

# **DEMYSTIFYING QUALITY ASSURANCE**

by

David Leyton-Brown

Executive Director

Ontario Council on Graduate Studies

February 13-14, 2004

for the

**Conference on Higher Education in Canada**

John Deutsch Institute

Queen's University

Kingston, Ontario

February 13-14, 2004

Quality assurance often appears mysterious and/or threatening to some faculty members in the classroom. Professors who care deeply about their teaching and their students often resent or even fear exercises that assess the academic quality of the programs in which they teach. Quality assurance reviews can appear to be time consuming distractions from the teaching and research to which those academics would rather devote themselves, and with little if any benefit from the exercise to faculty and students in the program. This attitude leads to low (and self-fulfilling) expectations of the return from the effort involved, and an attempt simply to get through the exercise with minimal aggravation. At worst it is sometimes charged that quality assurance processes have a misleading or mistaken fixation on easily measured performance indicators that are of only secondary importance to the real quality of teaching and learning, and so can actually have damaging or counterproductive consequences by basing conclusions on the “wrong” factors.

However quality assurance pervades academic life. The professoriate is constantly subject to external quality assurance in the form of peer review of research funding applications, manuscript submissions, and tenure and promotion. If we take for granted the review and assurance of quality of our research programs, our publications and even the progression of our careers, including evaluation of the quality of teaching in individual courses, why should similar review and assurance of the quality of the programs in which we teach be mystifying?

There are many illustrations of internal quality assurance mechanisms, in which individual universities (and individual departments and indeed individual instructors) act to assure and improve the quality of their own academic offerings, but the criticism and confusion typically concerns external quality assurance. That will be the focus of this paper.

Quality assurance can be a useful tool for universities, departments and individual faculty. However to take fullest advantage of that tool, and use it to best effect, it is important to understand what it is, and how it works. This paper will endeavor to explain the various approaches to quality assurance, the key components present in all well-regarded quality assurance processes worldwide, important characteristics found to be successful and effective, and examples of the standards, factors and elements on which familiar quality assurance processes are based. References will be made to quality assurance processes in the United States, Europe and elsewhere, but most of the focus will be on the two longstanding operations in Ontario universities – the quality appraisal of graduate programs by the Ontario Council on Graduate Studies (OCGS), and the audit of undergraduate program reviews by the Undergraduate Program Review Audit Committee (UPRAC) of the Ontario Council of Academic Vice-Presidents (OCAV). The details of these two processes will not be detailed here, as the documents outlining their processes and standards are available on the web.<sup>1</sup> Rather important features of each will

---

<sup>1</sup> The OCGS By-Laws and Procedures Governing Appraisals are located at <http://www.cou.on.ca/ocgs/HOME/By-laws/BY-LAWSANDPROCEDURES30Oct2003WWEBVERSION.pdf>

The UPRAC Review and Audit Guidelines are available at <http://www.cou.on.ca/affiliates/affiliates/UPRAC/UPRACGuidelines2003.pdf>

be used to illustrate the general components, characteristics and standards being discussed.

### PURPOSES OF QUALITY ASSURANCE

Quality assurance measures of various kinds have arisen for two principal reasons. Universities for many years have been concerned to ensure and enhance the quality of their academic programs. The internal academic approval process typically establishes standards for new programs, and many universities have long been determined to ensure that existing programs continue to meet those standards. Nevertheless it is the quality improvement dimension, rather than simply confirmation of meeting minimum standards, that offers the greatest benefit and interest to academics. After all, even the best of programs can be made even better, and continuous quality improvement is a distinguishing feature of the most renowned programs and institutions in the higher education community. However that purpose is often in tension with the other driving force behind the recent increase in quality assurance processes in many jurisdictions – namely the increasing government pressure for public accountability. Governments in many countries are pressing for demonstration that their funding for higher education is well spent, that desired outcomes are achieved, and that quality is assured. Accountability purposes can lead to celebration or defence of the status quo, rather than the active search for change and improvement.

### THE UNIT OF ANALYSIS – INSTITUTIONS OR PROGRAMS

Quality assurance mechanisms address two different units or levels of analysis. Some processes assure the quality of the entire institution, while others address individual programs. While institutional quality necessarily the ability to deliver quality programs, other structural issues also come into play, such as financial stability, effectiveness of governance and administration, student services, academic policies, overall faculty numbers and qualifications, etc. While program quality requires that institutional context and infrastructure, much more detailed examination of the design, human, financial and physical resources, and outcomes of the program is involved. Good institutions can have individual programs which are weaker than others, or even below standard. Weak institutions can have individual programs which are strong. As with any level of analysis problem, values are not necessarily cumulative across levels. Different approaches to institutional and program quality assurance will be illustrated below.

### THE AUTHORITY FOR QUALITY ASSURANCE

Quality assurance measures operate under two different kinds of authority – governmental regulation and academic self-regulation. Some governments directly engage in quality assurance processes themselves, by reviewing and approving the quality of institutions or programs, or by establishing and mandating agencies to do so. Governmental regulation involves demonstration of compliance with specified minimum quality standards. The alternative to government regulation is self-regulation on the part of the university community. Self-regulation tends to accord more respect to institutional

diversity and autonomy, and to have at least the possibility of more emphasis on quality improvement than compliance with minimum quality standards. The major approaches of each type will be outlined.

Government regulation. The first way in which governments regulate the quality of university education is at the institutional level, by approving the institutions that offer it. In Canada, where constitutional authority for education is vested in the provincial and territorial governments, public universities have been established by legislation, and some provincial governments have enacted legislation that has created boards or agencies to advise the government on the creation or entry of private and/or out-of-province institutions. The governments of Ontario, British Columbia and Alberta have created organizations (the Postsecondary Education Quality Assessment Board, the Degree Quality Assessment Board, and the Campus Alberta Quality Council respectively) to fulfill this function by reviewing the organizational quality of the applicant and the academic quality of the proposed degree program(s).

A larger number of provincial governments approve all proposed new degree programs, even from the public universities. In British Columbia and Alberta the bodies described above also assess the academic content and quality of each proposed degree program from the existing public universities against specified criteria. In Ontario what the government approves is eligibility of the program (and its enrolled students) for public funding rather than the implementation of the program per se, but since in almost all cases a public university cannot afford to offer a program for which no public funding is

received, funding approval is de facto approval of the program. The funding eligibility decision does not involve an academic quality review by the government, since the outcome of OCGS appraisal of proposed new graduate programs or internal academic approval of proposed new undergraduate programs by the university's senate or other academic governance structure is accepted as sufficient assurance of quality. Nor is extensive documentation required any longer to be submitted on other factors such as student demand, societal need, and program uniqueness or justifiable duplication, but universities must certify that such documentation has been considered and could be produced if required. In Quebec there is a joint needs assessment mechanism of the Ministry of Education and the Conference of Rectors and Principals of Quebec Universities (CREPUQ) for new programs. New Brunswick, Nova Scotia and Prince Edward Island have created the Maritime Provinces Higher Education Commission (MPHEC) to review all new program and program modification proposals. In Manitoba the Council on Post-Secondary Education reviews proposals for new and significantly changed undergraduate and graduate programs for quality, need, organization and finances.

The third approach to government regulation is the assessment of the academic quality of existing programs. The best known example is probably that of the United Kingdom, where Quality Assurance Agency has systematically reviewed all degree programs in all British universities, but similar undertakings can be found in some US states and in some other countries, such as the Netherlands or Denmark.

Finally many governments, without reviewing the quality of programs directly, require that specified outcomes be achieved, and monitor the performance of universities on specified quantitative indicators. On some occasions public funding is tied to these performance indicators. Among the quantitative performance indicators adopted in various jurisdictions are: graduation rates, student retention or attrition, time-to-degree, student entry and exit testing, pass rates on licensing and certification examinations, post-graduation employment rates and employer satisfaction, etc.<sup>2</sup> Performance measures will be addressed explicitly elsewhere in this conference, and so there will not be an analysis of the methodological or conceptual appropriateness of various indicators here. However it is worth noting that a recurrent theme in the quality assurance literature is whether particular performance measures actually measure academic quality and the quality of student learning. For example Braskamp and Braskamp contend that a common indicator such as graduation rates may reflect more about institutional enrolment policies than about student learning.<sup>3</sup>

Self-regulation. Academic self-regulation operates at both the institutional and program levels. Another recent form of self-regulation is the audit of the processes by which autonomous universities exercise their responsibility to ensure academic standards and improve quality.

---

<sup>2</sup> Quality Review 2003: CHEA Almanac of External Quality Review, Council for Higher Education Accreditation, Washington DC 2003, p. 18

<sup>3</sup> Larry A. Braskamp and David C. Braskamp, "The Pendulum Swing of Standards and Evidence", The CHEA Chronicle, July 1997, volume 1, No. 5, p. 4



Self-regulation of institutional quality is not a feature of quality assurance in Canada, but it is the centerpiece of the voluntary and non-governmental institutional accreditation system in the United States. Eight regional accreditation commissions operate in six accreditation regions to accredit institutions according to standards and criteria that have been developed over time in conjunction with the university community. The accreditation commissions are independent private bodies that receive self-assessments and conduct peer evaluations to ensure the quality of institutions and programs, encourage quality improvement of institutions and programs that have already met basic standards, and certify institutional or program sufficiency as required for the receipt of public funds and for institutional licensure by state governments, and as a partial basis for decisions about the transfer of academic credit.<sup>4</sup> There are also various national accreditation bodies for particular types of institutions (e.g. faith-based institutions, independent or professional institutions, etc.). Accreditation is a voluntary rather than required process, though governments have accepted it as an essential part of the higher education system, by limiting to accredited institutions the payment of federal student assistance funds, or state licensure in some states.

The outstanding example of academic self-regulation at the program level in Canada is the OCGS appraisal process. The publicly-assisted universities of Ontario are bound that they will not implement any new master's or doctoral program unless and until it has been appraised by OCGS and found to be of good quality and approved to commence. Thereafter all existing graduate programs are periodically reappraised on a seven year cycle, and any program that is found not to be of good quality must cease operation.

---

<sup>4</sup> Quality Review 2003, pp. 3-4

Since by far most graduate programs are of good quality, the periodic appraisal process not only provides public assurance and accountability of that fact, but it provides the occasion for self-assessment and feedback from external consultants and the Appraisal Committee aimed at quality improvement.

Academic audit procedures are now in place in Ontario (for undergraduate programs), Quebec, and the Maritime provinces (New Brunswick, Nova Scotia and Prince Edward Island). In each case universities undertake to review the academic quality of their academic programs according to standards established by the external body responsible for the audit (UPRAC, CREPUQ and MPHEC respectively). The audit does not assess the quality of those programs selected for the audit – that review was previously conducted by the university. Nor does the audit second-guess the university review, or serve as a court of appeal for program members who hope for a better deal. Rather the audit tests for the compliance of the university's program review policies with the standards, schedules, procedures and other aspects enunciated by the external body, and for whether the actual reviews examined by the auditors were actually implemented fully in accordance with the letter and spirit of the university's policy. Thus the audit is concerned with process rather than direct assessment of academic quality. Its contribution to public accountability rests upon its demonstration that the quality of every program in the university is regularly reviewed according to transparent and sound procedures and standards that are verified by external audit. Its contribution to quality improvement rests upon the cyclical reviews of each individual program, and upon the

logic that an improvement in quality assurance processes and attention of program members to quality issues will lead to improved academic outcomes.<sup>5</sup>

### KEY COMPONENTS OF QUALITY ASSURANCE PROCESSES

Experience worldwide demonstrates that effective quality assurance processes contain the following three key components:

Self-study. Program review or appraisal is not something done only by outsiders to the program. It rests in the first instance on the self-appraisal by the members of the program. A necessary part of any self-appraisal (or external assessment) is the collection, presentation and analysis of relevant data about the program. In an attempt to avoid intrusiveness and to allow programs to determine for themselves what data is most relevant to their program, some quality assurance processes have left it to the university to decide for itself what data to collect and address in the review. However Dill has found that open-ended requests for documentation produce large volumes of material less likely to be effective for the institution and its program, and for the external reviewers, than defined material upon which the members of the program have reflected carefully.<sup>6</sup> The OCGS By-Laws and Procedures Governing Appraisals and the UPRAC Review and Audit Guidelines both require that the process begin with a self-appraisal, and detail the elements to be addressed in the self-study document.

---

<sup>5</sup> David D. Dill, "Designing Academic Audit: lessons learned in Europe and Asia" Quality in Higher Education Volume 6 number 3 November 2000, p. 203

<sup>6</sup> Dill pp. 196-7

UPRAC auditors have concluded that nothing is more important to the successful review of any program than the self-appraisal by its members. However nothing is more variable in its quality and effectiveness than that self-appraisal. Ineffective self appraisals are descriptive rather than reflective, analytical, self-critical and evaluative; loaded with data that is presented rather than analyzed; defensive or self-justifying rather than aimed at quality improvement; prepared in a formulaic or mechanical way, as if completing a checklist rather than demonstrating that the members of the program are sensitive to and thinking about the context, mission and objectives of the program; and written by the Chair without evidence of buy-in (or sometimes even knowledge) of faculty and students rather than resulting from a participatory self-critical process. Effective self-appraisals invariably lead to quality improvement, and make the reports of external reviewers more useful to that purpose.

Peer review. External quality assessment necessarily involves external review. Effective quality assurance processes involve one or more external reviewers who report on a site visit. Some program review processes also use an internal reviewer, from the institution but from a different program. Such internal reviewers normally serve as members of the site visit team, and thus contribute to the joint review team's report, but may in some processes visit and report separately.

Judgment/decision. Effective quality assurance reaches closure. A decision is made by the responsible body (whether that is external, as in the OCGS Appraisal Committee or an Accreditation Commission, or internal) as to the quality of the program and any

needed remedial actions. It is important that quality improvements indeed occur, rather than linger in some limbo of wishful thinking. There needs to be a mechanism for action to determine which of the recommendations arising from the self-study and the reviewers' reports will be implemented to what extent, and by whom, and on what schedule.

### CHARACTERISTICS OF GOOD PRACTICE

Effective quality assurance processes have several common characteristics. First they are *mission-based*. They respect the diversity and autonomy of institutions and programs by assessing quality against their mission and objectives rather than against some inflexible standard. At the same time different mission and objectives do not become an excuse for inadequate performance, because the standards of the discipline are brought to bear by the external reviewers. Mission-based assessment means that it is important, and possible, to have high standards without standardization.

Effective quality assurance seeks *quality improvement* as well as assurance that threshold standards are met. Regulatory approaches are focused more on compliance with rules, codes and regulations, and while they may use the vocabulary of quality improvement, their practices more frequently require demonstration that specified standards are met, not that improvements above those standards are being suggested and implemented.

Professional accreditation varies considerably, but in general is primarily concerned with preparation of the graduate for professional practice, and so the quality of the program is

seen as an instrumental means of achieving the intended outcome of producing professionally competent graduates, rather than as an end. In both cases the goal of the exercise for those being reviewed or accredited is typically to “pass” by meeting the standards, rather than to improve.

Effective quality assurance is *cyclical* rather than indefinite. Program quality is not to be determined once and then never reconsidered. Good intentions may not be fulfilled. Key faculty can depart or shift interests, and curriculum and equipment can become outmoded. Furthermore quality improvement requires recurring review. Some programs, and some faculty members, may indeed review and improve their quality on an ongoing basis, without the stimulus of a program review or appraisal. But experience clearly demonstrates that the occasion of a scheduled program review or appraisal concentrates the mind. The maintenance and improvement of quality is more likely to be the focus of collective attention in the context of a program review or appraisal than if left to occur spontaneously amid all the other pressures of academic life.

Effective quality assurance serves a public *accountability* function. Students and taxpayers invest substantial amounts of money in higher education, and there are increasing public pressures on universities to demonstrate that the quality of the education resulting from that investment is of high quality, and that desired outcomes are being achieved. Accountability is served by the demonstration that every program is subject to review according to appropriate standards of quality and specified procedures. Accountability is not validated by the number of programs that fail to meet standards, and

so are closed or sanctioned, but by the seriousness of the standards and procedures by which all programs are assessed, and by the quality of the programs that have been successfully reviewed.

Effective quality assurance emphasizes student learning, and the *learning objectives and outcomes* of the program. Earlier quality assurance processes placed great importance on inputs. There were good reasons for doing so. Inputs can be objectively measured and assessed. Without a sufficient number of sufficiently qualified faculty members, a program cannot succeed. Without a suitable library, or laboratory facilities and equipment, or learning and study space, or other inputs, intended learning outcomes cannot be achieved. But it must also be recognized that similar resource inputs can be put to different use by different programs and institutions. Some may make the most of relatively scarce resources, while others may squander their abundance. Inputs alone are necessary but not sufficient for quality. Similarly outputs may be correlates but not consequences of the quality of the program. The graduation rate tells us how many students completed the program, but not how much they learned in it. The employment rate may tell us more about the state of the economy than about the quality of the program. In recent years increasing attention has been paid to learning objectives and learning outcomes as central to quality assurance.

The simplest way to understand learning objectives and learning outcomes is by the question “What do you want graduates of your program to have learned and/or accomplished, and how will you know that they have learned and/or accomplished it?”

Self-appraisal should engage every member of the program in formulating a collective answer to that question, and every individual instructor should pose and answer that question in the context of his or her course. An absolute level of competence may not be an appropriate indicator of quality of a program, because that competence may have existed before entry to the program, or been achieved despite rather than because of the program. Equally, improvement in knowledge or skills, or “value-added” may also not be an appropriate indicator of quality if learning objectives were not realized – for example Braskamp and Braskamp have pointed out that substantial progress in flight training may be of cold comfort if a pilot has got much better at getting a plane to take off, but still hasn’t mastered the intricacies of a safe landing.<sup>7</sup>

So what are appropriate learning objectives and outcomes, and what evidence suitably shows that they have been achieved? First it is important to remember that the unit of analysis is the program not the student. Program quality is not demonstrated by more and more testing of students, but by the relationship of a program’s curricular content, admission requirements, mode of delivery, bases of evaluation of student performance, and commitment of resources to its goals, learning objectives and intended learning outcomes. Programs that know what they intend their students to achieve have a better chance of having their students actually achieve what is intended, and of understanding whether those intended outcomes can be achieved more effectively. There is a vast difference among disciplines, and it is much easier to define and measure learning outcomes in disciplines with specific observable skills than in disciplines marked by more subjective kinds of knowledge and understanding. Evidence that certain outcomes

---

<sup>7</sup> Braskamp and Braskamp, p. 6



have been achieved is often accompanied by the assumption that other desirable but less observable outcomes are also achieved. It is important to remember that performance indicators are only indicators, and do not exhaustively encompass and measure all the complex aspects of student learning. But it is also important to remember that the most important aspect of incorporating learning objectives and outcomes into the quality assurance process is to raise the consciousness among all faculty members about the learning objectives in their courses and programs, and about even partial indicators that the intended outcomes have been achieved. Remember the question “What do you want graduates of your program to have learned and/or accomplished, and how will you know that they have learned and/or accomplished it?”

A workshop on student learning outcomes summarized the types of direct and indirect evidence of learning outcomes that is increasingly being considered in US accreditation processes.<sup>8</sup> Indirect evidence may include portfolios and work samples, follow-up of graduates, employer ratings of graduates, and self-reported growth by graduates. Direct evidence of student learning outcomes is the result of a process deliberately designed for that purpose, and may include capstone performances, professional or clinical performances, third party testing (e.g. licensure or professional certification examinations), and faculty-designed examinations. The workshop offered the following principles:

- Comprehensiveness: submitted evidence should cover knowledge and skills throughout the course or program

---

<sup>8</sup> “Student Learning Outcomes Workshop, March 4, 2002”, The CHEA Chronicle Vol. 5, No 2, May 2002

- Multiple judgments: submitted evidence should involve more than one source or involve multiple judgments of student performance
- Multiple dimensions: submitted evidence should provide information on multiple dimensions of student performance – i.e. they should yield more than a summative grade.
- Directness: submitted evidence should involve at least one type based on direct observation or demonstration of student capabilities – i.e. they should involve more than simply a self-report.<sup>9</sup>

These components and characteristics are evident in the *Principles of Institutional Quality Assurance in Canadian Higher Education* approved by the Board of Directors of the Association of Universities and Colleges of Canada in January 2004.

#### STANDARDS, FACTORS AND ELEMENTS

Well-regarded quality assurance processes define the standards, factors and elements that must be addressed in the self-appraisal and by external reviewers. For purposes of comparison, the standards and policies of US regional accreditation will first be described. Then more thorough attention will be given to the OCGS and UPRAC processes.

---

<sup>9</sup> Ibid, p. 2

US regional accreditation standards encompass such major higher education activities as: curriculum, faculty, academic standards, student services, academic support for students, financial capacity, facilities, organization and governance, and expected student achievement (i.e. student learning outcomes). Accreditation also addresses expected university policies on such issues as conflict of interest, academic freedom, release of information, general education, institutional autonomy and collegial governance.<sup>10</sup> As will become evident, there is great commonality in the standards, factors and elements addressed in other quality assurance processes.

The UPRAC Guidelines (section 3.3) specify that the review of undergraduate programs should address the following elements:

1. consistency of the program with the general objectives of the institution's mission and academic plans, and with the standards, educational goals and learning objectives of the degree;
2. appropriateness and effectiveness of the admission requirements, e.g. preparation and achievement, for the learning objectives of the institution and the program;
3. appropriateness of the program's structure and curriculum to meet its learning objectives;
4. appropriateness and effectiveness of the mode of delivery including, where applicable, distance or on-line delivery) to meet the program's learning objectives;

---

<sup>10</sup> "The Value of Accreditation: Four Pivotal Roles", CHEA Letter from the President, May 2003

5. appropriateness of the methods used for the evaluation of student progress and, where possible, consideration of the effectiveness of the methods used;
6. the level of achievement of students, consistent with the educational goals for the program and the degree, and institutional standards;
7. appropriateness and effectiveness of the utilization of the existing human/physical/financial resources;
8. definition of indicators that provide evidence of quality of faculty, student clientele (applications and registrations), student quality, and the outcomes of the program (graduation rate, length of studies, etc.) and achievement of its learning objectives. (The indicators are invariably best developed by the unit whose program is under review, but examples of possible indicators could be provided in the institutional policy for undergraduate program reviews. Data on indicators should be collected over an extended time period rather than simply once each review cycle, and the results should be discussed in the self-study as a means to enhance program quality and student satisfaction.)

The purpose of the UPRAC audit is to look for assurance that the university's policies and practices explicitly address these elements, and the objectives and structures described in other sections, and that each specified component is covered in the university's policy. The audit does not assess the quality of programs themselves, or judge the "correctness" of any particular objective or outcome, but rather assesses the extent to which the institution's quality assurance policies and practices comply with these guidelines.

The OCGS By-Laws and Procedures Governing Appraisals specify that following criteria of good quality:

- the program's objectives are appropriate and are being met
- the core faculty provide intellectual leadership in the disciplinary area(s) of the program through active engagement in research and scholarship
- the faculty complement is appropriate for the level and scope of the program and its identified fields of strength, and there are appropriate provisions and/or plans for its continuing vitality
- the curriculum design is appropriate
- the resources, such as laboratories, libraries, computer facilities and research support, are appropriate
- enrolments are commensurate with the resources available
- students complete the program in a timely fashion
- there is evidence of appropriate financial support for students
- there is demonstration of the quality of the educational experience of students, including intellectual development and the acquisition of relevant skills

It is clear from the words used in these criteria, like "appropriate" and "commensurate", that OCGS appraisal is not simply a mechanical exercise of data description. Data is essential, and the By-Laws specify the nature and format of that data. But the data must

be analyzed and interpreted, and academic judgment exercised, in the light of the defined learning objectives of the program. Several examples may be useful.

First, the criterion that students complete the program in a timely fashion rests upon the analysis of data concerning graduation rates and times to completion. But the interpretation of the data is not self-evident. There are differences among disciplines, especially with regard to average times to completion. There are differences of program structure and intended duration. It is commonly considered that many graduate programs take too long on average to complete, and that average times to completion should be reduced. However shorter times to completion are not always preferable. It might be widely agreed that seven years to complete a PhD is too long, and that six years would be preferable, and, other things being equal, five years even better. But would four years be better still? What about three years, or two, or even one? Are the email spam offers of a PhD “from prestigious non-accredited universities” in one or two months the standard of quality we should all seek to emulate? Obviously not. Clearly judgment must be exercised about the reasonable length of time in which appropriate learning and learning outcomes can be achieved.

Another example is the criterion concerning the appropriate faculty complement for the program. There is no simple mathematical formula to define how many faculty are “enough”. That depends upon many factors, such as the level and scope of the program and its identified fields of strength, but also the research accomplishments and experience of the faculty, the extent to which their graduate teaching and supervision is concentrated

in this single program, and within the program in a single field of strength, or dispersed across more than one field or even more than one program. However judgments about the appropriate critical mass of faculty to sustain the quality and viability of a program, and of each of its identified fields of strength, have been made since the inception of the appraisal process in 1965. Those judgments rest upon the premise that is students are attracted to the program because of the advertising of an area of strength in which they want to work, those students had better find that strength in place when they arrive.

There should be courses available in the program's curriculum that relate to the identified field, and opportunities for thesis research with adequate supervision on issues in that field. And the critical mass of faculty should be sufficient to sustain that strength even in the light of sabbaticals or other leaves, administrative release for some faculty, etc. Thus the appropriate faculty complement is not a simple head count exercise, but an analysis requiring academic judgment.

Finally, consider the criterion concerning the quality of the educational experience of students, including intellectual development and the acquisition of relevant skills. This obviously calls for the identification of learning objectives regarding the nature and level of intellectual development and of relevant skills. However it does even more than this. The quality of the educational experience of graduate students recognizes that a graduate program is more than the courses taken, and even the research conducted. A quality graduate educational experience requires intellectual interaction with faculty and other students outside of class as well as in class. It requires a meaningful intellectual community in which the culture of research and scholarship is advanced. In one

particular standard that has become a “line in the sand” for the appraisal process, it recognizes that the graduate learning experience is different than that at the undergraduate level – not only more advanced, but more equal and interactive. A different learning experience is found when a group of six graduate students cover advanced material in a seminar setting with their professor, than when those same six graduate students cover that same material with the same professor in a class that also includes twenty or thirty undergraduate students. As a result, the OCGS By-Laws (section 10.4.4) famously require that the number of combined courses in which undergraduate students predominate should be no more than one-third of the total number of courses required for the degree.

### CONCLUDING REMARKS

It should be clear that quality assurance processes, and especially those of academic self-regulation, are founded upon the same academic values that characterize universities. Their standards are real, but their effect is more profound in the improvement of quality than in the certification that quality standards have been met. There are solid academic reasons for all of the data that is required for the process. Most importantly, quality assurance processes such as OCGS appraisal or undergraduate program review provide structured opportunities for members of a program to reflect upon their success in reaching their program’s learning objectives, and to benefit from advice and feedback from noted experts in the discipline. If quality assurance processes are welcomed rather than resented, and all members of a program actively engage in the self-analysis and



articulation of learning objectives and learning outcomes, then they will be positive and productive experiences. Quality, and quality improvement, will be assured.