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A COUNSELING SERVICE'S REVIEW OF A GENERAL EDUCATION CURRICULUM

Colleges and universities across the country are currently examining the goals and commitments they have made to undergraduate education in general and to the freshman and sophomore years in particular. One of the most important aspects of undergraduate education is a university's general education program. In the spirit of review, UCLA's Academic Counseling Service recently studied that university's general education program. This article reflects the results of that study and demonstrates the ways in which any general education curriculum can be modified so that students can acquire requisite academic skills, not *just* academic content, that will help them beyond their college years. The authors acknowledge, however, that many of the ideas presented here derive from the work of others, *but* their synthesis should provide a useful new protocol for *curricular* review.

CONTENT AND COMPETENCE

The focus of the Counseling Service's review was UCLA's general education (GE) curriculum, which consists of approximately 250 courses. The GE curriculum plays a **significant** role in the intellectual life of our students, comprising nearly one-third of all the courses needed for an undergraduate degree. Students must complete at least twelve courses in four divisions: humanities, social science, life science, and physical science. The initial goal of UCLA's College of Letters and Science Counseling Service was modest, simply to review the GE curriculum so that academic advisors at UCLA could provide updated course information such as class requirements and course content. It was clear, however, that students wanted more from their counselors than a collection of facts regarding course requirements that they could obtain from a catalog. What they wanted and needed was advice on how best to reach specific intellectual goals, such as how to write more effectively. They also wanted to know how they could develop specific skills—research competence and computer literacy. Some of these goals and skills could be obtained as part of a major curriculum, but many students, wishing to increase their "employability" or their chances of getting into graduate school, wanted to acquire such skills in addition to those acquired in their curriculum. In such instances, it appeared that the general education curriculum could be designed to accommodate these needs.

Implicit in the Counseling Service's review was the idea that a GE plan should provide students with "competencies" for future learning, in addition to exposing them to traditional academic content. The student's acquisition of these competencies would be accorded equal standing with course content. Reasoning held that all academic disciplines are important, yet students cannot be proficient in all of them. At best, an undergraduate degree provides some expertise in just one area of knowledge, and any GE curriculum provides only a short glimpse

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into deeper worlds of knowledge. An undergraduate curriculum should provide students with the tools to dig deeper, to explore, to advance their personal store of wisdom and knowledge. Rather than simply serving up the history of psychology from 1879 to the present, we must also provide—within the stimulating backdrop of the course content—practice in critical thinking, or writing, or historical analysis, or whatever a college deems important so that students may develop the competence to study further afield throughout their lives. Some would argue that this occurs as a natural part of earning a college degree. Such competence should not simply be the by-product of a college curriculum, however. It should be a goal that the institution strives to uphold and the students work to attain.

This approach to a general education plan has several advantages. One advantage is that students are provided with the skills early in their college careers to successfully complete more advanced upper-division work. These skills might include quantitative reasoning or critical reading and writing. Such skills or competencies are vital if students are to be successful in their majors and in their later careers. Not incidentally, they may also be better citizens. It is not unreasonable for a GE curriculum to provide this sort of all-encompassing preparation for life. Another advantage is that such a plan provides concrete goals and direction for student achievement in the form of specific competencies. No longer would students be required to get GE "out of the way" as they march enthusiastically toward their chosen majors. Rather, they would be offered the opportunity to use GE as a necessary stepping-stone in the advancement of their academic careers and beyond. When shown the obvious advantages of developing specific competencies: student cynicism and apathy toward GE requirements will abate, followed by a renewed commitment toward the fundamental intellectual imperative that such a curriculum provides.

COMPETENCIES

Given this basic premise, the Counseling Review Committee constructed a set of competencies which the committee members thought was important in the intellectual life of students, to help them "learn to learn." We used these following seven competencies in our evaluation of GE coursework.

- Analytical Reading
- Writing
- Critical Analysis
- Scientific Methods
- Quantitative Problem Solving
- Historical Consciousness
- Personal Values and Ethics

■ The Reading Competency concerns the student's ability to read and process highly analytical material. This sort of material is found primarily in journal articles, monographs, and seminal books in a specific field of study. Highly analytic material may also be exemplified in textbooks, but not as often as in past years given publishers' recent practice of "dumbing down" college reading material (Trombley, 1982). In a GE curriculum students should be exposed to a wide range of significant analytical works as well as more narrative types of material.

The Writing Competency demands that students develop an ability to write abstract or analytical discourse, to organize thoughts, and to write sustained and effective prose with clarity and directness. Recently increased reliance on objectively scored examinations at many institutions has decreased the number of writing assignments. Such a competency reasserts the essential need for students to practice this difficult skill.

Both the reading and writing competencies are essential elements in a liberally based college education, but the need to master these skills is complementary. Research addressing the development of composition skills has found that in order for students to write effectively, they must first read effectively (Krashen, 1978). As obvious as this sounds, students often have the mistaken impression that to write well, they must simply practice this skill over and over again. But it is also essential that students become steeped in the analytical discourse they are asked to reproduce in writing assignments. Instructors cannot reasonably require students to write analytically without having students first read and appreciate examples of such discourse.

■ **Critical Thinking** involves students in the process of independent thinking: to marshal arguments and evidence in support or defense of a particular point of view—to develop an appreciation of "responsible commentary." Thus, it is not enough that students be competent readers or writers. They must also be able to discern good from shoddy scholarship and be able to integrate and synthesize material to form a coherent intellectual perspective.

Critical thinking embraces a broad set of skills. In order to make our evaluation of courses more meaningful and specific, two related competencies were defined: "scientific methods" and "quantitative problem solving."

■ **Scientific Methods** requires students to understand and apply methods that allow us to investigate the physical and natural world. For undergraduates, particularly non-science majors, an understanding of such methods is crucial in a culture dominated more and more by rapid technological advancement. Students should understand the process as well as the products of science and should be able to evaluate its potential for use and misuse. A related, but nonetheless distinct, competency is quantitative problem solving.

■ **Quantitative Problem Solving**, unlike scientific methods which provides a philosophical foundation for the gathering of data and the formation of theory, often provides the tools to evaluate such data and theory and involves the ability to use mathematical symbols and models to analyze and solve problems. Students would be well advised to become familiar with these tools and understand how they can be applied.

■ **Historical Consciousness** addresses the need for students to discover the origin and development of a field of knowledge and to build an awareness of significant issues in a discipline. In addition, there is a need for students to understand the forces that have shaped Western and non-Western traditions and to develop tolerance for cultural perspectives different from their own.

■ **Personal Values and Ethics**, the final competency, addresses an important need within an undergraduate education—a need for undergraduates to build an appreciation of a liberal arts education. Personal values and ethics involves the synthesis and integration of knowledge from diverse fields to evaluate issues of value (as opposed to issues of fact); to build a sense of aesthetics; and, perhaps most importantly, to construct a set of personal values or ethics.

■ **In Summary**, these seven competencies may not be the best or most appropriate; some others could be added, others combined or deleted. Regardless of the content of this plan, a GE curriculum of this sort must be *planned* in the most committed sense of that word. Questions such as "What competencies are to be built and taught, using what courses, by what methods?" must be asked and answered. Also, these competencies must be articulated to students. To press a point, faculty must inform students about the educational goals of the

institution, especially for its GE curriculum. Such things are not obvious to college freshmen and yet we act as if the great "truths" of a college education are self-evident. The list of riches may be long and everlasting, but to the uninitiated, our curriculum appears bureaucratic and ritualistic. This plan requires that each competency be carefully constructed and clearly expressed. Of course, each institution may have different goals and, thus, diverse competencies that must be developed. The idea here is not that all schools embrace the same set of competencies, but merely that they develop ones essential to their educational mission and express this good news to their student body. Only then can we require students to meet the challenges of a college education.

EVALUATION INSTRUMENT

Once the philosophical basis was established and the seven competencies agreed upon, the Committee members created an instrument that would allow them to evaluate how the courses at UCLA developed these competencies. In this way, it could be determined which courses developed certain competencies and which focused primarily on content.

For each competency, specific criteria were established for scoring purposes. Competency levels were scored from 0 (not applicable) to 3 (highest competency level), except in the case of reading where the type of analytical discourse was assessed (i.e., light, medium, or heavy analytical). We determined that the *type* of reading, rather than the aggregate amount, was more important in assessing the reading competency.

Once criteria were established, a questionnaire was written that measured the extent to which courses demonstrated the seven competencies. Members of the review committee then interviewed faculty members and teaching assistants using these questionnaires.

To assess the **reading competency**, instructors were asked about the reading level required in their courses (i.e., light analytical, medium analytical, and heavy analytical), along with the number of pages normally assigned per week. Similarly, to determine the type and extent of **writing** that was required for a course, instructors were first asked if they assigned writing as a part of a course and the length of such assignments. More importantly, they were asked whether students were taught to produce a paper via the "composing process," a **write-rewrite** process that involves preparation of an outline and *f i t* draft, then successive rewrites based on the instructor's suggestions. This process is an integral part of composition courses. Nevertheless, courses whose main objective is to impart content may also be able to integrate the composing process as part of the total course requirement. Courses at UCLA which provided such opportunities for students to revise their prose were given high marks for the development of the writing competency.

To assess **critical analysis**, several questions were asked of instructors:

- 1) Is class reading material analyzed and critiqued?
- 2) Does the instructor demonstrate methods for analyzing and critiquing class reading material?
- 3) Are students required to analyze and critique class reading material in class discussions, presentations, or within assigned writing projects?
- 4) Do examinations require analytical responses beyond regurgitation of fact?
- 5) Do exams or other class assignments require students to take a position and defend it?

The **scientific methods** competency was evaluated by examining how courses addressed three areas:

- 1) Does the course discuss theory building? Does it deal with the elements of a well-formed theory (e.g., parsimony, internal consistency, testable constructs) and why are these elements important?
- 2) Does the course address specific experimental methods, including the logic of hypothesis testing, experimental design, data analysis, and interpretation of results?
- 3) Does the course investigate important philosophical and methodological issues surrounding the use of the scientific method? This might include a discussion of the philosophical or historical foundations of science and the limitations of the method.

Quantitative problem solving was determined by evaluating two areas of problem-solving skill: *demonstration of technique* and *practice*. The first area concerns whether adequate demonstration of basic problem-solving techniques is presented, including problem objective, determination of relevant information to solve problems, and the establishment of logical steps for problem solving. The second area concerns the amount of practice provided in order to master these techniques. This includes two types of practice: 1) proofs—the ability to prove or derive some concept using mathematical aids or the rules of logic; 2) applications—the ability to use problem-solving skills in a variety of situations and to apply proofs or formulae to solve appropriate problems.

The level of **historical consciousness** was determined by examining the course readings and lectures as they related to the development or evolution of some time period, specific event, or issue. An important concern was the extent to which students were exposed to various types of historical evidence and the ways such evidence might be employed in reconstructing past events. Also reviewed was whether the course addressed analytical approaches to history (for example, cyclical theory, dialectical development, ideas of progress).

Finally, in assessing the **personal values and ethics** competency, several questions were put to the test:

- 1) Does the course provide information students can use in developing a personal value system?
- 2) Does the instructor confront and discuss ethical issues inherent in a field of study?
- 3) Does the course investigate the **place and/or** use of knowledge in the construction of a personal value system?

These interviews provided the raw data regarding the content of specific courses and how these courses developed (or did not develop) the seven competencies as defined earlier.

CONCLUSIONS AND IMPLICATIONS

This evaluation instrument provides two kinds of information that may be useful for institutions contemplating a review of their general education curricula. First, data are obtained about individual courses that reveal a great deal more useful information than the usual "blurbs" that pass for course descriptions in college catalogs. Rather than providing very general information about the content of a course, the Committee's survey provides information about the **competency** levels assumed or developed in a course: the level of reading required, the amount of writing assigned, the extent of critical analysis demanded, the degree of historical issues investigated, and so on. This sort of information is vital to academic counselors and advisors, the people to whom students turn for help with program planning.

It is now possible to point to classes that promote a reasoned approach to course selection within a GE structure, that of competency development. In addition, sequences of courses may be designed that develop important skills such as writing competence based on the information obtained from such a survey.

Secondly, an overall review of the GE curriculum is obtained, focusing on the types of competencies that are developed in concert with knowledge acquisition. Institutions might use such information to determine not only what is covered within their GE curriculum, but also how it is being presented—the sorts of competencies that are emphasized **and/or** developed. Given a school's goals for GE, information from this survey can pinpoint areas of weakness, allowing resources such as teaching time, labs, and tutors to be directed to the reinforcement or development of some competency. For example, UCLA's general education curriculum was found to provide extensive practice in quantitative problem solving and scientific methodology, but lacked practice in writing and opportunities for critical analysis. From this information, recommendations were forwarded by the Counseling Service's Counseling Review Committee to the appropriate faculty committees whose mandate was to review and enhance the GE curriculum. As of this writing, several proposals are being reviewed to increase the opportunity for writing assignments and to increase the number of discussion sections designed to promote critical analysis of course materials.

A larger outcome of this project is the development of a clear philosophical foundation justifying the presence of a GE curriculum, a foundation that can be easily articulated to students and which provides clear goals for student achievement. Such a plan provides a focus for GE, since far too many institutions have allowed their GE plans to become a smorgasbord of lower-division courses in the irresponsible hope that students will find intellectual coherence within such a laundry list of course selections. We think it is more reasonable—even **essential**—that the experts provide greater direction for students when they begin this important aspect of their undergraduate education. The UCLA Academic Counseling Service plan provides a reasonable starting point for faculty to construct intellectually challenging programs of study within their own GE curricula.

TABLE 1
CRITERIA FOR ASSESSMENT OF COMPETENCIES

Competency	Rating	Criteria
Analytical Reading	1	Light analytical: readings that focus exclusively on describing a field of study (e.g., names, dates, etc.).
	2	Medium analytical: readings that attempt some explanation of the field of study; primary emphasis on the "what" and "how" of the subject matter.
	3	Heavy analytical: readings that are concerned with explanation of the topic rather than simple description, that pursue an argument or analysis within a consistent, ramified conceptual model.
Critical Thinking	0	Course does not require (or model) critical thinking in reading assignments, lectures, or discussion sections. Course primarily concerned with imparting content.
	1	Course requires medium to heavy analytical reading OR lectures that model critical thinking OR discussion sections that emphasize critical analysis.
	2	Course requires medium to heavy analytical reading PLUS lectures that model critical thinking OR discussion sections emphasizing critical analysis.
	3	Course requires all of the following: medium to heavy analytical reading, plus lectures and discussion sections that model critical analysis and require students to practice critical analysis.
Personal Values and Ethics	0	Course does not address the place of its content in any larger concept of the liberal arts.
	1	Course makes an attempt to assert the place of the subject matter within a liberal arts education and deals somewhat with value-related issues in the field of study.
	2	Course—through content and overt discussions, readings, and assignments—demonstrates the role of the discipline in a liberal arts education and addresses value-related issues in the field.
	3	Course whose primary job is to discuss the purpose and form of a liberal arts education and how such an education may influence one's construction of a personal value system.

Competency	Rating	Criteria
Science and Scientific Method	0	Course does not address issues of science or scientific methods in any meaningful way.
	1	Course deals with science indirectly via content only; no overt discussion of science or its methods except through discussion of scientific topics (introduction to chemistry, for example).
	2	Course emphasizes both scientific content and some discussion of science and its methods.
	3	Course deals overtly with science and the scientific method. Scientific content is used only for illustrative purposes.
Quantitative Problem Solving	0	Course 1) does not demonstrate any model of problem solving and 2) doesn't require the practice of problem-solving techniques.
	1	Course demonstrates a model or models of problem solving, but does not require practice.
	2	Course 1) demonstrates models of problem solving and 2) requires practice in problem solving.
	3	Course 1) demonstrates models of problem solving, 2) requires practice in problem solving, and 3) requires students to abstract models of problem solving to unique situations.
Writing	0	Course requires no out-of-class writing whatsoever.
	1	Course requires some amount of writing, but does not incorporate any element of the "composing" process.
	2	Course requires students to rehearse the full composing process on at least one substantial paper.
	3	Course is specifically designed to teach writing via the composing process.
Historical Consciousness	0	Course does not deal with historical issues to any extent.
	1	Course spends some time addressing historical issues in the broadest of terms.
	2	Course addresses vital issues of historical importance in its overall discussion of content.
	3	Course focuses primarily on issues of historical importance (e.g., history courses).

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