

CURRICULA IN INTERNATIONAL PERSPECTIVE

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Defining Curricula: Expanded Scope and Perspectives

The word curriculum typically calls to mind a set of lessons in a course or a set of courses in a program, but this definition is limited. Although a curriculum is typically composed of pre-determined instructional activities intended to deliver particular content (for example, knowledge, skills, or dispositions), curricula are more fruitfully conceptualized as sites of interaction among instructors, learners, and the content to be learned. It is this interaction of individuals and curricula that results in learning. Without interactions among content, learners, and instructors, a curriculum approximates a learning experience, but is not commensurate with it because a variety of contextual factors influence the outcome of any educational experience.

In defining curricula as sites for social interaction, we bring to the foreground the various factors and influences that animate courses and programs. Students are the most obvious, if not most salient, influence on an academic plan, bringing prior knowledge, goals, motivations, expectations, needs, skills, and capacities to the learning experience and thus shaping the outcomes of a curriculum. Institutional contexts are another influence on curricula; organizational, departmental, and program resources, assessment practices, reward systems, and so on, have an impact on what is planned and how it is delivered. Prevailing social and cultural forces further shape what happens in interactions among instructors, learners, and content. Norms for classroom behavior, beliefs about what can be accomplished and by whom, labor market trends, evolutions in fields and disciplines, changes in government policies, and a host of other factors also affect curricular plans.

Educators may argue that it is impossible to consider all this, particularly the diversity of students in their courses and programs, as they plan; they can only focus on content and create a learning experience geared to the average student. However, once learning outcomes become the criterion by which the quality of a curriculum is judged, it is no longer possible (and indeed, it is shortsighted) to ignore the impact of student characteristics and experiences on curricula. Moreover, in an era of mass higher education, a curriculum can no longer be designed for a homogeneous population.

Student diversity, mobility, and the press toward globalization compel us to change the way we think about curricula just as they challenge our assumptions about higher education structures.

If we acknowledge that curricula are sites for social interactions—in short, that the curriculum on paper may not be the curriculum that is experienced—then the discussion of any curriculum must consider its intended purposes, content, and methods of instruction (including choices about what, when, and how to assess learning), as well as what transpires when learners engage the curriculum. Moreover, because learning is affected by the multiple and overlapping contexts—institutional, professional, social, cultural, economic, political, and historical—in which it occurs, curricula, too, must be understood to be a product of these institutional and extra-institutional contexts. For this reason, explorations of curricula may be easiest to conduct at the level of individual or classroom interactions, where fairly distinct boundaries can be drawn around instructors, students, content, activities, and the influences that act most directly on learners and instructors. At the level of the program and the institution, the complexity of the task is multiplied. At the level of a national system, only the most general statements can be defended. The more distant the observer is from the learning experience, the more difficult it is to speak confidently about the nature of a curriculum and its effects on learning.

Discussions of curricula at the macro-level may seem bloodless because they reduce a curriculum to a set of structures and stated rationales, and obscure its dynamism by extracting it from its lived contexts. Such discussions, however imperfect, are necessary if we are to understand higher education curricula from its historical roots to the present. Thus, this chapter begins with a disclaimer: for the sake of analysis, the intersecting, mutually influential elements of curricula (purpose, content, instructional methods, assessment, etc.) will sometimes be treated as if they were truly separable. This approach facilitates comparisons across time and space, but it does not provide a view of a curriculum in practice. It therefore becomes the reader's task to consider how the many different elements of a curriculum come together in local contexts, the nature of educational interactions in those contexts, and their implications for the success of a given learning experience.

Changes in educational purposes—an inevitable consequence of changing social, cultural, political, and economic needs—have influenced curricula throughout the history of higher education. Part I of this chapter, therefore, traces the development and evolution of different higher education models to reveal the connections among national conditions and choices regarding educational purposes, organizational structures, and curricula. This portrait of university life in different eras and regions provides necessary groundwork for a discussion (provided in Part II of this chapter) on contemporary curricular issues that transcend national boundaries. Simply put, the history of the higher education curriculum is, at heart, a history of the development of national systems,¹ their educational goals, and how they modified educational programs to serve those goals. This discussion also emphasizes the critical linkages between sociocultural contexts, educational purposes, organizational structures, and curricular content.

Higher Education Curricula in Historical Perspective

Understanding curricula requires understanding the institutions in which they are embedded, and how both evolved over time. In earlier eras, universities and their curricula were more similar than different. Kerr (1990) observed that for its first 2000 years, the higher education community was a “cosmopolitan” community in which wandering students and scholars from different countries studied what they wanted to study free of “external guidance or constraints by nation states” (p. 6). About 500 years ago, Kerr contended, this cosmopolitan community began to fragment into national systems that served to train national elites and reinforce national interests. During the last five centuries, as institutions multiplied and became more diverse, their curricula also took on unique characteristics.

Contemporary universities derive their structure and functions from Western models of higher education. The English and Scottish residential colleges, with their curricular and extracurricular emphasis on character development, influenced the development of postsecondary institutions in a number of countries. Later, the German university model, which valorized specialization for both faculty and students, transformed the collegiate experience into a university experience through the creation of a curriculum based on the pursuit of inquiry and new knowledge. The French *grandes écoles* contributed the ideals of meritocracy and professorial autonomy, and created a form of higher education that stressed rigorous intellectual training for the professions.

Despite their strong influence on higher education beyond Western Europe, the models were modified to fit local conditions. Japan, for example, adopted Western ideas about education after the Meiji Restoration in 1868, initially patterning its universities on the French model with its separate research institutes. Shortly thereafter, however, Japanese imperial universities were required by law to combine teaching and research along the lines of the German model, providing both undergraduate teaching and a graduate level component based on research (Clark, 1995). The German concept of academic freedom did not make the transnational voyage to Japan—the imperial university was born as an engine of economic development and an instrument of modernization that would produce a technical elite; universities were thus designed to meet changing national needs in the late 19th and early 20th century (Cummings, 1985). In the United States between 1600 and 1900, serial adaptation of elements of the English, Scottish, and German systems resulted in a diverse assortment of colleges and universities that provided professional education and specialization at the level of the bachelor’s (or first) degree, but also required students to complete a general education curriculum. Although clearly grounded in Western European educational models, the U.S. system is also distinctive. In the following historical overview, the influential role of sociocultural contexts in shaping higher education curricula will become clear.

Origins of the University Curriculum

By the 13th century, the course of study in the dozen or so European universities was organized according to the liberal arts as defined by the ancient Greeks. The

medieval student studied the *trivium* and the *quadrivium*, better known as the seven liberal arts. The *quadrivium*—which included arithmetic, geometry, astronomy, and music—was considered to be of somewhat lower order than the *trivium*—or studies of logic, grammar, and rhetoric—which focused on the meaning and use of the Latin language. Moreover, a few standard texts contained what was to be learned (Haskins, 1957). Mastering these texts, and thus the liberal arts of the *trivium* and *quadrivium*, prepared students to study philosophy, which was further divided into natural philosophy (physics), mental philosophy (metaphysics), and moral philosophy (ethics).

The monastic and cathedral schools that preceded the universities relied on a limited number of texts. During the 12th century, the curriculum expanded to include Ptolemy's astronomy, the works of Euclid and Aristotle, and, briefly, the Latin classics and works of ancient Greek authors (Haskins, 1957; Perkin, 1991). By the 13th century, literary studies had virtually disappeared and the tension between classical and "practical" studies—which animates discussions of the curriculum to this day—materialized. Haskins (1957) argued that the classical movement of the 12th century was "crushed in its early youth by the triumph of logic and more practical studies of law and rhetoric" (p. 29). More than a subject, logic provided a method that pervaded all other subjects; disputation, syllogism, and argumentation became the intellectual habits of mind encouraged in the study of philosophy, law, medicine, and theology (Haskins, 1957; Kimball, 1986). Haskins argued that this strict focus on argument rendered considerations of literary form inconsequential, and the practical uses of rhetoric (for example, the composition of letters and official documents) further eroded interest in literary expression. The study of the classics, in this interpretation, was an opportunity to illustrate the rules of grammar.

Rothblatt (1993) challenged the perceived dichotomy between liberal and practical studies, arguing that education is always about applied knowledge; it is designed to provide experiences suitable to particular goals. For example, training in horsemanship, gymnastics, and martial arts was critical to an education for those who would serve the state through the military. Even drawing could be viewed as a precursor to map-making and the depiction of military targets. A 15th century instructional manual, the *Regulae*, by the educator Guarino Guarini of Verona, reveals how a regimen of Latin grammar and pronunciation exercises preceded studies in history, geography, and mythology. In this vision of the liberal arts, strict instruction in the arts of language—rather than in the art of independent thought—was justified by the need to master the skills of conversation, persuasion, and diplomacy, which were required for success in law, administration, royal courts, and teaching (Jardine & Grafton, 1982).

The medieval church had its own view about the application of knowledge, and strongly influenced the study of theology and logic in the medieval university curriculum. The study of theology, "*madame la haute science*," was integral to the curriculum, and medieval scholars exercised the powers of logic to provide acceptable explanations and interpretations of ideas that appeared to be irreconcilable with doctrine (Haskins, 1957). During the Reformation, Renaissance, and rise of the nation-state, the religious orientation of the universities diminished, and secular interests gained a stronger foothold in the university, further expanding the curriculum and increasing attention

to fields of study beyond theology. The classical education of the medieval university eventually transformed into a general education for the ruling elite.

Although the Reformation resulted in the abolition of monasteries and monastic schools, it left the universities largely untouched. In Britain and elsewhere, universities adapted to new cultural conditions by shifting their attention to the training of state and local administrators, who were increasingly drawn from the gentry and middle classes. In Britain, the moral imperatives of Plato and Locke became foundational to the education provided by elite secondary schools and the universities of Oxford and Cambridge. The moral training of future leaders centered on humanistic studies, and the classics of Greek and Latin literature, philosophy, and history became central to the curriculum in the 19th and early 20th centuries (Holmes & McLean, 1989). The curricula of the English colleges also emphasized the cultivation of manners and political awareness (Perkin, 1991).

The undergraduate education of the English residential colleges stressed liberal education, character development, and close informal relationships between masters and students (Clark, 1995). In Scotland in the 18th and 19th centuries, colleges offered a broader curriculum that differed significantly from the more narrow English curriculum. In time, the Scottish institutions aligned their curricula with that of their English counterparts, but replaced the federation of individual residential colleges with the departmental structure, which organized education and academic work around subject matter. The close tutor-student relationship of the English college also gave way in most universities to the lecture format in which one instructor, specializing in a single subject area, taught many students simultaneously. Higher education curricula evolved further as the skeptical, critical, and rational outlook of the Enlightenment and the Scientific Revolution undermined medieval and Aristotelean views prominent in the college and university curriculum. For example, in Scotland, classical languages remained a component of the university curriculum, but modern languages and modern social sciences were added. Moral philosophy replaced rhetoric as a mechanism for integrating studies across different subject matter.

Although educated individuals increasingly accepted the role of scientific thought and studies, those interested in scientific study—with such notable exceptions as Galileo and Newton—pursued their work in academies outside the university walls. The university was instead home to advances in other disciplines. For example, the Scottish faculties at Edinburgh and Glasgow developed the modern social sciences and skeptical philosophy during this period; universities in the Netherlands created new methods for teaching natural science and medicine; and a few German universities even sought to incorporate Enlightenment thinking into the curriculum. Despite these inroads, the medieval curriculum was still dominant in many institutions, even as criticisms of irrelevance mounted (Perkin, 1991).

Colonization and Adaptation

The nature and content of university curricula diverged somewhat when the Puritans migrated to North America in the 1600s and re-established the role of the university as a training ground for clergy. Although the American colonial colleges attempted

to reproduce the contemporary English college, they adapted the model to their needs and resources. Students in the colonial colleges learned law and medicine, staples of the European university curriculum, through apprenticeship; economy and efficiency trumped theory and structured study. A lack of instructors forced other modifications to teaching practices: group instruction for students of similar standing (for example, sophomores) replaced the English tutorial model, which was grounded in the one-to-one student-tutor relationship. As the Scottish universities of Edinburgh and Glasgow introduced instructors with specialized competence in the early 18th century, Harvard College tutors taught all subjects. In the late 1760s, tutors finally began to teach one subject to all of their classes (Rudolph, 1977).

The American colonial college of the 1600s and 1700s blended medieval scholasticism and Christian humanism into a curriculum that emphasized the unity of knowledge and the practical and moral aims of learning (Reuben, 1996). Education began with the art of rational thought, then moved to the arts of speech and communication, mathematics, and physics, and ended with theology. An educated person would know all of these arts, as well as that each was valuable only in relationship to the whole.

American colleges maintained this unitary philosophy and prescribed curriculum of classical texts—the liberal arts canon—through the early 1800s (Hutcheson, 1997; Rothblatt, 1993). Students took classes in Greek, Latin, Hebrew, logic, and the branches of philosophy. This educational philosophy, with its roots in medieval scholasticism, gradually fell out of favor as critics chastised colleges and universities (and their faculties) for excluding many subjects worthy of study. The curriculum, critics contended, should include modern subjects, such as the natural sciences, history, the *beaux-arts*, as well as practical subjects such as engineering and agriculture (Reuben, 1996; Rudolph, 1977). Advocates for scientific studies won their battle in the mid-1800s, although at first the sciences were taught in separate scientific schools, or “parallel courses” of study, which stood apart from the standard degree program, and were viewed by many as inferior to the classical course of study. Eventually, the emphasis on scholarship as inquiry—prevalent in the German research university—immigrated to the United States by way of American faculty trained in European institutions, and the emphasis on scientific learning, often with an eye toward utilitarian ends, became an integral element of American college and university curricula.

Expertise and Inquiry

Higher education, despite its presumptive claim as the seedbed of new knowledge, is often reactive; social and cultural changes, rather than change from within, are frequently the catalyst for structural and curricular innovation. Higher education, for example, might have ignored the Industrial Revolution, much as it had the Scientific Revolution, unless pressured by external forces in the form of student and market demand. Well into the 1800s, most universities focused on the education of civil servants, clergy, and lawyers, and although institutions updated the medieval curriculum, they did not immediately add courses or degrees in applied sciences and technologies. These subjects originally found homes in technical institutes outside the university

system—in the *grandes écoles* of France, the mechanics institutes of Britain, and *technische hochschulen* of Germany.

The German university veered sharply from the instruction in character formation that was practiced in English and U.S. colleges and toward a more loosely organized search for truth through inquiry. The German concepts of *lernfreiheit* (freedom in learning) and *lehrfreiheit* (freedom in teaching) were integral to an institution that assumed the unity of teaching and research. In this conceptualization of higher education, research experiences became the foundation for advanced study. In comparison to the fixed curriculum of the medieval, English, and American colonial colleges, the curriculum of the German university was “whatever professors chose to do in their own inquiries and whatever topics the students pursued” (Clark, 1995, p. 21). Faculty and students expected to work on the frontiers of knowledge and to prepare generations of pioneers in specialized fields of study (Husen, 1996); liberation from any and all academic requirements was the condition for an education in which inquiry was pursued for the sake of inquiry.

The educational outcome of the German higher education experience, in the Humboldtian vision of the university, was not so different from that desired by the faculty of the English and American residential college. It was the means to that end that varied and that had significant implications for the curriculum. In the vision of the Humboldt brothers—founders of the University of Berlin—the German university student and professor would develop, through unfettered inquiry, deeply informed and well-rounded perspectives and thus contribute to a rationally organized society (Clark, 1995). The Humboldtian ideal rested on the assumption that *wissenschaft*—the development of the mind as it comes to understand itself through the process of study and learning—was corollary to *bildung*, or self-realization and self-development based on the individual’s effort to reach intellectual and spiritual perfection. The pursuit of truth was thus aligned with liberal education.

In actuality, students at the University of Berlin rejected this idealistic philosophy for more pragmatic pursuits. Rather than enroll in seminars on research methods and inquiry, students registered in lecture classes to prepare for professional examinations or qualification to teach in the newly reformed *gymnasien*, or secondary schools (McClelland, 1980). The concept and position of disciplinary specialization, however, solidified. Lectures based on a changing conceptualization of the discipline replaced the canon of authoritative texts that had served as the foundation of the university curriculum. In time, a pure transmission model of teaching, where instructors imparted knowledge to students, also gave way to seminars, laboratories, and teaching hospitals that invited critical dialogue among participants. With general education demoted to the gymnasium level, undergraduate education was reconceived as a time to specialize in a chosen field of study, whether vocational or academic (a distinction made in some systems but not in Germany). Over time, the model of small groups of faculty and students working together on topics of interest metamorphosed again, producing a model of higher education that was less self-contained (Clark, 1995).

The demand for modern subjects and new perspectives on higher education also infiltrated Britain’s educational strongholds: Oxford and Cambridge. During the 18th century, the study of psychology influenced conceptions of liberal education, shifting its

emphasis from character development to intellectual development (Rothblatt, 1993). This reconceptualization supported the advancement of a university education that stressed both teaching and research as in the German university.

Oxford and Cambridge added Cavendish and Clarendon laboratories in the 1870s, and thus furthered their expertise and reputations in science and technology, but they were not the first British institutions to experiment with new ideas and new disciplines. In 1826, University College, founded in London but influenced by the Scottish model, featured single-discipline professors in medicine and jurisprudence, as well as in newer fields such as chemistry and modern languages (Perkin, 1991). The introduction of new curricula and professors did not, however, substantially alter the college tutorial system, which remained influential in both England and the United States (where liberal education, although somewhat redefined, was still the primary educational mission).

Once specialization was accepted as the animating force of a curriculum, it engendered a number of structural changes. In addition to academic departments, electives, majors, and the course-unit or modular system came to define higher education in a number of countries. The course system, which packaged knowledge into free-standing courses, was a great advantage because it permitted the incorporation of new disciplines—and new groups of students—without displacing existing ones (Rothblatt, 1993). In France, other radical changes were afoot.

Following the French Revolution, dissatisfaction with university teachings and the structures of status and privilege associated with the university culminated in the abolition of the French universities. In 1808, Napoleon Bonaparte established the Imperial University as a single institution, operated regionally through centrally directed administrative units called academies, to serve the country. The faculties of medicine, law, letters and science, became operating units that reported directly to the Ministry of Public Instruction. This unique institution included the secondary schools (*lycées*), and the chief function of the faculties of letters and science was to conduct baccalaureate examinations that controlled access to the faculties of law and medicine, and to the national *grandes écoles*. Teaching at the university level was, according to Clark (1995) “inconsequential” since there were few students to teach (pp. 92–93). Research was similarly unimportant in the French universities, and became the province of the *grandes écoles* and the research institutes. As a result, the *grandes écoles* replaced the universities as the primary site for technical, administrative and educational training (Wittrock, 1993). The French model also situated the professor at the center of the institution, and established the ethic of academic autonomy that still characterizes academic life.

The ideas promulgated during the French Revolution influenced higher education in several countries in Europe and Latin America. In Sweden, for example, constitutional and legal changes in 1809 stipulated that all government offices should be within reach of any qualified aspirant. This change in policy precipitated significant changes in the examination system, which in Western Europe and the Nordic countries historically consisted of a series of disputations in which a student argued and defended several theses or a dissertation that he or his professor authored. The standards for such disputations were low and had little impact on social or occupational mobility. In reality, the route to civil posts in the military or government began with birth into

a privileged family. An adolescent son entered the university at 16 or 17 years of age, took instruction from a personal tutor (often an older student of more modest means), and visited lectures as desired. When oral examinations became more frequent and difficult in the early 1800s, and a passing grade was based on a student's ability to demonstrate knowledge of specific content from textbooks and lectures, the stakes and the curriculum changed. The subjects of examinations became more distinct. Stricter examination standards, which had the potential to make a decisive difference in students' professional futures, further supported the growth of academic specializations (Liedman, 1993).

Balancing Specialization and General Education

While the contemporary research university in Europe provides a specialized or professional education, the German university of the 19th century was, in theory if not in curricular structure, an institution with a dual purpose. The primary responsibilities of the professor were research and teaching, and the assumption that disciplinary learning would lead to *bildung* linked the seemingly opposing goals of general and specialized education. Although, as earlier noted, the Humboldtian vision was lost in translation, the ideal was reflected in other systems of higher education. When Sweden reformed its universities in 1852, it retained the professorial obligation to teach and to conduct research, as well as the notion of *bildning*, the Swedish equivalent of *bildung*, which was considered necessary to developing direction, maturity, and flexibility in life (Liedman, 1993). The perplexing question of how to combine this general education with specialized education was solved through a system of preliminary degrees for students studying for the professions of law, medicine, and the clergy. The preliminary degree would furnish the knowledge and skills needed for both general cultivation of the person and for the profession. Most preliminary degrees reserved a central place for the study of philosophy, whether ethics for lawyers or theoretical philosophy for other professions.

By the early 1900s, debates about the value of general education and the time it added to the length of professional preparation led to the demise of the preliminary degree in Sweden, which followed the lead of Germany and other Nordic countries that moved general education to the level of compulsory or secondary education and reserved university education for specialized studies. In a few places, mechanisms of general education remained. Notably, in Britain and the United States, where higher education tended to be residential, the combination of *in loco parentis*—in which the institution and faculty serve a substitute for parental oversight—and concern for both character and intellectual development still shaped college life.

The nature of, and responsibility for, liberal education were the focus of frequent discussion during the 1800s. Educators explored the differences between a residential college and a university, and considered how to redesign liberal education so that it was more appropriate for a meritocratic and increasingly democratic polity (Rothblatt, 1993).² In the United States, psychological theories about mental powers combined with the social and political commitments of Jacksonian democracy—individualism, pluralism, pragmatism, and opportunism—to generate interest in new kinds of higher

education institutions. By the second half of the 18th century, legislation supported the development of multiple-purpose, state-funded, land-grant institutions with an explicit mission to serve the various needs of the local community.

The Elective System and Academic Major

As early as the 1820s, American academics educated in European universities began to urge the adoption of the German research model, but the process of redefining the academic—from the gentleman loyal to his local institution and generalist in his approach to scholarship and teaching, to the highly specialized professional—took another 50 years (McCaughey, 1974; Rudolph, 1977). As a conduit to specialized study within a liberal education model, institutions created the academic “major” or “concentration” as a mechanism to provide students with some choice in their course of study, but also to ensure the coherence of the overall course of study. The first recorded use of the term major occurs in the 1877–1878 catalog of Johns Hopkins University. The major required two years of academic study, and the catalog also used the term minor to indicate a course of specialized study shorter than that of the major (Payton, 1961).

The development of the major in the United States is best understood in the context of the rise of the elective system and the American interpretation of the German concepts of *lehrfreiheit* and *lernfreiheit*. Generally speaking, faculty embraced the notion of *lehrfreiheit* (which was interpreted broadly as the freedom of the professor to research and teach according to his scholarly interests). In contrast, however, the concept of *lernfreiheit* (which in the German university model translated into the freedom of the student to determine his own course of study according to his needs and intellectual curiosity) was interpreted more narrowly by American universities than by their European counterparts. In U.S. colleges and universities, *lernfreiheit* was tempered by the prescriptive nature of the undergraduate curriculum, but gained ground in institutions which instituted an elective system that allowed students to choose among different courses to develop, at least in part, their undergraduate program of study.

The elective system answered demand for more relevant and practical courses of study, but it also facilitated academic specialization, allowing faculty to develop and teach advanced courses and clusters of courses in their areas of expertise. For students, electives provided an opportunity to connect the worlds of scholarship and work in a way that the prescribed liberal curriculum could not. Market demand, combined with other social forces—such as an increase in the average age of undergraduate students, the introduction of the high school, and assistance from both government and private philanthropy—aided the growth of academic specializations and hastened the development of the elective system in the United States (Hutcheson, 1997). By 1897, Harvard had eliminated all required courses with the exception of English composition (which was required for first-year students), and other institutions followed suit, if to somewhat lesser degrees. In the 50-year period between 1890 and 1940, colleges and universities in the U.S., whose curricula were almost entirely prescribed, reduced the number of required courses for the baccalaureate degree by more than 50% (Rudolph, 1977).

Proponents of the classical curriculum, and anyone who believed in the unity of knowledge, chafed at the fragmentation and incoherence that elective choice seemed to promote. An 1898 study at Harvard found that 55% of the students elected only elementary courses, and nearly 75% followed programs without any clear focus (Rudolph, 1997). One historian of higher education argued that as the liberal component of higher education diminished, and the elective system was applied in the social and academic milieu of the United States, it “produced only confusion and disorder, dilettantism and overspecialization” (Rudy, 1951, p. 162). Because it defined a subject area of interest that required students to move from elementary to advanced levels of study, the major became the preferred solution to curricular chaos. Moreover, both the major and the elective system catered to the growing desire for specialization among the professoriate and promoted the development of faculty expertise.

The problems associated with the elective system are better understood as unintended consequences of educational conditions than as inherent weaknesses in the concept. Traditionally, European students admitted to a university prepared for advanced study by mastering the rigorous and liberal curricula of *lycées* and *gymnasias*, and specialized their studies at this level. Historically, the academic experience of secondary school students in the United States has not been standardized, specialized, or rigorous. In the absence of a secondary education that prepared students for university-level study, colleges established their own preparatory programs, blurring the line between secondary and postsecondary study. Although preparatory courses eventually moved to the secondary level, colleges and universities continued to integrate both liberal (general) and professional education at the postsecondary level.

Contemporary Curricular Issues

Despite the national and cultural diversity of higher education throughout the world, universities and colleges are responding to a number of the same challenges. As described in Martin Trow’s chapter in this *Handbook*, we have slowly left behind a history in which postsecondary education focused on the needs of a small elite population, and have entered a new era in which the university is considered a resource that should (and will) be available to larger numbers of individuals regardless of their socioeconomic and cultural backgrounds. Further, this transformation (or massification) of higher education is evident in both developed and developing countries. Contemporary trends that span national borders—particularly economic globalization—have implications for higher education institutions, which are challenged to develop curricular responses to social, political, economic, and cultural forces in a variety of contexts. A discussion of these trends and curricular responses comprises the rest of this chapter.

Cultural and Economic Relevance

Historically, the university has been perceived as a national investment yielding significant returns to individuals and societies, and contemporary universities retain this reputation as key contributors to national prosperity. This view of higher education may be most visible among today’s formerly colonized nations that are attempting to build

higher education sectors to meet the needs of their existing cultures and developing economies.

Many national systems of higher education are the result of colonial occupations. The curriculum they provide varies, affected in some cases by the degree to which indigenous populations have asserted their ideas and needs. In the case of Latin America and the Caribbean, for example, a succession of colonial powers—the Spanish, the Portuguese, the British, the French, the Americans, and the Soviets—influenced the evolution of higher education. The colleges and universities in this region are still non-native institutions that serve a small, elite population and are, in general, removed from the lives of most of the people in the region (Albornoz, 1991). Most of the region's 500 institutions are teaching-oriented and offer a professional education; few could be called research universities.

In colonial Africa and the West Indies, where most of the population was pre-literate, the British designed an educational system intended to teach literacy and spread Christianity; most of the schooling, conducted by missionaries, was elementary and vocational. However, in the latter part of the 20th century, Africans in sub-Saharan countries—particularly Nigeria and South Africa—began to question the wisdom of the British model of higher education, which emphasized the study of the humanities and which tended to separate students, at least mentally, from their cultures and from the social issues of their home countries (Court, 1991; Muller, 1991).

Even in science and technology fields, higher education may produce experts who are more committed to their profession and its research agenda than to the solution of problems in their home country (Saha, 1997). Ahmed (1985) argued that a Western value system shapes science and technology curricula in developing countries, and that this Westernized curriculum can only produce graduates suited for employment in industrialized countries.³ Universities with a relatively well-developed scientific base, which permits science and technology to be taught with reference to local needs, have been more successful in making contributions to national development (Altbach, 1990). Saha (1997) notes, however, that the development of a well-connected and productive scientific community exacts a price; countries such as Korea, Singapore, Taiwan, and Malaysia have accepted English as the dominant professional language. In general, despite a commitment to indigenous concerns, science and technology teaching and research in developing countries tend to be conducted in English.

Curricular reforms in the 1970s responded to some of these concerns for local priorities by reforming degree programs and replacing imported textbooks with texts and research materials from local authors. Since the 1970s, African universities have developed additional short-term research courses and master's level degree programs, and further emphasized research in undergraduate teaching. However, in sub-Saharan Africa, humanities and arts graduates still outnumber students trained in the sciences and technology fields, and the system lacks the resources to increase production of such graduates. In South Africa, for example, there is a great need for mathematics and science instruction in schools, and for greater access to these kinds of programs in higher education (Figaji, 1997). However, it is important to note that (as seen in parts of Asia and the Pacific) English is still the primary language of instruction throughout much of Africa, and particularly in the former British colonies (Altbach, 2004).

Although enrollments in science and technology fields in Nigeria are also low, Nigerian higher education has fared somewhat better in terms of Africanizing the curriculum, incorporating traditional cultural views into higher education studies and filling university positions. Nigerian universities are also moving away from the British and toward the American model of higher education (Biraimah, 1991; Court, 1991).

In India and South Asia, advanced education had a long history (Altbach, 1998; Perkin, 1991). Hindu education in Nalanda and Taxila dates back to the 3rd century; Buddhist monasteries were formed in the 7th century; and Islamic *madrasas* appeared in the 11th century. Although almost all Asian civilizations have intellectual traditions that include highly-developed languages, literatures, history, and arts, academic institutions in every Asian country are rooted in one or more of the Western models, even those (such as Japan and China) which were never under colonial rule. Knowledge of Western languages and commercial practices, required for economic interactions, permitted colonial authorities to dictate the language of instruction in universities, regardless of the language used in elementary and secondary schools.

Because colonial institutions were linked to developing economic and bureaucratic systems, they often displaced indigenous institutions (Altbach, 1998). Conquering nations imposed their views about curricula on colonial colleges and universities, whether or not their assumptions were relevant to indigenous people. As in Africa, colonial universities in India imposed English as the language of instruction and favored the humanities and languages rather than the science and technology fields (Jayaram, 1997). Ironically, colonial universities in Asia produced nationalist intellectuals who laid the groundwork for independence. Altbach (1998) notes: "While religious fundamentalism may be a contemporary force in many countries, the generation that achieved independence and, in a sense, created the modern nation-state in Asia was trained in the colonial universities and espoused ideas learned there" (p. 45). Although the Indian University Education Commission recommended that regional or other Indian languages replace English as the medium of instruction immediately after independence, English has remained as the language of instruction in many institutions (Jayaram, 1997).

Other influences of Western scholarship are also evident in Asian universities. Western textbooks are used throughout Asia, in their original English or translated versions. Altbach (1998) noted that the use of textbooks has a strong influence on the shape of the curriculum in specific disciplines and thus the education of Asian students. He also observed that the American model of higher education has been increasingly influential in Asian countries. The land-grant philosophy of service to the state and community, with its commitment to applied research and practical curricula, has obvious linkages to the goals of emerging academic and political systems. In addition, general education and continuous, embedded assessment (as opposed to terminal examinations) are now commonly employed in Asian universities.

In Korea and Taiwan, the Japanese imposed their academic system, then based on the French and German models (after World War II, American occupational forces incorporated some American higher education ideas). Mainland China also absorbed a number of Western influences. In time, Communist leaders replaced the Western curricular models with Soviet approaches, which held sway until the Cultural Revolution. More recently, China has again looked to the West for routes to academic development.

Responding to Student and Industry Demand

In many countries, functional sectors of higher education evolved to meet the growing demand for access to higher education, and to serve the economic needs of students and the labor needs of industry. Beginning in the 1960s and 1970s, a new class of institutions and degree programs emerged in many nations, providing more practical courses of study in a limited range of disciplines (typically technical fields) to individuals who would not ordinarily attend higher education. These institutions and programs are more responsive to the needs of local employers, and offer degree programs that are, on average, more structured (typically, more classes and fewer electives) and shorter in duration than university courses of study (Gellert, 1997). In Austria, Germany, and Switzerland, *Fachhochschulen* are the primary providers of non-university degrees. The equivalent sector in the Netherlands, the *hoger beroepsonderwijs* (or HBOs) provide higher vocational training to a very large percentage of the higher education population. In Australia, which has a strong vocational and technical education sector, growing numbers of secondary school students have enrolled in vocational education and training (VET) programs that provide credits, or allow them to complete a VET certificate, while still in school. Vocational studies certificates articulate with diplomas which are, in some cases, recognized by the university sector. Traditionally, Australians pursued vocational education and training in technical and higher education programs, but the increasing diversity of students in secondary education and the need for skilled workers has inspired state and national programs to broaden curricular offerings to improve student retention (Cumming & Maxwell, 2004).

In the French system, technical and professional institutes are part of the university sector, but nonetheless offer shorter, more practical degree programs to individuals without a secondary certification (the baccalaureate). Although unique, the French system provides examples of the differences in the sectors and credentials. The highly selective *grandes écoles* control admissions through an entrance exam, typically attempted after two years of special preparation classes. About 20% of the higher education population is prepared through the *grandes écoles* for professional careers in engineering, teaching, business, government, and the military. In contrast, the university sector in France, open by law to all holders of the baccalaureate degree, offers several degrees, including a two-year general university studies degree, a *licence* (baccalaureate plus three years of university study) and a *maitrise* (baccalaureate plus four years).⁴ University technical institutes, although part of the university sector, provide short-track (2-year) courses of study leading to a university technical diploma. Although admission to the university sector is theoretically open to baccalaureate holders, the demand for a technical diploma has outstripped the supply of places in the institutes, allowing these institutions to choose among applicants who see the technical diploma as a path to job security.

In general, the non-university sector, which provides a clear occupational path, creates greater participation in education among underrepresented populations, including older and poorer students. For example, in the Netherlands in the 1980s, the percentage of students of lower socioeconomic classes was twice as high at non-university sector institutions as at the universities. In Norway, as in the United States, programs that offer

part-time study, particularly in the evening and on weekends, attract large numbers of working adults (Gellert, 1997).

A key concern of the European Union, expressed in the Bologna and Prague Declarations, is employability and its relationship to university degrees. The issue is particularly acute in countries with high unemployment rates among university graduates (e.g., Italy and Spain) and slightly less so in countries where first degrees (bachelor's) enjoy wide acceptance by the labor market (for example, Ireland, the United Kingdom, Malta, and Iceland). However, concerns about labor and skills shortages (prevalent in Ireland and the Nordic countries) support arguments for adjusting university degrees to meet market needs (Haug & Tauch, 2001).

The recent discussions about employability and higher education in the European Union have served as a catalyst for the further development of the college/polytechnic section and even the creation of a binary system to increase opportunities for professional education in several countries, including Estonia, Finland, Italy, Malta, and Slovakia (Haug & Tauch, 2001). These developments are complemented by the development of professional bachelor's degrees in a number of EU countries.

The introduction of professional bachelor's degrees in some countries does not signal a complete overhaul of curricula in EU countries. In fact, Teichler (1999) wondered whether higher education is moving away from professional preparation and toward the idea that first-cycle or undergraduate education provides a foundation of knowledge to be supplemented with more specific knowledge acquired later in life. In contrast, Scott (2002a) argued that general education in Britain—which was recently defined as “education for capabilities”—has moved toward “education for employability” (p. 73). Skills such as communication, problem solving, creativity and teamwork—typically considered liberal arts outcomes—have been reduced to techniques and supplemented with instrumental skills (such as information technology or computer literacy) that accede to corporate needs. Scott conceded, however, that such skills provide students with the ability to navigate the “portfolio careers” that have largely replaced long-term employment (Scott, 2002a, p. 73).

There is some consensus among the signatories to the Bologna accords that educational preparation for employment need not be geared to a specific profession but may also take the form of preparation for postgraduate studies (Haug & Tauch, 2001). Rather than impose a particular model of higher education upon the EU, Bologna seems to encourage diversity of institutional types with clear bridges among them. The complex degree structures of many countries remain, however, creating a critical need for readability and comparability of degrees (as discussed later in this chapter). An important by-product of the debate about employability may be the increased attention to the acquisition of core or transversal skills. Ireland and the United Kingdom have already adopted qualification frameworks that are “outcomes-based”—that is, where degrees are awarded on the basis of acquired skills and competencies rather than time spent or credits attained.

Recent developments, however, demonstrate the degree to which higher education welcomes the opportunity to better align programs with industry needs. Alliances are strongly encouraged by programs such as the European Union's COMETT program, which promotes cooperation between higher education institutions and industries in

need of a technically trained workforce. COMETT supports regional or sector consortia that focus on meeting the training needs of industry and joint training projects as well as student work placements and personnel exchanges. It also provides international companies with an internship system that may enable them to increase their international recruitment efforts in engineering and technology fields (Jones, 1997).

Curricula in Planned and Market Economies

The potential downside of an emphasis on employability in higher education is overspecialization. When the Chinese economy was centrally planned, the curriculum in Chinese universities was highly specialized, and the needs of the planned economy drove undergraduate programs. Most students choose basic rather than applied fields of study, and those in applied fields selected heavy industrial specialties rather than light industrial fields, economics, finance, the social sciences or humanities (Holmes & McLean, 1989). Graduates of highly specialized programs found themselves unprepared for the needs of a technologically advanced market economy. In the mid-1980s, the Chinese State Education Commission responded by broadening each field of study, reducing the number of specializations from more than 1400 to just over 800 (Min, 1997) and giving universities more autonomy to design curricula according to local needs.

Overreactions to prior policies, of course, can be just as dysfunctional. Early in the transition from communism to a market economy in Central and Eastern Europe, university faculty and administrators—skeptical of instrumentalist approaches to curricula that characterized the period immediately after the collapse of communism in 1989—tended to advocate a learning-for-the-sake-of-learning stance (Scott, 2000). Student demand for vocational programs, and the willingness of newly-established private institutions to experiment with new programs, seems to have corrected any imbalance.

Central and Eastern Europe have been in a transition period since the end of Communist rule, but higher education in the region faces many of the same social and economic issues evident in Western Europe. Scott (2002b) observed that across these regions, higher education experienced significant growth after World War II and through the 1960s, and the constituencies served by higher education also broadened—in the West as a response to democratic pressures for greater participation and in Central and Eastern Europe as change in entrance policies imposed by the state (which, in concert with Marxist ideology, favored “workers,” “peasants,” and the party faithful). In addition, the need to address human resource needs of industry or planned economies was keen across Europe.

In 1989, almost 40% of the students in Central and Eastern European higher education were studying the natural sciences. By 1996, that figure declined to 30% and the number of enrolled students in the social sciences and humanities grew from 27% to 43%. In some fields—including education, medicine, and engineering—enrollments have been more stable (Scott, 2002b). In the postcommunist society and economy, many universities restructured their academic programs to provide courses that respond to student markets—particularly business, management, and information technology—as well as more vocational courses (Scott, 2000). There is also greater emphasis on

continuing education, and many institutions have adopted credit-based or modular schemes intended to enhance student choice and enable part-time study (demands made by fee-paying students). Further restructuring is required as research institutes, which were separate from the universities, are being incorporated into universities with the hope of providing greater integration between teaching and research. Technical education institutions are also being absorbed into universities or into binary systems that will allow common planning frameworks and, in some cases, upgrading of technical schools.

Credentialing and Mobility

In the medieval university, the course in liberal arts led, after 6 years, to the master's degree. Students earned their baccalaureate degree sometime during that period. The master's degree prepared a student for professional study in theology, law, and medicine. As the numbers of nation-states increased, and with them the number and types of universities and systems, so did the paths to the bachelor's, master's, and doctorate. Following the tradition established by the medieval university, many postsecondary institutions still measured time to degree in terms of years through the 1900s. A few countries, however, such as Britain and the United States, determined progress toward a degree in terms of academic credits, a standard that permits comparisons of curricular work across institutions and the transfer of student work between institutions.

Comparisons of educational achievement and the mobility of students across national borders were of little concern when lives were spent within the borders of one's home country. Today, we are increasingly aware of the interconnectedness and interdependence of people, institutions, and countries. Globalization has elevated concerns about mobility to the action stage. One of the first international efforts was the agreement known as the Washington Accord, signed in 1989 by the organizations responsible for accrediting professional engineering programs in eight countries: Australia, Canada, Ireland, Hong Kong, New Zealand, South Africa, United Kingdom, and the United States. The Washington Accord recognizes the substantial equivalency of programs accredited by these bodies, and recommends that graduates of accredited programs in any of the signatory countries be recognized by the other countries as having met the academic requirements for entry to the practice of engineering. In 2003, provisional membership was extended to Germany, Malaysia, and Singapore, which have demonstrated that their national accreditation systems appear to be conceptually similar to those of the signatories of the Washington Accord.⁵

The European Union has been particularly active in promoting mobility among higher education students and staff. Programs like the European Action Scheme for the Mobility of University Students (ERASMUS) and LINGUA (a program which promotes the learning of European languages) sought to create a "European higher education space" that will build cross-national linkages for teaching and research. Despite differences in national educational systems, academic structures, languages and cultures of participants, and levels of resources, the European Union is continuing its efforts to promote student employability and mobility, as well as the overall development and competitiveness of the European higher education system.⁶

The LINGUA program, launched in 1989, seeks to improve foreign language competence of students and higher education personnel, particularly instructors of foreign languages (Jones, 1997). One goal of the program is to create a de facto requirement that, as part of their preparation to teach, prospective language teachers spend a recognized period of time in a country where the language they propose to teach is the vernacular. Refresher periods would provide the opportunity for teachers to develop student exchange programs.

The ERASMUS program, whose name recalls the ease with which scholars roamed about the universities of medieval Europe, promotes cooperation among higher education institutions with the intention of increasing transnational student mobility, joint course and program development, and transfer of university credits among participating European universities (Jones, 1997). Open to all disciplines, ERASMUS promotes the formation of university partnerships that allow students to complete parts of their educational programs in cooperating universities. A corollary program, the Trans European Mobility Program for University Studies (TEMPUS), was launched in the early 1990s to assist universities in Central and Eastern Europe as they made adaptations to their higher education systems through cooperative activities with Western European institutions.

ERASMUS also provided the basis for the European Credit Transfer System (ECTS), an experiment in awarding transferable credit to students for academic work undertaken outside the home university. The experiment began with 84 participating institutions. A joint statement of the European ministers of education, the Bologna Declaration of June 19, 1999, reiterated the need to establish a credit system, like ECTS, which would promote widespread student mobility and allow individuals to earn credits in non-higher education contexts and thus encourage lifelong learning. In 2003, a further communiqué of the Conference of Ministers stressed the role of a system like ECTS and encouraged progress not only on the transfer of credits, but their accumulation (Realizing the European Higher Education Area, 2003).

The Bologna Declaration of 1999, with 29 European countries as signatories, called on participants to harmonize European academic degrees by creating standards for bachelor's (first-cycle), master's (second-cycle), and doctoral degrees across the EU signatory countries. The standards framework would describe degree qualifications in terms of workload, level, learning outcomes, competencies, and profile. Bologna also stressed the need to adopt easily readable and comparable degrees and to standardize the undergraduate program as a degree requiring a minimum of three years of study to facilitate entry into the European labor market or prepare students for the second, graduate cycle (master's or doctorate). The anticipated date for the completion of the two-cycle system and recognition of degrees and periods of study is 2010.

Recent proposals suggest that a year of study consists of 60 credits (as defined by the European Credit Transfer System). The first-cycle, or bachelor's degree, would consist of three to four years of study (or no less than 180 and no more than 240 credits). The master's degree would be awarded after the accumulation of about 5 years of ECTS credits (of which at least 1 year's worth were earned through master's-level work). Short master's programs (a year or less) were hailed as enhancing opportunities for intra-European mobility and international competitiveness.

As an extension of the Bologna process, the Coimbra Group (founded in 1985) published a resolution in 2004 to create a common definition of the Ph.D. degree that would ensure doctoral programs adhered to specific standards. The resolution would also permit students to take courses at different universities, without having to enroll or incur additional administrative fees for courses taken outside the home institution. Each university would be required to recognize courses taken at other universities. However, at the time of the resolution, some of the Coimbra institutions did not support the plan to allow exchanges of doctoral candidates, in part due to concerns such as the lack of research and funding links at different universities (Labi, 2004).

In the excitement created by new relationships and agreements, it is easy to overlook the difficulties associated with a mobile student body. The adoption of the credit system in the United States in the early 1900s—an effort to control quality rather than to ensure mobility—established the concept of course equivalency and exchange. Although students have not always been able to transfer 100% of their credits from one institution to another, they have nonetheless transferred themselves and their credits among American colleges and universities quite actively. Several studies based on data from national longitudinal databases demonstrate patterns of multiple institution attendance among postsecondary students in the United States.

Adelman (1999) found that among students who first enrolled in a 4-year institution (as opposed to a 2-year or community college), the proportion who attended more than one institution increased from 39% to 52% for the cohorts that graduated from secondary school in 1972 and 1982. Among those who began their higher education at a 2-year college, the proportion attending more than one institution rose from 36% to 47%. Multiple institution attendance actually rose from about half of the 1972 cohort to about 60% of the 1982 cohort when analyses were limited to bachelor's degree recipients (regardless of where they first enrolled). Most of the increase between the two cohorts came from students who attended three or more institutions. In the absence of changes in the credit system, such increases might be attributed to changes in student characteristics, growth in consumerism, or both.

Another analysis, based on interviews with students who received a bachelor's degree in 1992–1993 (regardless of when they completed their secondary schooling), revealed that just over half of baccalaureate holders attended more than one undergraduate institution and 20% attended at least three institutions (McCormick, 2003). Multiple attendance does not necessarily indicate that students are transferring from one institution to another; some students simultaneously attend more than one institution (for example, taking summer courses at another institution to transfer to the home institution, or taking courses in the same term at a community college and a 4-year college). Among those students who attended more than one institution but did not transfer among colleges, students who took courses at more than one college had higher persistence rates (85%) than those who did not (76%) (McCormick, 2003).

While the phenomenon of multiple transfer may not be associated with decreases in retention rates, it creates challenges for universities, particularly in light of the growing volume of calls for accountability for learning outcomes and increasing attention to quality assurance. How is the quality of an education measured when a student attends multiple institutions? McCormick (2003) voiced an important concern: “When the

only currency is the credit hour, the only question becomes one of course equivalency. Important questions about the coherence and sequence of an educational program go largely unasked” (p. 23). The recent focus on outcomes assessment in accreditation and quality assurance must include considerations about the impact of increased student mobility on educational programs.

Practical and General Education Revisited

The trend toward specialization in the undergraduate curriculum has been highly influential worldwide; however, it exists in tandem with concerns for general (or liberal) education in countries such as Japan, Norway, Sweden, and the United States. Recently, there has been a resurgence of interest in general education as a result of issues associated with the recent social transformations from industrial to post-industrial social forms and the move from elite to mass education. Scott (2002a) noted that the need for the expert professional (met in the 19th and 20th centuries by elite education) is waning in the information society that calls for novel configurations of technical skills, symbolic power, and social status. Similarly, Husen (1996) contended that in a rapidly changing society where specific competencies become obsolete, employers in both the public and private sector recognize the value of the generalist with well-honed analytical and problem solving skills.

The expansion of higher education permitted, if it did not always warmly welcome, the enrollments of growing numbers of students from groups that were previously underrepresented in higher education. In developing and developed countries, the influx of new students challenges hegemonic conceptualizations of knowledge. Universities have been relatively slow to adopt new fields of study that deconstruct existing views (such as feminist or women’s studies and ethnic studies programs), even as these ideas become more prominent among students and faculty (Scott, 2002a; Stark & Lattuca, 1997). In the United States, the growing heterogeneity of the population—fueled by both new immigrant groups and by increased postsecondary attendance among underrepresented citizens—has been the fulcrum of an extended conversation about the content of general education programs and their ability to address the needs of a pluralist, democratic society.

Curricular changes in U.S. colleges and universities are a matter of institutional prerogative because there is no national agency that controls curricular (or other) decision making. Social events and cultural changes are therefore strong influences on beliefs about the equilibrium between specialization and general education, beliefs which play an important role in contemporary higher education policies. In the late 1800s, as the demand for specialization in the United States rose along with calls for more practical studies, the emphasis on liberal education in the college and university curriculum decreased, but did not disappear. Even in the land-grant institutions established in the late 1800s, founded with the explicit mission of educating the citizenry of individual states in agricultural and technical fields, liberal education remained a significant component of higher education.

General education and specialization were (and still are) often viewed as complementary: the general educational experience provides breadth of knowledge in a number of

subject areas, while the major encourages depth of knowledge in a single discipline or field. As World War II pressed the U.S. higher education curriculum into the service of the war effort, and consequently toward greater specialization, Harvard University published an influential document entitled, *General Education in a Free Society*, which argued that higher education institutions must balance general education—which promoted understanding of the Western heritage and effective citizenship—with study in a specialization, which prepared men and women for productive work lives (Committee on the Objectives of a General Education in a Free Society, 1945). These sentiments still undergird many college and university missions and are the basis for the dual focus characteristic of American higher education.

In the political and social unrest of the 1960s, student activists in the United States pressured colleges and universities for greater curricular freedom so that they might develop courses of study more relevant to student needs. Institutions suspended many of their requirements, while others permitted students to develop individualized programs of study. The *laissez-faire* approach of the 1960s and 1970s eventually inspired calls in the last decades of the 20th century for greater coherence in the curriculum (Association of American Colleges, 1985; Wingspread Group on Higher Education, 1993). A 1990 study by the American Council on Education found that 86% of colleges and universities in the United States still required all students to complete at least some core or general education coursework.

This pendulum-like movement between general and specialized education has been particularly pronounced in the United States, as periodic adjustments are made in response to changing cultural conditions (Stark & Lattuca, 1997), but it is not unique. Recently, there has also been a resurgence of interest in the idea of a core general education curriculum in Sweden, where proponents consider it an antidote for the declining quality of political life and culture (Liedman, 1993). In Japan, universities maintained general education courses even as curricular requirements loosened in the 1970s and individual universities obtained leeway to decide whether to retain general education courses and how to allocate general education credits (Teichler, 1997). In 1991, the Japanese Ministry of Education dropped all curricular regulations, allowing universities complete freedom to determine their programs of study. Many Japanese universities retained their general education courses, providing a broadly based education in the first two years of study and delaying specialization until the last 2 years of undergraduate study (Teichler, 1997).

A recent publication of the World Bank and UNESCO recommended that developing nations consider general education as an alternative to specialized models of higher education (Task Force on Higher Education and Society, 2000). Nussbaum (2004) argues that the idea of a liberal education is attractive to developed and developing nations because it promotes the creation of a critical public culture by emphasizing the development of analytical thinking, argumentation, and active participation in debate. General education is also an avenue to educate citizens for an increasingly pluralistic society, where ethnic antagonism, religious intolerance, and fear of heterogeneity are all too abundant.

A recent study of general education practices in U.S. institutions revealed that the average general education requirement in colleges and universities accounted for about

37% of the undergraduate degree (Ratcliff, Johnson, La Nasa, & Gaff, 2001). However, the proportion of higher education devoted to general education appears to be steadily decreasing in American colleges and universities. In 1967, general education accounted for 43% of baccalaureate credits (Dressel & DeLisle, 1970); in 1987, it was 38% of the degree requirements (Toombs, Fairweather, Amey, & Chen, 1989).

Curricular Inputs or Educational Outcomes

Quality assurance systems vary somewhat from nation to nation and the degree of control they exercise over higher education curricula varies. Often, quality assurance is the responsibility of a centralized or national agency that oversees higher education. In Japan, until very recently the ministry controlled budgets, employment decisions, and curricular requirements (Brender, 2004). In France, the National Evaluation Committee oversees a voluntary process, based on institutional self-study, in which institutions self-report information and data that is subjected to expert peer review (Green, 1997).

In other countries, such as Australia and the United States, the state does not control or scrutinize courses or course content; independent agencies provide the quality assurance function. In the United Kingdom, an agency (funded by subscriptions from universities and colleges of higher education) integrates quality assurance efforts in England, Northern Ireland, Scotland, and Wales. Its processes, however, are similar to those used in France and the United States, in their reliance on self-evaluation and visiting teams that conduct peer reviews. In the U.K., institutional audits, institutional level reviews, and academic reviews of subjects (requirements vary across the U.K.) provide public assurances of the quality of higher education institutions. The quality assurance agency (QAA) of the U.K. also provides reference points to assist in the development of clear standards of quality, and in this way exercises some influence (if not control) over higher education curricula. For example, the QAA promulgates subject benchmark statements for different disciplines that describe the conceptual framework of the field and the techniques and skills that will be expected of a graduate in the field; program specifications for each institution clarify the knowledge, skills, and attributes that students will have developed upon successful completion of a specific program. The publication of such frameworks and standards allows students, employers, and other stakeholders a basis for comparison of different curricular options.

The Bologna Declaration called for European cooperation in quality assurance, particularly the development of comparable evaluation criteria and methodologies. In a number of countries that want to increase international acceptance of their degrees, accreditation—rather than quality assurance—is the goal (Haug & Tauch, 2001). By 2005, these national quality assurance systems should include a definition of the responsibilities of the bodies and institutions involved; evaluation of programs or institutions, including internal assessment, external review, participation of students, and publication of results; and a system of accreditation, certification, or comparable procedures.⁷ A particularly promising development is the focus on student outcomes (what students actually learn) rather than time spent and curricular content covered.

Support for outcomes-based assessment is growing, offering an alternative to quality assurance processes based on a review of inputs (such as student achievement on

national or standardized examinations) or processes (such as those now required). A critique of the recently revised Australian framework for quality assurance, for example, noted that the new procedures cannot contribute to an ongoing and sustained dialogue about standards at the national level. One suggested remedy is to define national standards on the basis of the assessment of student learning and thus clarify expectations of student achievement (James, 2003).

In the United States, calls for greater accountability and concerns about the quality of graduates have similarly inspired accreditation agencies to examine and improve their processes. Accreditors⁸ are increasingly requiring colleges and universities to provide evidence that they assess student learning outcomes and use assessment data in continuous improvement processes. One professional accreditation agency—the Accreditation Board for Engineering and Technology (ABET), which accredits engineering and technology programs in the United States—moved to the forefront in 2001 when it mandated that institutions applying for accreditation or re-accreditation provide evidence of student learning on 11 specific educational outcomes or competencies. A national study of the impact on curricula, teaching and student learning of the shift to this outcomes-based accreditation system will be completed in late 2005 (Prados, Peterson & Lattuca, 2005).

Today, the global higher education enterprise is still diversifying in many respects. The 20th century spawned new institutional types, such as the for-profit university, and transformed methods of delivery through technology. But it is possible that elements of the system are coalescing. In time, observers will be able to determine the extent to which external pressures—such as competition, quality assurance, the need for the mobility of students and degrees, and globalization—have counteracted the trend toward differentiation by standardizing educational structures. The impact on curricular content is likely to be more moderate.

It is appropriate to conclude this discussion with a section focusing on the assessment of student learning. The chapter opened with a definition of curriculum that stretched it beyond its usual meaning as a set of courses or educational experiences. If curricula are truly sites for interactions among students, faculty, and content, then any judgment of the quality of a curriculum must include an assessment of what students learn as a result of an educational experience. Although educators cannot control many of the influences on student learning, they can do their best as they create and deliver curricula that recognizes how learning is influenced by the contexts in which it occurs—and how learning may also change those contexts.

Notes

1. Although the higher education enterprise in the United States is not a national system in the strict sense, it can nonetheless be studied as a set of interlocking structures, purposes, and goals. For more on this, please see the chapter by Peter Eckel and Jacqueline King in volume 2 of this *Handbook*.
2. The terms liberal education and general education are often used interchangeably. Some prefer the term general education because it does not carry the intimations of elitism that liberal education is thought to imply. I use the term general education because general education courses do not necessarily achieve liberal educational aims. See, for example, Rothblatt (1993) for a discussion of the various goals of liberal education.

3. Husen (1996) argues that while developing countries should address the social and human development needs of their own regions, they must also broaden their students' perspective to "problems of a universal character," which raise the issue of the "delicate balance between parochialism and internationalism" (p. 19).
4. At the level of baccalaureate plus five years, students can opt for a professional diploma that leads to professional employment or a doctorate, typically attained in 4-5 years and requiring a thesis.
5. The signatory bodies have indicated that they consider that the provisional signatory has the potential capability to reach full signatory status; however, the awarding of provisional status does not in any way imply a guarantee of the granting of full signatory status (International Engineering Accreditation Bodies Meet, 2003).
6. For more information, please see the chapters by Jane Knight (volume 1) and Hans de Wit (volume 2) in this *Handbook*.
7. The European Network of Quality Agencies, created upon the recommendation of the EU Council of Education Ministers, will assist in the development of quality assurance processes.
8. In the U.S., six regional accreditation agencies (sometimes referred to as general or institutional accreditors) are responsible for confirming the quality of higher education institutions as a whole, while approximately 60 independent, specialized (or professional) accreditation agencies accredit individual programs in specific disciplines and fields (such as social work, engineering, and counseling).

References

- Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Ahmed, R. (1985). Scientific and technological education in developing countries. In T. Husen, & T. N. Postlethwaite (Eds.), *International encyclopedia of education*, vol. 8. Oxford, UK: Pergamon Press.
- Albornoz, O. (1991). Latin America. In P. G. Altbach (Ed.), *International higher education: An encyclopedia* (pp. 853–867). New York, NY: Garland Publishing, Inc.
- Altbach, P. G. (1998). *Comparative higher education: Knowledge, the university, and development*. Greenwich, CT: Ablex Publishing Corporation.
- Altbach, P. G. (2004). Globalization and the university: Myths and realities in an unequal world. *Tertiary Education Management* 10, 3–25. [Note: An updated version of this essay appears in this *Handbook*.]
- Altbach, P. G. (1990). Higher education and scientific development. *New Education* 7(1).
- Association of American Colleges. (1985). *Integrity in the college curriculum: A report to the academic community* (pp. 1–26). Washington, DC: AAC.
- Biraimah, K. (1991). Nigeria. In P. G. Altbach (Ed.), *International higher education: An encyclopedia* (pp. 399–410). New York, NY: Garland Publishing, Inc.
- Brender, A. (2004). In Japan, radical reform or same old subservience? *Chronicle of Higher Education*. Retrieved June 14, 2004, from <http://chronicle.com/prm/weekly/v50/i27/27a03901.htm>.
- Clark, B. R. (1995). *Places of inquiry: Research and advanced education in modern universities*. Berkeley, CA: University of California Press.
- Committee on the Objectives of a General Education in a Free Society. (1945). *General education in a free society: Report of the Harvard Committee*. Cambridge, MA: Harvard University Press.
- Court, D. (1991). The development of university education in sub-Saharan Africa. In P. G. Altbach (Ed.), *International higher education: An encyclopedia* (pp. 329–347). New York, NY: Garland Publishing, Inc.
- Cumming, J. J., & Maxwell, G. S. (2004). Assessment in Australian schools: Current practice and trends. *Assessment in Education* 11(1), 89–108.

- Cummings, W. K. (1985). Japan. In B. R. Clark (Ed.), *The school and the university: An international perspective* (pp. 131–159). Berkeley, CA: University of California Press.
- Dressel, P. L., & DeLisle, F. H. (1970). *Undergraduate curriculum trends*. Washington, DC: American Council on Education.
- Figaji, B. (1997). South Africa. In M. Green (Ed.), *Transforming higher education: Views from leaders from around the world* (pp. 276–293). Phoenix, AZ: American Council on Education and Oryx Press.
- Gellert, C. (1997). Higher education in Western Europe. In M. Green (Ed.), *Transforming higher education: Views from leaders from around the world* (pp. 114–130). Phoenix, AZ: American Council on Education and Oryx Press.
- Green, M. F. (Ed.). (1997). *Transforming higher education: Views from leaders from around the world*. Phoenix, AZ: American Council on Education and Oryx Press.
- Haskins, C. H. (1957). *The rise of universities*. Ithaca, NY: Cornell University Press.
- Haug, G., & Tauch, C. (2001). Towards the European higher education area: survey of main reform from Bologna to Prague. Retrieved May 17, 2004, from <http://www.bologna-berlin2003.de/pdf/trend.II.pdf>.
- Holmes, B., & McLean, M. (1989). *The curriculum: A comparative perspective*. London, UK: Unwin Hyman.
- Husen, T. (1996). The idea of the university: Changing roles, current crisis, and future challenges. In Z. Mersy & P. G. Altbach (Eds.), *Higher education in an international perspective: Critical issues* (pp. 3–19). New York, NY: Garland Publishing, Inc.
- Hutcheson, P. A. (1997). Structures and practices. In J. G. Gaff & J. L. Ratcliff (Eds.), *Handbook of the undergraduate curriculum: A comprehensive guide to purposes, structures, practices, and change*. San Francisco, CA: Jossey-Bass.
- International Engineering Accreditation Bodies Meet. (2003). Admit New Members Into Washington Accord. Retrieved June 15, 2004, from http://www.washingtonaccord.org/wash_accord_news.html.
- James, R. (2003). Academic standards and the assessment of student learning: Some current issues in Australian higher education. *Tertiary Education and Management*, 9, 187–198.
- Jardine, L., & Grafton, A. T. (1982). Humanism and the School of Guarino: A problem of evaluation. *Past and Present*, 96, 61–73.
- Jayaram, N. (1997). India. In G. A. Postiglione & G. C. L. Mak (Eds.), *Asian higher education: An international handbook and reference guide* (pp. 75–91). Westport, CT: Greenwood Press.
- Jones, H. C. (1997). Promoting higher education's contribution to the developing European Community. In P. Darvas (Ed.), *Higher education in Europe* (pp. 191–202). New York, Garland Publishing, Inc.
- Kerr, C. (1990). The internationalization of learning and the nationalization of the purposes of higher education: Two "laws of motion" in conflict? *European Journal of Education* 25(2), 5–22.
- Kimball, B. (1986). *Orators and philosophers: A history of the idea of liberal education*. New York, NY: Teachers College Press.
- Labi, A. (2004). European universities take the first step toward standardizing their Ph.D. programs. *Chronicle of Higher Education*. Retrieved April 26, 2004, from <http://chronicle.com/daily/2004/0420042606n.htm>.
- Liedman, S. E. (1993). In search of Isis: General education in Germany and Sweden. In S. Rothblatt & B. Wittrock (Eds.), *The European and American university since 1800: Historical and sociological essays* (pp. 74–106). Cambridge, UK: Cambridge University Press.
- McCaughey, R. A. (1974). The transformation of American academic life: Harvard University, 1821–1892. *Perspectives in American History* 8, 239–332.
- McClelland, C. E. (1980). *State, society, and university in Germany, 1700–1914*. Cambridge, UK: Cambridge University Press.
- McCormick, A. C. (2003). Swirling and double-dipping: New patterns of student attendance and their implications for higher education. In J. E. King, E. L. Anderson & M. E. Corrigan (Eds.), *Changing student attendance patterns: Challenges for policy and practice* (pp. 13–24). New Directions for Higher Education, no. 121. San Francisco, CA: Jossey-Bass.

- Min, W. (1997). China. In G. A. Postiglione & G. C. L. Mak (Eds.), *Asian higher education: An international handbook and reference guide* (pp. 37–55). Westport, CT: Greenwood Press.
- Muller, J. (1991). South Africa. In P. G. Altbach (Ed.), *International higher education: An encyclopedia* (pp. 411–423). New York, NY: Garland Publishing, Inc.
- Nussbaum, M. (2004). Liberal education and global community. *Liberal Education* 90(1), 42–47.
- Payton, P. W. (1961). Origins of the terms “major” and “minor” in American higher education. *History of Education Quarterly* 1, 57–63.
- Perkin, H. (1991). History of universities. In P. G. Altbach (Ed.), *International higher education: An encyclopedia* (pp. 169–204). New York, NY: Garland Publishing, Inc.
- Prados, J. W., Peterson, G. D., & Lattuca, L. R. (2005, forthcoming). Quality assurance of engineering education through accreditation: The impact of engineering criteria 2000 and its global influence. *Journal of Engineering Education*.
- Ratcliff, J. L., Johnson, D. K., La Nasa, S. M., & Gaff, J. G. (2001). *The status of general education in the year 2000: Summary of a national study*. Washington, DC: Association of American Colleges and Universities.
- Realizing the European Higher Education Area (2003). Communiqué of the Conference of Ministers responsible for Higher Education. Retrieved June 8, 2004, from http://www.ntb.ch/SEFI/milestones/Berlin_Comm-engl.pdf.
- Reuben, J. A. (1996). *The making of the modern university: Intellectual transformation and the marginalization of morality*. Chicago, IL: University of Chicago Press.
- Rothblatt, S. (1993). The limbs of Osiris: Liberal education in the English-speaking world. In S. Rothblatt & B. Wittrock (Eds.), *The European and American university since 1800: Historical and sociological essays* (pp. 19–73). Cambridge, UK: Cambridge University Press.
- Rudy, W. (1951). The “revolution” in American higher education, 1865–1900. *Harvard Educational Review* 21(Summer), 155–174.
- Rudolph, F. (1977). *Curriculum: A history of the American undergraduate course of study since 1636*. San Francisco, CA: Jossey-Bass.
- Saha, L. J. (1997). Universities and national development: Issues and problems in developing countries. In P. Darvas (Ed.), *Higher education in Europe* (pp. 80–89). New York, NY: Garland Publishing, Inc.
- Scott, P. (2000). Higher education in Central and Eastern Europe: An analytical report. In *Ten years after and looking ahead: A review of the transformations of higher education in Central and Eastern Europe* (pp. 341–407). Bucharest, Romania: UNESCO-CEPES.
- Scott, P. (2002a). The future of general education in mass higher education systems. *Higher Education Policy* 15, 61–75.
- Scott, P. (2002b). Reflections on the reform of higher education in Central and Eastern Europe. *Higher Education in Europe* 27(1–2), 139–152.
- Stark, J. S. & Lattuca, L. R. (1997). *Shaping the college curriculum: Academic plans in action*. Boston: Allyn & Bacon.
- Task Force on Higher Education and Society. (2000). *Higher education in developing countries: Peril and promise*. Washington, DC: World Bank.
- Teichler, U. (1997). Higher education in Japan: A view from the outside. *Higher Education* 43, 275–298.
- Teichler, U. (1999). Lifelong learning as a challenge for higher education: The state of knowledge and future research tasks. *Higher Education Management* 11(1), 37–53.
- Toombs, W., Fairweather, J. S., Amey, M., & Chen, A. (1989). *Open to view: Practice and purpose in general education*. University Park, PA: Center for the Study of Higher Education.
- Wingspread Group on Higher Education. (1993). *An American imperative: higher expectations for higher education*. Racine, WI: The Johnson Foundation and others.
- Wittrock, B. (1993). The modern university: The three transformations. In S. Rothblatt & B. Wittrock (Eds.), *The European and American university since 1800: Historical and sociological essays* (pp. 303–362). Cambridge, UK: Cambridge University Press.