.7% | 0.17 |
| University of Ruhuna | 77 | 10.4% | 0.27 |
| University of Peradeniya | 196 | 8.7% | 0.20 |
| University of Kelaniya | 154 | 7.1% | 0.14 |
| Eastern University | 29 | 6.9% | 0.07 |
| Sabaragamuwa University | 44 | 2.3% | 0.00 |
| South Eastern University | 30 | 0.0% | 0.05 |
| **ALL** | **937** | **11%** | **0.23** |

| | | | |
|---|---|---|---|
| The Total number of faculty, the percent of faculty with ISI pubs and the number of ISI pubs per faculty member in H&SS the Sri Lankan public university system, all institutions, 2000-2004 (Appended Table 10 and Appended Table 11) | 1090 | 2% | 0.05 |

Source: H&SS Survey, 2005; ISI Combined Citation Index for 2000-2004
Notes: the number of faculty used in the ISI calculation (1090) is number of permanent faculty reported in the Commonwealth Universities Year book. Through the 2004/2005 H&SS survey we determined the number to be 940.

**Faculty quality reports**

**Performance targets**

Performance targets are based on the attributes of a benchmark institution. The survey data together with institutional records gave us the institutional origins of the post-graduate qualifications for each and every faculty member. We categorized the institutional origins as US, UK/Canada/Australia/New Zealand, Europe, Japan, Other foreign, Local, and Same University—same university being the university in which a faculty member is currently employed.

We set the benchmark for faculty with PhDs from local universities at 10% and PhDs from foreign universities at 40% after consideration of the performance of a selected set of benchmark institutions (Section 2). We distributed the 40% benchmark across the five types of foreign institutions roughly in accordance with the current distribution of PhDs from these countries.

(US, 5%; UK/Canada/Australia/New Zealand, 10%; Europe, 5%; Japan, 5; and other foreign, 15%). We applied the same distribution of percentages for masters qualifications in a benchmark institution. A snap shot of a hypothetical benchmark institution is given in **Error! Reference source not found.**. We assigned weights for each category giving more value to post-graduate qualifications from developed countries **Error! Reference source not found.**[18] As information about individual institutions becomes more available we can give weights more accurately based on the research reputation of each institution.

**Appended Table 6**   Attributes of a Hypothetical Benchmark Institution in Developing Asia and weights assigned to each attribute

| | Quality Category | Percent of Faculty in each Category, | Weight per category |
|---|---|---|---|
| Post-graduate Qualifications | PhD, US | 5 | 10 |
| | PhD, UK/Canada/Aus/NZ | 10 | 9 |
| | PhD, Europe(Western & Eastern) | 5 | 8 |
| | PhD, Japan | 5 | 7 |
| | PhD, Other Foreign | 15 | 6 |
| | PhD, Local University | 5 | 5 |
| | PhD, Same University | 0 | 4 |
| | Masters, US | 5 | 4 |
| | Masters, UK/Canada/Aus/NZ | 10 | 4 |
| | Masters, Europe(Western & Eastern) | 5 | 4 |
| | Masters, Japan | 5 | 4 |
| | Masters, Other Foreign | 15 | 3 |
| | Masters, Local University | 5 | 2 |
| | Masters Same University | 0 | 0 |
| | No PhD or Masters[1] | 0 | 0 |
| Rank | Professors | 20 | 10 |
| | Associate Professors | 30 | 5 |
| | Lecturer | 50 | 0 |
| | Other | 0 | 0 |
| Publications [2] | International Publications* | 50 | 10 |
| | Local Publications* | - | - |
| | Books* | - | - |
| | Book Chapters* | - | - |
| | Edited Books* | - | - |

Notes:

1. About 30 faculty members reported post-graduate diplomas as their highest post-graduate qualification.

2. Published during the most recent five years (i.e. 2000-2004)

**Scorecard**

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[18] Anecdotally we know of many local PhD degree holders who have come to be some of the more productive researchers in the country. We expect to capture the quality of those individuals through points given to rank and publications.

A faculty quality score card gives an institution's actual performance against the performance of one or more benchmark institutions. We combine data from the H&SS survey with the performance targets summarized in in **Error! Reference source not found.** to give a sample faculty quality scorecard in **Error! Reference source not found.**. Difference 1 and 2, respectively, are  the differences or gaps  between the  target value and the actual value. The gap is shown graphically as part of the executive summary.

**Appended Table 7**  A Faculty Quality Score Card for the Public University System in Sri Lanka

| Quality Category | | Percent of Faculty | | Difference 1 | Difference 2 |
|---|---|---|---|---|---|
| | | Benchmark | Actual | | |
| Post-graduate Qualifications | PhD, US | 5 | 2 | -2 | -18 |
| | PhD, UK/Canada/Aus/NZ | 10 | 8 | -8 | |
| | PhD, Europe(Western & Eastern) | 5 | 3 | -3 | |
| | PhD, Japan | 5 | 1 | -1 | |
| | PhD, Other Foreign | 15 | 8 | -8 | |
| | PhD, Local University | 10 | 3 | -3 | -2 |
| | PhD, Same University | 0 | 5 | **+5** | |
| | Masters, US | 5 | 1 | -4 | -3 |
| | Masters, UK/Canada/Aus/NZ | 10 | 5 | -5 | |
| | Masters, Europe(Western & Eastern) | 5 | 2 | -3 | |
| | Masters, Japan | 5 | 1 | -4 | |
| | Masters, Other Foreign | 15 | 5 | -10 | |
| | Masters, Local University | 10 | 14 | +4 | |
| | Masters Same University | 0 | 19 | +19 | |
| | No PhD or Masters | 0 | 23 | +23 | |
| Rank | Professors | 20 | 9 | 9 | -11 |
| | Associate Professors | 30 | 7 | 7 | -23 |
| | Lecturer | 50 | 83 | 83 | +33 |
| | Other | 0 | 1 | 1 | +1 |
| Publications | International Publications* | 50 | 8 | 8 | -42 |
| | Local Publications* | - | - | - | - |
| | Books* | - | - | - | - |
| | Book Chapters* | - | - | - | - |
| | Edited Books* | - | - | - | - |

**Ranking by Composite Scores**

The composite faculty quality score is the some of scores for post-graduate qualifications, rank and publications.

Appended Table 8 gives the details for each university and academic program. Eastern University, e.g., shows 29 academic staff members in social science and humanities. Of those 6 have PhDs. One PhD is from US, one from a European country and four are from other local universities. Fifteen others have Masters degrees as their highest PG qualification and 1 has a Diploma. Several are pursuing PhD degrees but we counted only the completed PhDs.

After weighing each type of degree according the weights listed at the bottom of each table, the sum of scores was divided by the number of faculty members to yield a raw score of 2.62 for

Eastern. This score was further standardized in reference to a hypothetical benchmark institution holding a maximum possible score of 10. In the benchmark institution that we chose, there are 100 faculty and they all have post-graduate qualifications with 50 holding PhD degrees and the other 50 holding masters as their highest qualification with the detailed distribution as in **Error! Reference source not found.**. After weighing each type of qualification and adding the values, we divide derived sum by 100 to get a raw score of 5.2 for the benchmark institution. If the score of the benchmark is raised to 10, the score for eastern is proportionately increased to 5.04.

We calculate the scores for the other two components, rank and publications, similarly. We report data on all types of publication in the appended table but we used only the number of international publications to derive the publications score because it was not possible to get benchmarks for other types of publications (local journal articles, books, edited books or book chapters).

The faculty body at Eastern University, e.g., comprised of 0 professors and 2 associate professors, but they  reported 2 articles in international journals, 26 in national journals, 14 books, 47 articles in books, and 18 edited books.

## SOME OBSERVATIONS AND RECOMMENDATIONS

### Data collection

1. We found the information management at departments and faculties in SSH to be outdated. The same information seems to be collected at different times and filed away separately. Most faculty offices could not provide us with an electronic list of their faculty members let alone the key information such as their current rank and post-graduate qualifications. Publications data are collected annually for preparing annual reports but these data are typically not stored electronically.

   We recommend that the UGC seek the support of IRQUE to install a central online data system for data collection and dissemination. Each head of department should be given a password to enter the data for his/her department and the dean should be able to electronically sign the data form as being accurate. The system should also serve as a mechanism to produce the reports that are needed by personnel at all levels. For example, 'point and click buttons' that give the data for the annual reports and other administrative reports in the formats that are required should be a part of the information management system. These systems do not need to be very complicated or expensive.

   As it is, the data collection is unnecessarily painful for all parties concerned. Setting up an information management system and giving the deans and the administrative staff training in information management should be a priority.

2. Some staff reported children's book titles such as "Ha Ha Hari Hawa" as books published. Incidences of self-publication by the author were also common. We decided to count all those publications reported without consideration of quality, since an evaluation of each and every title reported was beyond our expertise or the scope of the consultancy.

In the future, the titles and publisher information of publications for each discipline should be presented to a panel of academics and/or researchers from nonprofit organizations. The academics/researchers selected should themselves have a record of recent academic publications in reputable journals or with reputable publisher.

3.  A rough analysis of the data for universities in Kerala as reported in the Commonwealth Universities Year Book for 2002 was used as a guide to set values for a benchmark department and a benchmark institution that we used in the analysis. In the future, the values used for the benchmark should also be reviewed.

**Using the Academic Quality Scores**

4.  These scores capture only documented scholarly outputs. As we discussed, teaching or service processes are not captured here. An assessment of the quality of education should include an assessment of the quality of education processes and the relation between academic quality of faculty and the effectiveness of education process provided by each of the faculties.

5.  The set of scores derived here should be treated as the result of a preliminary trial. The graphs presented in Figures 1-IVN may be used to identify gaps in resource allocation and performance by discipline, by university, or by discipline and university, but the findings should be presented to the appropriate heads of departments or deans to verify the accuracy of the observations and obtain additional qualitative information, before proceeding with policy decisions.

**Other pertinent observations**

6.  Forty four percent of the 937 faculty in the survey received their highest postgraduate qualification (PGQ) locally. Fifteen percent of the faculty in the University of Jaffna received their PhD in the same university.

7.  Nineteen to twenty six percent of faculties in the six established universities (Colombo, Jaffna, Kelaniya, Ruhuna and Sri Jayewardenapura) received their masters from the same university.)

All relevant aggregate data are found in Table II.

**Appended Table 8**   Faculty Quality Data by University in the Public University System of Sri Lanka, 2004/5

| | | | | | Number with PhDs | | | | | | | Number with Masters (as Highest) | | | | | | | Number with Rank | | | | Number with Publications | | | | | Faculty Quality Scores | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| University | Department | Total Staff | #Respondents, publications data | Percent Responded, publications | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | Associate Professor | Lecturer | Other | Professor | Journals - International | Journals -National | Books | Books - Edited | Book Chapters | PG Qualification Score | Academic Rank Score | Publication Score | TOTAL SCORE |
| Eastern University | Education | 2 | 2 | 100% | | | | | | | | | | | | | 2 | | | | 2 | | 0 | 2 | 1 | 3 | 1 | 3.85 | 0.00 | 0.00 | 3.8 |
| | Fine Arts | 4 | 3 | 75% | | | | | | 1 | | | | | | | 1 | | | 1 | 3 | | 1 | 2 | 4 | 3 | 7 | 4.33 | 3.57 | 2.50 | 10.4 |
| | General Social Science | 9 | 6 | 67% | 1 | | | | | | | | | | | 1 | 4 | | 1 | | 9 | | 0 | 0 | 0 | 1 | 13 | 4.49 | 0.00 | 0.00 | 4.5 |
| | Geography | 3 | 2 | 67% | | | | | | 1 | | | | | | | 1 | | | | 3 | | 0 | 2 | 0 | 1 | 3 | 4.49 | 0.00 | 0.00 | 4.5 |
| | Language & Cultural Studies | 11 | 7 | 64% | | | 1 | | | 2 | | | | 1 | | 2 | 3 | | | 1 | 10 | | 1 | 20 | 9 | 10 | 23 | 6.12 | 1.30 | 0.91 | 8.3 |
| | **ALL** | **29** | **20** | **69%** | **1** | | **1** | | | **4** | | | | **1** | | **4** | **10** | | **1** | **2** | **27** | | **2** | **26** | **14** | **18** | **47** | **5.04** | **0.99** | **0.69** | **6.7** |
| Open University | General Social Science | 38 | 28 | 74% | | 4 | | | 3 | 1 | | 1 | 3 | | | 4 | 13 | | | | 36 | | 9 | 12 | 27 | 4 | 11 | 5.72 | 1.50 | 2.37 | 9.6 |
| | Language & Cultural Studies | 8 | 7 | 88% | | 2 | | | | | | | 1 | | | | 3 | | | | 7 | | 0 | 1 | 5 | 3 | 3 | 6.97 | 3.57 | 0.00 | 10.5 |
| | **ALL** | **46** | **35** | **76%** | | **6** | | | **3** | **1** | | **1** | **4** | | | **4** | **16** | | | | **43** | | **9** | **13** | **32** | **7** | **14** | **5.94** | **1.86** | **1.96** | **9.8** |
| Rajarata University | General Social Science | 6 | 6 | 100% | | | | | 1 | | | | 2 | | | | 1 | | | | 6 | | 3 | 4 | 0 | 0 | 1 | 5.45 | 0.00 | 5.00 | 10.4 |
| | Language & Cultural Studies | 8 | 8 | 100% | | 1 | | | | 2 | | | 1 | | | | 4 | | | | 8 | | 3 | 14 | 11 | 8 | 8 | 7.45 | 0.00 | 3.75 | 11.2 |
| | **ALL** | **14** | **100%** | **100%** | | **1** | | | **1** | **2** | | | **3** | | | **1** | **4** | | | | **14** | | **6** | **18** | **11** | **8** | **9** | **6.59** | **0.00** | **4.29** | **10.9** |
| Sabaragamuwa University | General Social Science | 20 | 13 | 65% | | | 1 | | | | | 2 | | | | | 5 | | | | 19 | | | | | | | 2.50 | 1.43 | 0.00 | 3.9 |
| | Language & Cultural Studies | 24 | 22 | 92% | | 1 | | | | | | | 1 | | 1 | | 5 | | | | 17 | 6 | 2 | 6 | 9 | 0 | 0 | 2.24 | 1.19 | 0.83 | 4.3 |
| | **ALL** | **44** | **35** | **80%** | | **1** | **1** | | | | | **2** | **1** | | **1** | | **10** | | | | **36** | **6** | **2** | **6** | **9** | **0** | **0** | **2.36** | **1.30** | **0.45** | **4.1** |
| Southeastern University | Economics | 2 | | | | | | | | | | | | | | | 1 | | | | 2 | | | | | | | 1.92 | 0.00 | 0.00 | 1.9 |
| | General Social Science | 12 | 12 | 100% | | | 1 | | 1 | | | | | | | | 8 | | | | 12 | | 0 | 9 | 8 | 0 | 3 | 4.81 | 0.00 | 0.00 | 4.8 |
| | Geography | 1 | 1 | 100% | | | | | | | | | | | | | 1 | | | | 1 | | 0 | 2 | 1 | 0 | 0 | 3.85 | 0.00 | 0.00 | 3.8 |
| | Language & Cultural Studies | 14 | | | | | | | | 1 | | | 1 | | | | 5 | | | | 14 | | 0 | 0 | 0 | 0 | 0 | 2.75 | 0.00 | 0.00 | 2.7 |
| | Political Science/Sociology | 1 | | | | | | | | | | | | | | | | | | | 1 | | | | | | | 0.00 | 0.00 | 0.00 | 0.0 |
| | **ALL** | **30** | **13** | **43%** | | | **1** | | **1** | **1** | | | **1** | | | | **15** | | | | **30** | | **0** | **11** | **9** | **0** | **3** | **3.46** | **0.00** | **0.00** | **3.5** |

..contd…

| University | Department | Total Staff | #Respondents, publications data | Percent Responded, publications | PhD 1.US | PhD 2.UK/Canada/Aus/NZ | PhD 3.Europe(Western & Eastern) | PhD 4.Japan | PhD 5.Other Foreign | PhD 6.Local University | PhD 7.Same University | Masters 1.US | Masters 2.UK/Canada/Aus/NZ | Masters 3.Europe(Western & Eastern) | Masters 4.Japan | Masters 5.Other Foreign | Masters 6.Local University | Masters 7.Same University | Associate Professor | Lecturer | Other | Professor | Journals - International | Journals - National | Books | Books - Edited | Book Chapters | PG Qualification Score | Academic Rank Score | Publication_Score | TOTAL SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| University of Colombo | Economics | 35 | 29 | 83% | 1 | 8 | 6 | | | | | | 3 | | | 2 | 1 | 4 | 1 | | 29 | | 25 | 31 | 19 | 4 | 28 | 8.90 | 4.9 | 7.14 | 20.9 |
| | Education | 27 | 23 | 85% | 3 | 1 | 3 | | | | | | 4 | 1 | | | 1 | 8 | 3 | 6 | 21 | | 10 | 20 | 20 | 8 | 18 | 7.26 | 4.23 | 3.70 | 15.2 |
| | English | 8 | 7 | 88% | | 4 | | | | | 1 | 1 | | | | | | 1 | | | 7 | | 6 | 4 | 2 | 1 | 4 | 11.06 | 3.57 | 7.50 | 22.1 |
| | Fine Arts | 4 | 4 | 100% | | | 1 | | | | | | | | | | | | | | 4 | | | 2 | 2 | | 1 | 4.33 | 0.00 | 0.00 | 4.3 |
| | Geography | 14 | 9 | 64% | | 2 | 1 | 1 | | | 3 | | | | | | 1 | 3 | | 1 | 13 | | 1 | 5 | 1 | | 1 | 7.55 | 1.02 | 0.71 | 9.3 |
| | History | 13 | 11 | 85% | 1 | 2 | | | | | 1 | | | 1 | | | 1 | 5 | 1 | 3 | 6 | | 2 | 8 | 20 | | 9 | 7.25 | 12.09 | 1.54 | 20.9 |
| | Language & Cultural Studies | 9 | 8 | 89% | | | | | | | 1 | 1 | | | | | 1 | 4 | | | 7 | 2 | 1 | 1 | 12 | | 2 | 4.27 | 0.00 | 1.11 | 5.4 |
| | Political Science/Sociology | 31 | 26 | 84% | 2 | 6 | | 1 | 1 | | 1 | 1 | 2 | | 1 | 1 | 2 | 7 | 2 | 2 | 24 | | 8 | 6 | 25 | 7 | 23 | 8.13 | 4.61 | 2.58 | 15.3 |
| | Sinhala | 16 | 15 | 94% | | 2 | 2 | | 1 | 1 | 1 | | 1 | | | | 1 | 2 | | 5 | 10 | | 1 | 35 | 8 | 8 | 4 | 8.17 | 6.25 | 0.63 | 15.0 |
| | **ALL** | **157** | **132** | **84%** | **7** | **25** | **13** | **2** | **2** | **1** | **8** | **2** | **11** | **2** | **1** | **7** | **11** | **31** | **7** | **17** | **121** | **2** | **54** | **112** | **109** | **28** | **90** | **7.86** | **4.64** | **3.4** | **15.9** |
| University of Jaffna | Economics | 9 | 5 | 56% | | | | | | 1 | 1 | | | | | | | 4 | | 1 | 7 | | 1 | 5 | 2 | 1 | 2 | 3.63 | 4.76 | 1.11 | 9.5 |
| | Education | 5 | | | | | | | | | | | | | | | | | 1 | | 4 | | | | | | | 0.77 | 5.71 | 0.00 | 6.5 |
| | Fine Arts | 14 | 10 | 71% | | | | | 1 | | 1 | | | | | 1 | 1 | 2 | | | 14 | | 3 | 25 | 4 | 1 | 3 | 2.75 | 0.00 | 2.14 | 4.9 |
| | Geography | 10 | 7 | 70% | | 1 | | | 2 | | 3 | | | | | | 1 | 1 | | 2 | 8 | | 10 | 4 | 4 | 3 | 7 | 7.12 | 2.86 | 10.00 | 20.0 |
| | History | 8 | 6 | 75% | | | | | 1 | 1 | 1 | | | | | 1 | 1 | 1 | | 2 | 4 | | 12 | 8 | 5 | 3 | 10 | 5.29 | 7.14 | 15.00 | 27.4 |
| | Language & Cultural Studies | 13 | 10 | 77% | | | | | 1 | 1 | 3 | | | | | | 3 | 4 | | | 13 | | 8 | 9 | 10 | 9 | 12 | 5.47 | 0.00 | 6.15 | 11.6 |
| | Linguistics | 7 | 4 | 57% | | | | | 1 | | 1 | | | | | | 3 | | | | 7 | | | 9 | 1 | | 4 | 4.40 | 0.00 | 0.00 | 4.4 |
| | Philosophy | 5 | 3 | 60% | | | | | 1 | 1 | | | | | | | | 2 | | 1 | 4 | | | 13 | 6 | 5 | 7 | 5.77 | 2.86 | 0.00 | 8.6 |
| | Political Science/Sociology | 8 | 4 | 50% | | 1 | | | 1 | 1 | 1 | | | | | | | 1 | | 2 | 5 | | 1 | 4 | 9 | | 8 | 6.25 | 10.71 | 1.25 | 18.2 |
| | Tamil | 8 | 7 | 88% | | 1 | | | 1 | 1 | 2 | | | | | | | 2 | | | 7 | | 3 | 10 | 5 | 1 | 5 | 7.69 | 3.57 | 3.75 | 15.0 |
| | **ALL** | **87** | **56** | **64%** | | **3** | | | **9** | **6** | **13** | | | | | **2** | **10** | **17** | | **8** | **73** | | **38** | **87** | **46** | **27** | **54** | **4.95** | **3.28** | **4.37** | **12.6** |

| University | Department | Total Staff | #Respondents, publications data | Percent Responded, publications | Number with PhDs | | | | | | | Number with Masters (as Highest) | | | | | | | Number with | | | | Number with Publications | | | | | Faculty Quality Scores | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | Associate Professor | Lecturer | Other | Professor | Journals - International | Journals -National | Books | Books - Edited | Book Chapters | PG Qualification Score | Academic Rank Score | Publication_Score | TOTAL SCORE |
| University of Kelaniya | Archaeology | 7 | | | | | | | | | | | | | | | 1 | 4 | | | 7 | | | | | | | 3.5 | 0.0 | 0.0 | 3.6 |
| | Economics | 23 | 9 | 39% | | | | | 2 | | | | 3 | 1 | 2 | | 7 | 4 | | 2 | 21 | | 4 | 22 | 10 | 4 | 4 | 5.0 | 1.2 | 1.7 | 8.0 |
| | English | 6 | 2 | 33% | 1 | 1 | | | | | | | | | | | 1 | | 1 | | 5 | | 0 | 7 | 0 | 0 | 0 | 8.0 | 4.7 | 0.0 | 12. |
| | Fine Arts | 7 | 5 | 71% | | | | | 2 | | | | | | | | 2 | 2 | | | 7 | | 0 | 6 | 0 | 4 | 5 | 5.7 | 0.0 | 0.0 | 5.8 |
| | General Social Science | 4 | 1 | 25% | | | | | | | | | 1 | | | | 2 | | | | 4 | | 0 | 5 | 4 | 2 | 0 | 4.8 | 0.0 | 0.0 | 4.8 |
| | Geography | 9 | 4 | 44% | | | | | 1 | | | | | 1 | | | 1 | 3 | | | 8 | | 0 | 2 | 2 | 0 | 1 | 4.2 | 3.1 | 0.0 | 7.4 |
| | History | 9 | 7 | 78% | | 1 | | | 1 | 2 | | | | | | | | 1 | | 1 | 7 | | 0 | 14 | 5 | 3 | 4 | 5.5 | 4.7 | 0.0 | 10. |
| | Language & Cultural Studies | 47 | 29 | 62% | | 1 | 5 | 1 | 1 | 1 | 4 | | | 2 | | | 2 | 4 | 1 | 4 | 1 | 1 | 1 | 82 | 38 | 13 | 24 | 7.5 | 1.5 | 2.9 | 12. |
| | Linguistics | 8 | 6 | 75% | | 3 | | | 1 | | 1 | | | 1 | | | | 2 | | 1 | 5 | | 0 | 10 | 10 | 1 | 2 | 10. | 8.9 | 0.0 | **19.** |
| | Philosophy | 8 | 4 | 50% | | 1 | 2 | | | | 2 | | | | | | 1 | | | 2 | 5 | | 1 | 11 | 12 | 3 | 5 | 9.3 | 7.1 | 1.2 | **17.** |
| | Political Science/Sociology | 8 | 7 | 88% | | | | | 1 | 1 | | | | | | | 1 | 5 | | | 8 | | 0 | 5 | 4 | 2 | 21 | 5.5 | 0.0 | 0.0 | 5.5 |
| | Sinhala | 18 | 7 | 39% | | 2 | | | 2 | 1 | 4 | | | | | | | 5 | | 3 | 1 | 1 | 2 | 11 | 10 | 3 | 10 | 6.6 | 8.7 | 1.1 | 16. |
| | **ALL** | **154** | **81** | **53%** | **1** | **9** | **7** | **1** | **1** | **5** | **1** | **5** | **5** | **2** | **7** | **1** | | **4** | **1** | **1** | **1** | **2** | **2** | **17** | **95** | **35** | **76** | **6.6** | **3.1** | **1.3** | **11.** |
| University of Peradeniya | Archaeology | 7 | 4 | 57% | | | | | 3 | | 1 | | | | | | | 2 | | | 6 | | 1 | 8 | 0 | 4 | 2 | 7.1 | 4.0 | 1.4 | 12. |
| | Economics | 25 | | | 2 | 2 | | | 1 | 1 | | 1 | 2 | 2 | | 3 | 2 | 7 | 2 | 1 | 2 | | | | | | | 7.3 | 1.7 | 0.0 | 9.1 |
| | Education | 8 | 5 | 63% | | | | 1 | 1 | | | | 2 | | | | 1 | 3 | | | 6 | 1 | 6 | 1 | 7 | 0 | 1 | 6.7 | 3.5 | 7.5 | 17. |
| | English | 6 | 5 | 83% | 3 | 1 | | | 1 | | | | | 1 | | | | | | 3 | 5 | | 1 | 9 | 2 | 3 | 8 | 15. | 4.7 | 26. | **47.** |
| | Fine Arts | 7 | 3 | 43% | | | 1 | | | | | | | | | | | | | | 7 | | 2 | 0 | 0 | 0 | 0 | 3.0 | 0.0 | 2.8 | 5.9 |
| | General Social Science | 10 | | | | | | 1 | | 1 | | 1 | | | | 1 | 1 | 4 | | | 1 | | 0 | 0 | 0 | 0 | 0 | 5.9 | 0.0 | 0.0 | 6.0 |
| | Geography | 23 | 4 | 17% | 1 | 2 | | 1 | 3 | | 2 | | 1 | 7 | 2 | 1 | | 3 | 1 | 3 | 1 | | 5 | 4 | 2 | 0 | 5 | 9.2 | 5.5 | 2.1 | 17. |
| | History | 15 | 6 | 40% | | 5 | | | 2 | 1 | | 1 | | | | | 1 | 2 | | 2 | 8 | | 1 | 23 | 5 | 6 | 5 | 9.6 | 11. | 0.6 | **21.** |
| | Language & Cultural Studies | 23 | 6 | 26% | 2 | 1 | | | 3 | | | | | 1 | | | 3 | 7 | 2 | | 2 | | 4 | 2 | 7 | 2 | 17 | 6.4 | 3.7 | 1.7 | 11. |
| | Philosophy | 17 | 9 | 53% | | 2 | | | 1 | 1 | | 2 | | | | | 2 | 3 | 1 | 1 | | | 2 | 6 | 11 | 4 | 18 | 5.4 | 2.5 | 1.1 | 9.1 |
| | Political Science/Sociology | 34 | 3 | 9% | 2 | 3 | | 1 | 6 | | 2 | 1 | 2 | 1 | | 2 | 1 | 1 | 2 | 1 | 2 | | 1 | 8 | 2 | 0 | 6 | 8.0 | 6.3 | 0.2 | 14. |
| | Sinhala | 14 | 10 | 71% | | 3 | | | 2 | | | | | | | | 2 | 5 | | 1 | 8 | | 0 | 6 | 23 | 11 | 10 | 7.5 | 11. | 0.0 | **18.** |
| | Tamil | 7 | 4 | 57% | | | | | 2 | 1 | 1 | | | | | | | 2 | | 2 | 4 | | 2 | 3 | 8 | 4 | 3 | 6.8 | 8.1 | 2.8 | 17. |
| | **ALL** | **196** | **59** | **30%** | **1** | **1** | **1** | **4** | **2** | **6** | **7** | **5** | **9** | **1** | **3** | **1** | **7** | **4** | **1** | **1** | **1** | **1** | **4** | **70** | **67** | **34** | **75** | **7.5** | **5.0** | **2.0** | **14.** |

| | | Total Staff | #Respondents, publications data | Percent Responded, publications | Number with PhDs | | | | | | | Number with Masters (as Highest) | | | | | | | Number with Rank | | | | Number with Publications | | | | | Faculty Quality Scores | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | Associate Professor | Lecturer | Other | Professor | Journals - International | Journals -National | Books | Books - Edited | Book Chapters | PG Qualification Score | Academic Rank Score | Publication_Score | TOTAL SCORE |
| University of Ruhuna | Economics | 22 | 19 | 86% | | | | | | | | | | | | 1 | 5 | 7 | | | 20 | 1 | 5 | 6 | 8 | 1 | 2 | 2.45 | 1.30 | 2.27 | 6.0 |
| | Geography | 14 | 12 | 86% | | 1 | | | 1 | 1 | 2 | | | | | | 3 | 5 | | 1 | 11 | | 1 | 9 | 16 | 9 | 6 | 6.04 | 5.10 | 0.71 | 11.9 |
| | History | 8 | 7 | 88% | | | | | | | | | 1 | | | | 2 | 2 | | | 8 | | 2 | 11 | 3 | 0 | 4 | 2.88 | 0.00 | 2.50 | 5.4 |
| | Language & Cultural Studies | 9 | 7 | 78% | | | | | 4 | | | | | | | | 2 | 1 | | | 8 | | 5 | 12 | 11 | 2 | 5 | 6.41 | 3.17 | 5.56 | 15.1 |
| | Political Science/Sociology | 10 | 7 | 70% | | | | | 2 | | | | | | | | 5 | 2 | | 1 | 9 | | 0 | 13 | 9 | 1 | 6 | 5.00 | 1.43 | 0.00 | 6.4 |
| | Sinhala | 14 | 11 | 79% | | | | | 1 | 2 | | | | | | | 2 | 3 | | 1 | 12 | | 0 | 11 | 12 | 5 | 12 | 3.57 | 3.06 | 0.00 | 6.6 |
| | **ALL** | **77** | **63** | **82%** | | **1** | | | **8** | **3** | **2** | | | | | **1** | **19** | **20** | | **3** | **68** | **1** | **13** | **62** | **59** | **18** | **35** | **4.15** | **2.41** | **1.69** | **8.2** |
| University of Sri Jayawardenapura | Economics | 16 | 8 | 50% | 2 | | | | | 1 | 1 | | 2 | | | | 1 | 4 | 2 | 3 | 13 | | 3 | 0 | 0 | 0 | 7 | 5.89 | 2.68 | 1.88 | 10.4 |
| | English | 8 | 5 | 63% | | | | | | | | | 1 | | | | 1 | 1 | | | 8 | | 0 | 3 | 1 | 0 | 0 | 2.40 | 0.00 | 0.00 | 2.4 |
| | Geography | 15 | 14 | 93% | | 4 | 1 | | 1 | | | | | | 1 | | 1 | 4 | | 2 | 12 | | 10 | 10 | 6 | 7 | 13 | 8.72 | 3.81 | 6.67 | 19.2 |
| | History | 11 | 8 | 73% | | | 1 | | 1 | | | | | | | 1 | 2 | 3 | | | 7 | | 2 | 14 | 15 | 3 | 6 | 4.72 | 10.39 | 1.82 | **16.9** |
| | Language & Cultural Studies | 30 | 23 | 77% | | 3 | | 1 | 3 | | 3 | | | | | 2 | 7 | 6 | | 4 | 22 | | 6 | 42 | 23 | 10 | 8 | 6.35 | 5.71 | 2.00 | 14.1 |
| | Political Science/Sociology | 23 | 19 | 83% | 1 | 1 | | 2 | 3 | | | | | | | 4 | 1 | 6 | 1 | 1 | 20 | | 7 | 10 | 9 | 2 | 7 | 7.19 | 3.11 | 3.04 | 13.3 |
| | **ALL** | **103** | **77** | **75%** | **3** | **8** | **2** | **3** | **7** | **2** | **4** | | | | | **9** | **16** | **19** | **3** | **10** | **82** | | **28** | **79** | **54** | **22** | **41** | **6.33** | **4.44** | **2.72** | **13.5** |
| **All Universities/Disciplines** | | 937 | 585 | 62% | 22 | 73 | 26 | 10 | 72 | 31 | 47 | 10 | 44 | 19 | 8 | 46 | 134 | 175 | 61 | 779 | 12 | 85 | 213 | 659 | 505 | 197 | 444 | **6.26** | **3.52** | **2.27** | 12.1 |
| **Values for Benchmark Department** | | 10 | 10 | 100% | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 0 | 1 | 1 | 1 | 1 | 0.5 | 0.5 | 0 | 3 | 5 | 1 | 1 | 10 | - | - | - | - | N/A | N/A | N/A | N/A |
| **Values for Benchmark University** | | 100 | 100 | 100% | 5 | 10 | 5 | 5 | 15 | 10 | 0 | 5 | 10 | 5 | 5 | 15 | 10 | 0 | 30 | 50 | 0 | 20 | 100 | - | - | - | - | N/A | N/A | N/A | N/A |
| **Points per Category** | | N/A | N/A | N/A | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 5 | 0 | 0 | 10 | 10 | 3 | 10 | 4 | 5 | N/A | N/A | N/A | N/A |

**Appended Table 9**     Faculty Quality Data by Discipline in the Public University System of Sri Lanka, 2004/5

| Discipline | Total Staff | Number with PhDs | | | | | | | Number with Masters (as highest) | | | | | | | Number with Rank | | | | Number with Publications | | | | | Academic Quality Score | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | 1.US | 2.UK/Canada/Aus/NZ | 3.Europe(Western & Eastern) | 4.Japan | 5.Other Foreign | 6.Local University | 7.Same University | Associate Professor | Lecturer | Other | Professor | Journals - International | Journals -National | Books | Books - Edited | Book Chapters | PG Qualification Score | Academic Rank Score | Publication Score | TOTAL SCORE |
| Archaeology | 14 | | | | | 3 | | 1 | | | | | | 1 | 6 | | 13 | | 1 | 1 | 8 | 0 | 2 | 4 | 5.63 | 2.04 | 0.71 | 8.4 |
| Economics | 132 | 5 | 10 | 6 | | 3 | 3 | 2 | 1 | 10 | 3 | 2 | 7 | 20 | 26 | 7 | 115 | 1 | 9 | 38 | 64 | 39 | 43 | 10 | 6.03 | 2.71 | 2.88 | 11.6 |
| Education | 43 | 3 | 1 | 3 | 1 | | 1 | | | 6 | 1 | | | 5 | 11 | 6 | 33 | 1 | 3 | 16 | 23 | 28 | 20 | 11 | 6.08 | 3.99 | 3.72 | 13.8 |
| English | 28 | 4 | 6 | | | 1 | | 1 | | 3 | 1 | | 1 | 3 | | | 25 | | 3 | 22 | 23 | 5 | 12 | 4 | 8.93 | 3.06 | 7.86 | 19.8 |
| Fine Arts | 36 | | | 2 | | 3 | 1 | 1 | | | | | 2 | 4 | 4 | 1 | 35 | | | 6 | 35 | 10 | 16 | 8 | 3.74 | 0.40 | 1.67 | 5.8 |
| General Social Science | 99 | 1 | 4 | 2 | 1 | 5 | 2 | | 3 | 7 | | 1 | 9 | 30 | 4 | | 96 | | 3 | 12 | 30 | 39 | 28 | 7 | 4.82 | 0.87 | 1.21 | 6.9 |
| Geography | 89 | 1 | 10 | 2 | 2 | 7 | 3 | 10 | | 2 | 8 | 3 | 3 | 8 | 19 | 9 | 73 | | 7 | 27 | 38 | 32 | 36 | 20 | 7.45 | 3.69 | 3.03 | 14.2 |
| History | 63 | 1 | 8 | 1 | | 3 | 4 | 4 | 1 | 2 | 1 | | 3 | 6 | 14 | 8 | 40 | | 15 | 19 | 78 | 53 | 38 | 15 | 6.44 | 8.62 | 3.02 | 18.1 |
| Language & Cultural Studies | 196 | 2 | 9 | 6 | 2 | 21 | 7 | 11 | 1 | 5 | 3 | 1 | 10 | 41 | 31 | 6 | 169 | 9 | 12 | 44 | 189 | 135 | 102 | 57 | 5.80 | 2.19 | 2.24 | 10.2 |
| Linguistics | 15 | | 3 | | | 2 | | 2 | | | 1 | | | 3 | 2 | 1 | 12 | | 2 | 0 | 19 | 11 | 2 | 5 | 7.82 | 4.76 | 0.00 | 12.6 |
| Philosophy | 30 | | 3 | 2 | | 1 | 2 | 3 | 2 | | | | 3 | | 6 | 4 | 24 | | 2 | 3 | 30 | 29 | 30 | 12 | 6.54 | 3.81 | 1.00 | 11.3 |
| Sinhala | 62 | | 7 | 2 | | 6 | 4 | 5 | | 1 | | | 3 | 4 | 17 | 10 | 40 | 1 | 11 | 3 | 63 | 53 | 36 | 27 | 6.54 | 7.37 | 0.48 | 14.4 |
| Tamil | 15 | | 1 | | | 3 | 2 | 3 | | | | | | | 4 | 2 | 11 | | 2 | 5 | 13 | 13 | 8 | 5 | 7.31 | 5.71 | 3.33 | 16.4 |
| Political Science/Sociology | 115 | 5 | 11 | | 4 | 14 | 2 | 4 | 2 | 8 | 1 | 1 | 4 | 10 | 31 | 7 | 93 | | 15 | 17 | 46 | 58 | 71 | 12 | 7.27 | 4.60 | 1.48 | 13.3 |
| **Grand Total** | **937** | **22** | **73** | **26** | **10** | **72** | **31** | **47** | **10** | **44** | **19** | **8** | **46** | **134** | **175** | **61** | **779** | **12** | **85** | **213** | **659** | **505** | **444** | **197** | **6.26** | **3.52** | **2.27** | **12.1** |
| Average | 100 | 2.35 | 7.8 | 2.77 | 1.1 | 8 | 3 | 5 | 1 | 5 | 2 | 1 | 5 | 14 | 19 | 6.5 | 83 | 1 | 9.07 | 22.7 | 70 | 54 | 47 | 21 | 6.26 | 3.52 | 2.27 | 12.1 |
| Benchmark value | 100 | 5 | 10 | 5 | 5 | 15 | 10 | 0 | 5 | 10 | 5 | 5 | 15 | 10 | 0 | 30 | 50 | 0 | 20 | 100 | - | - | - | - | 10 | 10 | 10 | 30 |
| Points per Category | | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 5 | 0 | 0 | 10 | 10 | - | - | - | - | - | | - | - |

## Appended Figure 2   Survey Form Used in the H&SS Survey
Staff Datasheet (Short Version, December 2004)
Prepared by Dr. Sujata Gamage, UGC consultant to the staff datasheet project
Please submit the completed questionnaire and the attachments to the dean of your faculty

| # | QUESTION | RESPONSE |
|---|----------|----------|
| 1 | Name | Anybody-AAA |
| 2 | Current Rank (Professor, Assoc. Professor, Senior Lecturer II, etc.) | Lecturer |
| 3 | Year Appointed/Promoted to Current Rank | |
| 4 | Title (Prof., Dr., Mr., Ms., Rev, Dr. Rev etc.) | |
| 5 | Date of Birth (dd/mm/yy) | |
| 6 | Gender (m/f) | |
| 7 | University | University of Colombo |
| 8 | Faculty | Arts |
| 9 | Department | Political Science & Public Policy |
| 10 | Telephone (10-digit) | |
| 11 | Fax (10-digit) | |
| 12 | E-mail | |
| 13 | Permanent mailing address | |
| 14 | Highest Post-Graduate Qualification (PhD, MPhil, MA, Dip etc.) | |
| 15 | Highest Post-Graduate Qualification – Year | |
| 16 | Highest Post-Graduate Qualification – Institution | |
| 17 | Highest Post-Graduate Qualification – Country | |
| 18 | Highest Post-Graduate Qualification - Subject (or thesis title) | |
| 19 | Bachelors Degree or Equivalent | |
| 20 | Bachelors Degree –Year | |
| 21 | Bachelors Degree – Institution | |
| 22 | Bachelors Degree – Country | |
| 23 | Bachelors Degree – Subject | |
| 24 | Area of Specialization/Research Interests | |
| 25 | List of Publications Dated 1999 or Later<br><br>*(Please attach a list of  the following giving the Title, Journal/or Publisher/or Conference, Country,  and Year)*<br><br>*- Articles in National refereed journals*<br>*- Articles in International refereed journals*<br>*- Articles in National conference proceedings (Refereed)*<br>*- Articles in International conference proceedings  (Refereed)*<br>*- Books Edited*<br>*- Articles in books* | |

**Appendix B   ISI Citation Indexed Publications of Faculty in the Public University System of Sri Lanka**

The Institute of Scientific Information's (ISI) citation indexed publications database is the most accepted depository of international publications. ISI indexes over 20,000 journals out the possible 26,000 journals published worldwide. Although the full scope of research activity by developing country researchers may not be captured in the ISI database, we can use the representation in the ISI databases as a proxy indicator. Since the institutional affiliation of all coauthors could not be uniquely identified in the ISI databases, we were able to identify only those faculty who were listed as principal authors and with institutional affiliation as one of the 13 public universities in Sri Lanka. From among the 13 universities, Universities of Colombo, Peradeniya and Kelaniya lead in both the number of 'publications as principal investigator' per faculty member (0.55, 0.52 and 0.32 respectively in Appended Table 10) and the percent of faculty with ISI publications (16%, 13% and 12%, respectively in Appended Table 11). The average for the university is system is 0.28 publications per faculty member with 8% of the faculty having publications as principal author in ISI indexed journals in the most recent five years.

The ISI publication rates are driven by faculties of science in Peradeniya (1.27) and Colombo (1.07), and faculties of medicine in Colombo (1.05), Kelaniya (0. 87) and Peradeniya (0.63). In terms of the number of faculty with publications, faculties of Science in Peradeniya (28%) and Colombo (28%), and faculties of medicine in Kelaniya (30%) and Colombo (29%) lead. Using these faculties as benchmarks we set possible performance targets for the Sri Lankan university system as **one ISI publication per faculty member per most recent five years** or **30% of faculty members having at least one publication in the most recent five years**. The targets may vary for each academic stream with medicine and science aiming, for example, for a 50% publication rate, and other faculties aiming for a lower rate.

**Appended Table 10**  Number of ISI publications per faculty member per 5-year period (2000-2004) by Academic Stream and Institutions in the Sri Lankan Public University System

| Univ | Field Agriculture/Vet | Arts | Commerce | Engineering | Med/Den | Science | ALL |
|---|---|---|---|---|---|---|---|
| U of Colombo | - | 0.09 | 0.02 | - | 1.05 | 1.07 | 0.55 |
| U of Peradeniya | 0.48 | 0.09 | - | 0.45 | 0.63 | 1.27 | 0.52 |
| U of Kelaniya | - | 0.02 | - | - | 0.87 | 0.42 | 0.32 |
| U of Sri Jayawardenepura | - | 0.01 | 0.02 | - | 0.3 | 0.62 | 0.23 |
| Rajarata U | 0.81 | - | - | - | - | 0.18 | 0.17 |
| U of Moratuwa | - | - | - | 0.08 | - | - | 0.17 |
| U of Ruhuna | 0.13 | 0.01 | - | 0.14 | 0.2 | 0.27 | 0.17 |
| Open U | - | 0.01 | - | 0.06 | | 0.14 | 0.08 |
| Eastern U | 0.02 | 0.07 | - | - | | 0.08 | 0.05 |
| U of Jaffna | 0.11 | 0.01 | - | - | 0.08 | 0.1 | 0.05 |
| Sabaragamuwa U | - | - | - | - | - | 0.11 | 0.03 |
| Wayamba U | 0.02 | - | - | - | - | 0.04 | 0.02 |
| South Eastern U | - | - | - | - | - | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| All Institutions | **0.28** | **0.05** | **0.02** | **0.17** | **0.62** | **0.50** | **0.28** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Number of publications | 136 | 46 | 7 | 79 | 397 | 435 | 1100 |

Source: Records in the ISI Combined Citation Index for 2000-2004 with one or more names of Sri Lankan university in the address field; Field is determined by the ISI designated field for each publication. They do not directly correspond to the faculties in the university system.

**Appended Table 11**  Percent Faculty with ISI publications by Academic Stream and Institutions in the Sri Lankan Public University System, 2000-2004

| University | Agriculture/Vet | Arts | Commerce | Engineering | Med/Den | Science | ALL |
|---|---|---|---|---|---|---|---|
| U of Colombo | - | 4% | 2% | - | 29% | 28% | 16% |
| U of Peradeniya | 13% | 3% | - | 11% | 15% | 28% | 13% |
| U of Kelaniya | - | 1% | 0% | - | 30% | 16% | 12% |
| U of Sri Jayawardenepura | - | 0% | 2% | - | 8% | 11% | 7% |
| U of Moratuwa | - | - | - | 4% | - | - | 6% |
| U of Ruhuna | 6% | 0% | 0% | 2% | 12% | 6% | 5% |
| Eastern U | 0% | 6% | 0% | - | - | 0% | 2% |
| Open U | - | 1% | - | 2% | - | 2% | 2% |
| Rajarata U | 15% | 0% | 0% | - | - | 0% | 2% |
| Sabaragamuwa U | 0% | 0% | 0% | - | - | 3% | 1% |
| U of Jaffna | 8% | 0% | 0% | - | 5% | 1% | 1% |
| South Eastern U | - | 0% | 0% | - | - | 0% | 0% |
| Wayamba U | 0% | - | 0% | - | - | 0% | 0% |
| All Institutions | **11%** | **2%** | **1%** | **5%** | **18%** | **12%** | **8%** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total number of faculty | 346 | 1090 | 393 | 413 | 564 | 805 | 3611 |
| Number of faculty with pubs | 37 | 20 | 4 | 22 | 103 | 94 | 285 |

Source: Records in the ISI Combined Citation Index for 2000-2004 with one or more names of Sri Lankan university in the address field; Field is determined by the ISI designated field for each publication. They do not directly correspond to the faculties in the university system.

**Appended Table 12**  Distribution of Principal Authors in H&SS publications by Type of Author, 2000-2004

| Type of Author | Number | Percent |
|---|---|---|
| University, SS&H | 12 | 30% |
| University, Medicine | 7 | 18% |
| University, other | 6 | 16% |
| Non-university | 15 | 38% |
| Total number of authors | 40 | 100% |

Source: All Publications with Sri Lanka in the Address field in the Social Science Citation and Arts & Humanities Indexed databases
Notes: The dataset included 40 publications; Books are not included.

**Appendix C    Minutes of the Workshop on quality in the Academia, November 2005**

The workshop was held on Nov 10, 2004, 9A-4P at Hotel Taj Samudra. Twenty-three participants and three project personnel attended. A list of attendees and their affiliations is provided in Appended Table 13.

**Session #1: Plenary Presentations**

**Assessing the performance of academic staff: current status and new directions**

Prof. Ratnajeevan S. Hoole
Assessment must be aligned with the organizational goals and seen to be fair and open. It should measure research, teaching and community work. Evaluations in U.S are based on a pre-announced points-scheme based on evaluations by students and peers. Weight given to the three may vary between institutions. Remuneration consists of a fixed part (which is inflation-adjusted) and a variable part based on performance evaluation. The variable component is decided jointly by the head and the dean but the process is transparent to the staff and unions play a very positive role. The Sri Lankan situation is very dismal with no reviews except for professorships, routine promotions/increments. Obstruction and undue influence by unions and the like is the order of the day. Authorities maintain an embarrassed silence or in some cases actually support this kind of situation. No change is possible in Sri Lanka without a major re-organization.

**The Role of Staff Development Centers (SDCs)**

Prof. S. Ekaratne
Quality in general is 'fitness for purpose' which in the case of a university is teaching, research and community service. Together these comprise scholarly activities of university faculty. The SDC's have a holistic role in meeting the purpose of scholarship in our universities by applying development tools that address the three activities. The development tool for research activities is training in research. The post-graduate requirement for confirmation and the availability of sabbatical leave are existing tools. The tools for developing scholarly, research-centered teaching and service need to be further enhanced through research into teaching practice and the service responsibility of faculty. The reward system should also recognize all three scholarly activities. Currently, there are practically no rewards for teaching and service.  Scholarship that takes into account all aspects of scholarship should be evaluated and used by peers and should become universally accepted.

**Quality Assurance of Academic Programs: Vision and Reality**

Prof. K. Tillekaratne
Prof. Tillekeratne explained the various institutional and procedural arrangements being made for quality assurance in the universities. The subjects benchmark statements (SBS) provide a reference point for internal and external review and examiners, act as a guide for curriculum development, clarify what is expected of a graduate, and assist in international comparisons. The

benchmark statements should not be static, but should evolve to take account of subject development and changing expectations. The Sri Lanka Credit and Qualifications Framework (SLCQF) defines standards for each type of degree by credit requirements. It also provides for lateral entry, transfer of students, and the recognition of work based learning. Credit level descriptors give guidelines for formulation of modules. Realization of the vision has proven to be extremely difficult.

**Session #2: Measures of quality**

**Introduction**
Dr .Sujata Gamage gave a short introduction to each of the six definitions of scholarship that was sent to participant as part of the information packet (Appendix II). Thereafter the participants broke into two groups to discuss among themselves and present their own views.

**Presentation by Group #1**

- **Glassick et. Al.** gives five dimensions of evaluating scholarly activities, namely, clear goals, adequate preparation, appropriate methods, significant results, effective presentation and reflective critique. Group felt that is a very one dimensional view of scholarship and is not suited for general assessment purposes but may have some use for self-assessment of an individual or an organization unit.

- **John Arnold** identifies the following six characteristics of a scholarly work: a scholarly work and the results can be documented, involves a high level of discipline-related expertise, breaks new ground or is innovative, can be replicated or elaborated, can be peer-reviewed, and has significance or impact. This characterization again has its limitations in that it takes a process-oriented view of scholarship. It can be useful in evaluating specific tasks. Leela Karunanayake's work during the early days of Faculty of medicine would be relevant in this regard.

- **Uniscope Model** (Appendix III): The group considered this to be quite comprehensive and by the far the best model for both individual and department level evaluation. However it too needs modification. For instance senior academics need to spend a lot of their time on developing infrastructure facilities. There should be recognition of such activities.

- **HEFCE** (Higher Education Funding Commission of England) **Document**-Here a scholar is defined as somebody with: (a) well-developed powers of critical appraisal, (b) knowledge of general developments in the subject, and (c) ability to link and synthesizes subject knowledge. This view was too considered limited. A main flaw in it is the communication of scholarly abilities and the peer acceptance of such communication is not addressed, e.g. a person's publication output is not specifically recognized. Also the aspect of a person's communication and interaction with others is excluded.

- **UGC-Commissioned Study on Faculty Quality**-This model is the only model that attempts to quantify attributes of scholarship. Faculty quality Score is equated to the

weighted sum of scores for Highest Qualification, Rank, and Publications for each faculty member. The results are aggregated by department and presented as a score for each department. This approach received the most criticism from the group. The group felt certain important aspects such as relevance of the course, employability of graduates, and student evaluation, together with peer assessment of teaching should have been included. However, during discussion, the point was made and taken that this kind of assessment could be a starting point for the discussion.

**Presentation by Group #2**
Most of the points that were stated in Presentation #1 were repeated in #2. Additionally, they felt there was no room for serendipity in Glasick et al's definition and the terms 'can' in Arnold's definition need to be replaced by 'should'. A new point was raised regarding assessing publications. For example, in a subject like mathematics it is much harder to produce publications than the biological or social sciences. Therefore it would not be fair to have the same yardstick to measure publications in all subjects. However the difficulty of having different measures for different subjects was also noted, e.g. we do not have a critical mass of mathematicians to do this.

**Session # 3: Research on Higher Education and Opportunities for Professional Development: Present and Future**

Panel: Prof. Chandra Gunewardena, Dr. Sunil Chandrasiri, Dr. B.D. Kottachi, Mr. M.G.W. Suraweera

**Summary of Comments**
Prof. Chandra Gunewardena spoke about topics such as curriculum development, delivery, language competence, tracer studies and gender equity that the researchers at the Open University have covered. She also mentioned the studies on General education at Faculties of Education and Medicine, respectively, at University of Colombo and the National Education Commission.

Dr. Sunil Chandrasiri outlined aspects regarding the donor community such as sector finance, sector coverage and methodologies. The world bank concentrates on higher education while the Asian Development Bank finances technical and vocational education. Sector coverage includes topics such as analyses of the labour market and cost/benefit analyses. The methodologies used are case studies

Dr. B.D. Kottachchi and Mr. M. G. W. Suraweera pointed out that a lot of information is available in the studies done by the UGC since 1984. Topics include employability of graduates, academic staff, and the year book. Some of the publications can be found in the labour gazette.

**Appended Table 13**  List of Participants at the Workshop on Quality in the Academia,
December x, 2005

| Name | Organization Unit | Organization |
|---|---|---|
| 1.  Prof.R. Hoole | Member of the Commission | University Grants Commission |
| 2.  Prof. K. Tillekeratne | Committee for Quality Assurance | University Grants Commission |
| 3.  Prof. S.U.K. Ekaratne | Staff Development Unit | University of Colombo |
| 4.  Prof. Rohini  Seneviratne | Staff Development Unit | University of Colombo |
| 5.  Prof.S.V.Parameswaran | Staff Development Unit | University of Jaffna |
| 6.  Prof.M.J.S. Wijeyaratne | Staff Development Unit | University of Kelaniya |
| 7.  Dr.Deepthi Bandara | Staff Development Unit | University of Peradeniya |
| 8.  Prof.P.L.Ariyananda | Staff Development Unit | University of Ruhuna |
| 9.  Dr.E.A.G.Fonseka | Staff Development Unit | Sabaragamuwa University |
| 10.Dr. K.M.N. De Silva | Career Guidance Unit | University of Colombo |
| 11.Dr.Saman Thilakasiri | Director, Undergraduate Studies | University of Moratuwa |
| 12.Prof.N.D.Warnasuriya | Faculty of Medicine | University of Sri Jayawardenepura |
| 13.Dr.Sunil Chandrasiri | Department of Economics | University of Colombo |
| 14.Prof.Chandra Gunawardena | Department of Education | Open University |
| 15.Prof.Swarna Jayaweeera | Center for Women's Research | Center for Women's Research |
| 16.Mr.Lalith Liyanage | Project Manager | DEMP |
| 17.Dr.B.D.Kottahachchi | Corporate. Planning & Managmnt Info | University Grants Commission |
| 18.Mrs.Indra Jayasekera | Department of Inter University Affairs | University Grants Commission |
| 19.Mrs.Wimala Karunaratne | Department of Inter University Affairs | University Grants Commission |
| 20.Dr.Hemamal Jayawardena | Inst Adv Studies Humanities | University Grants Commission |
| 21.Mr.M.G.W.Suraweera | Statistical Division | University Grants Commission |
| 22.Prof.Upali Samarajeewa | Research Promotion Center | University Grants Commission |
| 23.Dr.Sujata Gamage | IDRC Project | University Grants Commission |

**Appended Table 14**  UniSCOPE matrix on the functions and forms of scholarship

| UNISCOPE MATRIX, with examples | | FUNCTIONS of scholarship | | | |
|---|---|---|---|---|---|
| | | DISCOVERY | INTEGRATION | APPLICATION | EDUCATION |
| FORMS of scholarship | TEACHING | • course innovation • course improvement • conceptual insights from • course preparation or • discussion • faculty insights from supervision of theses and • dissertations | • cross-disciplinary teaching • multidisciplinary teaching • integrative courses • capstone courses, e.g., Astro-biology; Science, Technology, and Society (STS); | • technical courses • clinical courses • studio courses • supervision of theses, dissertations, and student projects • professional courses, i.e., teaching where the primary | • theoretical courses • conceptual courses • problem solving • critical thinking, i.e., teaching where the primary impact is on the • knowledge and learning skills of the student |
| | RESEARCH | • basic research • original works • evaluation research | • multidisciplinary and integrative research • cross-disciplinary teams • integration of creative • works | • applied research • policy research • performances of original works • demonstrations • technical | • student laboratories • thesis and dissertation research (the objective is • educating students |
| | SERVICE | • participation in task forces, • think tanks, and otherproblem-solving activities • creative, theoretical, or conceptual insights as a result of service to society | • academic governance • assistance to corporations, government and communities that involves • integration across • disciplines • assistance in ones' field • to groups, corporations, organizations, govern-ment and communities • academic administration | • leadership in professional • societies • peer-review activities • editorship of journals and professional publications | • student advising and • career counseling • advising student activities and organizations • mentoring students • internships • service learning • expert testimony and consultation |