Applying Student Learning Outcomes Concepts and Approaches at Hong Kong Higher Education Institutions: Current Status and Future Directions

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This report presents findings of an external review of practices related to student learning outcomes in Hong Kong higher education institutions and, based on this review, a set of initial recommendations for moving forward for consideration by the University Grants Committee (UCG). The review was conducted by Peter Ewell of the U.S.-based National Center for Higher Education Management Systems (NCHEMS) as part of an ongoing base-line research study on this topic with the UGC.

The first stage of the study involved an examination of background documents (including the reports of the second round of TLQPRs) and a week-long site visit to Hong Kong on November 28-December 1 2005. During the site visit, consultation meetings were held with six of the eight institutions to examine their practices and determine their needs.[1] Meetings were also held with UGC staff, Hong Kong resident members of the UGC's Quality Group (QG), and members of the Teaching Development Steering Group (TDSG). This visit resulted in a draft report which was submitted to the UGC for review. A second week-long site visit took place on April 24-28, 2006. The primary purpose of this visit was to present the initial paper to the Quality Group (QG) of the UGC for discussion, to refine the recommendations it contained, and to conduct a second round of institutional visits and meetings with stakeholders.[2]

Material gathered during the two visits and an ongoing review of documents provide the foundation of this report. The report first provides some brief background comments on the study and its motives, then presents observations on the current status of outcomes-based concepts and approaches at UGC-funded institutions and, based on these findings offers a considered set of recommendations to the UGC.

Background. UGC's interest in furthering the topic of student learning outcomes evolved from its recent engagement with examining and improving quality processes at

[1] Campus visits were made to Hong Kong Polytechnic Institute, Hong Kong University of Science and Technology, Hong Kong Baptist University, City University of Hong Kong, and Chinese University of Hong Kong. A separate meeting was held with representatives of the Hong Kong Institute of Education. To gather views from outside the university sector, meetings were held with the Hong Kong Institute of Certified Public Accountants, the American Chamber of Commerce, and the Hong Kong Examinations and Assessment Authority (HKEAA).

[2] Campus visit were made to Lingnan University, the Hong Kong Institute of Education, the University of Hong Kong, and Hong Kong Polytechnic University (repeat visit). A stakeholder meeting was held with the Hong Kong Institute of Engineering (HKIE).

the constituent institutions. The 1990s saw the prominent emergence of higher education quality review processes conducted by national funding or governance bodies in Europe and the U.K for purposes of furthering accountability and stimulating programme improvement. Perceiving the benefits of this approach in a Hong Kong context characterized by significant increases in university enrollments and the need for Hong Kong's higher education system to remain internationally competitive, the UGC conducted a first round of Teaching and Learning Quality Process Reviews (TLQPRs) in 1995-97. The TLQPRs, like most national quality audits, concentrated principally on examining the internal processes maintained by each of the eight institutions to assure academic quality by examining programme/course design, instructional delivery, academic assessment, and ongoing academic planning and management.

The second round of TLQPR was conducted in 2002-2003. This second round of reviews raised the profile of teaching and learning generally among Hong Kong institutions and revealed significant progress in developing internal quality processes. Many examples of good practice were documented in a publication, *Education Quality Work: The Hong Kong Experience*. But this publication's conclusion raised questions about the actual impact of investments in quality review on teaching and learning processes themselves—questions which were unanswerable without systematic evidence about student learning outcomes.

In 2004, the UGC conducted the Performance and Role-related Funding Scheme (PRFS) exercise. The Assessment Panel considered that most institutions should be more explicit in setting their intended student learning outcomes. The UGC fed back to institutions that it would like to encourage them, in addition to ensuring adequate processes and resources, to take a further step to determine more explicitly the extent to which students have achieved intended learning outcomes. The Committee was aware that some higher education systems were beginning to use outcome-based approaches and would further work with institutions in this respect.

Indeed, the topic of student learning outcomes was of increasing salience to quality reviews in other jurisdictions—most prominently in Europe through the Bologna process and in institutional accreditation in the U.S. In the latter, especially, student learning outcomes have become an integral part of both quality assurance and quality improvement for teaching and learning. Outcomes-based approaches to education are also increasingly accepted and demanded by the international business community. Both factors are of interest as Hong Kong seeks to significantly improve its institutions in the light of the "3+3+4" educational restructuring initiative and the region's continuing efforts to position itself as an important economic hub. Moreover, Hong Kong is in a particular position to move differently and beneficially in the application of outcomes-based concepts and approaches because of a unique combination of environmental factors as described below.

There are a number of specific reasons why UGC has an interest in furthering the application of learning outcomes concepts and approaches to university-level education in Hong Kong. Among the most prominent are:

- Improving the Quality of Teaching and Learning. A key element of established UGC policy is "working with institutions to ensure that each provides excellent teaching in all areas relevant to its role." Increasingly, best practice in improving the quality of undergraduate teaching and learning emphasizes the need to be clear about the specific learning outcomes toward which teaching and learning processes are directed, and assessing these outcomes in a valid and reliable manner to produce evidence that can help determine where improvements can be made. While this is principally a responsibility of institutions themselves through their faculties, external policy bodies like the UGC can play an important role in a) raising these matters to levels where institutions must pay systematic attention to them, b) providing institutions and faculties with the resources needed to accomplish this task and, c) aligning multi-institutional efforts to ensure synergy. But the track record of external bodies in fostering institutional interest in these tasks in other jurisdictions has been mixed and the UGC can move differently based on lessons learned. The experience of the Quality Assurance Agency (QAA) in the UK in implementing subject review in the 1990s, for example, cautions against an excessively directive role for policy bides like the UGC. Full involvement and "ownership" of the process by institutions is critical to success. The UGC would be well advised to adopt the "light touch" eventually taken by the QAA from the outset, and to as fully as possible emphasize its responsibility to support instructional improvement.

- Fostering Progress Toward Four-Year Degrees. Hong Kong institutions also face a more particular challenge as they modify their offerings to accommodate a four-year undergraduate degree. The UGC has a specific interest in ensuring that the development of these new degrees proceeds smoothly and has already set aside significant resources to underwrite the process. Most institutions are moving toward using the additional curricular flexibility that will be provided by an extra year of undergraduate study to foster so-called "general competencies" and "whole person" education. Doing this in the explicit context of articulated student learning outcomes is already proving beneficial to some institutions. At the same time, UGC is committed to role differentiation among institutions in the higher education sector so that each institution can contribute to common goals based on its strengths. The development and assessment of distinctive institution-level general competencies consistent with the mission and context of each institution as it develops its new curricula would reinforce this appropriate differentiation. These two factors—the pressing requirement to design a new degree structure and the UGC's established commitment to institutional role differentiation—provide the Committee with a distinctive way forward in fostering the further development of outcomes-based approaches. In other jurisdictions, this topic is too frequently associated with an attempt by government or external bodies to create a "one-size-fits-all" policy advanced in the name of greater accountability. UGC, in contrast, has the opportunity to approach it in the light of a constructive job that needs to be done anyway and a curricular vision that the institutions already support.

- Ensuring International Competitiveness. In an increasingly global higher education marketplace, UGC has a strong interest in ensuring that the degrees granted by Hong Kong institutions are competitive internationally. As mechanisms for educational provision become more and more diverse, quality assurance for higher education in most nations is rapidly shifting toward a greater reliance on evidence of learning outcomes from an exclusive reliance on resources and the integrity of instructional processes. And in a global marketplace, outcomes themselves must address an increasingly common set of general competencies that include high levels of communications skills, critical thinking and problem-solving, quantitative skills, and a variety of social and workplace skills. This competitive environment also means that Hong Kong must demonstrate that its own university graduates are distinctive in being able to function effectively in "Asia's World City." Elements of this "Hong Kong brand" of university graduates include dual language proficiency, multi-cultural literacy, and knowledge of both local and international business and social practice. Demonstrating these kinds of proficiencies, defined in outcomes terms, will become increasingly important in moving forward. Historically, in other jurisdictions, identifying and defining appropriate learning outcomes and standards for learning has tended to be the exclusive province of institutions and their faculties. While respecting the academic autonomy and integrity of the institutions, UGC has a significant opportunity to ensure that institutions consult widely and appropriately with business and industry stakeholders as they define what Hong Kong university graduates should know and be able to do.

- Responding to Stakeholders. Consistent with the above, UGC's policy is to take a proactive role in advising and steering the higher education sector toward satisfying the diverse needs of the region's stakeholders. As already noted, this should involve consultation with employers and other constituents to ensure that institutional offerings are aligned with demand in various educational fields and assuring stakeholders that the degrees granted by Hong Kong institutions meet established international quality standards. But in Hong Kong as elsewhere, deficiencies in university graduates are increasingly being expressed by key stakeholders in outcomes-based terms. Surveys of Hong Kong employers conducted for the Education and Manpower Bureau, for example, recently identified English language skills and creativity in problem solving as among the most important abilities sought by employers. These sources also noted that the competitiveness of recent Hong Kong graduates may be eroding when compared to mainland graduates. Responding effectively to higher education's stakeholder community will increasingly require answering important questions like these with results-based language and evidence.

All of these reasons support UGC's involvement in this arena, and suggest ways that Hong Kong might approach the topic differently from other jurisdictions. First, the common practical challenge faced by all institutions in building a four-year degree structure suggests that learning outcomes-based approaches be undertaken as an integral

part of this task. And second, the pressing need to promote international economic competitiveness for Hong Kong suggests that there be substantial levels of stakeholder involvement in articulating the kinds of outcomes that will be needed.

Overall Assessment. Site visits to all eight UGC-funded institutions enabled a reasonable initial assessment to be made of the current status of learning outcomes-based concepts and approaches in Hong Kong higher education. Summary points below outline these findings, together with examples of how these conditions have been addressed in other jurisdictions. (The majority of the site visits were conducted in November 2005. it is possible that institutions have thought a lot more on the subject since then.)

- Uneven Development Among Institutions. Hong Kong institutions are very different in their applications of learning outcomes approaches to both the design of teaching/learning activities and the assessment of learning. Only one institution has made significant explicit use of these approaches, having incorporated some elements of the outcomes-based approach in course and programme design for more than a decade. Two other institutions have explicitly embraced these approaches more recently—though strong commitment on the part of academic leadership means that the adoption of learning outcomes in all programmes is apparently proceeding systematically and quickly. About half of the remaining institutions lie at the other end of the continuum and have only just begun conversations about these topics at the top levels of academic leadership. Much of the initial movement at all institutions was a result of the stimulus provided by the TLQPR and PRFS processes.

  All of the institutions visited nevertheless have a good basis on which to make progress. Specialized accreditation in applied and professional fields means that at least some programmes at every institution are applying outcomes concepts and that teaching staff are taking them seriously. Especially prominent here is the influence of international accrediting bodies like the Accrediting Board of Engineering Technology (ABET) and American Association of Collegiate Schools of Business (AACSB) International. These and other external quality regulators are increasingly requiring adequate evidence of student learning, presented in outcomes terms, as a condition of continuing recognition as accredited programmes. Similarly, institutions whose origins are in the polytechnic sector have the advantage of familiarity with the strongly outcomes-based quality review regimens of the former UK Council on National Academic Awards (CNAA) and have in part modeled their internal quality assurance and review processes on that basis. Finally, all of the institutions visited have an organizational vehicle to support and further the conversation about learning outcomes through a center for staff development. Though many of these centers have only recently been established[3] and their services are not used by all teaching staff, all contain some "champions" of outcomes based approaches that,

[3] Many of these centers were established in the wake of the first round of TLQPRs, and were recognized as important signs of progress by the second round of TLQPRs.

with appropriate support and recognition, have the potential to help move their institutions forward.

Uneven development of this kind is a common challenge in adopting innovations like learning outcomes approaches, and Hong Kong shares the tendency typical of most jurisdictions that the most research-oriented institutions and those whose instructional offerings are least centered on applied and professional fields tend to have the least familiarity, although there are notable exceptions to this trend. One lesson that can be drawn from these experiences is that teaching staff need to see concrete examples of outcomes-based applications in their own disciplines that are located as fully as possible in the institutional contexts with which they are familiar. In some cases, this has meant conferences and workshops in which examples drawn from different kinds of institutions are reviewed and critiqued.[4] In others, case studies of discipline-level applications at different kinds of institutions in different contexts supplied as publications or on the web can be helpful.[5] The common theme here is to provide examples of application that are concrete and sufficiently context-specific that they can help overcome the all-to-typical reaction of "that's nice, but it can't happen here."

- Decentralized Application. The use of outcomes language and approaches at Hong Kong institutions is considerably more developed at the level of individual disciplines and programmes than it is at the university level. This appears to be partly a matter of accreditation and partly a product of internal academic quality assurance processes that are focused on individual courses and programmes. Learning outcomes appear to be incorporated into these processes to some extent at all institutions, though to a greater or lesser degree depending upon each institution's stage of development. At institutions with well-established and comprehensive academic quality assurance processes, applications of learning outcomes concepts are apparent throughout course and programme development and approval guidelines, but are less visible at the institution level. Nor are these concepts explicit and conscious in the language that academic leaders and teaching staff use to talk about their offerings. Explicit reference to outcomes concepts appears to have been in part reinforced by the TLQPR process. Academic administrators and teaching staff at most of the institutions visited noted that they have tried to become more conscious and systematic about such matters as the alignment of assessment and teaching/learning activities with learning outcomes after TLQPR reports pointed out improvements that could be made in these areas.

[4] Good examples are the statewide conferences on assessment held annually in U.S. states like Washington, Virginia, Colorado, and New Mexico with financial support provided by state higher education authorities. Similar are the discipline-based teaching and learning support Subject Centres established in the U.K. under the auspices of the National Higher Education Academy. Both examples are characterized by very practical examples of application that can relate directly to the everyday experience of teaching staff.

[5] Good examples are the case studies of assessment in undergraduate mathematics compiled by the Mathematical Association of America (MAA) with support from the National Science Foundation (see www.maa.org/saum).

Decentralization of this kind poses a potential problem at the programme level similar to uneven development at the institutional level: isolated in their own contexts, those responsible for instructional development at the programme level are not in a position to see what "best practice" looks like or to learn from other disciplines that may have made a bit more progress. Experience elsewhere suggests that regular institution-wide occasions for sharing the experiences of individual programmes and departments can be beneficial, as well as faculty development staff drawn from teaching-learning centers who can visit individual departments to put them in touch with others at the institution that may be doing similar things well.

Perhaps more importantly, all Hong Kong institutions are facing the task of developing a new four-year curriculum. Several of them appear to be thinking about accomplishing this task by establishing a few general, institution-wide learning outcomes that can be used to guide the development of integrated programming designed to foster these abilities alongside regular discipline-based study. Two institutions are already well along on this path, with a review currently under way to align existing academic offerings with a set of general competencies. Several institutions have also embarked upon initiatives aimed at "Whole Person Education," with outcomes described in a few areas of general competency that are being mapped onto specifically identified elements of the curriculum and co-curriculum. Even at institutions that are relatively underdeveloped with respect to applying learning outcomes concepts and activities explicitly, developing the necessary four-year curriculum in general competencies terms seems to make sense.

- Lack of Institution-Level Visibility. Although present as part of the quality assurance process at the programme level at most institutions, outcomes language is not very *visible*. Internally, outcomes statements tend to be "buried" at the individual course level. That is, there are references to outcomes in syllabi and occasionally in individual course descriptions, but few actual examples are visibly present at higher levels of the curriculum. Furthermore, site visits to campuses saw or collected examples of multiple documents that *referred to* learning outcomes, but few of them actually contained any outcomes statements. This means that outcomes concepts are probably not being visibly used to drive and organize instruction for teaching staff, though staff may be conscious of these outcomes contextually as they develop instructional and assessment strategies. Similarly, it is not clear that these intended outcomes, even though they may be present, are being communicated to students to provide them with a rationale for what they are being asked to do and to give them understandable examples of mastery-level work. The ability to communicate learning expectations clearly to students in this manner is one of the most important elements of applying outcomes-based approaches to the design of teaching/learning situations. Some of the most striking counterexamples of this were found in the newly-developed programmes being implemented by the few institutions that had already adopted, or were in the midst of developing, a new outcomes-based curriculum. The

guidelines being used for new programme development in these few cases are consistent with best practice elsewhere and might inform teaching staff at other Hong Kong institutions.

At least as important, outcomes language is not part of the "public face" of instruction at Hong Kong institutions. It is virtually invisible on websites, for example, even at well-developed institutions. This means that potential students, employers, and external stakeholders remain unaware of the learning outcomes that the institution is trying to achieve. Making such statements public, together with evidence of their achievement, is becoming a major element of accountability in other jurisdictions. For example, spurred by federal regulations, institutional accreditation requirements in the U.S. now demand public display (on websites or publications) of intended learning outcomes for all academic offerings, as well as any general competencies that are associated with attainment of the bachelors degree itself.[6] In the context of establishing Hong Kong graduates as possessing distinctive attributes that distinguish them from overseas graduates and that are uniquely suited to effective practice in the Hong Kong business and cultural context, public communication of this kind becomes especially important.

- Applications to Assessment. Most Hong Kong institutions are very good at assessing learning at the *individual student* level. And in some of the best cases the conscious use of outcomes to guide the individual student assessment process and to help align learning activities is sophisticated and credible. This is reinforced by the continuing presence of a strong external examiner system at most institutions, and was probably sharpened by the explicit questions about assessment posed by the second round of TLQPR. But as generally understood in higher education systems established in the tradition of the English university, the term "assessment" is almost exclusively seen as having to do with examining individual student performance to mark particular examinations and assignments.

  In the U.S., and increasingly in Europe, the term "assessment" is now being simultaneously applied to the process of assembling broader evidence of programme or institutional effectiveness that goes beyond the performance of individual students. While much of this evidence is based on aggregating student performance on individual assessments, much of it also requires the use of additional evidence-gathering methods like student and alumni surveys, specially-designed academic tasks assessed by rubrics, or institutional portfolios. This is a major feature of the mature "culture of evidence" in best-practice institutions in other jurisdictions. This capacity to provide aggregate evidence of student academic achievement to both assure quality and to help guide potential improvements in teaching/learning activities and the academic environment is relatively underdeveloped at Hong Kong institutions. A few institutions have undertaken assessment in this aggregate sense, intended to yield information for

[6] As an example, see the website describing University Learning Goals for Indiana University Purdue University at Indianapolis at http://www.iupui.edu/academic/undergrad_principles.html.

programme improvement. These include studies of student engagement and academic behavior, and some plan longitudinal studies to examine the impact of new curricular arrangements. At the majority of the institutions visited, though, only student satisfaction surveys are in place. Perhaps more importantly, the underlying institutional *philosophy* of systematically using outcomes-based evidence to continuously improve the teaching and learning process appears underdeveloped.

Experience elsewhere suggests that addressing this condition requires more than just the opportunity to examine cases of best practice. It requires actually rehearsing the process of information-based improvement on a small scale so that key members of the campus community can experience the benefits of the process for themselves. Challenge grants or mini-grants provided by central funding authorities to help underwrite small institutional demonstration projects in which existing or recently-collected information about a locally-identified teaching/learning problem is analyzed and directed toward addressing the problem can be particularly effective here. In this manner, campus stakeholders can reap immediate benefits in an area that is important to them—and that they themselves have identified—while simultaneously experiencing the complete assessment "feedback loop" of identifying a learning problem, gathering evidence related to the problem, and using this evidence to help formulate a solution.

- Lack of Experience Among Teaching Staff. Line teaching staff, when they were encountered at the institutions visited, were largely ignorant of basic outcomes concepts, approaches, and terminology. But this does not imply that they are hostile. Indeed, after some initial discussion explaining the motives behind the visit and the kinds of practices institutions elsewhere had undertaken successfully, teaching staff became more receptive. Primary reservations then shifted to the amount of time that the process might take and fears about the reductionism that might result if an approach based mechanically on standardized testing were adopted.[7] But most were eloquent about the need for practical, hands-on, discipline-tailored examples of how to create meaningful learning outcomes statements, incorporate them into curricular design and specific teaching practices, and gather evidence that they are being achieved.

  This condition is straightforward but widespread, and can best be addressed through staff development programmes that include a combination of generic workshops and individualized consulting with experienced teaching staff. The institutional teaching/learning support centers now in place at all Hong Kong institutions provide the natural venue for providing this kind of specific training, and some of these centers have staff with the requisite expertise and experience. For instance, some of these centers regularly offer short courses on developing learning outcomes and using them to guide teaching and designing learning activities at the course level. Staff from other centers proactively visit academic

[7] The views of some teaching staff in this regard appeared particularly influenced by what is happening in secondary school reform in Hong Kong, and especially its heavy emphasis on standardized testing.

departments on a consulting basis to disseminate these skills. Some of these centers have also been active in disseminating overseas experience in assessment (as well as other aspects of teaching and learning. One center sponsored a workshop on learning outcomes assessment in December 2005 that showcased local assessment efforts and brought in two overseas experts. Another at a different institution, with TDG funding, is arranging for a lecture series by overseas experts on learner-centered teaching/learning support next fall that will prominently feature assessment. Support to enable these staffs to develop additional generic training materials, perhaps with input from a range of overseas practitioners, and the creation of a cadre of local consultants comprised of teaching staff in a range of disciplines who have direct experience with applying outcomes-based concepts and techniques in different kinds of teaching/learning situations, is also an approach that has proven beneficial elsewhere.[8]

- Perceptions of the UGC Role. Administrators and teaching staff at the institutions remain uncertain about what UGC is trying to accomplish with this initiative. In particular, they are suspicious that performance on common measures or benchmarks will be used in the resource allocation process. They are cognizant of the fact that UGC values the distinctiveness of each institution and its particular role in Hong Kong higher education. But the recent experience of the PRFS, in which resources were linked to the results of an institutional review, means that they are likely to see any interest in "quality" on the part of the UGC in a similar vein. Discussions during the site visit helped clarify this matter by explicitly stating thatthere is no intention at present to link "outcomes" with funding directly. But it is apparent that UGC will need clearly to articulate exactly what its interests are and what it hopes to accomplish by pursing this initiative. The rationale stated in the previous section provides a beginning for this process. But the Committee itself will need to firmly endorse one or more of these interests as the basis for action and must clearly establish the boundaries of the initiative and the rules of engagement under which it will operate.

  Administrators and teaching staff at the institutions visited also worry that legitimate differences in institutional mission and context will not be taken into account as the UGC pursues this initiative. One concern here is that "common" learning outcomes will be developed that do not reflect the unique character of each institution. This is particularly the case for general competencies that cut across programmes—especially those dealing with cultural awareness, work habits, and values. Another potential anxiety lies with the different student bodies served by the institutions, particularly with respect to incoming academic ability. When looking at outcomes, those serving less-well-prepared students worry that their institutions will not perform as well as those serving better-prepared students, regardless of the quality of teaching they are providing. As a result, they would like to see more emphasis placed on development or "value-added" than on

[8] Again the technical assistance fieldwork sponsored by state assessment groups in the U.S. and that of the 24 discipline-based teaching development Subject Centres in the U.K. provide useful models of how to proceed.

absolute achievement on common measures. Both perceptions illustrate the fact that the dominant initial perception of institutional leadership is that the UGC is embarking on this path with an accountability-oriented mindset similar to that with which it pursued the PRFS exercise. If the fundamental motive is to *improve* practice, UGC will need to send prominent early signals that emphasize this point.

Recommended Next Steps. Based on the above assessment, it is unwise for UGC to consider developing a scheme that links the allocation of resources directly to institutional progress in adopting outcomes based approaches at present. As the institutional center of gravity with respect to this matter moves toward higher levels of adoption and sophistication, however, considering approaches that link allocation to progress in this area may be a reasonable thing to do—especially if resources are visibly tied to efforts to improve teaching and learning. At the present stage of development and in the light of current mixed perceptions of UGC's motives in embarking on this initiative, leading with a high-stakes initiative would likely be met with outright or passive resistance: compliance would occur, but not much progress.

As a result, whatever approach is taken must be flexible and must be informed by the fact that institutions are at very different stages of development. All could benefit from assistance in their current efforts, but the kinds of detailed assistance each institution will need will likely be quite different. In working out a tailored approach to providing assistance, though, all institutions should be able to participate regardless of their current stage of development.

Finally, the point of greatest leverage and added value for the UGC may be to help institutions pursue the development and assessment of institution-level general competencies at the undergraduate level. Three reasons suggest this course of action. First, this is the area that is the least well developed at all institutions—even those that have made considerable progress in incorporating outcomes-based practices at the programme level. All can use assistance in this process and, because there will likely be overlaps in the kinds of general competencies that institutions decide to pursue, some common development may be helpful. All institutions will likely pursue some general competencies centered on communications skills, creative problem-solving skills, and sound work habits, for example.

Second, it will be important for institutions to develop such general competencies as part of the planning for their four-year bachelor's degree programmes. One rationale for these programmes is to provide more scope for "whole person" development, so general competencies that explicitly define what is meant by "whole person education" will be needed. And this is a task that institutions cannot avoid; all of them will need to have made substantial progress toward this goal before implementation of "3+3+4".

Finally, such general competencies are the kinds of attributes that are of most concern to external stakeholders like employers and representatives of government. Attributes like good communications skills and the ability to function effectively in Hong Kong's unique cultural and business context are especially valued by these constituencies, and

demonstrating that Hong Kong university graduates possess them in addition to necessary technical and professional competencies will provide Hong Kong higher education with a substantial competitive advantage. For all these reasons, centering much of UGC's attention in fostering the further adoption of learning outcomes based concepts and approaches on such general competencies in the context of the four-year curriculum seems a wise course of action.

Within this context, the UGC should consider a menu of **options** intended to build institutional capacity in this arena. Some elements of this approach might involve common work across institutions but because of the fact that institutions are at different stages of development, much of it should be institution-directed and tailored toward individual campus needs.

- Provide a Clear UGC Message About Motives and Next Steps. Although much was accomplished in clarifying UGC's interest in furthering campus engagement with learning outcomes during the campus visits, there remains a great deal of uncertainty about what UGC hopes to accomplish with this initiative. Experience elsewhere suggests that establishing a clear set of ground rules for moving forward can foster positive communication and genuine campus engagement by reassuring members of teaching staff that the initiative remains improvement-oriented.

  More specifically, UGC's message should distance the learning outcomes initiative from any direct links to funding. But the approach taken should consistently signal that UGC expects visible progress on the part of institutions with respect to applying outcomes based approaches. The message should also emphasize that developing more clearly defined learning outcomes in the higher education sector is an area of sufficient importance that all institutions should be engaged in it. As a result, UGC is willing to invest systematically in capacity development, recognizing that the institutions are at very different stages in this respect. Finally, learning outcomes should be recognized as an important aspect of what UGC will look at in future reviews of teaching quality—but as part of the *overall* alignment of outcomes, teaching-learning processes, and assessment.

  In the wake of this message, the UGC might charter a working group of respected senior members of staff committed to the improvement of teaching and learning to help guide the initiative. Alternatively, this group might be constituted on an institutionally-representative basis. Chartering such a working group should constitute the first formal step in any initiative because of the importance for UGC of continuing to engage the institutions in dialogue and obtaining ongoing feedback from institutions about what is most useful and effective in applying outcomes based approaches in different contexts.

- Develop a "Common Language" for Campus-Developed General Competencies. All institutions are faced with the task of developing four-year degree plans and most are approaching this task at the same time as they are pursuing general

competencies consistent with "whole person" development. While it is important for each institution to maintain its own distinctiveness and voice as it pursues this common goal, it is equally important to ensure that the kinds of learning outcomes that all are developing are broadly consistent with one another, are aligned with stakeholder needs and values, and avoid some of the commonly-encountered problems associated with such efforts.[9]

To help move forward, UGC might underwrite a simple template or taxonomy to map emerging learning outcomes statements as they are developed by the eight institutions individually.[10] This would preserve individuality of approach but still allow institutions and UGC to identify potential areas of commonality—most likely in areas like communication or problem-solving— that could be pursued together voluntarily. If common threads are discovered across institutions, additional steps might be undertaken more fully to align the language used by institutions to describe these core competencies, and forming cross-institutional working groups to examine ways to gather evidence of their attainment. A common and easily-understood framework of this kind might also facilitate international comparisons, so that Hong Kong institutions can ensure their stakeholders that they are all teaching toward global skills and standards. Finally, it would enable the UGC to broadly track institutional progress in developing appropriate statements of general competency.

In pursing the development of general competencies, moreover, the UGC and institutions should be mindful of the challenges involved and learn from experience elsewhere. Annex B provides a brief discussion of such efforts in other jurisdictions, together with some implementation lessons.

- Provide Funding for General Competency Development Linked to Institutional Four-Year Degree Planning. All UGC institutions face the challenge of developing an integrated four-year undergraduate curriculum in the next two to three years, and there are significant arguments that this expanded curriculum should foster some general competencies that are common across programmes at the same institution. The UGC might provide funding to institutions to pursue the explicit incorporation of general competencies into their degree plans in the form of outcomes statements, learning activities intended to foster these outcomes, student assessments built into course assignments and (most desirably) capstone experiences, and associated teaching staff development.[11] Such funding would be most effective if it was tailored to each institution's individual needs and current stage of development. Each individually-tailored funding agreements should be premised on a clearly-articulated general institutional vision for the four-year

[9] Examples of the problems encountered include managing statements of general competency, pitching them at the right level, and relating general competency with actual coursework. Please see Annex B for a listing of such problems and some strategies for addressing them.
[10] An example of a "common language" template of this kind is provided in Annex A.
[11] See Annex B for a discussion of lessons learned about fostering the development of general competencies across the curriculum in the U.S.

degree that might include some of its major anticipated emphases or features. Following experience in other jurisdictions,[12] such grants might be negotiated and formalized in the form of a "compact" or Memorandum of Understanding (MOU) for each institution.

- Underwrite a Technical Assistance Network. There is a clear need for on-demand practical assistance in directly applying outcomes-based approaches at individual institutions through hands-on work with teaching staff. Technical assistance networks with access to cadres of experienced local practitioners who can deploy as needed to campuses in response to specific requests have proven useful for this purpose in other jurisdictions.[13] A first task for such a Network might be to document what kinds of outcomes-related projects or initiatives are going on at which institutions, so that institutions can learn from one another. A dedicated and periodically updated website could be established to enable campus practitioners to monitor the kinds of projects that others are undertaking—including examples of their work. The Network might also sponsor periodic training events that showcase the work of individual campus teams or presentations by local or overseas experts on outcomes-based teaching/learning approaches and assessment. Finally, the Network could establish a consultant pool of local and overseas experts that campuses could access through a simple request-for-assistance procedure.

- Host or Underwrite Events to Launch the Initiative. The steps above might be furthered by an event or series of events focused on the development of learning outcomes statements and approaches in the Hong Kong university context. This programming would be directed at teaching staff and programme administrators at all Hong Kong institutions. In addition to staff development, it would provide a foundation for networking across institutions at the course and programme level, and would provide a visible symbolic "launch opportunity" for follow-on activities supported by the UGC like those noted above. Part of this offering might feature overseas examples of best practice. A significant element should be "hands-on" sessions that actively involve participants in reflecting on provided examples and how they might be applied in their own university contexts. An additional element should allow each institution to showcase aspects of its own efforts to apply outcomes concepts and approaches. A final element might be presentations by or conversations with local stakeholders like employer groups or Chambers of Commerce, together with government representatives, that could

[12] A number of U.S. states have recently used the "Compact" format to create individually-tailored expectations for a wide range of different kinds of performance. Recent examples include Colorado, Virginia, Kansas, Kentucky, and West Virginia. Such arrangements have the merit of not only recognizing differences in institutional stages of development and of preserving important differences in institutional mission and context.

[13] Again, an excellent example is provided in the UK by the Subject Centres of the Higher Education Academy. State-level assessment organizations like the Washington Assessment Group (WAG) in the U.S. have played similar functions in organizing cadres of local technical assistance consultants who can assist member institutions as needed.

emphasize the growing importance of developing these kinds of skills, and of doing so in a distinctively Hong Kong fashion.

- Conscious and Consistent Use of Existing UGC Funding Mechanisms and Other Activities to Foster Institutional Adoption of Outcomes Approaches. UGC already has many vehicles in place that might promote more institutional engagement with learning outcomes concepts and approaches. One is the Teaching Development Grant (TDG). TDGs have been profitably harnessed in the past to steer institutional efforts toward aligning learning objectives, teaching strategies, and student assessment, as well as other topics emerging from the two rounds of TLQPR. TDG proposals that explicitly feature student outcomes language or approaches might be given priority for funding whatever the specific topic being addressed. Such actions would not change the main intent or direction of the initiative, but would send consistent signals to the institutions that UGC values learning outcomes approaches and is committed to supporting them over the long term.

These options for moving forward are not mutually exclusive and others are likely to evolve during discussions among members of the UGC and subsequent interactions with the institutions. The current climate in Hong Kong higher education suggests that steady, incremental development of student leaning outcomes concepts and approaches, consistent with the UGC's avowed policy of recognizing legitimate differences in institutional missions and contexts, is appropriate. Therefore, a relatively non-obtrusive initiative aimed at developing institutional capacity would seem to be the most productive course of action for the UGC to pursue at this time. But perhaps the UGC's most important imperative is to clarify its motives for involvement with this topic in the first place and to clearly articulate for institutions what it hopes to accomplish through this initiative.

Annex A
A Taxonomy of Learning Outcomes Statements

This taxonomy is presented at in its most detailed three-level form, as originally published. But it will probably be most useful as a template for arraying emerging general competency statements from Hong Kong institutions if modified and applied in less detail—perhaps at only two levels.

1. **Knowledge Outcomes (Content)**
    a. Breadth of Knowledge
        i. Comprehension of facts in broad areas of study
        ii. Comprehension of theories an terminology in broad areas of study
        iii. Comprehension of investigative principles and methods in broad areas of study
        iv. Comprehension of the history and development of broad areas of study
        v. Ability to relate/integrate approaches and concepts drawn from more than one broad area of study
    b. Knowledge of Specific Fields (Depth of Knowledge)
        i. Comprehension of facts in a particular discipline or specialized field
        ii. Comprehension of theories and terminology in a particular discipline or specialized field
        iii. Comprehension of investigative principles and methods in a particular discipline or specialized field.
        iv. Comprehension of the history and development of a particular discipline or specialized field
        v. Ability to effectively manipulate concepts, theories, and investigative methods to create new knowledge in a particular discipline or specialized field

2. **Skills Outcomes**
    a. General Competencies
        i. Verbal skills including reading comprehension, writing, and oral communication
        ii. Second or dual language skills
        iii. Quantitative skills including applied mathematics, statistics, and computing
        iv. Analytical skills including skills of problem identification, problem definition, critical thinking, and problem solving
        v. Leadership, team, organizational, and human relations skills
        vi. Invention, innovation, creative thinking skills

vii. Aesthetic appreciation and creative expression
viii. Physical/motor skills and wellness

b. Professional/Occupational Skills
   i. Specific skills applicable to particular professions
   ii. Motivation and work ethic
   iii. Ability to function effectively in global and multi-cultural settings

3. Attitude/Value Outcomes

a. Personal Goals and Aspirations
   i. General goals and aspirations (life style, social mobility, family goals, personal goals)
   ii. Occupational and career goals
   iii. Educational goals
b. General Attitudes, Values, and Satisfactions
   i. Beliefs (including religious beliefs), belief systems, value commitments, and philosophies of life
   ii. Mores, customs, and standards of conduct
   iii. Patterns of feelings and emotions including particular satisfactions and dissatisfactions with individuals, groups, institutions, and social situations
c. Attitudes Toward Self (Development of Identity)
   i. Perception of self, general self-concept, self-discovery
   ii. Self-reliance, self-confidence including adventurousness and initiative, autonomy, and independence
   iii. Satisfaction with self, psychological well being
   iv. Personality, personal coping characteristics including flexibility and adaptability, dogmatism/authoritarianism, and persistence
d. Attitudes Toward Others
   i. Specific perceptions of other individuals and groups in society
   ii. Tolerance for cultural and intellectual diversity including a willingness to accept different points of view
   iii. General human understanding including empathy, sensitivity, and cooperation

4. Relationships with Society and with Particular Constituencies

a. Relationships with Educational Providers
   i. Educational goals and changes in these goals
   ii. Patterns of enrollment, placement, and participation
   iii. Patterns of retention and program completion
   iv. Patterns of program/institutional change and transfer
   v. Levels of achievement in subsequent educational experiences
   vi. Patterns of behavior while enrolled such as engagement or quality of effort

b. Relationships with Employers
    i. Employment and career goals and changes in these goals
    ii. First job obtained after education/training including the relevance of employment to education received
    iii. Long-term employment history by occupation and industry including the relevance of positions held to education received
    iv. Income and earnings history
    v. Promotion and job performance
    vi. Job satisfaction
c. Relationships with Professions
    i. Professional development goals including changes in these goals
    ii. Patterns of professional certification, recognition, and award
    iii. Patterns of subsequent professional development activity
    iv. Professional satisfaction
d. Relationships with Family/Community/Society
    i. Family roles, relationships, and child rearing practices
    ii. Patterns of social affiliation, group membership, and participation
    iii. Patterns of voluntary contribution including contributions of time, money, or other support
    iv. Patterns of citizenship activities including voting and political participation

Adapted from Ewell, Peter T. (1984). *The Self-Regarding Institution: Information for Excellence*. Boulder, CO: National Center for Higher Education Management Systems (NCHEMS), Chapter 3.

Annex B
Developing and Applying General Competency Statements at the Institutional Level

Under the auspices of "general education" or "liberal education," most institutions in the U.S. undergraduate tradition have developed four-year programmes of study that include experiences designed to foster a set of general abilities that their faculties believe should characterize a university graduate. These curricula have in some cases been in place for centuries, but the concrete specification of these intended general competencies has only occurred in the last two decades. Stimulated by accreditation requirements and by the requests of external stakeholders like employers and policymakers, all U.S. institutions now have a set of outcomes statements like this in place.

More recently, there has been a vigorous effort to map these descriptions across institutions, led by a national organization, the Association of American Colleges and Universities (AACU). As Hong Kong institutions begin to go down a similar path, they should be aware of this work and capitalize on it as an emerging standard.[14] At the same time, they should be aware of what U.S. institutions have learned through substantial experience about the challenging task of developing and applying general competency statements. Some resulting directives include the following:

- Keep the process anchored in actual examples of student work. All institutions will quickly face the difficulty of pitching statements of general competency statements at the proper level of generality—general enough to address student achievements in multiple subject areas, but specific enough to provide concrete guidance for developing assessments and teaching strategies. As suggested in the first report of this study, one of the best ways to ensure success is to consistently reference actual examples of student work as concrete embodiments of different levels of the ability in question. For example, rather than developing an outcomes statement in the abstract about the abilities that a student should exhibit in written communication in English, committees doing this work are usually better served by beginning with actual examples of student writing at various levels, then analyzing their properties to determine what is "good."

- Resist the temptation of assigning responsibility for a given general area of competence to the "nearest discipline." It appears natural to let mathematicians, for example, take the lead in developing outcomes statements and associated assessments and learning experiences for a general competency like "quantitative literacy." After all, this is where presumed expertise in the area lies. But

[14] A brief listing of the conceptual approach used by AACU can be found at http://www.aacu-edu.org/advocacy/pdfs/LEAP_VisionFlyer.pdf. The "Greater Expectations" work that preceded this initiative is described at http://www.aacu-edu.org/gex/index.cfm.

experience suggests that this is not the best way to assign responsibility for a cross-cutting ability that is manifest differently in different contexts. Instead, representatives from a broad array of disciplines that *use* mathematical concepts in various ways are generally better able to conceptualize the proper dimensions of the ability and think about ways it can properly be taught and assessed.

- Keep the number of general competency statements manageable. Many institutions begin the process of defining general competencies in the "general education" component of their degrees by developing scores of cross-cutting outcomes statements, each of which must be independently incorporated into the curriculum and assessed. But experience suggests that only about a dozen can be handled meaningfully and effectively. Indeed, six to eight statements is common among the most successful institutions. Keeping the number of discrete outcomes statements limited forces attention to integration across disciplines, emphasizes the need to address multiple contexts, and reduces the likelihood that the concepts will be applied narrowly and mechanically.

- Incorporate general competencies *across* the curriculum instead of creating discrete learning experiences designed especially to foster them. Many institutions have been tempted to add special experiences or classes to the curriculum designed specifically to develop abilities like "leadership" or "quantitative reasoning." This is usually a bad idea because it isolates assessment and development of the ability from the actual contexts in which it naturally arises and within which students must learn to deploy it. Instead, experience suggests, relevant classes and learning experiences should be looked at across the entire programme to determine if they might provide a suitable setting in which to assess or further develop the ability. For example, a class unit in Political Science might be usefully modified to incorporate an applied quantitative exercise centering on interpreting public opinion poll data instead of simply adding more material to a free-standing unit in statistics. Similarly, "capstone" experiences or exercises in the major subject should be carefully examined for their potential to enable graduating students to demonstrate as many areas of general competence as possible in addition to disciplinary mastery.

- Regularly review classes and learning experiences whose design incorporates general competencies to ensure that they are continuing to do this. As new teaching staff take on assignments to teach a particular class, they frequently do not know that it is intended to foster designated general abilities in addition to covering disciplinary content. As a result, they may drop assessments or content that, to them, seems unrelated to the subject matter. The resulting "drift" away from intended cross-cutting outcomes is frequently subtle and is difficult to detect. As a result, experience suggests that it must be specifically addressed through regular programme review or audit procedures to ensure that it remains at the forefront of the learning experience. Similarly, teaching staff who are not directly involved in the process of developing and assessing general competencies frequently do not share a common understanding of what they really mean and

how to look for them in specific pieces of student work. This must be explicitly addressed through staff development.