A STRATEGY FOR CHANGE IN HIGHER EDUCATION: THE EXTENDED UNIVERSITY OF THE UNIVERSITY OF CALIFORNIA

by

David Pierpont Gardner
and
Joseph Zelan
University of California (Office of the President)
U.S.A.

STRATEGIE DE REFORME DE L'ENSEIGNEMENT SUPERIEUR: L'UNIVERSITE ELARGIE DE L'UNIVERSITE DE CALIFORNIE *

par

David Pierpont Gardner
et
Joseph Zelan
Université de Californie (Bureau du président)
Etats-Unis

* Le texte français commence à la page 47.

PREFACE

Policies for higher education are under active consideration in most OECD countries. A major issue in such policies in the seventies will be the setting up of structures adapted to a stage of development which has either been or is at the point of being reached in most Member countries, that of the transition to mass higher education.

To discuss a number of major issues related to policies for the future development of higher education systems, the OECD organised, in the framework of the programme of work of its Education Committee, a Conference on Future Structures of Post-Secondary Education, which took place in Paris in June 1973. High officials responsible for education policy in OECD Member countries, including a number of ministers, attended the Conference together with teachers, administrators and participants from trade union and professional organisations.

The central concern of the Conference was to examine the advent of mass higher education in its main patterns and characteristics and to identify alternative policy measures for facilitating the overall structural transformation of the system towards meeting its new objectives in the context of social and economic development.

The present report is one of a series of background studies specially prepared for this Conference. Other background studies of the Conference have been grouped together in two volumes: Structure of Studies and Place of Research in Mass Higher Education and Towards Mass Higher Education: Trends, Issues and Dilemmas. The General Report of the Conference is to be found in a third volume entitled Policies for Higher Education.

Other documents in the series, available from the Directorate for Scientific Affairs, are:

- "Mass Higher Education: Some Perspectives from Experience in the United States"
  by M.J. Bowman and C.A. Anderson, University of Chicago

- "New Approaches in Post-Secondary Education"
  by John Lowe, OECD Secretariat

A STRATEGY FOR CHANGE IN HIGHER EDUCATION:
THE EXTENDED UNIVERSITY OF THE UNIVERSITY OF CALIFORNIA

TABLE OF CONTENTS

THE STIMULI TO CHANGE

Universities and colleges in the United States are confronted with an array of fiscal, educational, social and political problems as unrelenting as they are unresolvable within the context of prevailing educational conventions.

Higher learning in America must come to terms, for example, with markedly new patterns of enrolment, an increasingly heterogeneous student body and faculty, a diminishing resource base, rising costs, changing governmental and social priorities, unmet educational needs of adults and unequal educational opportunities for the poor. The gravest single problem of all, however, as Sir Eric Ashby has quite rightly noted, is the "...alarming disintegration of consensus about purpose. It is not just that the academic community cannot agree on technicalities of curricula, certification and governance, it is a fundamental doubt about legitimacy of universities as places insulated from society to pursue knowledge disengaged from its social implications." (1)

Single-valued forecasts and perspectives, such as dominated academic planning and expansion in the 1960's, must no longer be permitted to limit the range of policy options or compromise alternative educational strategies designed to deal with these issues, lest the opportunity to reformulate familiar forms and processes of post-secondary education is foregone and attrition sets in.

It seems quite likely that the uncritical expansion of our institutions of higher education along established and familiar lines is, for the most part, a thing of the past. "Hardly anywhere", as Roy Niblett has observed, "is it generally believed that the recipe for meeting the next twenty years is to continue to do, only better, what has been done in the last twenty." (2) The more likely prospect is that higher education in this decade and the next can be expected to assimilate or at least accommodate a variety of alternative, experimental and unconventional educational forms and structures. This will be so for a number of reasons:

- The unrelieved push for greater access to higher education and more equal educational opportunity

Enrolments in American colleges and universities doubled every sixteen years during the first sixty years of this century and rose by about 7.4 per cent per year during the decade just past. Roughly four per cent of college-age youth were enrolled in American institutions of higher learning in 1900; today, more than forty per cent are enrolled; and it is estimated that nearly two out of three of the age group will be enrolled as this century closes. The pressure to expand has been and will remain relentless although the pattern of enrolments may shift somewhat within the established learning system, away from the senior colleges and universities and towards the community colleges and post-secondary vocational and technical schools and institutes.

---

(1) Eric Ashby, Any Person, Any Study, McGraw-Hill, New York, 1971, p.104.

(2) W. Roy Niblett, "Issues and Choices", W.R. Niblett and R.F. Butts (eds.), Universities Facing the Future, Jossey-Bass Inc., London, 1972, p.3.

The most evident and consistent pressure for expansion in recent years has come from the poor, the educationally disadvantaged and ethnic minorities, primarily Black, Brown and American Indian, for whom higher education until now has not been a real option; and from the Federal government, politically attuned to the demand and generally supportive of such educational aspirations and stirrings. The proportion of such college-age youth enrolling in American colleges and universities has steadily risen in recent years owing to (a) the maturing of the comprehensive secondary school system; (b) the growth and development of the community college system with its "open door" policy of admissions; and (c) the huge student aid programme which has so dramatically increased since the end of World War II, both in scope of programme and scale of assistance.

The demand for higher education, especially in recent years, as Cerych and Furth have suggested, "...has led not only to massive expansion of enrolments but also to a change in the clientele of higher education, i.e., to a considerably increased variety and greater heterogeneity of aptitudes, abilities, motivations and expectations of students with regard to their future education, professional career and life in general". (1)

As recently as a decade ago, it was assumed that the extension of educational opportunities to the poor, the educationally disadvantaged and the ethnic minorities could be accomplished merely by availing such new students of the same programmes, resources and academic conventions as had been extended in earlier years to the upwardly mobile middle-class. The assumption proved to be false not only because a conflict ensued between the new students and the forms and practices of established institutions but also because of the unanticipated rejection of conventional academic values by significant numbers of middle-class students, what Trow calls the "involuntary student" and what Ashby describes as the "semi-drafted student" - students, in short, who feel compelled to attend college for educationally irrelevant reasons.

Thus American universities and colleges found themselves fighting on two fronts in the 1960's; and they are still skirmishing today. The turmoil carries very real implications for the life pattern of the educational system itself and long-accepted values of academic life: "patient inquiry, the sequential development of ideas, the emphasis on reasoned discussion and criticism, the continual reference to evidence and the special attention to negative evidence..." as Martin Trow describes it. (2)

- <u>The desire of government to reduce the unit costs of instruction</u>

This objective can be effected only if government can get at the educational process itself, that is, at the time and spread of the curriculum, the forms and methods of instruction and the relationship of the student to the institution.

---

(1) L. Cerych and D. Furth, "On the Threshold of Mass Higher Education", <u>Universities Facing the Future</u>, <u>ibid</u>, p.19.

(2) Martin Trow, "The Expansion and Transformation of Higher Education", <u>International Review of Education</u>, Vol. XVIII, No. 1, 1972, p.71.

Colleges and universities have, so far, generally responded to such fiscal pressures not by altering the educational process, but instead by delaying expenditures that would otherwise have been made on ordinary administrative support services and the development of academic programmes, for example, deferred maintenance, postponed capital projects, postponed expansion of existing academic programmes or introduction of new ones. Such economies are only marginal and temporary, however, as Virginia Smith of the Carnegie Commission has pointed out, for these measures avoid the problem of productivity in the teaching and learning process itself. (1) This is not to say that such economies bear no relationship to the effective performance of the institution's educational mission. They do, but in less visible and immediate ways.

There is no doubting the fiscal crisis afflicting higher learning in America. It is real, omnipresent and foreboding. (2) The reasons are complex: (a) a prolonged and costly war in South East Asia; (b) student unrest in the 1960s; (c) inflation; (d) competing social programmes, especially in government sponsored welfare and health services; (e) disenchantment with research; and (f) a startling loss of public confidence in the entire enterprise. "Taxpayers, legislators and private donors", as Sir Eric Ashby has reported, "want universities to demonstrate (i) that they can govern themselves in reasonable tranquility; (ii) that they are being run efficiently..; and (iii) that they can restore a consensus about 'a unifying set of purposes - purposes that the supporting public can understand and defer to'." (3)

These pressures have translated into institutional budgets inadequate to maintain, much less to strengthen, existing programmes and practices or to permit growth within the conventional context. It should be evident that any significant expansion of the system along familiar lines must anticipate some wearing away of standards and capability.

- The unmistakable preference of some full-time students to mix part-time study with work, and the growing desire of the fully employed to combine work on the job or at home with periodic full-time or part-time study

Pressure on the higher learning system to expand and accommodate the educational needs of adult students wishing to study part-time and the desire of some full-time students of college age to opt for part-time study is a relatively new phenomenon but one quite likely, in the long run, to effect significant changes in the form and structure of American higher education.

---

(1) "Substantial increases in productivity will likely be achieved only through changes in the educational process itself. Certainly, the significant advances in productivity in industry have involved the processes of production rather than support functions. In higher education, such changes can occur only with experimentation and innovation in academic programs, in instructional techniques and in the relationship of the student to the institution." : Virginia Smith, "More for Less; A New Priority" Universal Higher Education: Costs and Benefits, American Council on Education, Washington, D.C., Background papers for participants in the 54th Annual Meeting of the ACE, 1971, p.127.

(2) See Earl F. Cheit, The New Depression in Higher Education: A Study of Financial Conditions at 41 Colleges and Universities, McGraw-Hill, New York, 1971.

(3) Eric Ashby, "The Great Reappraisal", Universities Facing the Future, op.cit., p.36.

Adults, because of work schedules, family or home responsibilities, financial constraints and cultural or geographical isolation cannot now effectively enroll in most degree programmes offered by American colleges and universities; and this is especially true of the more prestigious universities. The impediments are both philosophical and procedural and are deeply rooted in institutional prejudice and practice. Adult students seeking further educational opportunity do so for a variety of reasons: (a) to conclude degree programmes started but unfinished in earlier years; (b) to shift careers at mid-point; (c) to improve competencies in established career patterns; (d) to enhance intellectual, social, cultural, political and environmental understanding and awareness; and (e) to initiate studies in later life because the opportunity or motivation was lacking earlier.

A recent report of the Carnegie Commission on Higher Education, in a general discussion of the flow of students into and through the formal structure of higher education, suggested educationally and socially relevant reasons for encouraging the enrolment of adults:

> "Society would gain if work and study were mixed throughout a lifetime, thus reducing the sense of sharply compartmentalized roles of isolated students vs. workers and of youth vs. isolated age. The sense of isolation would be reduced if more students were also workers and if more workers could also be students; if the ages mixed on the job and in the classroom in a more structured type of community; if all the members of the community valued both study and work and had a better chance to understand the flow of life from youth to age. Society would be more integrated across the lines that now separate students and workers, youth and age." (1)

If American higher education were to rid itself of barriers to adult part-time study, it would simultaneously provide options to the "involuntary" student of college age now attending full time: either deferred enrolment, of recurring periods of study, or continuous part-time study mixed with work; in short, it would have cleared away the assumption, as Ashby has put it, "that full-time education should be digested all in one gulp, from age five to age twenty-two". (2) It would also introduce highly motivated adults into the system and reduce the enrolments of "semi-drafted" students whose presence now tends to weaken the overall effectiveness of the learning process.

- <u>The irresistable influence of communication technology on the typical time and space requirements of the conventional learning process - what a recent Carnegie Commission Report calls the "first great technological revolution in five centuries"</u> (3)

Of the revolutions taking place in our time, one of the most significant and exciting, from the viewpoint of educators, must surely be the one in tele-communications

---

(1) The Carnegie Commission on Higher Education, <u>Less Time, More Options</u>, McGraw-Hill, Hightstown, N.Y., 1971, pp. 1-2.

(2) Eric Ashby, <u>Any Person, Any Study</u>, <u>op.cit.</u>, p.99.

(3) The Carnegie Commission on Higher Education, <u>The Fourth Revolution: Instructional Technology in Higher Education</u>, McGraw-Hill, Hightstown, N.Y., 1972, p.1.

and educational technology. The impact of scientific and technological breakthroughs in this area will, in very major ways, affect the entire educational establishment, and perhaps higher education even more than the lower grades.

The new electronics have already made an impact on research and administrative methods in higher education and are now moving to transform the library and the teaching process itself. The instructional uses of such devices as cable television, cable and television technology in general, microwave, videophone, microfiche, digitalization and switching, long-range facsimile, communication satellites and the computer, among others, may offer "the greatest single opportunity for academic change on and off campus", the Carnegie Commission has suggested, and will make it possible for education to be brought:

> "...to the sick, the handicapped, the aged, the prisoners, the members of the armed forces, persons in remote areas, and to many adults who could attend classes on campus but who will find instruction at home more convenient. It can create new uses for leisure time, can facilitate job to job movement through new training, and can improve community participation by imparting greater skill and knowledge to citizens." (1)

As the multi-channel, closed circuit education television systems develop and cable television expands its network, satellites will tend to diminish the now dominant position of the networks, or at least will very likely diversify them. As the use of satellites increases, there will be an obvious trend towards the internationality of learning as such barriers as distance, geography, race, nationality, language and religion are reduced - a matter posing both immense problems and immensely exciting possibilities, especially for educators.

Within the context of domestic educational change, these forms of technology will most surely be converted into uses implicating virtually every aspect of our educational institutions. They will influence our time and places of instruction, and our methods of teaching and our curricula and indeed, after a period of careful and systematic experimentation with such forms of education, they may well prove to be desired modes of instruction for large numbers of students and prospectively more cost-effective as well.

Educational technology, however, has not been fully and effectively employed by higher education for a variety of reasons: (a) hesitant acceptance by faculty and student alike; (b) compartmentalisation of the technological resources from the educational process itself; (c) absence of comprehensive cost data in the instructional use of such technology and standardised patterns of utilisation; and (d) reluctance to expect or require faculty knowledge of and proficiency in the use of technology for educational purposes. "The overriding imperative of technology is system", as Bernard Trotter reminds us; "Any discussion of educational technology must therefore be about the systematisation of the educational process. Systematisation of a new and different kind." (2)

---

(1) The Carnegie Commission on Higher Education, The Fourth Revolution, ibid., pp. 1-2.

(2) Bernard Trotter, Television and Technology in University Teaching: A Report to the Committee on University Affairs and the Committee of Presidents of Universities of Ontario, T.H. Best Printing Ltd., Toronto, 1970, p.50.

Thus, the effective and economical use of educational technology by colleges and universities can be anticipated only if new, collaborative arrangements (intra and inter-institutional) and a systems approach to the educational process are successfully pursued. The benefits that such technologies can provide, of course, are substantial:

(a) duplication of high quality instruction at low cost for convenient and repeated access by students in-residence and off-campus;

(b) individualisation of instruction;

(c) collaborative arrangements among institutions having common academic interests, unencumbered by geographical considerations;

(d) improved opportunities for independent study and a richer mix of coursework and methods of instruction for students;

(e) fewer routine teaching duties for faculty members especially at the more elementary level; and

(f) opportunities for research and increased understanding of basic learning processes. (1)

The Carnegie Commission has predicted that by the year 2000 "a significant portion of instruction in higher education on campus may be carried on through informational technology - perhaps in a range of 10 to 20 per cent. It certainly will penetrate much further than this into off-campus instruction at levels beyond the secondary school - in fact, it may become dominant there at a level of 80 per cent or more." (2)

Should the Carnegie Commission prediction be realised, future generations of students will surely be less campus bound than have been those of the past, while at the same time the campus will become an even more central link between the present condition of society and the future. By the turn of the century, technology in various forms may well have transformed the campus from a centre of learning into a learning centre - one which houses a highly mobile population of students and scholars, a small resident population for study primarily at the most advanced levels, a panoply of laboratories for residential research and an integrated network of libraries, computers, television and other teaching resources designed as much for residential as for off-campus study and research; in short, a network of associations, arrangements and resources that will permit the student to have the university or college with him at home, at work and at his leisure throughout his lifetime.

---

(1) For the elaboration of these benefits and a thorough detailing of the educational implications of the new technology, see the Carnegie Commission's The Fourth Revolution, op.cit., especially pp. 4-7.

(2) ibid., p. 1.

RESPONSES

The educational response to these and related pressures by institutions of higher learning in the United States has been as unassured as it has been uneven.

In general, such educational initiatives as these have been divided into either (a) new and often student-initiated and sometimes student-designed academic programmes developed and offered mostly within conventional settings, or (b) what has come to be called non-traditional studies, efforts largely intended to offer new student constituencies newly designed or already established academic programmes in novel ways and at times and places convenient to the learner.

The development of student-initiated programmes results mostly from the generational revolt of the 1960s and from the demand for curricular options matching the heterogeneity of the American student body. Self-designed programmes "range from rather small informal programs involving four students to programs available to the entire student body". (1) While it is generally assumed that students will consult with faculty members in planning their academic programme, they are ordinarily expected to arrange an interdisciplinary course of study responsive to their special learning interests and style by drawing on any combination of courses, tutorials and independent study options available within the host university or college. Better known institutions with developed programmes such as these include Princeton, Cornell College, Ithaca College and Chatham College.

As part of the trend, learning contracts entered into between a university or college and a student - sometimes formally written - have been gaining favour in recent years. Evergreen State College, in the State of Washington, has drawn considerable interest and much applause for its programme of "contracted studies". The pertinent reference in the college's Bulletin reads:

> "For a substantial part of your career at Evergreen, you may work in contracted studies. Using this pattern, you as an individual or as a member of a small group sharing your interests can sign up with a faculty member or other staff member to earn credit by doing a specific project, carrying out a specific investigation, mastering a specific skill, or dealing with a specific body of subject matter... We call this arrangement a "contract" for learning to emphasize that it is an agreement to do a piece of work and that it implies direct, mutual responsibility between you and the experienced person whom you have asked to help you." (2)

Variations on the same theme are to be found in the curricular options of an increasing number of institutions, among them New College at the University of Alabama, New College in Florida, Simpson College in Iowa, Johnston College and Whittier College in California and Ottawa College in Kansas. (3)

---

(1) Paul R. Givens, "Student-Designed Curricula", Research Currents, ERIC Clearinghouse on Higher Education, Washington D.C., 15th May, 1972, p. 3.

(2) The Evergreen State College Bulletin, Olympia, Washington, 1971-72, p. 89.

(3) For a more complete list of learning contract colleges and universities and of student-designed programmes see P. Givens, "Student-Designed Curricula", op.cit., pp. 5-6.

To the extent that non-traditional programmes have been undertaken at all in recent years and that alternative educational strategies have been planned, they are more or less embodied in the typology recently suggested by John Valley of the Educational Testing Service:

(a) Non-traditional programmes that extend existing curricula through new means to new students;
(b) Non-traditional programmes that not only offer conventional education in unconventional ways to new students, but also offer new curricula, learning experiences and degrees to both new and traditional student bodies;
(c) Non-traditional programmes that seek to compress or accelerate the post-secondary learning experience, whether new or conventional, by such means as advanced placement, achievement tests, competency exams, year-round operations and more compact curricula;
(d) Non-traditional programmes that are designed to certify competence but offer no instruction.

Non-traditional study plans and programmes have received widespread and favourable publicity in the United States. This has been true since Alan Pifer of the prestigious Carnegie Corporation made known his support for such unconventional post-secondary educational initiatives in 1970, and when the Chancellor of the University of the State of New York in the same year announced the creation of a new Regents' External Degree Program (degrees by examination). The following year the Board of Trustees of the State University of New York authorised the creation of Empire State College as an autonomous college within the vast system of higher education. The college having its own degree-granting capability and committed to a learning contract approach, has a dual purpose: to increase accessibility to students of any age wishing to study in non-traditional ways and to "test most thoroughly a model of non-residential learning ... exploring... new approaches (which) will redefine the meaning of the college environment and the role of the residential experience". (1) The College intends to offer non-residential instruction to students throughout the State of New York, relying on independent study, media of various sorts, learning centres on the Open University model, and the resources of the residential campuses of the University, public libraries, museums, galleries and other learning resources where their students reside. Student learning options are supposed to divide into three "modes": (a) the discipline mode - knowledge pursued through courses; (b) the problem mode - concentration of study on a major social issue; and (c) the experience mode - learning achieved apart from the resources offered directly by the college, such as job or volunteer activities, travel and independent study.

Minnesota Metropolitan State College is another new institution which has attracted national attention for the unconventional nature of its academic programme. The College, which serves undergraduate students at the upper division level and also offers a professional post-baccalaureate at the Master's level, was organised to serve an urban

(1) Empire State College: the Non-Residential College of the State University of New York, (Bulletin of the State University of New York), 1971-72.

student body in an urban setting with curricula designed to teach students "how to make cities work". (1) The learning contract is at the academic heart of the programme and is drawn up expressly to engage the support and resources of the surrounding metropolitan area in the development of "life-related curricula", that is, a programme designed to assure the immersion of the student in real urban problems within a goal-oriented and educational context.

The Union for Experimenting Colleges and Universities' University Without Walls is another alternative form of higher education, and the best known example of a consortium of several institutions of higher learning (25 in all) joining hands to extend individualised traditional and non-traditional educational opportunities off the campus and throughout the country to students of whatever age. (2)

There is no single curricular model for instruction in the University Without Walls. UWW programmes can, theoretically, be established anywhere, and the forms of learning and assessment of the learning process are limited only by the ingenuity of the participants. The curriculum is said to place a heavy emphasis on independent study. The role of the teacher is intended to be that of a facilitator and co-participant in the learning experience; and the learning experiences overall are meant to build a new dialogue and trust between younger and older persons.

Since the range of experiments embraced by this model is so broad, and the geographical locations so dispersed, questions of quality control and assessment of the experiments themselves become paramount. To this end, the UWW has undertaken a programme of evaluation, but its precise content is not clear at this point in time. (3)

Several other programmes undertaken by colleges and universities singly or through consortia have also been started in recent years such as New Jersey's Thomas A. Edison College, the Florida International University's External Degree Program, the California State Universities and Colleges External Degree Program, or are in the planning stages such as the Central New York Consortium for non-traditional secondary and higher education, the University of Hawaii's new degree programme, the University of Main's new Bachelor's of Liberal Studies for Adults, or the Wisconsin study now underway based upon the European principle of "éducation permanente". (4)

---

(1) Minnesota Metropolitan State College Prospectus II, Metropolitan State College, St. Paul, Minnesota, 1st November, 1971.

(2) Members of the Union include: University of Massachusetts, University of Minnesota, Morgan State, New College at Sarasota, Northwestern Illinois University, University of the Pacific, Pitzer, University of Redlands, Antioch, Bard, Roger Williams, Shaw, Skidmore, Friends World College, University of South Carolina, Goddard, Chicago State University, Franconia, University of Alabama, Hofstra University, Loretto Heights, State Island Community College, Stephens, Westminster and University of Wisconsin at Green Bay.

(3) The University Without Walls: A First Report, Union for Experimenting Colleges and Universities, Antioch College, Yellow Springs, Ohio, 1972, pp. 38-39.

(4) For a comprehensive inventory and summary description of recent developments in non-traditional study, see John R. Valley, Increasing the Options, Educational Testing Service, Princeton, New Jersey, September 1972, p. 56.

The common purpose shared by such non-traditional programmes as these is that they are intended to be less bound by conventional concepts of time, space and age than now typifies the established learning process. Universities and colleges in the United States have ordinarily limited instruction in degree programmes to a pre-arranged, scheduled sequence of courses to those of college age studying full time in residence on campus. It is true, of course, that the community colleges and urban universities and colleges have been more accommodating of part-time commuting and working students than have been the major public and private universities and prestigious liberal arts colleges, whether in urban or rural settings. Nevertheless, the academic values implicit in the prevailing conventions have tended to discourage experimentation with fundamentally new educational concepts in much of the higher learning.

Whether or not such non-traditional programmes as are now underway in this country, or are being planned, will have a significant impact on American higher education is really quite uncertain. Each is encumbered by the negative influence of conventional academic biases or by inadequate funding or by hostile administrative interests, by unfavourable structural arrangements, by disjunction between their goals and those of their potential clients, or by all or some combination of these and similar impediments.

The educational quality of such non-traditional study programmes is also an issue of major concern both to traditional academics as well as to academics who support these unconventional educational initiatives. The several regional accrediting associations are only now beginning to grapple with the issue as are other state and national study commissions interested in the movement. Samuel Gould, for example, chairman of the prestigious Commission on Non-Traditional Study, whose final report is in press at the time of writing, has identified some of the dangers:

> " There is the danger of deterioration of standards;
>
> There is the danger of the external degree being used too much as a political instrument and too little as an educational instrument;
>
> There is the danger of curriculum content vagueness;
>
> There is the danger that in the excitement of developing new ways of delivering instruction and credentialling (sic) people, the important and needed debate over what constitutes an educated person will continue to be postponed. " (1)

The competence and motivation of the students; the adequacy of funding; the sufficiency of supporting library, laboratory and counselling services; the knowledge, skill and dedication of the faculty; the rigour of the programme - these and related considerations bear upon the essential worth and integrity of any coherent academic programme leading to a degree. Non-traditional study programmes should be scrutinised no less in this regard than are established offerings (but surely not with greater zeal nor bias than would normally attend a review of new programmes proposed along familiar lines). (2)

---

(1) John Valentine, "The Bold Vision and the Hard Road", College Board Review, No. 85, Fall 1972, p. 8.

(2) For a brief summary of how some non-traditional programmes are coping with the qual issue, see Carol H. Shulman, "A Look at External Degrees", College and University Bulletin, Vol. 25, No. 3, November 1972, pp. 4-6.

Research and evaluation associated with the development of non-traditional and student-initiated programmes, if carefully planned, amply funded and meaningfully articulated with programme development can measureably contribute to the academic quality of new programmes. It can also broaden our overall understanding of the learning process, the nature of maturation and motivation and the adequacy of existing forms and processes of the established learning system.

It is far from clear that such research and evaluation has been undertaken as innovative programmes have developed in recent years. Most non-traditional programmes have emerged during times of fiscal stringency. Under such circumstances, the allocation of scarce resources to research and evaluation at the expense of programme funding is frequently seen as shortsighted and extravagant. Our impression is that few of these new programmes, therefore, have been consciously structured to include systematic corrective mechanisms which will assure desired academic quality.

THE EXTENDED UNIVERSITY OF THE UNIVERSITY OF CALIFORNIA

Strategic Options

Most non-traditional programmes as are in place or anticipated in the United States take relatively little account of their prospective impact on the established learning system. Interaction between the non-traditional and the conventional is, seemingly, to be more inadvertent than intended. Thus, new colleges, schools, divisions, institutions, structures and administrative procedures and processes are everywhere emerging, mostly as autonomous and self-generating units. Each is striving mightily to establish itself before organised resistance to its unconventional academic programme assumes form and direction.

The most likely impediments will be introduced by the dominant institutions of higher learning, usually out of fear for a further scattering of scarce educational resources, and from government mostly out of a desire to couple such politically attractive programmes with the less academic, vocationally-oriented and para-professional ones comprising so much of the new demand for post-secondary education. Either move, if successful, would blunt whatever momentum had at the time been achieved and, in the end, would probably compromise non-traditional academic programmes.

There is, of course, much to be said for mounting such bold new initiatives within the nurturing environment of an entirely new institution whose present and future welfare depend upon the successful achievement of non-traditional educational objectives. Those responsible in such settings, among other things, (a) can settle upon their own administrative and admission procedures rather than confront the task of revising those already in force; (b) can devise and design new curricula unencumbered by the constraints of others already in place; (c) can recruit and appoint a faculty committed to the purposes for which the new college or school is dedicated; and (d) can pursue resources and support with little regard to who may be hurt by a shift in the pattern of funding for higher education. In short, the range of discretion is greater and the constraints are fewer, however demanding and difficult the task of giving life to a new institution may be.

New institutions, of course, are as vulnerable as they are administratively attractive to persons determined to achieve major gains within a short span of time: (a) they can be blocked by more powerful interests without doing damage to or implicating an established enterprise; (b) they can be captured by competing interests for different but related purposes; (c) they can be embraced by influential interests whose purpose is not to nurture but to smother; (d) they can become too closely associated with the fortunes of one charismatic personality whose ill-timed departure would compromise the effort; and (e) in the instance of educational institutions, they can be badly hurt by a hostile or indifferent higher education community, should it collectively choose to boycott the entire effort by refusing to acknowledge the essential worth and academic integrity of non-traditional study and the transferability of credit earned in such programmes.

The University of California, in considering its opportunities and responsibilities in the area of non-traditional study, carefully weighed its options within the context of (a) the major issues facing higher education in the country, as mentioned in the early part of this paper; (b) the role played by the University within California's tripartite system of publicly-supported higher education; (c) the implications such unconventional learning approaches would have for the University's established academic programmes, values and modus operandi; (d) the problem of maintaining the academic rigour and high standards of the University in this new and unfamiliar educational arena; and (e) the question of funding new programmes while existing ones remain badly underfunded.

The University of California is positioned at the top of a three tiered system of higher education in the most populous state in the nation. Forming the base of the pyramid are the 96 two-year Community Colleges spread throughout California. The Community Colleges enrolled 550,000 students (average daily attendance) in 1971-72, are within commuting distance of 95 per cent of the population and are no-fee, "open door" or "open admission" institutions in that any person with a high school diploma (or who could otherwise profit from attendance) is automatically admissable at public expense. Roughly one-third of their students transfer as third-year students into senior institutions in California or elsewhere.

The second tier is comprised of the California State Universities and Colleges, a nineteen campus system enrolling 204,000 students (full-time equivalent) in 1971-72, whose student body is drawn from among the top one-third of graduating high school seniors in California. A full complement of undergraduate offerings is available through the baccalaureate degree and graduate programmes are offered in selected fields through the Master's degree.

The University of California, as the third tier in the State system, is composed of nine campuses distributed throughout the State. The University enrolled 101,000 students in 1971-72 within its numerous colleges, schools, divisions and programmes which embody a rich and diverse array of undergraduate offerings and graduate and professional programmes through the doctorate. While the University draws its student body from throughout the world, the majority of the students are California residents. Those graduating among the top 12.5 per cent of their high school class are eligible to enter

as freshmen and even more demanding academic standards are required for admission at the higher levels, especially for admission to the graduate and professional schools. Under law, the University of California is the State's primary academic agency for research.

The University, in short, is a highly selective, academically rigorous, research oriented, elitist institution enjoying substantial prestige within the international higher education community. The first question asked, therefore in considering the place of non-traditional study in a determinedly traditional institutional setting was: (a) how adaptive, flexible and resilient had the University been in its one century of existence when confronted with new educational ideas? The answer was that the University had been remarkedly adaptive to change, in spite of less generous observations to the contrary that derive, in our view, from an abbreviated view of history. By way of illustration, one has only to compare the course catalogue of the University in the year 1900 with the one seventy years later to gain some sense of how dramatically different the University is today from what it was at the turn of the century, (i) in the size, diversity and nature of the student body; (ii) in the breadth and depth of the curricula; (iii) in the linking of various educational interests and learning styles of students to academic programmes; (iv) in the talent and intellect of the faculty; (v) in the remarkable range of research interests and competencies; and (vi) in the number and diversity of campuses, programmes and public and community service activities.

The second question logically followed: (b) what was the prospect that the University's present faculty and administrative leadership would take seriously the development of new degree programmes for and the extension of established ones to mature students studying part-time both on and off the campuses of the University? The tendency, of course, would be for such leadership to focus attention more on how the new would implicate the old than how the old could re-enforce and invigorate the new, a problem avoided in the main if a tenth campus or new college or some other academic unit were to be created expressly to develop the programme and relieve the established schools and colleges. The decision was crucial on several counts:

(i) It meant that the University's regular faculty would not only create, review, approve and monitor the programmes but that they would also be responsible for the teaching of them;

(ii) It meant that the University would attempt to meet the educational needs of persons throughout their lifetime, and not just during what has come to be regarded as the "college years";

(iii) It meant that the University intended to mix older with younger students in its established academic programmes;

(iv) It meant that the University, not wishing to discriminate against older, part-time students or to mount the programme as an extramural effort, would seek State funding for the programme on essentially the same basis as its established offerings are funded;

(v) It meant that innovations in curricula and methods of instruction would quite deliberately be fostered throughout the full range of the University's academic programmes;

(vi) It meant that responsibility for the maintenance of quality would rest with the same faculty committees and University procedures as govern all other degree programmes offered by the University.

In short, the University intended to build on its existing strength, assure academic rigour and standards appropriate to the University of California and effect significant changes in the University itself over a period of time.

With the decision having been made to interweave non-traditional study with the University's mainstream academic programme, the next question was: (c) in what way and over what period of time should the early development of the programme be undertaken? The decision came in the form of a comprehensive proposal to President Charles J. Hitch in November of 1971 which recommended that the University experiment with such unconventional programmes during the three academic years 1972-75; and based upon experience gained during this time, to effect such changes in University admissions, residency, student fees, educational and administrative policies as were necessary to give the programme a permanent place in the University of California.

The Programme

Known for purposes of easy reference as the Extended University, the programme got underway in 1972-73 with the approval and funding of seven pilot programmes enrolling 400 students seeking Bachelor's or Master's degrees. These pilots were designed to test and to experiment with the myriad of educational problems associated with unconventional forms of higher education, for example, access to library materials off the campus, innovative uses of technology for educational purposes, admission of older students, adequacy of the curriculum, assumptions about residency requirements and so forth.

The Extended University, in its general standards of admission and educational function, fits the University's role under the California Master Plan for Higher Education, except that the programme is limited to students enrolling at the upper-division level (third and fourth year) for the Bachelor's degree and at the graduate level for the Master's degree.

Students enrolling in these programmes are expected to be primarily those now effectively denied access to formal University study because of work, family obligations, finances, cultural and geographical isolation, family or home responsibilities and/or similar impediments to full-time, residential study.

During the pilot phase of the programme, varied admissions procedures especially appropriate to selecting adult students will be carefully developed, tested and evaluated for their effectiveness in predicting student success. The approval of such temporary variances in admissions and other procedures, as may be required for experimental purposes, will rest with appropriate University academic and administrative agencies.

Off-campus learning centres are planned as an inseparable part of most of these programmes, not as mini-campuses but as unconventional learning environments. Services to be provided by such centres are expected to include, for example, informatinn concerning educational programmes available in the community, counselling and guidance, library and reference sources, seminar and classroom facilities, audio and video tape equipment, terminals for computer-assisted instruction and related self-directed learning facilities. Each centre is to be conditioned by the character of the community in which it is located, the expressed desires of the students to be served and the nature of the instructional programmes to be offered. Actual locations are expected to include Agricultural Extension and Field Station facilities, community colleges, high schools, municipal and county government offices, libraries, museums and places of employment. Such centres are also expected to serve as vital links between the home institution and the communities in which they will be located.

New curricula are also expected to be developed in ways responsive to the kinds of experiences, motivations and goals of the part-time student, most of whom are expected to be beyond normal college age. Experience will also be sought with advanced academic placement practices, credit by examination and the certification of relevant work experience and self-education.

The already well established University Extension and Summer Sessions programmes of the University will articulate with and support the overall non-traditional effort while continuing to serve the adult population of California by meeting their non-degree related continuing education and retraining needs. (In 1970-71, University Extension enrolments totalled 323,000 while Summer Sessions enrolment reached 28,620 during the 1971 summer term.)

In addition to the initiation of pilot programmes on the campuses, a new administrative unit - the University of California Consortium for the Extended University - was established by the President of the University on 1st July, 1972, to coordinate system-wide activities of the Extended University as follows:

- to advise the President on University-wide policy affecting extended degree programmes;
- to facilitate the exchange of information throughout the University on extended degree programmes offered in California and elsewhere;
- to plan, develop and coordinate the use of various educational technology and media in the University's extended degree programmes;
- to engage in a continuous programme of research on the University's extended degree programmes, extended degree programmes elsewhere, non-traditional study, and the educational use of technology and media as they relate to extended degree programmes;
- to act as a University-wide contact for professional organisations, government agencies, regional and national associations, foundations and other parties interested in these programmes;
- to recommend to the President the establishment of off-campus learning centres;

- to encourage the campuses to develop extended degree programmes, to coordinate multi-campus programmes, and to encourage and authorise campuses to offer campus-based programmes on a state-wide basis;
- to design and develop degree programmes for part-time students in cooperation with the campuses (a) when such programmes promise greater cost effectiveness when offered by one or more campuses; (b) when part-time students are unable because of distance or similar geographic constraints to enroll in a campus-based programme; and (c) when programmes are not otherwise offered by the campuses.

State funding for the pilot programmes and the Consortium in 1973-74 was sought by the University and has been provided in the Governor's Budget as a new programme in the amount of $1,500,000 - an amount sufficient to enroll 1,550 students in the fifteen pilot programmes planned for that year. The Extended University was the first new University programme funded by the Governor in his six years in office. Funding provides for as many new faculty positions (42 full-time equivalent) as were received by the rest of the University for all of its other programmes put together.

The Research

A commitment of the Extended University to a programme of systematic research and evaluation was made at the outset. One of the first appointments to the central staff was a full-time Director of Research and Evaluation and sufficient resources were made available to permit a comprehensive research effort aimed at the rational development of these programmes.

The research falls into two components: market research and evaluation research. The principal problem in assessing the market for Extended University programmes stems principally from the fact that the population to which these programmes are directed has little or no knowledge about them. Indeed, we ourselves would be hard-pressed at this time to describe the ultimate configuration which the programmes will assume.

This presents little or no difficulty for the pilot phase since the scale is sufficiently modest so as to leave little doubt that the programmes will attract more than enough qualified applicants to justify their operation. To the extent that doubts may exist, the pilot programmes themselves will constitute a "test marketing".

These difficulties notwithstanding, much can be learned from systematic studies of potential student populations. The market research is thus aimed at revealing (among other things):

- what is the current level of felt need for university-level degree programmes among the California adult population?
- what are the perceived functions of such education (certification, vocational training, retraining or upgrading, general cultural interests, etc.)?

- what are the perceived barriers to full-time study at the university level among the adult population?
- what are the perceived barriers to such part-time opportunities which exist at present at other institutions?
- which of the perceived impediments to further study would not be removed through development of the Extended University?
- where are the people who possess such characteristics located (given that certain personal and social characteristics are known to be associated with utilisation of educational services)?
- what kinds of needs are developing within specific occupational groups most likely to increase the desire for university level degree programmes (for example, changes in sources of recruitment, changes in the technical content of the work, changes in licensing requirements)?
- to what extent do students enrolled in full-time programmes of study feel they would opt for part-time alternatives, were the latter available?

The section which follows consists of a report of findings about orientations to alternative higher education structures, which emanates from this programme of market research.

The evaluation component of the research is structured so as to take into account a number of constraining circumstances which have been known to impede systematic evaluation in other instances. Among them are:

- the Extended University pilot programmes do not have a single objective which can be assessed as having been attained or not;
- the programmes will be undergoing modification during the pilot period as the participants evaluate them on the spot;
- only where a controlled-experiment model is utilised is it possible to perform evaluation which is unequivocal in its results. (Even with such a model, the problems in execution can be horrendous).

Our approach has been to initiate a series of studies which will provide information about the multiple goals of the programme which is as systematic as possible in the given instance, and which also is useable by the faculty and students involved and by policy makers who will set the parameters of any full-scale programme in the future. These aims are embodied in a series of researches of the following kinds:

- monitoring of students' progress from entry into the programme until completion or drop-out;
- studies of persons who drop out of the programme, both to determine the reasons for non-continuation and to learn about alternative programmes to which they may be attracted;
- locally based "ethnographic" studies of specific pilot programmes to gather qualitative but systematic data about the day-to-day operation of the programmes and changes initiated during the life of a pilot programme (including those which are the result of information provided by the

research). These are intended to provide data on many of the intervening variables which will help us make sense of the more global findings derived from the large scale centrally organised studies enumerated above.

In addition to these studies, campus initiated evaluation and monitoring is planned to meet local needs. In all instances, efforts are made to provide rapid feedback of research results to operational personnel.

WHO WILL BE SERVED ?

Introduction

As the earlier discussion made clear, the range of new programmes and structures now covering the landscape of American higher education is so broad as to offer, it would seem, something for everyone. At the outset, such new efforts reflect much of the heterogeneous and unplanned nature of the "traditional" within American higher education. Thus, new programmes have been created within existing institutions to serve present students in new ways; new institutions have been created to serve new students in new as well as familiar ways; and predictably, institutions and programmes are proposed for the purpose of coordinating and systematising the programmes, offerings, certifications and record keeping of the old, the new and the yet-to-be-created. (1)

The University of California has chosen to proceed with its own carefully delineated form of "non-traditional" higher education. The key decisions regarding the creation of the Extended University have been described in detail above. Some of the probable consequences of these decisions have been mentioned. Others are implicit. Still others remain to be discovered.

Who will be served by the University's programme given the variegated set of needs to which American higher education is now attempting to respond? Or, to put it more directly, who wants what the University of California has decided to offer?

Earlier reference was made to the market research which has been undertaken to learn more about the educational needs of the populations we hope to serve. It would be illusory, of course, to believe that the exact size and character of the "demand" for such programmes can be estimated at present through market research, since large portions

---

(1) For example, in the State of Illinois, the legislature has been presented with a proposal for a new institution, to be called Lincoln State University, which would provide information about non-traditional courses of study available within regions of the State, certify procedures for awarding credit and degrees by examination and certify courses of study for the award of degrees. In California the legislature has before it several proposals for new bodies to coordinate non-traditional higher education within all of the public segments of higher education in the State as well as the private sector; the Educational Testing Service of Princeton, New Jersey, is proposing that it develop and test systems for centralising academic transcripts involving non-traditional education, as well as procedures for providing information and counselling to persons wishing to utilise existing resources for non-traditional higher education.

of the potential clientele are uninformed about their existence. Moreover, the "need" for such programmes is not a fixed entity, since needs can be especially volatile in times of rapid social change; and this is particularly true of education. (1)

Nevertheless, a good deal can now be learned about the range and typical types of demand which exist for new academic programmes. A reasonable point of departure was thought to be that population which already has an understanding about the present attractions and shortcomings of higher education, namely students now enrolled in traditional academic programmes.

We will now report some of the results of this early component of our market research. Although the subjects of the research are full-time, undergraduate students, currently enrolled in traditional programmes in the University of California, their responses manifest a number of interesting orientations to academic innovation and reform which one could also reasonably expect to encounter in studies of older, but similarly competent populations. The precise distribution of these orientations is likely to be quite different in other populations, and it is not our intention to infer those distributions from the present study. However, we have every reason to believe that the social processes which give rise to these orientations are also operative in other groups. The present study thus provides a first insight into at least part of what one is likely to encounter elsewhere vis-à-vis orientations to non-traditional study.

The Survey of University of California Undergraduates

During the spring term, 1972, we surveyed 1,767 individuals who had been enrolled as full-time undergraduate students on eight of the nine University of California campuses during the previous fall term of the 1971-72 academic year. (See Annex I for methodological details.) We inquired principally about their interest in and desires for alternative degree programmes of part-time study at both the undergraduate and graduate levels. We also asked about their experiences in college thus far, and their attitudes toward American higher education in general, and we gathered data about the usual sorts of social and demographic variables which permit us to locate individuals within significant social groupings.

From our analysis of these data, we have been able to locate two main sources of student attraction to part-time alternative degree programmes: (a) a desire for flexible time-space structures that would facilitate access to higher education, and (b) an attraction to alternatives per se, principally because of dissatisfaction with existing curricular structures and modes of instruction, i.e., a desire for significant reform of higher education itself.

---

(1) In this discussion, the terms "demand" and "need" are often used interchangeably. It would, perhaps, be more precise to speak of "felt need" as synonomous with "demand". In any case, the reader should be aware that by "need" we do not refer to manpower forecasting or to any other objectively determined social or economic need.

We believe that these two sources of motivation would be found in studies of other, more heterogeneous populations, though no doubt in different proportions. While the two orientations are not entirely exclusive, they are sufficiently distinct so that a number of alternative approaches to higher education, including the Extended University at the University of California, are unlikely to serve both groups equally well. As the subsequent exposition will show, the existence of these two orientations is also likely to have different consequences for recruitment of students into alternative forms at the undergraduate and at the graduate levels of instruction.

Who Wants Alternatives ?

Questions about the desire for alternative degree programmes were couched in specific terms. The questions and the structured response categories (with the distribution of actual responses shown in parentheses) are:

> Would you be interested in completing your bachelor's degree in a program which involved part-time enrollment, instruction at off-campus locations and lower fees (reflecting the part-time study), if the University of California introduced such a program in your field?
>
> (1) I would definitely be interested in changing to such a program. (13%)
> (2) I would consider changing to such a program. (39%)
> (3) I would not leave the regular degree program. (29%)
> (4) I may not continue in school at all. (2%)
> (5) I plan to graduate this quarter. (18%)
>
> Would you be interested in pursuing a master's or professional degree in a program which involved part-time enrollment, instruction at off-campus locations and lower fees (reflecting the part-time study) if the University of California introduced such a program in your field?
>
> (1) I would definitely be interested in such a program. (30%)
> (2) I would consider such a program. (53%)
> (3) I would only consider a regular degree program. (11%)
> (4) I don't have any plans to go to graduate school. (6%)

It is immediately evident that alternative part-time programmes are seen as more attractive at the post-baccalaureate level than at the undergraduate level: only 13 per cent of the respondents state a definite interest in such programmes at the undergraduate level, whereas 30 per cent express definite interest in master's or professional level alternative programmes. These relative proportions do not change appreciably if we include only the first three categories of response and eliminate persons for whom the questions are less appropriate: the proportions become 16 per cent "definitely interested" at the bachelor's degree level, and 32 per cent "definitely interested" at the masters/professional level. In the following analyses, we shall include only those persons who chose one of the first three responses to each of these questions, i.e., those from whom an alternative programme is a realistic consideration.

The differential attractiveness of alternative programmes at the undergraduate and graduate levels reflects, in part, the two sources of attraction mentioned above: access versus reform. Students whose life-circumstances limit easy access to regular,

full-time programmes of instruction are more likely to be attracted to part-time alternatives. Marital obligations, age and financial hardship are three such constraints. Among our respondents, 33 per cent of those who are or have been married express definite interest in an alternative programme at the bachelor's level and 49 per cent do so at the graduate level; whereas the comparable percentages for unmarried students are 14 per cent and 29 per cent respectively. This is also reflected in differences among age categories: the per cent definitely interested in undergraduate and graduate alternatives, respectively, are 13 per cent and 28 per cent among students under 22 years of age, while the comparable figures for those 22 or older are 27 per cent and 44 per cent.

To simplify this analysis, we have combined marital status and age into an Index of Life-Cycle Stage. (Details about construction of all indexes used in this analyses are to be found in Annex I.) Table 1 shows the proportions of students definitely interested in alternative programmes among categories of this index: only 13 per cent of those classified as "young" are interested in alternatives at the bachelor's level, while 36 per cent of the "mature" are interested. For alternative programmes at the master's or professional level, 27 per cent of the "young" are interested while 53 per cent of the "mature" are interested.

A similar pattern emerges from a consideration of financial hardship. Table 2 shows the relationship between an Index of Financial Strain and interest in alternative programmes. For both bachelor's and graduate-level programmes, persons classified as "high" on the Index of Financial Strain are more likely to be interested in alternatives than are those classified as "low".

TABLE 1

Per Cent "Definitely Interested" in Alternative Degree Programme by Index of Life-Cycle Stage

Life-Cycle Stage	Level of Degree	
	Bachelor's	Master's/Professional
Young	13 (1681)*	27 (1705)
Middle	24 (283)	38 (496)
Mature	36 (147)	53 (216)

* Weighted N in parentheses.

TABLE 2

Per Cent "Definitely Interested" in Alternative Degree Programme by Index of Financial Strain

Financial Strain Index	Level of Degree	
	Bachelor's	Master's/Professional
0 (low)	12 (1116)*	26 (1265)
1	18 (503)	36 (567)
2	18 (275)	35 (338)
3 (high)	27 (260)	41 (297)

* Weighted N in parentheses.

Tables 1 and 2 constitute our principal evidence of positive attitudes towards alternative programmes which stem from objective conditions. We have called this an "access" dimension. Tables 3 to 6 show the effect of more subjective factors: perceived satisfactions with and attitudes towards college and university life. From these we have derived the "reform" dimension.

Table 3 reports data on student interest in alternatives using an Index of Personal Satisfaction With College. Here we see a striking inverse relationship between satisfaction with college and a desire for alternatives at the bachelor's level and a similar, but much weaker, relationship at the graduate level. (1) Among persons scoring high on the Index of Satisfaction, only six per cent are definitely interested in alternative programmes at the bachelor's level, while 26 per cent among those scoring low on satisfaction are interested in alternatives. For graduate-level programmes, 29 per cent of those high on satisfaction are interested in alternatives, while 36 per cent of those low on satisfaction are interested.

(1) The relative strength or weakness of the relationships in these tables is manifested in the magnitude of the percentage differences, but, in order to be precise, one must base statements about the relative strength of relationships on measures of association, rather than on percentage tables. The association (gamma) between interest in alternatives and all of our indexes is shown in the following table:

Index	Level of Degree	
	Bachelor's	Master's/Professional
Life-Cycle Stage	.227	.233
Financial Strain	.213	.187
Personal Satisfaction with College	-.329	-.149
Disenchantment with College	.226	.157
Laisser-faire Curricula Structure	.324	.214
Mass Access	.245	.154

TABLE 3

Per Cent "Definitely Interested" in Alternative Degree Programme by Index of Personal Satisfaction with College

Index of Satisfaction	Level of Degree	
	Bachelor's	Master's/Professional
1 (low)	26 (637)*	36 (736)
2	15 (543)	32 (622)
3	12 (555)	28 (638)
4 (high)	6 (345)	29 (397)

* Weighted N in parentheses.

In Table 4 we see the relationship between interest in alternatives and a slightly different dimension of satisfaction, which we call "Disenchantment With College". Whereas the Index of Personal Satisfaction is constructed from questions about specific aspects of the student's college experience (e.g., faculty-student relations, the quality of classroom instruction), the Disenchantment Index taps more global reactions to the college experience (e.g., the relevance of college). Nevertheless, the pattern of relationships is the same: among those who score low on "disenchantment" only 8 per cent are interested in alternatives at the bachelor's level, while among those high on "disenchantment", 25 per cent are interested in such alternatives. A similar, though weaker relationship is in evidence when we look at interest in graduate level programmes. We conclude from Tables 3 and 4 that interest in alternative programmes is associated with a negative attitude towards the academic experience, and the relationship is strongest in reference to undergraduate level alternatives.

TABLE 4

Per Cent "Definitely Interested" in Alternative Degree Programme by Index of Disenchantment with College

Index of Disenchantment	Level of Degree	
	Bachelor's	Master's/Professional
1 (low)	8 (599)*	28 (688)
2	14 (588)	28 (699)
3	20 (548)	37 (627)
4 (high)	25 (358)	38 (413)

* Weighted N in parentheses.

Both the preceding tables deal with the experiencial dimensions of the "reform" orientation to alternative programmes. (1) The two tables which follow show what might be called the ideological components of this orientation. Table 5 incorporates items dealing with desire for openness and flexibility in the curriculum itself (e.g., elective courses only, abolition of grades), which we have combined into an Index of Desire for Laisser-faire Curricular Structure. Table 6 deals with the ideology of mass access to higher education itself, from which we have constructed an Index of Desire for Mass Access to Higher Education.

TABLE 5

Per Cent "Definitely Interested" in Alternative Degree Programme by Desire for Laisser-Faire Curricular Structure

Laisser-Faire Index	Level of Degree	
	Bachelor's	Master's/Professional
1 (low)	8 (599)*	25 (694)
2	16 (336)	30 (409)
3	14 (443)	30 (495)
4 (high)	23 (758)	38 (848)

* Weighted N in parentheses.

TABLE 6

Per Cent "Definitely Interested" in Alternative Degree Programme by Index of Desire for Mass Access to Higher Education

Mass Access Index	Level of Degree	
	Bachelor's	Master's/Professional
1 (low)	11 (819)*	29 (950)
2	14 (596)	30 (673)
3	23 (751)	36 (860)

* Weighted N in parentheses.

(1) We have identified another variable which could be conceptualised as an "experiencial" source of dissatisfaction, namely grade-point average. This is negatively associated with interest in alternative programmes, but the relationship is weak for the bachelor's level (gamma = -.168) and practically non-existent for the graduate level (gamma = -.061). We have, therefore, omitted it from the present discussion.

The pattern of relationships shown in Tables 5 and 6 corresponds with that in Tables 3 and 4: persons who desire a laisser-faire curricular structure and persons who favour mass access to higher education are more likely to be interested in alternative programmes than are persons low on these dimensions. Once again, these relationships are strongest for undergraduate programmes.

What Do They Want ?

As we noted earlier, it is difficult to assess the desire for alternative programmes of higher education when they are so new that subsantial portions of the target populations know little about them. We dealt with this problem in the present piece of research by describing for our subjects four "ideal type" models of alternative programmes and by listing fourteen features which might be incorporated into alternative programmes of different kinds. The models are shown in Annex II as they appeared at the beginning of the questionnaire. The features which our respondents were asked to assess as "attractive", "not attractive" or "irrelevant" if they were considering an alternative degree programme, are shown in Table 8.

The models were chosen so as to give the respondents an idea of the kinds of alternatives now in existence; each is derived from an existing programme, but none is a complete description of any programme.

> Model A is a correspondence and broadcast programme with direct contact available at local centres. Its best known embodiment is the Open University in the United Kingdom.
>
> Model B is a "contract learning" programme. It exists at such places as Empire State College of the State University of New York and at Minneapolis Metropolitan State College. In somewhat different form the contract learning model exists in conjunction with more traditional college programmes, in some of the institutions referred to under the heading "Responses".
>
> Model C is the "degree by examination" found, for example in the Regents External Degree Program in the State of New York.
>
> Model D is the most traditional and familiar of the four models. Except for the feature of geographically dispersed "centres", it is typical of programmes for employed adults offered in the late afternoon and evening, mostly at urban higher educational institutions in the United States and abroad.

When asked which of these models was preferred were the individual to pursue a degree on the basis of one of them, the respondents replied as shown in Table 7.

TABLE 7

Preferred Model for Degree Programme by Level of Degree and Interest in Alternative Degree Programme

Level of Degree and Interest in Alternative	Model				Total	Weighted
	A	B	C	D	%	N
Bachelor's Level						
All Students	10	40	4	46	100	(2705)
Students who are "Definitely Interested" in Alternative	16	49	5	30	100	(355)
Master's/Professional Level						
All Students	10	56	8	26	100	(2675)
Students who are "Definitely Interested" in Alternative	11	58	8	23	100	(778)

The principle findings from Table 7 are as follows:

(i) Model B, the contract learning model, tends to be the most preferred model, for both Bachelor's and Master's/Professional level programmes, among all students. It was consistently the preferred model among those who are "definitely interested" in an alternative programme;

(ii) Model D, the most traditional of the four alternatives, is the next most frequently chosen configuration;

(iii) In the case of undergraduate programmes, "definitely interested" students, as compared with "all students", evince somewhat greater attraction for Model B and a distinctly lesser preference for Model D. For graduate level programmes, in contrast, the distribution of choices among the models remains rather stable as between "all students" and those who are "definitely interested" in alternatives;

(iv) Even though the proportions preferring Model C - the degree by examination - are quite small, nevertheless the proportion is about twice as high for graduate-level programmes as for undergraduate.

These findings reveal that the most attractive alternative programme of part-time study for degrees, at both the undergraduate and graduate levels are, on the one hand, programmes which permit great flexibility in curriculum design, and, on the other hand, programmes which are traditional and familiar but which provide flexibility in access. Of course, if we interpret these preferences for particular models as precise statements of curricular desires, then many of these students are destined to be disappointed when they embark upon graduate work since the bulk of contract learning programmes exists at the undergraduate level in American colleges and universities. However, a more

reasonable approach is to treat this response as an index of desire for openness and freedom in the curriculum.

Table 7 does reveal some differences between the undergraduate and graduate levels in terms of desired alternatives. The drop in preference for Model D among those "definitely interested" in alternatives for undergraduate programmes probably reflects the conventional instructional modes of this model and the desire for real instructional alternatives. In contrast, the appeal at the graduate level for Model D, even among those who are "definitely interested" in alternatives, reflects the concern with access at the graduate level, even when the accessible programme involves rather traditional modes of instruction.

An analysis of programme features desired by students (Table 8) reveals a fairly coherent picture. Students seem to prefer an academic structure which concurrently permits part-time student status and the opportunity to work full-time. This finding is consistent with their attraction to course work which: (a) can be done at home; (b) utilises broadcast techniques; and, (c) places staff members at local centres of instruction. But they do not want these structures at the expense of personal contact with faculty and other students. They do not want: (a) degrees awarded only by examination; and, (b) independent study with little personal interaction with faculty members. And whatever else they want, they are overwhelmingly attracted by the idea of designing their own course of study. (1)

TABLE 8

Per Cent Finding Features of Alternative Programme "Attractive" by Level of Degree and Interest in Alternative Degree Programme

Programme Features	Students who are "definitely interested" in alternative		
	All Students	Bachelor's Level	Master's/ Professional Level
(1) Only part-time enrolment possible	34	50	40
(2) Students may hold full-time jobs while enrolled if they choose	81	86	87

../..

(1) One might well ponder the situation in which students want to make curricular decisions themselves but do not want to dispense with faculty members. It may be that they want professors' expertise, having once decided which professors they need. But it may as well be true that they want professors for social support rather than for their alleged expertise. The present data will not help us choose between these alternatives.

TABLE 8 (cont.)

Programme Features	Students who are "definitely interested" in alternative		
	All Students	Bachelor's Level	Master's/ Professional Level
(3) The work an individual must complete for the degree is determined by examination rather than previous course work	35	36	35
(4) Much of the course work can be completed in the student's own home	74	82	80
(5) Faculty members and counselors are readily available at study centres located throughout the state	87	94	93
(6) The student does much of the work on his own with little personal contact necessary with faculty	25	36	30
(7) Lectures can be seen on TV or heard on radio in the student's own home	56	65	60
(8) Live lectures can be seen on closed circuit TV at study centres where you can ask questions of the teacher by remote hook up	60	66	63
(9) Fees vary with the number of units taken	81	87	85
(10) Much course work is done by correspondence	20	36	30
(11) The student helps design his own curriculum with great freedom in choice of content and requirements	88	94	90
(12) Degrees are awarded to anyone who passes standardised examinations without other requirements	34	42	38
(13) Course work is offered for part-time students by regular faculty at the regular campuses	89	90	91
(14) Meetings with other students are less frequent than in the regular degree programme	10	15	12

There are some apparent inconsistencies in the attractiveness of various features, as revealed in Table 8. While students are attracted to course work which can be completed at home, they are repelled by correspondence courses. We surmise that completing course work at home is perceived as consistent with a degree of personal contact (perhaps at local centres), whereas correspondence study has an aura of impersonality about it.

We will not burden the reader with the 216 possible tables which can be constructed by looking at the relationships of these models on the one hand, and programme features on the other hand, with the indexes of student status and attitude dealt with earlier. Suffice it to say that there are few surprises. In general, programme features and institutional models tend to be attractive or not regardless of student status or attitude, though there are some small differences among different types of students. Thus, students who score high on the Index of Desire for a Laisser-faire Curricular Structure tend to be attracted even more than those who score low, to self-designed curriculum or to degree by examination, i.e., they want either to have their own curriculum or no curriculum at all.

In general, the relationships between these indexes of status and attitude and the four institutional models are weaker at the graduate than at the undergraduate level. We previously showed that overall preference for alternatives is higher at the graduate level. We infer from these findings that it is primarily the part-time character of these alternatives which makes them attractive at the graduate level.

Summary and Conclusions

Our data have revealed two major sources of positive attraction to alternative degree programmes among the undergraduate students we studied: (a) a desire for greater time and space flexibility in gaining access to higher education, which arises out of objective familial and financial impediments to easy full-time enrolment; and (b) a negative view of established forms and modes of higher education, whether this negative attitude be due to personal experience or to a contrary ideological view of traditional higher education.

Thus there are at least two potential constituencies for alternative programmes of higher education which, as we stated earlier, overlap to some extent but are nevertheless treatable as distinct entities. One constituency is attracted by the promise of more flexible access than is presently possible in traditional programmes; the other is attracted by the educational alternatives themselves.

In order to respond to both of these needs, American higher education will find it necessary, on the one hand, to create flexible time-space arrangements and thereby facilitate access, but without changing the internal structure of curricula or the basic values which underly them and, on the other hand, to create new programmes which are responsive to the values and educational ideologies of individual students, which may or may not be located in space and time such as to make them more accessible than are existing traditional academic programmes. As our earlier review of new programmes suggests, no single response or model will serve each group equally well.

It should be apparent from our description of the Extended University that the University of California has chosen first of all to bring its academic programmes within the reach of older, part-time students. In order to do this effectively, we intend to experiment with curricular innovations designed to accommodate the special educational needs and resources of these students. The decision to work within the framework of the existing structures of the University of California makes evident a clear commitment to the basic values currently underlying our academic programmes, while, nevertheless, questioning many of the assumptions about who will partake of them and how, where and when they will do so.

A N N E X E S

ANNEX I

The Methodology used in the Undergraduate Survey

A. Sample and Fieldwork

During the fall term of the 1971-72 academic year, the nine campuses of the University of California enrolled approximately 77,000 undergraduate students. Most of these were on the eight general campuses of the University - the San Francisco campus, devoted principally to medical sciences, enrolled only 393 undergraduates.

During the spring term of the 1971-72 academic year, we drew a stratified, random sample of fall term enrollees on the eight general campuses. Names were sampled from student directories or from lists supplied by the Registrar. On the four largest campuses we drew a one in thirty-four sample. On the four smaller campuses, a one in seventeen sample was selected. This resulted in a total sample of 2,812 persons.

Questionnaires were mailed in April, 1972 to each of the sampled individuals. Campus addresses were used when available; home addresses were used in other cases. The questionnaires were printed with a prepaid postal return on the questionnaire itself, which required only that the respondent seal the questionnaire and post it back. Two weeks after the initial mailing, a second questionnaire was mailed to individuals who had not yet responded.

Total response was 1,767 individuals or 63 per cent of all sample respondents. Individual campus response rates ranged between 58 per cent and 71 per cent. The non-response includes 152 questionnaires returned by the post office as undeliverable.

The 1,767 individuals who comprise the respondents have been weighted to adjust for differential sampling ratios, resulting in 2,802 weighted cases. The tables presented in this paper often have fewer cases because of non-response to individual questions.

B. Index Construction

All of the indexes used in this paper are simple additive indexes. Cases with missing data were excluded from a given index. Contents of the indexes are as follows.

Index of Life-Cycle Stage

Item 1 : What is your marital status? (single - never married; married; divorced or separated; widowed).
Item 2 : How old were you on your last birthday?

Index of Financial Strain

Item 1 : Do you feel that your financial resources this year were adequate to meet your needs? (Yes, they were adequate; no they were not adequate).

Item 2 : Did you worry about having enough money to complete this year in school? (I worried a lot; I worried a little; I worried hardly at all).

Index of Personal Satisfaction with College

How satisfied are you with the following at your campus? (Very satisfied; satisfied; dissatisfied; very dissatisfied).

Item 1 : The campus' academic reputation.
Item 2 : The intellectual environment.
Item 3 : Faculty-student relations.
Item 4 : The quality of classroom instruction.
Item 5 : The variety of courses I can take.
Item 6 : The administration.

Index of Disenchantment with College

Please indicate your agreement or disagreement with each of the following: (strongly agree; agree with reservations; disagree with reservations; strongly disagree).

Item 1 : Most American colleges reward conformity and crush student creativity.
Item 2 : Much of what is taught at my college is irrelevant to what is going on in the outside world.

Index of Desire for Laisser-faire Curricular Structure

Please indicate your agreement or disagreement with each of the following: (strongly agree; agree with reservations; disagree with reservations; strongly disagree).

Undergraduate education in America would be improved if:

Item 1 : All courses were elective.
Item 2 : Grades were abolished.
Item 3 : It were easier to take periodic leaves of absence from academic work.

Index of Desire for Mass Access to Higher Education

Please indicate your agreement or disagreement with each of the following statements: (strongly agree; agree with reservations; disagree with reservations; strongly disagree).

Item 1 : Opportunities for higher education should be available to all high school graduates who want it.
Item 2 : More minority students should be admitted to the University of California even if it means relaxing academic standards.

ANNEX II

Alternative Approaches in Higher Education

Alternative approaches to higher education are now being developed that encompass a wide variety of features. No one model includes them all. In the questions that follow we will be asking you to give us your opinion of some of these specific features. However, to give you an idea of the ways in which these can be put together into a programme, we will sketch here several models drawn from programmes actually in operation or in the planning stage in this country and abroad. These are intended only as examples and do not exhaust the new approaches to higher education now being considered in various places.

Model A: This university has no "campus". The students take one or two courses at a time while they are employed full-time, raising families or pursuing other activities, wherever they may be residing. They complete formal assignments and receive their professor's comments through the mail. Each week during the term there is a television or radio broadcast related to the course. Within reach of each student is a local "study centre" where he can meet with tutors during designated hours, if he so wishes, where seminars are conducted and where students can just get together. Here students also can meet with counsellors who advise them on academic matters. The study centres have facilities for replaying the television and radio broadcasts. Examinations are given at the conclusion of each course. The degree is awarded after completion of a specified number of courses.

Model B: This programme, like the one described in Model A, has no "campus". Students, who may be part-time or full-time, meet faculty advisors at local centres. Together they design a unique course of study to meet the student's needs and interests. There is no single pattern for a programme of study. For example, they may agree upon a combination of individual reading, field work in public settings (such as a government agency or a museum), enrolling in a course at a local college, taking a correspondence course from another college, writing a term paper, or creating a work of art. The student and the advisor also agree upon a procedure for evaluating the work. Together, the programme and the evaluation procedure constitute a "contract" between the student and the advisor. Upon fulfillment of one such "contract" they enter into another, and another, until a full educational sequence mutually agreed to has been completed. The degree is then awarded.

Model C: There is no "campus". There are no courses and no professors. No one is "registered" as a student. There are only examinations and degrees. A single comprehensive examination tests for specified levels of knowledge in a general subject area. Anyone, whatever his previous educational experience, can take the examination by paying a nominal examination fee. Upon successfully passing the examination, the candidate is awarded the degree.

Model D: Students are registered and take courses on a part-time basis, while pursuing other activities. The courses are taught very much like traditional college and university courses, i.e., there are lectures by professors, seminars, reading courses, laboratory courses, etc. However, these courses are taught at geographically dispersed "centres", rather than on a "campus". Thus, students can pursue a degree while residing almost anywhere.