

1. EXECUTIVE SUMMARY

1.1 Taught Programmes

1.1.1 General Conclusions

The Panel is pleased to report significant progress since the first round of Teaching and Learning Quality Process Reviews (TLQPRs), and that deficiencies in quality assurance (QA) procedures relating to teaching and learning, identified in the first round Report, have been conscientiously addressed. Staff now take teaching seriously, and there have been a number of welcome developments on campus, for which the Hong Kong University of Science and Technology (HKUST) is commended. Particularly noteworthy developments, *inter alia*, are the following:

- (a) the Teaching Assistant (TA) system and associated training and support procedures;
- (b) the establishment of the Centre for Enhanced Learning and Teaching (CELT); and
- (c) the development and use of the Personal Response System (PRS) for student feedback.

The main body of the Report (Section 3.1) outlines some other positive initiatives.

Against this background of constructive development, there are a number of matters that the Panel feels should be further addressed, as follows:

- (i) There is not yet on campus a fully-developed overall system of quality assurance and improvement (QA&I) for teaching and learning.
- (ii) There is sometimes a lack of coherence in QA efforts.
- (iii) The institution has not yet embraced QA in relation to teaching and learning, to the point where it is part of institutional culture on a par with research activity.
- (iv) There is a need to review the effectiveness and appropriateness of the University's external review procedures.

1.1.2 Recommendations

Build upon recent actions to further develop a comprehensive, systematic and coherent QA&I system for teaching and learning. The following elements could usefully be included in addressing this overall goal:

- (a) Move to develop an overall culture where activities relating to teaching are on a par with research.

- (b) Develop better alignment between course / programme goals, student learning outcomes and teaching and assessment activities.
- (c) Senior managers need to be more energetic in driving moves to improve the quality of teaching and learning.
- (d) Review the responsibilities and activities of Committee on Teaching and Learning Quality (CLTQ) and departmental teaching quality committees. An external advisory committee would be useful for this exercise.
- (e) Establish new guidelines for Academic Advisory Committees: the external advisory committee referred to in (d) could play a useful role in this exercise.
- (f) Introduce a monitoring mechanism to ensure the consistency of academic standards applied across different departments.
- (g) Broaden and extend the range of evidence used to evaluate teaching quality.

1.2 **Research Postgraduate Education**

Research Postgraduate Education is an important component of the mission of HKUST, and associated activity is distributed throughout the whole institution. The Panel concluded that the University was developing a sound approach to teaching and learning quality for research postgraduate education, and identified a number of positive developments that are worthy of commendation. These include the following:

- (a) The effective balance between bottom-up initiatives and a university-wide framework for guiding activity.
- (b) The improvements in TA training (since the first round TLQPR) and the roles played by TA Coordinators.
- (c) The clear information and communication for students.
- (d) The positive feedback received from students.
- (e) The well structured route via which research students develop as academics.

The following recommendations are aimed at further improvement :

- (a) Monitor / review variations between departments in terms of duration of programme to completion, and completion and attrition rates.
- (b) Ensure that the overall combination of programme requirements for students (coursework, thesis, TA duties) are consistent with timely completion.
- (c) Move to promulgate good departmental practices across the whole University.

1.3 Continuing Education Units

The bulk of credit bearing, continuing education programmes are offered by the School of Business and Management (SBM) and the School of Engineering (SE). A College of Lifelong Learning (CL3) has been established relatively recently, and now offers two Associate Degree programmes, as an “agent” for a USA college: several other non-credit courses are offered.

The strategy for the SBM and SE programmes is clear – high quality at premium prices. This has been successful in attracting high quality students (who themselves add to the value of the courses) who are generally very satisfied with the programmes that they encounter. The strategy for CL3 is less well-defined; there is however, potential for the further development of English language programmes within the College.

The Panel would like to make the following suggestions:

SBM and SE Programmes

- Explore ways for supporting (potentially excellent) students who are unable to afford the high course fees.
- Work to develop more opportunities for exchange programmes with prestigious overseas universities.

CL3

- Clarify the strategy for the College, especially in relation to the overall mission of the University.

2. A BRIEF BACKGROUND TO THE SECOND ROUND OF TLQPRs

Over the period September 1995 to April 1997 the University Grants Committee (UGC) carried out a programme of TLQPRs in the then seven UGC-funded institutions. The reviews were carried out as part of the on-going activities of UGC designed to assure quality and value for money. The stated goals of the reviews were as follows.

- To focus attention on teaching and learning as the primary mission of Hong Kong's tertiary institutions
- To assist institutions in their efforts to improve the quality of teaching and learning
- To enable the UGC and the institutions to discharge their obligation to maintain accountability for the quality of teaching and learning

Following the completion of the reviews, UGC commissioned an independent evaluation of the exercise that was carried out by the Centre for Higher Education Policy Studies (CHEPS) of the University of Twente in the Netherlands. Two aims of the evaluation were:

- To undertake an independent evaluation of the TLQPRs of the seven UGC-funded tertiary institutions in order to determine the extent to which the TLQPR process has achieved its stated goals.
- To recommend any improvements on the TLQPR process.

An evaluation report was published in September 1999. Broadly, it concluded that the TLQPRs had been successful in achieving the intended goals, and that "TLQPR was the right instrument at the right time". A further round of TLQPR, continuing to focus on quality *processes* was also recommended. Following this, a special meeting of the Consultative Committee on TLQPR was convened, at which it was agreed that a Seminar would be organised as a follow-up to the CHEPS team's evaluation of the TLQPR exercise.

The Seminar took place in April 2000, attended by a wide variety of UGC and UGC-funded institution representatives, together with invitees from other tertiary institutions and agencies in Hong Kong. The report of that Seminar concluded that "Participants at the Seminar were positively disposed toward the prospect of a further round of TLQPR – which needs to be suitably modified and developed". Accordingly, it was decided that a further round of TLQPR would take place and the template for the current round was developed in a dialogue between UGC and the Consultative Committee on TLQPR.

The second round TLQPRs commenced in October 2001. Annex A outlines the methodology that underpins the current reviews, as carried out within the template structure.

REPORT ON TAUGHT PROGRAMMES

3. Major Overall Observations

3.1 General Conclusions

The first round TLQPR Report for HKUST identified a number of deficiencies in arrangements for QA regarding teaching and learning. Several suggestions were made for ways in which these deficiencies might be addressed, and for QA elements that could usefully be developed and put in place. The current Panel is pleased to report that over the past 6 years, the university has responded conscientiously to the criticism and there have been significant positive developments in relation to QA&I processes relating to teaching and learning. HKUST is commended for this. Staff are taking their teaching responsibilities seriously, and students are generally positive about the teaching and courses that they encounter. There are a number of welcome developments on campus that have been instrumental in bringing the institution more in line with others, *vis-à-vis* QA practices and processes that would be expected. Some of the more significant of these developments, that bring the institution into line with QA expectations, are the following:

- (a) The TA system and associated training procedures: these are comprehensive, well organised and valued by those who are involved.
- (b) The Centralised On-line System for Summative Evaluation of Teaching (COSSET) online evaluation of teaching system, and the importance attached to these student evaluations.
- (c) The establishment of Student-Staff Liaison Committees, together with evidence of appropriate responsiveness to student feedback.
- (d) The establishment of CELT. This is a well-resourced unit that is having an impact on campus, especially in relation to its support for Web-based pedagogies. The Portfolio of Essential Attributes, Knowledge and Skills (PEAKS) Project has the potential for impacting positively on teaching and learning arrangements on campus.
- (e) The establishment of CTLQ.
- (f) The development and use of the PRS, and the associated embedding of continuous student feedback.
- (g) The teaching and learning Web-site for, *inter alia*, disseminating good practices and displaying model education quality work (EQW) statements, and the Instructional Development Experiences, Applications & Solutions (IDEAS) portal.

Against this background of positive development, there are a number of areas that the Panel feels should be further addressed. These matters are associated with the following broad areas for improvement that the Panel identified.

- (i) There is not yet on campus a fully-developed overall system of QA&I for teaching and learning. There are gaps where desirable elements are encountered only sporadically or are missing altogether. For example, staff appraisal generally uses only student feedback in relation to teaching quality.
- (ii) There is sometimes a lack of coherence that results in the absence of an energetic institution-wide drive for improvement. This results in considerable variation across units, depending upon the efforts of individuals in those units.
- (iii) While the language of educational quality processes has been taken on board at all levels of the institution, and is generally taken seriously, the processes and procedures signified by that language are not yet embedded so as to constitute a strong culture of search for continuous improvement. The often conflicting institutional priorities between research and teaching need to be addressed, so that discussion, evaluation and innovation regarding teaching become as much a part of the culture of HKUST as does research activity.
- (iv) The University has committed itself to a heavy reliance on External Advisory Boards and Accreditation Reviews, as an important component of EQW. However, the external reviewers (as judged from written reports provided to the Panel) often appeared to be unsympathetic to, and even dismissive of, EQW. If the emphasis on external review is not to undermine the University's commitment to the improvement of teaching and learning, new guidelines and protocols for review committees should be developed.

The paragraphs below follow on from and elaborate upon these general points.

- 3.1.1 The goals of courses and programmes are generally well explicated, include both disciplinary and more generic outcomes, and draw appropriately on feedback from a variety of stakeholders. However, these are not commonly linked or aligned in a clear manner with teaching and assessment.
- 3.1.2 There are two major strands concerning the improvement of teaching and learning on campus:
 - Staff-centred, bottom-up approaches, where the Panel was able to identify many individual initiatives.
 - Clear central initiatives, such as CELT, the HKUST Statement on Quality Teaching, etc.

However, these two strands are not clearly integrated and embedded into a line structure with an energetic drive from senior managers. For example, there is some tendency for Deans to defer responsibility for QA&I in teaching and learning to committees, rather than helping to energetically drive developments themselves, as exemplars of a culture of commitment to improvement in teaching and learning.

- 3.1.3 In relation to the last point, there is a need for development of the CTLQ, where there is some lack of clarity regarding its authority. The committee could usefully take on more intellectual ownership of QA&I. In its development in this direction, the assistance of an external advisory body might be useful. The establishment of such a body would be entirely consistent with the aspiration of the University to reach the highest international standards, and associated mechanisms of international peer review *vis-à-vis* scholarly activity.

In relation to this matter also, the Panel was disappointed by the lack of energy and effort of some of the departmental teaching quality committees (or their equivalent), which appeared to be driven neither internally, nor externally. The lines of responsibility that presently exist for teaching and learning, from the centre through the schools to the units and back, need to be strengthened.

- 3.1.4 The Academic Advisory (AA) Committees are rather traditional in their focus and reporting, with an emphasis on curricular and resource issues. It would be useful to produce new guidelines that include reference to EQW. Membership of AA Committees would also need to be consistent with the new guidelines. (The external advisory body referred to under 3.1.3 above might assist in this initiative).
- 3.1.5 In the absence of an external examiner system, care needs to be taken that sufficient checks and balances are in place to assure the authenticity of standards. There is some variation across departments, and a suitable monitoring mechanism designed to reduce this variation could usefully be put in place.
- 3.1.6 The Panel noted that in some units, staff appraisal is identified solely with the use of student feedback to assess teaching quality. While this is an important component, a broader range of evidence could usefully be utilised, especially in the light of the comment in the Self-Evaluation Document (SED) that nearly half of staff surveyed did not feel that student evaluations were an accurate reflection of their teaching. Peer review is one obvious source of evidence: this could be linked with the campus-wide consultation on the use of peer review referred to in the SED. Encouragement to develop alternative forms of assessing teaching could be accomplished, for example, by requiring that each unit's process be reviewed and approved by a central agent such as the CTLQ.

On a related issue there were claims in some of the unit discussions that staffing decisions were based solely on research publications. Furthermore, there appears to be no system in place to review professors on a regular basis. The Panel notes however that some of these matters are receiving attention.

- 3.1.7 While the Panel was able to obtain evidence of innovations in teaching from individual units, it was more difficult to find clear evidence of an institution-wide drive toward student-centred learning and a campus-wide sensitivity concerning the role of teaching in facilitating student learning.
- 3.1.8 Internal systems for reviewing the teaching and learning of programmes, units and schools using a more extensive system of acquiring and using performance-based indicators (including data gathered from key stakeholders such as employers) could be further strengthened.

3.2 Recommendations

- 3.2.1 HKUST should build upon recent actions in order to further develop QA&I initiatives into a comprehensive, systematic and coherent system that integrates activity at the institutional, school and unit level. The further paragraphs in this section suggest some directions that might usefully contribute to that development.
- 3.2.2 There is a need to address the priorities given to teaching and research within the institution, with a view to developing a situation where continuous improvement of teaching and learning is as much a part of the institutional culture as research activity.
- 3.2.3 There is a need for tighter and more obvious links between course / programme goals, explicit student learning outcomes that derive from these, and the design and implementation of teaching and assessment activities that rationally aim to achieve those learning outcomes.
- 3.2.4 HKUST should move to develop a culture, and associated practices, where senior managers see it as a significant responsibility, and are more prepared to take it upon themselves, to energetically drive moves to improve the quality of teaching and learning.
- 3.2.5 Review the responsibilities and activities of CTLQ and departmental teaching quality committees, with a view to making these more integrated and improving their effectiveness. A focus for the review should be the development of CTLQ, to become more of a force for continuous improvement of teaching and learning on campus. Establishing an external advisory committee for this exercise would be useful.
- 3.2.6 Establish new guidelines for AA Committees that include reference to EQW. Membership of AA Committees will also need to be consistent with new guidelines that are established. In moving in this direction, the external advisory committee suggested in 3.2.5 above could play a useful role.
- 3.2.7 Introduce a monitoring mechanism to ensure that there is consistency in the academic standards applied across different departments.
- 3.2.8 Broaden and extend the range of evidence used to evaluate teaching quality, beyond student feedback. Data derived from peer review would be especially appropriate, together with external examiner reports, etc. An associated recommendation is that there is a need to strengthen systems for collecting and using data relating to teaching and learning generally. Student learning outcomes are a particularly significant source of data; feedback from key stakeholders (students, employers, alumni, etc.) is also important.
- 3.2.9 Across the institution as a whole move to develop a greater emphasis on student-centred learning, together with a shift from quality processes that focus primarily on *teaching* to those that emphasis student *learning*. (Though, of course, teaching is of crucial importance).

4. Observations relating to the TLQPR Template domains

4.1 Design of Curricula

Across the campus as a whole the Panel encountered evidence that there was significant activity relating to curriculum review and development. Often, this was stimulated by the requirements of external accrediting bodies / agencies, though on occasion the stimulus was internal to the unit concerned. In almost every case, discussion and development was informed by feedback from a broad range of stakeholders, including students, alumni and employers; in some cases this information was gathered in a systematic manner, in others the data collection proceeded in a more ad hoc fashion. External advisory committees also played a significant role in some cases.

Where the Panel encountered the most significant variation in curriculum design, was in the extent to which units sought to derive student learning outcomes from broad course / programme objectives, and subsequently align teaching, learning and assessment arrangements with these intended outcomes. In most cases, linkages and alignments were weak or even non-existent. However, the Panel did encounter examples of units which had energetically moved to incorporate these alignments into their curriculum design, and subsequently evaluate outcomes. In this context the General Education (GNED) / PEAKS Project that is being piloted by CELT offers potential for reducing the variation across campus, and enhancing the coherence of curriculum design.

4.2 Design of Teaching and Learning Processes

The Panel encountered a wide variety of different teaching approaches and methods in the units that were visited. The following were particularly common :-

- Lecture / tutorial / laboratory arrangements
- Case-studies
- Web-based methods
- Projects

The particular methods emphasised in the various units tended to reflect “traditional” approaches within the particular discipline, and overall the adjective “traditional” (and generally competent) could validly be used to characterise the general approach to teaching across the institution as a whole. And there are, of course, some strengths in this. Where innovative approaches are used, these are very largely the result of individual initiative, rather than a more systematic drive at the unit, school or institutional level. The exception to this description is the PRS initiative that has been instituted across campus, and the Panel was able to identify examples of the effective use of this technology.

Some discussion regarding the desirability of moving toward more student-centred teaching and learning arrangements (e.g. problem-based learning) is taking place at various sites on campus, but there is little evidence of any broad-front penetration of

associated teaching and learning arrangements. Again, developments that are in place are largely the result of individual initiative and effort.

4.3 Design of Student Assessment and Use of Assessment Results.

As for teaching, assessment methods are largely “traditional”, with a mixture of continuous / on-course assessment and final examinations. Student projects are also common. The Panel encountered some examples of assessment procedures that were designed to gauge more generic skills (teamwork, spoken communication, etc.) in addition to disciplinary-focussed knowledge and skills.

The Panel was able to validate the fact that there was a good deal of discussion about assessment, at the unit level, within explicit systems that had been established for that purpose. To a large extent this is a consequence of the absence of an external examiner system within the institution. In general, the discussion is concerned with the appropriateness of examination questions, standards and consistency of marking and grade distributions. A further common element of unit level activity is concerned with multiple / collective grading of project work.

There is little evidence of wide-spread efforts to explicitly align assessment procedures with intended student learning outcomes – though the Panel did identify some examples of good integration across the three domains of curriculum, teaching and assessment design. Generally, there is little to suggest that student performance in examinations, or on assignments and projects, is used as a source of data in the development of teaching and curriculum.

4.4 Implementation Quality

Student feedback was the most commonly cited mechanism for assuring the quality of teaching, with departmental heads following up with the staff concerned if there appears to be any problems. Other sources of feedback used in QA activities include employer and graduate surveys, and in a small number of cases ad hoc peer review was used to supplement student feedback. Some of the units visited have established departmental teaching quality committees (or equivalent): however, it was often not possible for the Panel to assure itself that these bodies were acting energetically or playing any very significant role in the continuous improvement of teaching and learning – though there were a few exceptions to this statement.

The training of TAs was mentioned several times as a mechanism via which quality of teaching and learning was assured, and the Panel was able to validate the usefulness of the comprehensive procedures that have been put in place.

4.5 Commitment of Resources to Education Quality Work

The Panel found that there is a fairly strong ethos of commitment to improving teaching and learning at the unit level, and this is reflected in the time that individual staff devote to the development of their teaching and teaching materials. At the same

time, there is no strong and evident systemic mechanism for encouraging or rewarding such commitment, with the consequence that there is considerable variation in unit level allocation of resources – mainly staff release time for specific activities. Examples of such activities include:

- The development of simulated environments
- Release time for course development
- Overseas staff placements to study and develop case-materials

REPORT ON RESEARCH POSTGRADUATE EDUCATION

5. Major Overall Observations

5.1 General Observations

The Panel met with the Associate Vice-President with responsibility for research postgraduate (RPg) programmes, the Chair of the Committee for Postgraduate Studies (CPS), and the Head of Postgraduate Studies administration. The Panel also visited three units: the Department of Electrical and Electronic Engineering; the Department of Biochemistry and the Divisions of Humanities and Social Sciences. The UGC Research and Postgraduate Sub-Group (RPSG) last visited HKUST in 1998. This visit raised several issues, including attrition rates; supervision and monitoring of progress; quality local intake; English language proficiency; course availability; and the environment for RPg education. The Panel was pleased to see both through the SED and at the site visit that these issues had been addressed.

A further issue, raised in the first round TLQPR, concerned variation in quality of TAs. This present Panel addressed the issue of TAs in discussions, in order to evaluate the impact on RPg students and programmes.

- 5.1.1 Research and postgraduate education is an important feature of the University's mission as a research-oriented university, and associated activity is distributed throughout the institution. The current RPg population is 914 students, in 45 programmes spread across 19 departments.
- 5.1.2 The arrangements and processes for research postgraduate programmes are largely decentralised, but within a strong policy, regulatory and monitoring framework. Senior executive responsibility rests with an Associate Vice-President (VP). There is no Graduate School, but a dedicated arm of the Academic VP's office acts as the graduate office and handles all administration. We were pleased to note the proactive role of the office in ensuring clear and adequate information and communication, including handbooks, online information, news and resources available through the University's Web-site.
- 5.1.3 The CPS, reporting direct to Senate, is responsible for approval and monitoring of programmes, including coursework and assessment requirements, and examination arrangements. CPS has taken a number of important and successful initiatives since the last RPSG visit in 1998. These include the introduction of the Annual Monitoring Progress Report, and efforts to improve the quality of intake.
- 5.1.4 Within this framework departments determine the character and shape of programmes according to discipline needs, including coursework, supervision, and Qualifying Examinations. There is accordingly variation in practice between departments. However we were pleased to find that all the units visited addressed their responsibilities seriously, with consistent approaches and structures to govern judgements on appropriate arrangements and on quality.

5.1.5 The Panel concluded that the University was developing a sound approach to teaching and learning quality for RPg education, and found a number of positive initiatives and improvements that were evident, and had been implemented since the last TLQPR and RPSG visits. In particular the following aspects are commended:

- (a) The effective balance between bottom-up innovation and good practice, and a university-wide framework to underpin quality.
- (b) The improvements to TA training, and the role of the TA Co-ordinators.
- (c) The clear information and communication provided for students.
- (d) The positive discussion with students, who were all confident and extremely supportive of the faculty, their programmes, and their TA roles.
- (e) The step-by-step opportunities for RPg students to ‘learn the trade’ through their TA relationships with undergraduate students, their own research experience and relationships with supervisors, and in the case of some senior Doctor of Philosophy (PhD) students, their role as PhD instructors. This articulation of roles and relationships is continued at faculty level, for example in mentoring of new supervisors.

5.2 Recommendations

5.2.1 The Panel wishes to make the following recommendations and suggestions in relation to further improvement:

- (a) the University should continue to monitor the mix of factors, including variations between departments and disciplines, which impact on the duration of a student’s programme to completion, and on attrition and completion rates;
- (b) in particular, the University should ensure, for all departments, that the overall combination of programme requirements including coursework and thesis, and the student’s TA duties, are consistent with timely completion;
- (c) given that many good practices were initiated at departmental level, the University should consider how best it might best promulgate these innovations by sharing and dissemination, for example through CPS and CLTQ.

6. Observations relating to the TLQPR Template domains

6.1 Design of Curricula

The duration of Master of Philosophy (MPhil) and PhD programmes varies across departments according to the needs of the discipline and in particular the coursework requirements. The expectation is of a four to five year full-time programme to PhD, with coursework occupying the first stage, in line with a USA model. The University

sets a minimum coursework requirement for PhD of 15 credits, but within this individual programmes are approved by Postgraduate Committees, School Boards and ultimately by CPS.

Programmes receive careful consideration at unit level. Some departments encourage students to take open / elective courses from other faculties / departments to extend availability and flexibility. There was variation between departments in relation to the provision of courses in research methodology. One unit had recently introduced a Faculty Research Seminar in order to give students an awareness of up to date theories and methodologies. This is an area that might be considered by CPS, not necessarily to require uniformity, but to ensure that there are explicit and appropriate arrangements for all students.

6.2 Design of Teaching and Learning Processes

The TA role was welcomed universally by the students we met. They found it enriched their experience, enabling them to learn and reflect from their teaching duties with undergraduates, and develop their own skills through a wide range of activities. One department has introduced a new initiative, where senior PhD students are appointed as PhD instructors. The TA Coordinator role is also well regarded by students.

Supervision style and arrangements are largely regarded as a matter for the individual supervisor. However the Panel was pleased to find that the University handbook does set out requirements and responsibilities, both for supervisors and for students. We hope that this will be an area for continuous improvement.

Research Group seminars are widely used to enable students to present their research. In one unit, staff also made exemplar presentations to show students how to make succinct and effective seminar presentations. Students are encouraged to participate and present papers in international conferences, with University support from travel scholarships.

6.3 Design of Student Assessment and Use of Assessment Results

The Panel was pleased to note the following aspects in relation to assessment:

- (a) the introduction of a PhD Qualifying Examination;
- (b) the emphasis on externality and objectivity in the thesis examination arrangements, which include an examiner from outside the Division and an examiner external to the university; and
- (c) the requirement for non-local students to demonstrate English language proficiency.

One unit had a requirement for students to publish two refereed articles prior to graduation. The Panel noted that this requirement was interpreted flexibly, and had not presented difficulties.

The Annual Monitoring Progress Report gives a formal vehicle for ensuring that progress of individual students is checked at the highest level, through the Academic VP's office. It is important that this annual check is supported by more frequent attention at departmental and supervisor level.

6.4 Implementation Quality

Course evaluation is taken seriously, and staff members appreciate the substantive comments made by RPg students which enable them to adjust courses and teaching. Feedback is obtained through a variety of means, both direct and indirect, including Teaching Coordinators, staff-student liaison committees, and course evaluations.

The Advisory Committees are a further useful source of feedback in RPg aspects. The Panel found a number of instances where adjustments had been made or were ongoing, and commend the responsiveness of faculty to this useful vehicle.

6.5 Commitment of Resources to EQW

RPg studentships are allocated on a formula basis, taking account of faculty numbers as well as school and division plans. The Panel recommends that allocation takes account of performance indicators including throughput and attrition. This is especially so in view of the ability to supplement funding through other sources such as research grants – good in itself, but should not lead to laxity over completion rates, especially in a period of tight resources.

We were pleased to find that considerable resource is allocated to EQW in terms of time, as well as support through the Committee structure, indicating the significant academic value attached to EQW.

REPORT ON CONTINUING EDUCATION UNITS

7. Major Observations

7.1 As background it should be noted that HKUST did not offer any continuing education courses until 1994/95, when the School of Business and Management (SBM) offered the first course on executive education. This was followed by the School of Engineering (SE) in 1997/98. Self-financing degree or credit-bearing programmes only began in recent years with the Executive Master of Business Administration (EMBA) offered by SBM in collaboration with Kellogg. The continuing education arm of SE also began to offer part-time self-financed postgraduate degree programs in September 2000.

As of January 2003, HKUST has a total of 10 credit bearing programs (one offered by the School of Science, four by the School of Engineering, three by the School of Business and Management, and two by the College of Lifelong Learning).

In mid-1999, HKUST College of Lifelong Learning (CL3) was established. Although offering two Associate Degree programs as an agent of an American Community College, CL3 does not currently offer any credit-bearing courses of its own. It was initially established to offer online English Language courses, and the range of courses was subsequently expanded in 2001-2002 to include courses on IT and other subjects, that were offered in a mixed-mode blend of online and face-to-face delivery.

7.2 The units were well-prepared for the visit. Significant amounts of documentation and information pertaining to their operations were provided, and both staff and students were spontaneous and forthcoming in the discussions. In the case of SBM and SE, the students (SE preferred to have them addressed as participants) were mature, and all were pursuing postgraduate courses.

7.3 Courses offered were as follows:

- SBM offered the EMBA with Kellogg, the MBA and the MSc in Electronic Commerce and Management.
- SE offered the Master of Technology Management in Global Logistics Management, the Master of Technology in Information of Technology, the Graduate Diploma in Computer Forensics, and the Professional Diploma in Computer Forensics.
- CL3 offered the Associate in Arts and Sciences Degree, and the Associate in Arts and Sciences Degree in Business.

7.4 The CEUs follow the regular university QA process, except that they have to face another important criterion – financial viability and sustainability.

The strategy of HKUST is very apparent with regard to the programs offered by SBM and SE – to offer high quality and high level programs (postgraduate courses) at premium prices. Indeed, their courses are the most expensive in Hong Kong. The EMBA charges US\$70,000 tuition fee per student. The corresponding figures are

HK\$150,000 for the full-time MBA; HK\$180,000 for the part-time MBA and HK\$195,000 for the Masters in Technology Management programs.

The strategy for CL3 appears to be less focused and not so well defined. While it was established as a response to the emergence of the dot.com industry, its growth has been curtailed as a result of the downturn in that area. To stay viable, it has begun to offer other courses, and has moved away from purely on-line delivery to a mixed-mode approach.

8. Observations relating to the TLQPR Template domains

This section will focus on courses offered at the SBM and the SE. The Panel has decided not to comment on the EQW of the CL3 as it is still in its infancy, and is currently not offering its own credit-bearing programmes. However, remarks on CL3, where appropriate, will be made in other parts of this report.

8.1 Design of Curricula

The curricula are benchmarked against overseas universities, and follow the regular university procedures for approval. Advisory Committees provide input and feedback for the design and revision of the curricula, and the relevant industry is also consulted.

In the case of the EMBA programme the curriculum follows closely that of Kellogg, with a high degree of customisation of the contents to relate to the Asian context. This has been successful, to the extent that Kellogg has begun to use some of the teaching materials developed by the HKUST faculty.

8.2 Design of Teaching and Learning Processes

Courses are taught by regular faculty members, who receive extra pay as a result. Teaching evaluations on these programmes do not count as part of staff appraisal, nor do staff receive workload relief from their regular teaching. Nevertheless, the respective CEUs have been able to engage the better instructors to teach in the programmes, and there is a strong sense of ownership, including the EMBA programme with Kellogg.

8.3 Design of Student Assessment and Use of Assessment Results

In addition to examinations, continuous assessments in the form of group and individual projects, class participation, and assignments play a significant role in assessing student performance in all programmes. This is appropriate given the practical nature of the subject matter and targeted students (participants). All units use some form of pre-entry assessment to gauge students' readiness for the courses. The SBM, in particular, encourages its students to take various self assessment tests throughout the duration of the programme.

8.4 Implementation Quality

Student feedback is taken very seriously: the Panel was provided with examples of rapid response to the concerns of students – including the changing of instructors. In addition to formalised feedback, students (participants) have direct e-mail contacts with their professors who are responsive to student comments. In the SBM, mid-term evaluation has been institutionalised, and students are also encouraged to provide feedback throughout. In the case of SE, while there was no mid-term evaluation, participants were encouraged to provide feedback on an “as needed” basis.

Quality is further assured by putting the better instructors to teach in the programmes. Regular teaching workshops and seminars for sharing of good teaching practices are also held. TAs are also engaged to assist with the teaching, including the management of computer labs and Web-sites. Owing to the high fees charged for the various programmes, both CEUs were very conscious of the need to ensure a high quality of delivery.

External accreditation is another source of QA. SBM has been accredited by the Association to Advance Collegiate Schools of Business (AACSB) and European Quality Improvement System (EQUIS), while SE has undergone programme accreditation by UK bodies.

8.5 Commitment of Resources to EQW

Significant administrative and logistic support is provided to the programmes. Resources to improve the quality of teaching come in the form of various workshops, seminars, enrichment programs, teaching awards and good facilities. Without doubt, these allocations are driven largely by the high expectations of students that are consistent with the high programme fees.

The residential component of the EMBA and the Masters in Technology Management programmes also reflect the commitment of resources to EQW.

9. Areas for Commendation

9.1 SBM and SE Programmes

These two continuing education providers have been able to offer high quality programmes at high price premiums. They are able to tailor-made courses to the demands and expectations of students, provide high quality instructors, help develop strong networking opportunities for students through industry linkages, and ensure that adequate and responsive administrative support are available. As a result, they have been able to attract high quality students who expressed high levels of satisfaction with their experiences. These students, in turn, drive the quality of the programme to a higher level.

It is also noteworthy that the quality of HKUST instructors in the EMBA programme has been rated as good as those from Kellogg.

9.2 CL3

Despite not offering any credit-bearing courses, CL3 has done some commendable work in developing and offering seven English Language Programmes via an on-line mode that is supported by some face-to-face sessions. There are about 1,500 to 2,000 students enrolled in the seven programmes who pay HK\$1,500 to HK\$7,000 per programme (depending on duration). These English Language programmes are beginning to show good results and have the potential to be developed further, especially if they can be converted into credit-bearing courses that are integrated into the mainstream courses of the University, and / or linked with the International English Language Testing System (IELTS).

10. **Recommendations**

10.1 SBM and SE Programmes

- (a) The high tuition fees may deter some excellent students who cannot afford the price and who are not sponsored by their companies. It would be worthwhile exploring ways in which some of these potentially excellent graduates might be catered for.
- (b) The possibility of offering more exchange programmes with prestigious overseas universities could be explored, as these can serve as very meaningful benchmarks for the quality of the programmes.

10.2 CL3

The strategy for CL3 needs to be further clarified. (Currently, it appears to be the “step child” of the University that is not receiving sufficient attention for it to grow further). This is particularly important in view of the fact that HKUST is a late-comer in the realm of continuing education. The ways in which the various continuing education programmes offered by CL3 fit into the overall mission and strategy of HKUST, and their place in relation to the high value programs offered by SBM and SE need to be addressed.