An explanation of the roots of the current movement to reform undergraduate education is presented. It is suggested that the reform movement is a reaction against the dominance of the research university. Several reports about the state of undergraduate education are cited, including "Involvement in Learning," "To Reclaim a Legacy," and "Integrity in the College Curriculum." Forces set in motion by the academic revolution and mass education are identified that contributed to the erosion in undergraduate education, and especially liberal education. The academic revolution brought about an emphasis on research and graduate education, as well as specialization in a discipline by faculty. Four types of activities that characterized alternatives to the academic revolution in undergraduate education are considered: making more intellectual demands on students, strengthening general education, specifying outcomes and assessing them, and creating academic community. The reports about undergraduate education served to promote a set of values that stood against the academic revolution, which emphasized the research university and graduate education. 40 references. (SW)
AN ACADEMIC COUNTER-REVOLUTION: THE ROOTS OF THE CURRENT MOVEMENT TO REFORM UNDERGRADUATE EDUCATION

by

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An Academic Counter-Revolution: The Roots of the Current Movement to Reform Undergraduate Education

In the graduate schools, the seminars, laboratories, source books, the study of documents, and the preparation of reports helped to establish a relationship between student and teacher that made the student central...It was difficult to know for sure what was central in the lecture experience, if it was central at all...To this must be added the professional orientation of the professors, the posture of suspended judgment encouraged by the scientific spirit of the university, a spirit which saw truth as tentative and thus discouraged the kind of full-blooded commitment that was invigorating to self-identity. Moreover, while it was one of the arguments of the university emphasis that by being abandoned to the dictates of his own interests, his own passions, the student was being trained in the school of self-reliance, actually this did not always happen. Many young men and women knew
the experience of being abandoned, but somehow the sensations of self-reliance never seemed to follow.

Rudolph's description of the American university in the 1920s would hold as well in the 1980s. It might be even more true sixty years later. Many of the colleges which in the 1920s had not yet succumbed to the allurements of the university are now fully in its sway. This is what recent reports on the state of undergraduate education would lead us to believe. In what follows, I present an analysis of the current movement to reform undergraduate education as a reaction against the dominance of the research university.

The Reports

Between 1980 and 1984, some two dozen national reports and untold hundreds of state and district reports were issued on secondary education. The punchiest of the lot came out in 1983 with the imprimatur of the U. S. Department of Education under Secretary Bell. Written by a Harvard professor for a commission chaired by a university president, this report talked about "a rising tide of mediocrity" that rendered us A Nation at Risk.

The attention to public education continues to this moment. Two prestigious groups -- the deans of schools of education at major research universities and the Carnegie Corporation -- issued hard-hitting reports in 1986. Their
promoters have succeeded in catching the attention of the national media, one sure way to get on the political agenda. Politicians have taken note, and education has become a political issue.

Where have colleges and universities been in all of this? Complaints about the quality of incoming students among college and university faculties may have been indirectly responsible for the concern with secondary education. Beyond that, it did not appear that college presidents and professors outside of education saw much of a connection between what was going on in 9-12 and higher education. Within a short time, however, the heat would be on.

The National Commission on Excellence in Education, which produced A Nation at Risk, had commissioned several papers and solicited testimony about the state of undergraduate education. This material was not included in the report. Soon after it appeared, the National Institute of Education, the research arm of the U. S. Department of Education at the time, appointed the Study Group on the Conditions of Excellence in American Higher Education to review the material on higher education produced for the National Commission and to make recommendations. (I was a member of the study group.) In November 1984, the National Institute of Education released Involvement in Learning at a press conference in Washington, D. C. chaired by Secretary Bell.

The NIE report received national press coverage. William
Bennett's report, *To Reclaim a Legacy*, which appeared a month later received even more attention. Then head of the National Endowment for the Humanities and soon to succeed Bell as Secretary of Education, Bennett's report focused on the humanities. In February 1985, yet another report, *Integrity in the College Curriculum*, was published by the Association of American Colleges. Finally, Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, released *A comprehensive report on the undergraduate experience* (early in 1987).

I will be referring in this paper primarily to these four reports.

Dozens of other reports have appeared during the same period from accrediting associations, professional groups, regional organizations, and states. A few examples from the array: In the fall of 1985, Frank Newman, who had written a critical report on higher education in the early 1970s, completed a report for the Carnegie Foundation for the Advancement of Teaching entitled *Higher Education and the American Resurgence* on the public role of higher education. Several months before *Involvement in Learning*, the Association of American Medical Colleges issued *Physicians for the Twenty-First Century* on pre-medical programs and medical education. A working group on the arts published a report on the arts, liberal education, and the undergraduate curriculum. Around the same time, the Governor of Michigan issued *Putting Our Minds Together* on the role of public higher education, particularly in the economic development of the
state. More recently, the Southern Regional Education Board came out with its report entitled Access to Quality Undergraduate Education. Representing the interests of the states were reports from the Education Commission of the States and the National Governors' Association.

Whatever Happened to Undergraduate Education?

Why this concern? Undergraduate education, especially liberal education, had been eroding for at least twenty years. The reasons for this erosion can be traced to forces set in motion by the academic revolution and mass higher education.

The Academic Revolution

In 1968, when Christopher Jencks and David Riesman published their well-known anatomy of higher education, the academic revolution was in full sway. Its victory had been a genteel and well-funded affair, underwritten by enormous amounts of federal support after World War II for research and graduate education. Universities hired staffs of academics whose main work was doing research rather than teaching. If they did occasionally teach, these researchers were to be found in the graduate seminar, not the undergraduate lecture hall.

The bargaining power of the faculty was heightened considerably during the early 1960s, when there were not enough college professors to teach the advance guard of the baby boom generation, who were beginning their march through higher
education. College faculty began to be recruited nationally according to performance in their disciplines. Given a free hand to teach the subjects they wanted to teach in any way they wanted, Ph.D.s carried the values of the academic revolution from the leading graduate schools to the regional state colleges and universities, private liberal arts colleges, and community colleges of the land. By the late 1960s, many faculty members even in small colleges had become specialists in a certain discipline, with specialized knowledge within a subfield of that discipline. Faculty who never again did any scholarly work after their Ph.D. dissertations (and the majority did not) thought of themselves primarily as members of their disciplines -- biologists, sociologists-- not as educators.

Identifying so much with a discipline weakened faculty members' loyalty to the schools that employed them and to the communities that housed them. Faculty from one department had a hard time talking about their fields to faculty from another department. In some large schools, even faculty from different areas in the same department might find that they had little to say to one another.

Faculty control over the curriculum was enhanced considerably during the 1960s, primarily through decisions made by disciplinary departments. The model of the "university college", with its high standards, meritocratic values, and
advanced scholarship in the disciplines spread unevenly but took hold in many schools that had to fight hard to attract faculty in the early years of expansion. Feeling their oats and firmly in charge, the faculty could lay on more readings and harder assignments. Undergraduates, especially the most talented ones, were being groomed for graduate school. As a result, courses for nonmajors became the bastards of the academic family: unrecognized, neglected. Middling-to-poor students were ignored as much as possible and good students were likely to receive similar treatment outside their majors. Requirements outside the major were being dropped while concentration requirements were being maintained or even expanded.

Mass Education

The academic revolution depended on enlarging existing institutions and founding new ones to accommodate the increased undergraduate enrollments of the 1960s. Typically, the students in the high times were well prepared academically. During the period of student activism for civil rights and against the Vietnam war, some students turned their attention to educational issues. While activists pressed for less competition, relevance, and fewer requirements, most students conformed to faculty expectations. This situation might have continued indefinitely had it not been for the appearance of new kinds of students.
The various movements of the 1960s for popular access to higher education and the availability of federal and state aid made it possible for blacks and Hispanics, people older than traditional students, and women of all ages to attend colleges and universities. The presence of these students was critical to the survival of quite a few schools when external support for higher education and enrollments began to decline in the early 1970s. These kinds of students did not usually live in circumstances that encouraged the leisurely pursuit of truth. Many commuted to school from families and jobs, studied part time, dropped in and out, and worried about money. They tended to go to the state colleges, community colleges and proprietary schools that had expanded most during the 1960s, schools that were neither selective nor well subsidized. Many of these students came to college with poor academic skills; 'school' did not evoke pleasant images for them. They tended to find practical subjects less intimidating than highfalutin' ones. And they certainly did not gravitate naturally to a liberal education or talk about becoming "well-rounded", as their predecessors two decades earlier had.

Under the pressure of poorly prepared students, a declining pool of prospective undergraduates, and limited job prospects for liberal arts graduates, the academic revolution began to break down. A debilitating problem at unselective schools, inadequate
student preparation began to infiltrate selective colleges and universities by the middle 1970s. It took a while for most faculties to notice the decline in students' academic skills and even longer for them to see that they should do something about it. Few saw the weaknesses in the undergraduate curriculum, and hardly any detected the deteriorating quality of life in their institutions.

The gaps between the faculty and students that had been deepening, especially in non-elite schools, could not be ignored easily. Without much conviction, more colleges and universities across the country introduced "developmental" or "remedial" courses. These were typically separate operations, financed from federal and state funds, in student services or entirely new units that were organizationally distant from the academic departments. In the departments, the cadres of the academic revolution found themselves stranded in the hinterland.

Resigned acceptance seemed wiser than despair.

As the economy began its downward turn in the early 1970s and as the job market for liberal arts graduates began to shrink, the era of "defensive credentialism" (get a college degree just to hold on to what you already have) and "vocationalism" (only study things that will help you get a job) set in. As a college education took on the meaning of yet another

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consumer item, students became consumers. And a decreasing number, even in the best schools, were interested in buying what the faculty had to offer. The word was out in the middle classes that higher education was no longer a growth stock, and students who ten years earlier would have gone on to graduate school in one of the disciplines were shifting to law or medicine. Mediocre students were not interested in the traditional liberal arts subjects either, since they knew that they would have to find a place for themselves in more applied fields like engineering or business. And the students who had little choice scrambled for what was left.

Unselective schools were hit hardest by these sudden shifts in student preferences, and many rushed headlong into concocting vocational programs in all sorts of fields for which the job market looked promising -- computers, social work, nursing, medical technology. Even traditional liberal arts colleges discovered that they had become de facto vocational schools, as their students shifted their allegiance from the liberal arts to business, engineering, law, and medicine. The accumulated effects of the academic revolution and mass education might have ended the liberal arts in some schools. Even if they did not, faculty in the arts and sciences found they could not attract the students they had never wanted before, let alone the ones they had always wanted.
The Roots of Counter-Revolution

Throughout the 1960s and even before, voices of resistance to the academic revolution were being raised. They spoke in many modes --from the cris de coeur of traditionalists like Jacques Barzun and Robert Nisbet to the cheerful visions of radicals like Harold Taylor and Robert Paul Wolff. Adding their voices were social scientists whose research on the impact of the college experience led them to feel a profound discomfort with large, bureaucratic institutions. The factors they had found contributed most to student development --a sense of community, support as well as challenge, contact between students and faculty members, the opportunity for a "moratorium" between youth and adulthood-- were undermined by the academic revolution and mass education.

Alternatives were around for the looking; indeed, they were present in the very research universities under criticism. Across the country, throughout the 1950s and 1960s and to the present, innovations were being tried. They were to be found not only in the Ivy League and the Big Ten but everywhere, in community colleges, regional state colleges, and unheralded private colleges. While any one innovation may not have won a large following, collectively they offered some useful ideas and lessons. Some of them even "carried on a kind of institutionalized dialogue about what the purposes of
undergraduate education ought to be. They created models of undergraduate experience radically at odds with a vision of the college as either a vocational training facility or an anteroom to the graduate schools."

During the 1970s, colleges and universities explored the implications of the dialogue about undergraduate education initiated in the 1960s. While there were many different responses, four general streams of activity began to take shape: making more intellectual demands on students, strengthening general education, specifying outcomes and assessing them, and creating academic community. The reports of the 1980s drew their strength from these efforts.

Making More Intellectual Demands on Students

Early in the 1970s, grade inflation was a popular topic, and the first impulse around the country was to go back to basics. The 1970s saw the resurrection of English composition and mathematics requirements that had been buried a few years earlier. Soon, however, it was clear that basic skills could not be taught in the old ways. English Composition, in particular, went through a transformation as writing teachers began to understand the writing process and its relationship to thinking. Some schools added advanced writing to freshman writing requirements, and others introduced general communication, critical thinking, and computer literacy to the list of basic
skills they expected their students to master. Starting with NIE and ending with Boyer, the reports of the 1980s assumed that students could and should be expected to do more. Involvement in Learning, in fact, ended with a special letter to students challenging them to put more effort into their studies.

**Strengthening General Education**

When colleges and universities run into trouble, they turn to general education. A shift in thinking about general education began in the 1970s. A national survey of faculties in the middle 1970s showed that about half of them favored some sort of core curriculum -- at a time when only about ten percent of colleges and universities had them. At faculty meetings in hundreds of colleges and universities across the country, an old question was being asked: "What should every educated person know"? There was no easy consensus within a single institution, and a national consensus would probably never be found.

Nor was there a common format or logic organizing the general education curriculum. Some colleges designed pure core curricula, with a limited number of courses required of all students. Brooklyn College and Saint Joseph's College in Indiana are examples of this approach. They met with particular approval from William Bennett, who advocated a Great Books core curriculum in his report. Others came up with a modified core, which laid out specific topics and areas of study but allowed students to
choose from a number of courses which would satisfy the requirements. Harvard's new general education curriculum is an example of this approach. The Association of American Colleges and the Boyer reports suggest such modified cores. Whatever the result, examining general education had become a national preoccupation just as the reports appeared: In 1984, almost ninety percent of all colleges and universities were in the process of reviewing or had recently reviewed their general education requirements.

Specifyng Outcomes and Assessing Them

Some of the new general education curricula were framed in terms of the skills and knowledge students were to develop. A genuinely new departure, an "outcomes" approach can be traced to experiments a decade earlier with competence-based education in colleges like Alverno in Milwaukee, Sterling in Kansas, Mars Hill in North Carolina. Competence-based education starts by asking what students should know and be able to do -- and at what level of proficiency -- in order to be deemed competent in a particular field or worthy of receiving a B. A. It then provides opportunities, or allows students to find their own ways, of demonstrating that they have achieved what their schools expect. How students reach these outcomes is less important than their demonstrated achievement. Courses, majors -- indeed the experience of attending college -- are only means toward the outcomes.
Such subversive ideas were unlikely to be widely adopted, but the idea of specifying outcomes and then assessing them was attractive to a number of institutions. It is probably here that the reports have been particularly influential. Involvement in Learning recommends that "faculties and chief academic officers in each institution should agree upon and disseminate a statement of the knowledge, capacities, and skills that students must develop prior to graduation", and that these requirements be "addressed not only to subject matter but also to the development of capacities of analysis, problem solving, communication, and synthesis". Further, institutions "should examine and adjust the content and delivery of the curriculum" to match these outcomes and "design and implement a systematic program to assess" them.

While less explicit than Involvement in Learning, the three other reports ask faculty members and administrators to take more responsibility for saying what they expect to happen to students as a result of studying in their institutions. In order to find out whether students actually achieve these results, the report from the Association of American Colleges suggests that "there is need for a larger national program of support for the development of reliable and sensitive means of student and program evaluation." Bennett's report also argues forcefully for clarity about what institutions expect of students, but it does not speak much about assessment. Later, in speeches around
the country and in Department of Education funding for assessment, Bennett's preferences became obvious.

The focus on assessment has been taken up eagerly by the states, in the hope of finally finding a rational way of allocating scarce resources. All fifty states now are doing something to improve undergraduate education. While some are holding out carrots, like competitive grants programs for innovation, others (and sometimes the same states) are wielding sticks in the form of standardized tests. A few states --Missouri and Tennessee most prominently-- are experimenting with so-called "value added" tests, which look at how far students have come. More states are just looking at endpoints, as in Florida where all sophomores in state-supported institutions must pass a "rising junior" examination if they wish to go on.

Since the first three reports have appeared, assessment has become a minor industry. Developing measures of student progress and assessing learning, according to a national survey in 1985, were issues raised in the reports that were discussed most on campuses. Whether campuses will be able to fend off the states by developing their own assessment programs is an open question. With the benefit of more than two years of reaction to Involvement in Learning, Ernest Boyer warned against the dangers of imposing external testing.
Creating Academic Communities

The key to improving undergraduate education is the faculty. All of the reports call the faculty to their duty as shapers of the curriculum. All of them urge that faculty become more sophisticated as educators and that administrators provide the resources and incentives for faculty to do so --most particularly, by recognizing educational contributions in hiring, promotion, and tenure decisions.

Incentives go a long way in determining human behavior, but culture has longer-term effects. Faculty are happiest when they are left alone, yet it is only in acting --and acting together-- that the faculty will be able to respond to pressures from the state and improve undergraduate education. Much superb teaching goes on in the privacy of the classroom, but it is this very privacy which makes it invisible both to state officials and to colleagues.

This means reconstructing the foundation for academic community weakened during the academic revolution and further eroded by mass education. The reports speak only indirectly to this question through the incentive system and suggestions for changing graduate education. Involvement in Learning reaches for something close to an answer in its fifth recommendation: "Every institution of higher education should strive to create learning communities, organized around specific intellectual themes or
Intended to serve students better, this recommendation will have its greatest effects on the faculty.

New academic communities are forming across the country. They may take the form of formal academic programs, like the Federated Learning Communities at SUNY-Stony Brook and elsewhere, where faculty who teach courses which are clustered together in the same term talk to each other about what they are doing. It may be in planning a new curriculum, when faculty on a curriculum committee are forced to confront different disciplines and come to some conclusions about how they should be incorporated into a curriculum. Or it may be in the ever-expanding networks of faculty members and administrators who are struggling to understand how to teach writing, critical thinking, Women's Studies, quantitative reasoning, and so on. These networks work like a circulatory system, carrying ideas and vitality throughout higher education.

As they discuss something other than the administrative or political matters that typically bring them together, faculty discover how exciting it is to talk with colleagues from different fields. They rediscover the joys of learning. And in so doing, they come to see how they and their institutions might do a better job with their students.
The Reports as Mobilizing Instruments

While they stood on the platform of a federal agency, foundation, or association, the writers of the reports were all former or present college professors. They knew what they were talking about. They were aware of the hopeful signs and innovations I have pointed out in this paper. Why, then, were the reports so critical? Of course, reports must sound alarums in order to get attention, but this is not the whole story. Essentially, the reports can be read as a call to mobilize around a set of values that stand against the academic revolution.

The reports address faculty members and administrators in the schools where four-fifths of the students in this country are enrolled -- universities below the leading research universities, comprehensive colleges and universities, unselective liberal arts colleges, community colleges, and special-focus institutions.

They say to the people in these institutions that they should not model themselves on the research universities which molded their thinking about higher education and their place in it. The writers of the report from the Association of American Colleges put it bluntly: "The value system of the best and the brightest products of research universities puts little emphasis on good teaching...While this value system is most evident in the research universities, it permeates all of our four-year institutions, imported as part of the baggage that goes with the
Ph.D. degree. Research, not teaching, pays off in enhanced reputation, respect of peers beyond one's own campus, and access to funds. The language of the academy is revealing: professors speak of teaching loads and research opportunities...

In their own practice as undergraduate institutions, research universities leave much to be desired. In an interview, Ernest Boyer pointed out that in these universities "the baccalaureate program ...is dramatically overshadowed by graduate and preprofessional education --and by the imperatives for research. These priorities push undergraduate education to the bottom of the ladder...[T]wo-thirds of the students may be undergraduates, the tuition of these students may support the enterprise, but that fact bears little relationship to how faculty spend their time or how resources are distributed."

The effort to hold up another value system for higher education outside the elite sector will run into a number of obstacles, not the least of which is the isolation of the faculty. Administrators tend to know much more about the reports than faculty members. Yet even in the most centralized institutions, administrators cannot force faculty to do something they do not want to do. They can offer encouragement and resources, intrinsic satisfactions and external rewards, for greater attention to undergraduate education. And probably most important of all, they can help create the conditions for more
academic community.

Social movements depend on opportunities, infrastructures, resources, and networks. All of these conditions were important in giving rise to the reports and will continue to be important in the spread of the reformers' agendas. The reports rode a wave of reform in secondary education. They were also able to capitalize on critiques of undergraduate education which preceded them throughout the 1970s, most notably the report on general education from the Carnegie Foundation for the Advancement of Teaching, and then created their own momentum by appearing one after another in a short time span.

It took more time for an infrastructure to develop, but it is now well in place. Trade media like The Chronicle of Higher Education, which published all of the reports in their entirety, and Change, which regularly telegraphs new trends in higher education, began publishing in the 1960s and have since become central sources of information about what is going on around the country. During the 1970s, Jossey-Bass became the premier publisher for higher education. Besides a wide-ranging list of subjects in higher education and practical sourcebooks for teachers and administrators, it published the influential work of the Carnegie Council on Policy Studies in Higher Education. The American Association for Higher Education and the Association of American Colleges, along with other higher education
associations, became more professionalized during the 1970s and have become an independent force for change through their externally funded projects, conferences, and publications.

Resources, while never sufficient, have been available for the improvement of undergraduate education. Certain foundations were consistent in their support for higher education during the 1970s: Ford, Kellogg, Carnegie, Exxon, Danforth and Lilly. The Fund for the Improvement of Postsecondary Education, which was founded in 1973, has parlayed its limited funds into a major force for change in undergraduate education. Its special focus programs, as well as its comprehensive grants, have pointed faculty members and administrators to issues they might otherwise not have considered. The involvement of the Fund's staff with people involved in their projects is extensive.

Along with the National Endowment for the Humanities, another influential force for the improvement of undergraduate education in the 1970s, the Fund has been self-conscious in the way it has gone about building networks of educators. There are now perhaps 100 education specialists, foundation executives, association officers, faculty members, and administrators who consistently appear on the programs of national conferences. These are the people who serve on or advise study groups and commissions. Many of them were involved in creating the four reports discussed in this paper. A loose collection of people who may not even know
each other, they do not have a common program. It is unlikely that they would want one. Yet if pushed, they would probably share certain assumptions about the characteristics of a good undergraduate education.

Their activity would come to nothing without cadres on campuses interested in making changes in undergraduate education. At the moment, several groups have come together in support of change: long-time campus innovators whose work is finally receiving recognition, administrators who seek visibility for themselves and their institutions, and faculty influentials who are turning their attention to the undergraduate curriculum. Many of them realize they are not alone; some may even sense they are part of a loose, uncoordinated national movement. In the inertial non-system of higher education in this country, that is about as much coherence as we will ever find.
Footnotes


16. In 1950, government support for research was $177 million (1980 dollars); by 1980, it was over $3 billion.

17. Douglas Sloan, "The Teaching of Ethics in the American


25. Involvement in Learning reports that the proportion of entering freshmen interested in becoming college professors dropped from 1.8 in 1966 to 0.2 percent in 1982. Bowen and Schuster observe a similar drop-off of interest in college teaching, especially among the most talented students.

26. Involvement in Learning reports that the proportion of bachelor's degrees in arts and sciences fell from 49 percent in 1971 to 36 percent in 1982. Between 1977 and 1984, the proportion of entering freshmen planning to major in the physical sciences declined by 13 percent, in the humanities by 17 percent, in the social sciences by 19 percent, and in the biological sciences by 21 percent.

27. Geiger.


29. There is a vast literature on this subject. For summaries, see Kenneth A. Feldman and Theodore M. Newcomb, The Impact of College on Students (San Francisco: Jossey-Bass, 1969); Stephen B. Withey, ed., A Degree and What Else? Correlates and


32. For many specific examples, see Clifford Adelman, Starting With Students: Promising Approaches in American Higher Education (Washington, D.C.: National Institute of Education, 1984); Resources for Change, an annual description of the programs supported by the Fund for the Improvement of Postsecondary Education; and Forum for Liberal Education, a newsletter about
innovative programs published by the Association of American Colleges.

33. Blackburn et al.


36. Levine.


42. Project on Redefining the Meaning and Purpose of Baccalaureate Degrees, p. 34.


44. El-Khawas, Campus Trends, 1985.


48. These networks are hard to track and harder yet to document. The American Association for Higher Education has formed "action communities" for people interested in collaborative learning, assessment, voluntary service, high school/college alliances, internationalizing the campus, critical thinking, and technological literacy.

49. These reactions among faculty seem to be common to the different pursuits that bring them together. For accounts from several institutions, see Gamson et al., Liberating Education.
For an account from a single institution, see Ethyle Wolfe, "The Brooklyn College Core Curriculum: A Case History" (Brooklyn, N.Y.: Brooklyn College, 1985).


51. Project on Redefining the Meaning and Purpose of Baccalaureate Degrees, p. 10.

52. Marchese, pp. 11-12.


55. In July, 1986 Arthur Chickering and Zelda Gamson brought together a dozen people who have contributed much to understanding the college experience. Based on their research and experience, they came up with a list of seven principles of good practice in undergraduate education. These are: contact between students and faculty, reciprocity and cooperation among students, active forms of learning, regular feedback, appropriate use of time, high expectations, and respect for individual differences.