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## ABSTRACT

This paper discusses general education (GE) programs and compares course requirements at community colleges in the United states. Through a review of the literature, the author presents the rationale for three types of GE programs: (1) core curricula, the most prescribed type of GE, practiced only by 5\% of four-year institutions; (2) distributional requirement systems, which account for more than $90 \%$ of $G E$ programs; and (3) the free elective program, the least prescriptive form of GE. These programs attempt to provide familiarity with core knowledge, obtained by studying the humanities and social sciences, as well as basic skills. As society increasingly becomes dependent on technology, computer literacy is emerging as one of these basic skills and a vital addition to $G E$ requirements. The paper describes a content analysis of 18 community college course catalogs. Findings indicated that: (1) computer literacy requirements are high in both transfer and non-transfer programs, yet the course content varies considerably; (2) GE requirements for non-transfer degrees are more oriented toward specific skills than general knowledge; (3) the structure of GE requirements in community colleges remains consistent with past research. Appended are objectives of GE statements. Contains 17 references. (EMH)

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# New Dimensions of the Community College Curriculum 

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# New Dimensions of the Community College Curriculum 

## Introduction

Every generation of educational reformers makes its mark on general education requirements. Today, educators face a society that is more ethnically diverse than in previous generations. In addition, digital information technology has expanded in all sectors of our economy and culture from entertainment to medical research. Such social and political changes also shape the community college curriculum.

General education (GE) for all students in community colleges ensures educational equity. "General education must not be optional, lest the gulf between the social classes in America be accentuated as members of the elite group learn to control their environment, while the lower classes are given career education and training in basic skills" (Cohen and Brawer, 1996, p. 353). Transfer students complete the majority of their general education requirements at community colleges. Also, community college general education programs may be the only exposure to core knowledge that terminal associate degree seekers receive. Analysis of general education programs in both transfer and non-transfer degree program is equally important.

This paper will explore the following questions: What purposes of general education do community colleges communicate to their students? How do these specific philosophies relate to the generally accepted objectives of GE programs? How prevalent are different forms of general education requirements (core curriculum, free elective system, distributional requirements) in occupational
and academic Associate Degree programs? How are the new curricular dimensions of multiculturalism and computer literacy manifested?

## Literature Review

While the aims of liberal education and general education are now often conflated, traditionally, they were separate aspects of the curriculum. The purpose of liberal education is to provide "knowledge for its own sake" while general education "must lead to the ability to do, act," to make intelligent decisions in everyday life (Cohen \& Brawer, 1996, p. 342-3). Some commentators combine the objectives of liberal and general education. Derek Bok (1986) identifies some "common aims" or intended outcomes of a liberal education in terms of knowledge as well as skills. "Undergraduates should acquire an ample store of knowledge, both in depth, by concentrating on a particular field, and in breadth, by devoting attention to several different disciplines. They should gain an ability to communicate with precision and style, a basic competence in quantitative skills, ... and a capacity to think clearly and critically" (Bok, 1986, p. 54). In addition to enhancing skills, general education programs attempt to address the "breadth" dimension of the liberal education (Levine, 1978) by providing students with an introduction to the major disciplines of knowledge. Experience in a wide array of disciplines allows undergraduates the opportunity to acquire both quantitative and qualitative skills and thus, adds to the experiences in the major concentration.

In practice, the objectives of liberal and general education are often combined under the rubric of an institution's general education requirements. The continuum of general education programs stretches from the highly prescribed core curricula to the non-directive distributional requirements
systems to the free elective systems. Within each of these general categories exist variation.

The core curriculum is the most prescribed form of general education. "Core general education programs are common, tightly knit, yet broad and often interdisciplinary series of courses usually required of all students" (Levine, 1978, p. 9). The Harvard Red book (1945) defined the model for most core curricula. This general education program required all Harvard undergraduates to engage in three common courses -- one each in the humanities, social sciences, and sciences. Other institutions, such St. John's College, prescribe an entire four -year curriculum of "Great Books" for all students. Curricula with a core requirement thus vary in the proportion of core courses to the entire undergraduate program.

The rationale for core curricula is the preservation, perpetuation and transmission of the views and values of important thinkers, writers, scientists and social leaders (Ratcliff, 1997, p.155). The idea that students well-versed in the universal truths of our culture will be able to use this material in a critical approach to current problems forms the basis of this philosophy. Core curricula can thus accommodate not only canonical knowledge but also the fundamental works of feminism, and ethnic and area studies (Ratcliff, 1997, pp. 148-149). Only a limited proportion (5 per cent) of four-year institutions practice this form of general education (Astin, 1993, p. 425).

While only a small proportion of institutions employ core curricula, distributional requirement systems account for more than $90 \%$ of general education programs in 4 year institutions (Astin, 1993, p. 425) and the majority of community colleges (Cohen and Brawer, 1996, p.358). These systems specify a number of courses to be taken within certain academic disciplines. For example, to fulfill the general education requirements, students must take two courses in each of the major academic divisions: social sciences, arts, humanities, and
physical sciences. Unlike core curricula, distributional requirement programs do not prescribe a sequence of specific courses. These systems vary in their degree of prescription. The most commonly found are also the most prescriptive. These programs require combinations of certain courses, options from pre-selected course lists, and a limited number of electives in designated disciplines (Levine, 1978, p. 12). Other systems require few specific courses but allow students to select any level course from among the designated areas. These programs also vary in the proportion of general education requirements to overall course load. The rationale for distributional plans lies in providing for curricular breadth for the heterogeneous undergraduate populations found in today's colleges and universities. Distributional requirements in general education are characteristic of an educational system that tries to be all things to all people. "The result (of adopting a distributional plan) was a bureaucratic and impersonal higher education system catering to rapidly increasing numbers of students" (Ratcliff, 1997, p. 145). Community colleges' policies of open access make them particularly susceptible to this form of "curricular chaos" (Cohen and Brawer, 1996).

A free elective program is the least prescriptive form of general education. The student is responsible for designing a program of electives across disciplines. At four-year institutions that employ this system, students tend to specialize early and thus do not gain intra-disciplinary breadth or experience with other disciplines (Levine).

The aims of a liberal education include the development of "an awareness of other cultures with their differing values, traditions, and institutions" (Bok, 199, p. 55). The inclusion of multicultural courses or objectives is thus an appropriate component of general education because these aspects of the curricula attempt "to accommodate and respect the varied cultural origins of our
diverse population" (Eaton, 1997). Takaki defines the objectives of multicultural education: "The multicultural class is the place where students can understand their larger community, and figure out what it means to be an American. It is a place where we study the question, How do our paths intersect?" (Reid, 1995). Goals for student learning in multicultural courses include developing an appreciation of the "knowledge traditions within the contemporary United States," providing an understanding of the role of racial, cultural and ethnic differences in the formation of our national identity, evaluating diverse views of the interrelationship of self and community, exploring the individual students' own cultural heritage, and developing the ability to read and compare cultures through their cultural expressions (Olguin \& Schmitz, 1997). Thus, the objectives of multicultural education include acquiring fundamental knowledge of other cultures as well as skills in putting such knowledge into practice. To ensure that students develop a basic understanding of the issues raised in a pluralistic society, Takaki advocates that colleges establish a multicultural requirement for graduation (Reid, 1995). According to a 1992 survey (Reid, 1995), only 20 per cent of community colleges have a multicultural general education requirement while 48 per cent of four year institutions have this requirement.

General education programs attempt to provide familiarity with the core knowledge as well as basic skills. As our society becomes increasingly dependent on computer technology, accessing, manipulating, and evaluating electronic information sources and devices develop as the new basic skills for community college students in both academic and occupational programs. Definitions of computer literacy vary as colleges attempt to integrate these new skills into the existing curricular structure. At Florida's Miami-Dade Community College (MDCC), administrators conducted informal interviews with faculty in order to develop educational objectives for a technology basic skills workshop
for students. Respondents indicated that all students should be able to use a word processor including proofreading functions such as spelling and grammar check, use computer tutorials, and use CD-ROMS for research (Lever-Duffy, 1993). With the increase in access to the Internet, definitions of computer literacy have expanded to include the ability to use e-mail and graphical interfaces such as Netscape, experience with online publishing and the ability to evaluate the content of online materials (Corl, 1996). The importance of locating and evaluating electronic information sources expands the definition of computer literacy to include information literacy as well. "Information literacy is the ability to identify what information is needed to and the ability to locate, evaluate and use information in solving problems and composing discourse" (Nolte, et al, 1993, p. 14).

Computer literacy ensures continuing access to educational opportunities by preparing students to manipulate the basic tools of instruction in the community college environment and beyond. Lever-Duffy (1993) identifies students' lack of basic computer skills as a barrier to the successful integration of computer-assisted instruction. Corl (1996) found that $91 \%$ of the pre-service teaching programs at senior institutions require courses in technology. She believes those community college students who hope to transfer to these programs must become proficient in computer skills before transferring. Furthermore, Sherry and Sherry (1996) found that students' perceptions of their computer skills, especially in the use of spreadsheets, was positively related to their persistence in college.

Success in adopting computer literacy as an aspect of community college general education requirements has been increasing. At Tacoma Community College (TCC) in Washington, results from a needs assessment survey indicated that basic academic skills, communication skills, and adaptive skills are more
important than specific technical skills to local employers. In light of these findings, a task force recommended the inclusion of six essential skills, including computer literacy, among the objectives of general education requirements for occupational students (Nolte, et al, 1993). To demonstrate their computer literacy, students undergo individual assessment processes rather than take required courses.

## Methodology

The study uses a sub-sample of the data collected through the National Curriculum Project of the Center for the Study of Community Colleges ( $\mathrm{n}=164$ )(see lead article for detailed description of this study). The catalogs of eighteen community colleges across the nation were subjected to a quantitative content analysis of their general education (GE) requirements. (NOTE: For the final NDCC article, I will use 32). The sample represents the colleges that were both included in the 1991 survey by the CSCC and for which enrollment data were collected in 1998. The catalogs were analyzed for the presence of official statements of the purpose or objectives of GE. The structure of the GE requirements were analyzed according to the following categories as defined by Levine (1978): a true core curriculum (same for all majors), distributional requirements, free elective system for both transfer degrees (Associate of Arts, Associate of Science) and non-transfer degrees (Associate of Applied Science). Preliminary data analysis suggested that these categories did not encompass the true variation in the community college curriculum. Thus, the following categories were added: core curriculum (varies according to discipline), core curriculum with electives, graduation requirements (not necessarily described as GE). The category of "distributional requirements" encompassed GE programs
limited to set group requirements in each area as well as those that had specific numbers of courses in particular groups and allowed for some electives.

For both transfer and non-transfer degrees, the GE requirements were analyzed in the broad categories: English Composition, Mathematics, Humanities (incl. fine arts), U.S. History, US government, Life and Physical Sciences, Physical Education/Wellness, Ethnic studies or Multiculturalism, Foreign Languages and Computer Literacy. The areas of multiculturalism and computer literacy were examined in depth to illustrate the variation of these newer areas of the curriculum in terms of the structure of the requirements (stand alone course, elected from a set of courses, part of larger category such as math/science or physical education) as well as the representation in occupational and educational programs.

Data Analysis

## Purpose of General Education

Percentage of all schools which exhibited certain themes in their GE statements:
Core knowledge (4) 22

Fundamental skills (4) 22
Appreciate diversity (4) 22
Personal growth (3) 16
Citizenship (3) 16
Educated person (2) 11
Lifelong learning (2) 11
Interpersonal skills (2) 11
Moral development (2) 11
Survival (1) 5
Success (1) 5
Academic breadth (1) 5

Less than half ( $33 \%$ or 7 of 18 ) of the schools' catalogues contained a statement of the objectives of general education (See Appendix). Students thus may be informed of the requirements but not the purpose behind them. The variety of themes found in this sample indicate the varied purposes of general education as well as a lack of fundamental expectations across institutions. This
phenomenon indicates a contradiction to the spirit of general education which is to present a unified body of knowledge to all students. The themes found in this analysis combine the basic philosophies behind liberal learning and GE, to provide core knowledge of our cultural heritage as well as specific skills. Specific basic skills in mathematics and English composition are emphasized as well as skills in critical thinking, scientific reasoning and the manipulation of scientific equipment. Interestingly, an equally important aspect of general education is academic breadth (Levine, 1978), which has a weak presence in this sample. Only one of the schools explicitly mentioned it. Lifelong learning, which Cohen and Brawer (1996) identify as antithetical to the idea of a general education, is a more common objective.

## Requirements structures

A considerable proportion of both transfer and non-transfer degree programs at 2 year institutions express their general education requirements under distributional requirements. Thus, this date shows that despite criticism for not trying to be all things to all people, this form of general education remains resilient. However, differences between transfer and non-transfer do exist as an equal proportion of non-transfer degree programs designate their general education requirements on a program by program basis. Thus, within the same institution, an accounting major will partake of a different GE program than a business administration (transfer) major. This lack of consistency belies the purposes of general education to afford individuals with common knowledge.

Percentage of schools which utilize each type of requirements structure for transfer degrees
Distributional requirements 72

Core w/electives 16
Core curriculum (by programor major) 11
Core curriculum (general) 0
Free Electives 0
Graduation requirements not ge 0

Percentage of schools which utilize each type of requirements structure for non-transfer degrees*

Distributional requirements 39
Core curriculum (by program or major) 39
Core w/electives 16
Core curriculum (general) 6
Free Electives 0
Graduation requirements not ge 6
*All data for non-transfer degree programs reflect the fact only 17 of the schools offered occupational degrees

## Common Dimensions

Basic academic skills (composition, mathematics) are highly represented in general education programs for both academic and occupational degrees. While general social studies courses are also required in both types of programs, United States History and Government are not required as often in occupational programs. Less than two-thirds of the degree programs provide their students with knowledge of civic processes and issues. Approximately the same proportion of both transfer and non-transfer programs make some computer literacy requirement. However, relative to the proportions of other courses, nontransfer programs are more likely to require computer literacy over U.S. government, humanities, life and physical sciences, and U. S. history. These disciplines are traditionally part of a liberal education so it is not surprising to see them omitted from an occupational degree program.

Percentage of schools which require courses in the following areas for transfer programs

| English Composition | 100 |  |
| :--- | ---: | :--- |
| Life and Physical Sciences | 100 |  |
| Mathematics | 94 |  |
| Social Science (general) | 94 |  |
| U.S. History | 89 | 89 |
| US government | 89 |  |
| Physical Education/Wellness | 83 |  |
| Humanities (incl. fine arts) | 83 |  |
| Foreign Languages | 72 |  |
| Computer Literacy | 22 |  |

Percentage of schools which require courses in the following areas for non-transfer programs

| English Composition | 100 |
| :--- | ---: |
| Mathematics | 94 |
| Social Science (general) | 72 |
| Computer Literacy | 76 |
| US government | 59 |
| Humanities (incl. fine arts) | 53 |
| Life and Physical Sciences | 53 |
| U.S. History | 47 |
| Foreign Languages | 24 |
| Physical Education/Wellness | 24 |
| Ethnic studies or Multiculturalism | 24 |

## New Dimensions

Computer literacy

| Part of other requirement |  |  |  |
| :--- | :--- | :--- | :--- |
| (math, etc.) | (6) | 38 | 33 |
| Stand alone requirement | (10) | 63 | 55 |

Not every school that requires computer science courses or allows for an elective does so for both transfer and non-transfer programs. Of the 16 schools that have some requirement, 11 have requirements for both types of degrees, 2 for transfer only and 3 for non-transfer only. Computer literacy requirements are structured in two basic ways. Either an individual elective is available under a related core or distributional heading (math, math/science, etc) or the computer literacy requirement is expressed as a core discipline on its own or as a
particular core course. Computer literacy falls under a variety of distributional headings: math, math and science, consumer education, communication and analytical thinking.

Multicultural Education

|  |  | \% of schools <br> with MC | \% of all |
| :--- | :--- | :--- | :--- |
| schools |  |  |  |

Of the 7 schools that have some requirement, four have requirements for both transfer and non-transfer degrees. Two have requirements for transfer only and one for non-transfer only. Individual multicultural courses fall under different headings such as social sciences, humanities, and interdisciplinary humanities. The data shows that there has been little growth in the inclusion of multicultural requirements since 1992.

## Conclusion

While computer literacy requirements are quite high in both transfer and non-transfer programs, the content of these courses may vary considerably. This variation is illustrated by the fact that computer literacy courses may fulfill under highly varied disciplines from communication to math and science. Further investigation of the content of computer literacy courses would illuminate the new types of knowledge and skills that are being required of community college students.

The purpose of general education programs in community colleges combine elements of both liberal education and general education. Students are expected to acquire basic skills and general knowledge. More programs
emphasize core knowledge than breadth. This aspect of the curriculum may be unique to community colleges since the purpose of general education programs is clearly to proved breadth in an baccalaureate degree program (Levine, 1978).

General education requirements for non-transfer degrees are more oriented toward specific skills than general knowledge. Lack of emphasis on certain types of knowledge, such as American history and politics, is particularly relevant when considered in light of the objectives of general education to encourage intelligent action. This trend indicates a serious compromise to educational equity for vocational students who are not given the opportunity to develop critical thinking skills and knowledge of basic civic issues.

The structure of general education requirements in community colleges remains consistent with past research. Distributional requirements comprise the largest proportion of academic and occupational degree programs. Occupational degree programs often specify GE requirements on a program by program basis. This phenomena illustrates a contradiction as the general education programs in a particular college to do not necessarily promote the same core knowledge. This inconsistency in conjunction with the emphasis on skills over knowledge represents a degraded vision of general education for occupational degree students.

## References

Astin, A. W. (1993). What matters in college: Four critical years revisited. San Francisco: Jossey-Bass.

Barshay, R. \& Cant, C. (1997). "The evolution of general education requirements at Prince George's Community College." (ED407010).

Bok, D. (1986). Higher learning. Cambridge, MA: Harvard University Press.

Cohen, A. M. \& Brawer, F. B. (19960. The American community college. San Francisco: Jossey-Bass.

Corl, S. F. (1996). "Novices on the net. An Introduction to Education class uses e-mail and the Internet." (ED402998).

Eaton, J. S. (1997). Promoting coherence in the transfer process. In J.G. Gaff \& J.L. Ratcliff (Eds.), Handbook of the undergraduate curriculum (pp. ). San Francisco: Jossey-Bass.

Levine, A. (1978). Handbook on undergraduate curriculum. San Francisco: Jossey-Bass.

Lever-Duffy, J. (1993). "Multi-Access education: A model for instructional delivery in the Information Age." (ED 387171).

Nolte, W. H. et al (1993). "Student success: Implementing a comprehensive general education program for occupational students." (ED362238).

Olguin, E. \& Schmitz, B. (1997). Transforming the curriculum through diversity. In J.G. Gaff \& J.L. Ratcliff (Eds.), Handbook of the undergraduate curriculum (pp. ). San Francisco: Jossey-Bass.

Piland, W. and Silva, C. "Multiculturalism and Diversity in the Community College Curriculum." Community College Journal of Research and Practice, 1996, 20 (1), 35-48.

Ratcliff, J. L. (1993). What we can learn from coursework patterns about improving the undergraduate curriculum. University Park, Pa.: National Center on Postsecondary Teaching, Learning, and Assessment.

Ratcliff, J. L. (1997). Quality and Coherence in general education. In J.G. Gaff \& J.L. Ratcliff (Eds.), Handbook of the undergraduate curriculum (pp. 141169). San Francisco: Jossey-Bass.

Reid, G. "On Technology, Curricula, and Ethnic Diversity: Mapping the Route to the New Millennium." Community College Journal, 1995, 65 (5), 18-24.

Sherry, A. C. \& Sherry, F. T. (1996) "Computer Confidence: factors associated with retention in the community college." (ED 397839).

Story, N. O. (1996). Weaving the American Tapestry: Multicultural Education in the Community College. In R. L. Raby \& N. Tarrow, (Eds.) Dimensions of the Community College: International, Intercultural and Multicultural Perspectives. pp. 79-110. (ED 393 519).

Whitaker, G. W. (1995). "Freshmen composition and the computer - Total immersion." (ED388350).

## Appendix: <br> Objectives of General Education Statements:

"The purpose of the core program is to provide the skills, knowledge, and perspectives that help define the educated person. The courses that are included in core curriculum for each degree will contribute to the acquisition of those skills, knowledge and perspectives." - Blinn College
"Liberal education contributes to a students's understanding of self and others, of cultures and traditions, of values and choices. The College is committed to providing students with aa strong foundation in the Liberal Arts by offering and requiring courses designed to broaden perspective and expand choices in order to experience life as fully and humanly as possible." - Catonsville College
"General education Core required courses are intended to provide a breadth of academic experience, to enhance understanding and appreciation of one's cultural heritage, to promote civic competence, and to improve personal ability and interests. " - City College of Chicago, Richard Daley College

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