Prepared for presentation at the conference on Alternative Higher Education and Its Relevance to the 1980s, held at The Evergreen State College in Olympia, Washington, September 8 to 10, 1981

INTERDISCIPLINARY CURRICULUM DEVELOPMENT IN THE 1970s:

THE PARACOLLEGE AT ST. OLAF & THE WESTERN COLLEGE PROGRAM AT MIAMI UNIVERSITY

William H. Newell
Associate Professor of Interdisciplinary Studies
Western College Program, Miami University
Oxford, Ohio 45056

Introduction

This paper identifies the factors affecting the development of interdisciplinary curricula in the early 1970s at the Paracollege of St. Olaf College and in the late 1970s at the Western College Program of Miami University in order to draw explicit lessons about the prospects for interdisciplinary studies in the 1980s. It is apparent to anyone working for long in innovative higher education that the personalities and idiosyncracies of individual faculty have a major effect on the overall direction of the curriculum as well as on the content of their own courses.[1] This paper tries to move beyond such considerations to the underlying factors, particularly structures and ideas, which shape a curriculum and determine how interdisciplinary it will be. Evidence is drawn from a detailed examination of the two cluster college[2] programs during their formative years--from initial conception to successful

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I would like to acknowledge the assistance of Paul Fjelstad, Bobbi Helling, and William Narum in reconstructing the origins of the Paracollege, and the comments of Curtis Ellison, William Green, and George Stein on an earlier draft. Any errors are, of course, my own.

evaluation--when curriculum development is most in flux. In keeping with the theme of the conference, the factors identified as exerting a major influence on interdisciplinary curriculum development are assessed in light of the anticipated context of lower enrollments and fiscal austerity in the 1980s so that the prospects for interdisciplinary curricula can be deduced.

Since there is no generally accepted definition of interdisciplinary studies available in the literature,[3] the ensuing discussion of interdisciplinary curriculum is based on two presumptions about the characteristics of interdisciplinary studies implicitly shared by most definitions. The first is that an interdisciplinary study builds on the disciplines. The second is that it goes beyond the disciplines, involving some sort of synthesis or integration. The question of defining interdisciplinary studies will be taken up at more length in the conclusion.

After a brief descriptive overview of the two programs, the factors affecting curriculum development in each program are examined in some detail. In the concluding section, the lessons from the two programs are summarized and then some inferences are drawn about the prospects for innovative interdisciplinary education in the 1980s.

Overview of the Programs

The Paracollege

The Paracollege was founded in 1969 as a cluster college within St. Olaf College, a liberal arts college of 2700 students located in Northfield, Minnesota and affiliated with the American Lutheran Church. At the

initiative of the Dean of the College and after a year-long study by a subcommittee of the curriculum committee, a three-man faculty "summer committee" drew up the detailed proposal[4] for the Paracollege which was approved by the St. Olaf faculty. Those committee members were selected for their commitment to innovative education, and together with two faculty drawn from outside St. Olaf, served as the faculty of the Paracollege during its first year. The program grew by adding a new freshman class each year, and by increasing the size of the faculty as enrollment warranted. At first, majority-time faculty were hired through a national search, but then increasing numbers of part-time faculty were drawn from within St. Olaf. In almost all cases, however, faculty held joint appointments in disciplinary departments as well as the Paracollege. Over twenty full- and part-time faculty were associated with the program by the end of its fifth year, along with more than 200 students.

The program was conceived as an experimental alternative for St. Olaf students, offering individualized studies through a combination of tutorials, examinations, and interdisciplinary seminars[5], as well as course work selected from the rest of St. Olaf College. Major requirements for graduation included satisfactory completion of the General Examination (covering the distribution requirements for general education), the Comprehensive Examination (covering the student's major), and a Senior Project. In addition, secondary requirements of all St. Olaf students such as physical education, religion, creative arts, and foreign language were to be met through passing proficiency examinations. Finally, Paracollege students had a teaching requirement, such as leading a

discussion group, and they had to attend a senior seminar. In all cases, graduation requirements were to be met through examinations unconnected to any specific courses, rather than through accumulation of course credits. The Paracollege was reviewed during its fifth full year of operation, and approved by the St. Olaf faculty and administration in 1973 following a ten month review by a select committee.

The Western College Program

When the private Western College (formerly Western College for Women) faced bankruptcy in 1973 after 120 years of continuous operation, it was purchased by Miami University, a state-assisted and predominantly undergraduate university of 14,000 students located in the same town of Oxford, Ohio. Miami's president appointed a Planning Committee to review all proposals for the use of the campus and buildings. The committee recommended several alternatives,[6] one of which--a residential, inter-disciplinary college--was approved by the faculty, administration, and Board of Trustees for a trial period of three to five years. An Interim Committee, much like the Summer Planning Committee of the Paracollege, was appointed by the president to develop a detailed proposal for the new program in the "interim" between the approval of the program and the selection of the new dean and faculty.[7] After hiring a dean and assistant dean in the spring of 1974, and the faculty by early summer, the curriculum for the first year was planned in midsummer while students were being recruited during Miami's summer orientation, and the Western College Program started operation in August of 1974 with 150 freshmen and six

full-time faculty. Like the Paracollege, Western grew by adding a new freshman class each year and faculty as enrollment and budgets allowed, so that the program had 12 full-time faculty serving 350 students by the fourth year of the program. Unlike the Paracollege, Western's faculty were all full-time in the program with no official ties to disciplinary departments of Miami University and all hired through national searches, though one of the charter faculty was originally on the Miami University faculty. The program had the status of a division within the university, offered its own degree--the Bachelor of Philosophy in Interdisciplinary Studies, and set its own degree requirements.

The program retained the essential characteristics envisioned by the Planning Committee for the freshman and sophomore years, but the recommended upper-division of American Studies and Environmental Studies was replaced with individual learning contracts, modeled in part on the Paracollege.[8] Students took a core of required interdisciplinary courses--one each in the humanities, social sciences, and natural sciences, both semesters of the freshman and sophomore years. They lived in the Western residence halls during their first two years, and participated in a community learning program which was designed to complement the formal curriculum. In addition, students took one or two electives each semester in other divisions of the university, often courses designed to prepare them for their upper-division concentration. Toward the end of their sophomore year, students drew up a learning contract with the assistance of their faculty advisor, in which they described and provided a rationale for their individualized concentrations, listing the courses they would take towards

that concentration during their junior and senior years. The upper-division in the program featured the individualized concentrations, junior seminars, senior projects, and senior workshops found in the Paracollege. Students took one interdisciplinary seminar at Western each semester of their junior year with the rest of their coursework in other divisions. During the senior year, they wrote a senior project through a year-long research seminar while completing course work outside the division for their concentrations.

The Western College Program was reviewed in its fourth year by a special task force which recommended to the president of the university that the program be continued. Following overwhelming votes of support from the faculty of the university and from the president, the Board of Trustees approved the program as a continuing division of Miami University in 1978.

Curriculum Development

The Paracollege

The basic features of the program set out in the overview suggest that the original conception of the educational mission of the Paracollege was very much a product of the campus unrest of the late 1960s and early 1970s. The education vision embodied in the program was student-centered,[9] opposed to the traditional educational structures against which student activists had been rebelling. The objective of this vision was to free students to study what, when, where, with whom, and how they want. Since advancement towards the degree was by examinations unconnected with

specific courses, students were unaffected by course grades, permitting them to treat courses (and professors) as resources to be used for their own ends without concern for the structures of attendance, assignments, or examinations. In fact, the Paracollege system of examinations and proficiency tests freed students from courses altogether: if they believed that they would learn more from canoeing in the North Woods, then Godspeed, but they would have to pass the next examination or test to make progress towards the degree. The Paracollege removed virtually all the structures which could be construed as confining to the student, leaving the institution to determine the categories of knowledge or skills defining the degree, and through the faculty, to provide the educational resources and set the standards of excellence which students must meet in each category. As the subsequent discussion reveals, this student-centered educational mission conflicted with the interdisciplinary aims of the program.

Surrounding the attack on the structure and the faculty-centered orientation of traditional higher education was a pervasive spirit of innovation and experimentation in the Paracollege. Some of the founding faculty, for example, perceived the Paracollege as only one of several desirable experiments: the Paracollege might serve as an umbrella for other experiments in later years if enrollment at St. Olaf continued to grow, and perhaps if a new orthodoxy were to accompany institutional success under which the freer spirits among both faculty and students might begin to chafe.[10]

The cluster college structure of the Paracollege was originally

selected because it enabled St. Olaf to increase enrollment while maintaining a human scale learning environment where more "integration of college learning" could take place.[11] A sense of community was created by this small scale where everyone could know everyone else and by the prevailing spirit of innovation and the feeling of being special. That sense of community was consciously fostered by weekly community dinners, by joint student-faculty outings, and, in general, by interaction between students and faculty on a personal, first-name basis. The policy of breaking down social as well as educational barriers was quite consistent with the individualized approach to learning which lay at the heart of original conception of the program. This ambience of innovation and community turned out to be the major source of support for inter-disciplinary curriculum development in the Paracollege.

Because the members of the summer committee which drew up the detailed proposal for the Paracollege also formed a majority of its charter faculty (with one serving as head of the program), it was possible to assure that the founding vision was faithfully executed for the first year at least. These faculty were very much attuned to students by virtue of age, personality, or educational philosophy, as befits faculty involved in a student-centered program. While most were philosophically committed to an integrative or interdisciplinary education, their continued rank, tenure, and part-time appointment in disciplinary departments reflected a continuing scholarly commitment to, and intellectual orientation towards, the disciplines, even though their commitment to the program was beyond question.

As the faculty grew during the first five years, its composition changed with shifts in the balance of majority-time and part-time appointments and the balance of appointments from inside and outside St. Olaf. These changes had important consequences for interdisciplinary studies in the program.

With one exception, faculty added to the founding members for the first two years of the program were all at least majority-time appointments from outside St. Olaf, and one was full-time. Because these faculty came to St. Olaf for the Paracollege and their time was predominantly spent in the Paracollege, their commitment to the program was high. All except one of these faculty held joint appointments in disciplinary departments as well, which meant that those departments had to approve their appointment and had to be consulted in the promotion-tenure process, so that faculty with primarily interdisciplinary training were not hired. The summer committee recommended that Paracollege faculty also be members of departments to avoid the estrangement between the cluster college and its parent institution that had developed at other experimental programs,[12] and to provide a home for faculty in other St. Olaf departments should the experiment fail.[13] The tension resulting from this dual allegiance to disciplinary department and innovative program tended to lead to neglect of disciplinary professional development, dilution of commitment to interdisciplinary studies, or exhaustion, depending on the faculty member, if not to all three. Consequently, the first two years saw the founding vision of the Paracollege faithfully implemented, save that the interdisciplinary intention of the program was somewhat undermined by the policy

of joint appointments.

Starting in the third year of the program, increasing numbers of the faculty were drawn from the St. Olaf faculty on part-time appointments, partly to increase the number of disciplines represented and partly in response to administrative pressures to help resolve staffing complications in some departments. These faculty were still a small minority in the third year, but by the fifth year they formed a majority of the Paracollege faculty. While a few of these faculty became strong advocates of interdisciplinary studies or opponents of traditional structure, many retained their primary commitment to department and discipline, apparently entering the program in search of greater freedom and excitement more than out of disaffection with a faculty-centered tradition. Consequently the program began to experience some pressure for change, since under the prevailing spirit of egalitarianism part-time faculty had the same voice and vote as full-time faculty. Mandatory regular meetings of students with their tutors and the option to complete some degree requirements through passing courses are examples of structural modifications made during this period. The ideological fervor of the program became somewhat diluted, and with it came a dilution of the commitment to integrative or interdisciplinary studies.

While "interdisciplinary" is used in the Paracollege promotional literature to describe course offerings, and was frequently used by faculty in describing their upper-division seminars, the term most often used in the Paracollege was "integrative." While consensus was never reached, or even attempted if memory serves correctly, on the definition

of either term, there is substantial evidence that the terms were effectively interchangeable. In a letter written to the Paracollege faculty upon returning from a National Symposium on Experimental Higher Education at Johnston College, a member of the faculty reported that his task force on interdisciplinary studies meant by the term "what we in Paracollege call integration."[14] Comments by graders on the integration part of a 1973 General Exam reveal that the primary operational requirements for integration were that insight should be revealed into a number of disciplines, with emphasis on the range of disciplines represented and the accuracy of the insight.[15] Questions on the integrative part of a 1972 General Exam identify two types of integration, methodological and topical. The methodological question asked students to identify parallels in the methods used in different areas (e.g., humanities, social sciences), while the topical question required students to "focus on what relation there is between the insights of the different disciplines into the question."[16] In short, the concept of integration as it was used in the Paracollege seems to have been bound up in the process of applying disciplines to a common issue and then addressing the relationship among their insights, a conception quite consistent with the presumptions about interdisciplinary studies set forth earlier in this paper.

It was not readily apparent how to develop a curriculum fitted to the educational mission of a student-centered program like the Paracollege. If students really were to decide for themselves what they would study, when, how, and with whom, then there could be no assurance that a course developed and offered by a faculty member would attract any students, or

that those attracted would follow the syllabus. One might have been led to predict that the initial conception of the Paracollege would include the development of curriculum through student-initiated negotiations between faculty and interested students. While there was an element of this process in upper-division seminars and even more in academic tutorials, most lower-division courses were developed through a more traditional process which might appear anomalous in this program. Students had considerable voice in the educational policies of the Paracollege, constituting half of the voting membership of most committees, but for the most part faculty retained control over what and how they would teach.

In the remainder of this section of the paper, the elements of the curriculum are examined in the order that they might be encountered by an entering freshman, with an eye to their congruence with the educational mission of the program in general and to their interdisciplinarity in particular.

A tutorial system based on the Ox-bridge model was recommended by the summer committee as a natural component of a program of individualized education, and the expectation was that a substantial portion of the formal academic interaction between faculty and students would take place in that setting,[17] expecially in the upper-division. In practice, the most important function served by tutorials was the provision of faculty advice and support for students who entered the program without a clear idea of what they wished to study and why. It quickly became apparent that most freshmen cannot know what they want to study for their general education because they do not know what the various disciplines have to

offer or what the interesting intellectual issues are until they have been exposed to them. Thus, when the rhetoric of a student-centered education confronted the reality of ill-informed students who were often bewildered by the very freedom they were seeking, faculty came to serve as counselors facilitating each student's search for meaning and challenge and identity through what came to be called advisorial tutorials.

While all faculty provided these tutorials, some faculty developed what were called academic tutorials as well, more along the lines of the Ox-bridge model. These tutorials made much more use of faculty expertise while remaining faithful to the student-centered ethos of the program, since topics were typically determined through negotiation between tutor and student. On the other hand, such tutorials were rarely inter-disciplinary since faculty expertise was normally confined to one discipline. Academic tutorials were increasingly emphasized by the faculty during the first five years of the Paracollege.

While the faculty on the summer committee were committed to student-centered education, they were well aware that most students would come to the program out of highly structured learning environments, and they felt the need to provide some transition to the unstructured education of the Paracollege. One required and graded freshman seminar was designated to provide the necessary bridge. Since the requirement of a course for graduation was a clear exception to the policy of advancement through examination, the committee felt that it was necessary to assure that the course was of the highest possible quality. As a result, class size was restricted to twelve and faculty were encouraged to make their individual

seminar as stimulating as possible in order to draw students into the world of the intellect. Since no course in English composition was required in the program, faculty were requested to assign frequent papers and provide students with extensive feedback on their writing. The objective of high academic quality led faculty to offer topics that were firmly within their area of professional expertise, although the spirit of innovation in the program encouraged them to approach the topic in an unconventional manner.

While the freshman seminars were often excellent, they seldom attempted to be interdisciplinary, even though the summer committee envisioned them as "always relevant to integration"[18] and the college catalog occasionally claimed that they were interdisciplinary.[19] Here the rhetoric of interdisciplinary studies, which reflected a genuine concern for a holistic approach to knowledge, ran up against the pragmatic consideration of student-faculty ratios which militated against the assignment of more than one faculty member to a small section, and against the belief that a course must be team-taught by two or more faculty, each representing a different discipline, in order to be interdisciplinary. This belief was presumably correct for new faculty, given the system of joint appointments and the training of the faculty thus attracted. The joint appointments also put pressure on new faculty to expand their expertise in their discipline in order to secure tenure and promotion, instead of undertaking serious preparation in related disciplines so that they might teach interdisciplinary courses alone. The Paracollege offered no counterbalancing incentives to faculty promoting their development of

interdisciplinary expertise.

At the instigation of two new part-time faculty during a planning retreat in the winter of 1973, a new freshman course called Liberal Arts I was offered that fall. This course was a departure from the original emphasis on unstructured education since it was required of all freshmen in addition to the freshman seminar, yet at the same time it constituted a self-conscious attempt to move the freshman curriculum closer to the ideal of interdisciplinary studies. Billed as a lecture series on the general theme "What is a Human Being?", the course was actually an imaginative array of eleven perceptions of human beings--from biocomputer to identity seeker to a self who celebrates--each of which was addressed by faculty from different disciplines and areas. Discussion by faculty and students at the end of the lecture or a debate among faculty in place of a lecture, and informal evening discussions among students and participating faculty all provided opportunities, at least, to draw explicit contrasts between the approaches of different disciplines to the topic for the week. Still, so little time was spent on any one topic that the full perspective of each discipline could not be developed in any detail, nor was time devoted at the end of the semester to pulling together what was learned about each discipline into a coherent whole and contrasting it systematically with other disciplines. The notion of interdisciplinary studies underlying the course emphasized "interrelationships among different [disciplinary] methodologies,"[20] one of several conceptions held by the faculty (and as noted above, one of two identified in the Integrative General Examination). Lack of consensus among the faculty on the meaning of interdisciplinary

studies contributed, no doubt, to the decision not to include a final section on synthesis, even though the faculty organizing the course were committed to interdisciplinary education, and recognized synthesis as a key element in the interdisciplinary process.

Since the primary function of the faculty was to serve as educational resources for the students and since freshmen and especially sophomores were particularly concerned with preparing for the General Examination, it seemed appropriate that the faculty should offer courses designed to give students background relevant to that examination. The four parts of that examination--humanities, social sciences, natural sciences, and integration--suggested a natural partitioning of the remaining lower-division curriculum of the Paracollege, though in keeping with the ambivalence of the faculty about integration--wishing it, while being unsure of how best to promote it--no syllabus was offered in this area. Most of the discussion here will focus on the Social Science syllabus, since the author has first hand knowledge of this syllabus and since the most comprehensive efforts at interdisciplinary studies were undertaken in the social sciences.

In the second year of the program when there were enough faculty in the social sciences to develop a full curriculum, the faculty put together a syllabus fully consonant with the ideology of individualized study. In the first section, provocative writings on a wide range of current issues were listed, and students were encouraged to sample these readings in the hopes that they would be drawn into the social sciences. Next, three "short courses" were offered sequentially in psychology, sociology, and

economics in order to provide students with an intensive and efficient introduction to the fundamentals of these disciplines. The basic concepts and theories of each discipline were covered in two weeks of daily lectures, supplemented by student-led preceptorials. A standard introductory text was selectively assigned, and an examination comparable to the final examination in a traditional introductory course was provided on an optional basis to help students judge how much they had learned. As soon as each short course was completed, the faculty member trained in that discipline would begin a seminar in which the disciplinary material from the short course was applied to a current issue. While the syllabus referred to "interdisciplinary themes and issues of the seminars," the objective of applying concepts and theories from one discipline tended to militate against that goal. Finally, the syllabus listed more advanced works in each of the major fields of each discipline so that students might be guided in their individual pursuit of more sophisticated insight into the issues addressed by the social sciences. In short, this syllabus faithfully mirrored the original conception of the Paracollege, offering an optional sequence of educational resources designed to support individualized learning, and favoring interdisciplinary study while doing little to promote it.

Dissatisfied with the disciplinary nature of the previous year's syllabus, the social science faculty completely revised it for the third year of the program. The syllabus now had a broad focus, "Urban America: Problems and Prospects," and the provocative readings at the beginning addressed a wide range of topics within that focus. The faculty then

presented a course on the theme "Is the Good Life Possible in the American City?" in which modules on health, crime, and so forth were addressed half the time by lectures from a disciplinary perspective; the rest of the class meetings predominantly featured two or more faculty contrasting their perspectives on an issue. These topics were well chosen to allow faculty to show off the power of their discipline to move beyond common sense discussion of issues, and the frequent panels or presentation cum critique moved the course beyond a purely multidisciplinary[21] format, but the synthesis at the end of the course was limited to a "legislative session" in the last week where students were encouraged to propose and defend answers to the problems discussed from disciplinary perspectives during the semester.

Second semester, the social science syllabus started out with the short courses pioneered the previous year, followed by seminars that were no longer restricted to applying the concepts and theories of one discipline since the first semester course had served that function. As a result, the seminars ranged from the disciplinary, such as "Electoral Politics," to a number of interdisciplinary efforts. One faculty member's seminar on "Prejudice," for example, offered perspectives from psychology, social psychology, sociology, economics, legal studies, and philosophy, which was designed to emphasize the relationship among disciplinary versions of the issue. While the contributions of the disciplines to the central question were clear enough, the interrelations were merely alluded to in discussions. All in all, this year-long syllabus retained the commitment to individualized learning while moving significantly in the direction of

interdisciplinary studies. Still, the course had as many multidisciplinary elements as it had interdisciplinary ones, and the approach to interdisciplinary studies was still not systematic.

In an attempt to develop a genuinely interdisciplinary curriculum, the social science faculty again completely revised the syllabus the following year. With the charter social scientist of the Paracollege on leave and the curriculum in the hands of newer faculty, however, some of the original emphasis on individualized learning was lost in the drive for interdisciplinarity. The syllabus no longer began with provocative readings to draw students into the social sciences by helping them pursue their individual interests, and it no longer concluded with more advanced readings to guide their further study. In addition, the syllabus linked particular social science course offerings to particular sections of the General Examination.

The new syllabus, entitled "Social Science as a Discipline," focused on the theories of choice and decision-making in the behavioral sciences, emphasizing the common quantitative methodology underlying the social sciences and the common philosophical issues they raise, while pointing up their differences in underlying assumptions. A flowchart was developed which set out both the common method and the divergent world views and assumptions of the disciplines. Faculty took turns presenting a theory of choice from their discipline and showing how that theory was applied to a question of interest to the discipline and then tested empirically in accordance with the flowchart. The other faculty then attempted to understand that theory from the perspective of their own disciplines,

clarifying the assumptions and evaluating them in the process. Students learned something of how the various social sciences look at the world, their differences and similarities, as they both watched and participated in this analytical process. While the syllabus argued for the need to apply an interdisciplinary social science approach to policy questions, there was no attempt to apply the disciplines to a common topic, so the interdisciplinary process of synthesis was still missing from the course.

Second semester, a course called "Key Concepts in the Social Sciences" supplied some of the basic disciplinary material lacking in the previous semester. Here students were presented with "meaning clusters," groups of disciplinary concepts through which social scientists view their world. Lectures stressed the relationships between the meaning clusters of different disciplines, reinforcing the insights from the previous semester into how to understand one discipline through the perspective of another discipline. In combination with the first semester syllabus, this course provided students with some grounding in the disciplines and in several of the necessary tools for interdisciplinary study, except the technique of synthesis. Nonetheless, one is left with the impression that a clear operational definition would have helped faculty already committed to interdisciplinary studies to develop a fully interdisciplinary course during that three year period.

Humanities syllabi were typically organized in terms of periods (e.g., The Ancient Mediterranean--Athens, Jerusalem, Rome) or movements (e.g., Romanticism). There were all largely multidisciplinary in format, with a series of lectures cum discussion from disciplinary perspectives

with no attempt on the part of the faculty to reconcile or synthesize these perspectives. These series were run in tandem with disciplinary workshops, student-led preceptorials, and an occasional St. Olaf course. Once in a while a more interdisciplinary element would enter the syllabus, such as a seminar offered in the fall of the fourth year on "Aspects of Language," which examined the use of language in the context of several disciplines, including psychology, sociology, anthropology, and politics as well as literature and linguistics. On the whole the humanities offerings did not claim to be interdisciplinary. Students, however, were expected to demonstrate integrative ability between the humanities and the other areas without any explicit models of integration, leaving unclear the interdisciplinary intentions of the humanities faculty.

Among the natural sciences, the mathematics courses proved to be most innovative, offering in addition to training in the discipline several cross-disciplinary[22] courses in which the theories or methods of various social sciences or humanities were expressed in the language of mathematics and examined for their consistency and power. These courses were especially effective at developing mathematical imagination, but they were more of an exercise in metadisciplinary thinking than interdisciplinary in the sense that there was no reciprocal contribution from the other discipline to mathematics. Many of the offerings in the physical and biological sciences were innovative introductions to disciplines, or to their common scientific method, although occasionally a scientist would team-teach a seminar with a social scientist or a humanist, such as a seminar on science and ethics. The role of the scientist in such a course

was typically to set the constraints within which the insights of the other discipline can operate, in this case clarifying the precise nature of the ethical issue and undercutting simplistic answers in the process, but the element of synthesis was typically missing.

One final and rather unusual general education course called Symbolic Forms was offered the first two years of the program before it was incorporated into the humanities curriculum. Inspired by Cassirer's categorization of knowledge, this course surveyed the "ways of knowing" of each academic discipline represented in the Paracollege through an examination of its characteristic method and the language in which it is expressed. This course, however, was largely confined to the sequential examination of the disciplines with little discussion of how their ways of knowing related to each other.

After completing the General Examination, students pursued such diverse individualized majors that it was impossible for the faculty to offer a coherent upper-division curriculum. Instead faculty took the opportunity to offer seminars on their current professional interests. The extreme curricular flexibility and spirit of innovation made it possible for faculty to develop a course with another faculty member as they discovered a common interest, pursuing the question from both their disciplinary perspectives until a common answer was developed which was acceptable to both. Here the rhetoric of interdisciplinary studies meant greater freedom for faculty as well as students. Consequently, a number of interdisciplinary seminars were offered at this level, in addition to a substantial number of disciplinary ones offered by faculty who cherished

the opportunity to teach in their area of speciality.

Completing the upper-division curriculum was the senior seminar, where students who had now developed some sophistication in their field came together on a weekly basis with a faculty member to discuss a variety of issues from the perspective of their respective fields and to compare those intellectual frameworks, with an eye to achieving some consensus. In a relaxed setting, these students took time out from completing their senior project to engage in some of the most interdisciplinary discussions in the program.

The Western College Program

The educational vision underlying the original formulation of the program was holistic, within the curriculum, between the curriculum and the life of the student, and among the members of the community. The key elements designed to achieve this holistic goal were, respectively, interdisciplinary courses, a residential learning program, and a required core curriculum. This holistic educational mission appears to have been selected for the program because it represented, in the eyes of the Planning Committee and the faculty of the university, the best of the educational experiments of the 1960s, a mission consistent with that of the parent university, and a program retaining much of the spirit of the Western College which it was replacing. Unlike the mission of the Paracollege, this mission placed interdisciplinary studies at its center.

The decisions to partition the curriculum into three broad areas--humanities, social and natural sciences--and to establish upper-division

programs in American and Environmental Studies reflected more pragmatic considerations of the division of knowledge and the probable educational backgrounds of the faculty, the existing interdisciplinary programs at Miami and the probable interests of students. The choice of a cluster college structure, and the decision to hire faculty full-time in the program and make them eligible for tenure[23] all stem from factors associated with the take-over of a small private college by a relatively large public university, such as the fear that Miami would be perceived as "gobbling up"[24] Western and confusion over whether the Western faculty would be retained in the new program.[25]

In fact, the faculty for the new Western program were chosen through a national search, though one of the six hired for the first year was the Director of American Studies at Miami and a member of both the Planning Committee and the Interim Committee. The Dean, a veteran of the experimental college movement of the previous decade also hired through a national search, selected faculty for their commitment to interdisciplinary studies, especially American or Environmental Studies, for the strength of their academic credentials by traditional criteria, and for their general interest in innovative education; not emphasized, though considered desirable, was commitment to a residential learning program. The faculty selected were young, with extremely strong academic credentials generally from elite private liberal arts colleges, and most had been imbued with the rhetoric of the '60s. On the other hand, half had no previous interdisciplinary graduate training or teaching experience; only one had taught in an experimental college setting. The faculty expanded from six

to twelve during the formative years, and proved remarkably stable by experimental college standards, losing only one of its charter members and turning over only two in all. Their commitment to the program was unusually high as well, in part because they came for the program and were full-time in it, and in part because they only became eligible for tenure if the program was favorably evaluated. Here again, the structure of the Western program was more favorable to interdisciplinary studies than that of the Paracollege.

The question of how closely the faculty must adhere to the original vision of the program came up early in the summer planning workshop before the opening of the program, and the dean replied that the faculty was obligated to be loyal to the intentions of the original planning document--namely the three-course interdisciplinary curriculum--though not to the content of the courses it suggested.[26] Here, and especially on the question of the residential learning program where faculty commitment was weakest, the leadership of the dean was central in determining the overall direction of the curriculum and its faithfulness to the original education mission of the Western College Program. The leadership of the Dean was a two-edged sword in that his permissive style engendered a spirit of freedom and innovation condusive to developing imaginative interdisciplinary courses while also allowing an incoherence in the overall curriculum which worked against the development of a consistent notion among the faculty of interdisciplinary studies.

The summer planning workshop was pivotal in determining the shape of the curriculum, indirectly through the institutional structures developed

there as well as directly, since the faculty had the freedom to develop any educational program which was consistent with the broad imperatives of the educational mission. The first week was spent reviewing the literature on earlier experimental programs in higher education at Monteith, Bensalem, Black Mountain, and several others; the reports from many of the conferences on experimental higher education held in the '60s; and a number of comparative analyses of why program failed. This literature suggested a few models of interdisciplinary courses, and helped to breed a culture of anxiety among the faculty. The middle three weeks were devoted to the tasks of curriculum and institution-building, with task forces meeting on advising, governance, admissions, grading, and course scheduling as well as area faculty meetings on the formal curriculum and staff meetings on the residential learning program. In the last week of the workshop, the syllabi were written and book ordered, but the courses were still largely lists of weekly lectures, readings, and themes, with an accompanying rationale.

The actual interpretation of the readings and determination of daily discussion topics and major points to make in each class came during the academic year in weekly core meetings as faculty who team-designed the course met to decide exactly what should go on in their respective sections the following week. Compounding this hectic process was the need to evaluate each course immediately after its completion in order to thrash out revisions for the following year, and the simultaneous need for planning sessions to devise the curriculum for the sophomore year.

Even though there was consensus among the faculty and administration

that the courses must all be interdisciplinary, there was no formal discussion of the meaning of interdisciplinary studies during the formative years of the program, and when one finally did take place in the sixth year, the faculty split among those wishing to focus on the commonalities in the real world in order to see the world as more coherent; those wishing to focus on the commonalities of the disciplines by using systems theory or structuralism; and those wishing to apply several disciplines to a single topic and then integrate their findings; still others didn't care, either out of a conviction that more than one approach was interdisciplinary, or out of lack of interest in the issue. With such divergence of opinion among the faculty, it was only to be expected that in spite of the structural advantages of the Western program, many of its courses were not as interdisciplinary as they might have been.

The first year freshman humanities course, The Creative Self in Modern Culture, was a study of what it means to be human, and of how the concept of self is both expressed and determined by creative processes. A number of creative products were examined through their respective disciplines--architecture, music, literature, history, anthropology, and film--for their contributions to the central question. Because each faculty member taught all course material in his sections, with only the common weekly lecture assigned on the basis for expertise, the emphasis in the seminars could be on the interrelations between the contributions of the various disciplines. In keeping with the holistic mission of the program, the course started with the student, assigning a paper on "Who am I?", and then gradually moved outward to the contemporary

student culture and to each student's family genealogy, and then to the sense of self in various American sub-cultures. The teaching of writing was integral to all three core courses, with frequent papers assigned and extensive faculty commentary on them reflecting a program-wide concern with writing. The course seems to have met the interdisciplinary presumptions set out above, but the discussion of disciplines was more implied through their use in examining creative products than explicit.

Social Systems I, the freshman social science course, took the theme of education the first year. Like the Creative Self course, it started with the students, asking them to reflect on their prior formal education and introducing the sociological perspective through the use of structural analysis and the introduction of the concept of socialization. This perspective was then contrasted with ones from economics (e.g., education as investment in human capital) and anthropology (e.g., structure as freeing). The winter quarter raised the question of whether economic, social, and political inequality are the consequence of differences in educational background, and whether the situation differed in the nineteenth century. The spring quarter the focus was on the actual learning process, contrasting operant conditioning and cognitive dissonance theories from psychology and social psychology respectively. Also as in the Creative Self course, the Social Systems faculty covered the same course material in their individual seminars, and the emphasis in discussions throughout the year was on contrasting the disciplinary world views and creating a coherent view of education and how it affects the student. In contrast to the interdisciplinary team-taught social science courses in the

Paracollege, both "hard" and "soft" methodologies were employed (reflecting the training of the faculty), and the focus was topical not methodological. The core social systems faculty were aided by one of the housemaster/instructors, allowing numerous examples from life in the residence halls to be brought into the formal curriculum. The result was a course which was faithful to the educational mission of the program, both interdisciplinary and supportive of living-learning ties.

The freshman natural systems course was organized around a theme of energy, with the first half year devoted to physics (energy and matter) and then after a brief bridge of chemistry (energy in the chemical bond) the rest of the year was devoted to biology (energy in life). While the treatment of the disciplines was broad and imaginative (e.g., the history of celestial mechanics emphasized the interactions of science and society, especially the medieval world view, in some detail, and philosophical or ethical issues were frequently raised), the course reflected a different conception of interdisciplinary studies than the other two courses, one where the interconnectedness of the world (not the disciplines)is emphasized and where the insights of each discipline are primarily challenged through encounters between that discipline and the real world, not by other disciplines. This course also differed from the other two core courses in that the physicist taught all the physics (lectures, discussion sections, and laboratories) and wrote and graded all the problem sets while the biologist taught only a weekly seminar on the connections between science and society during the first half of the year; they then switched during the second half of the year (after a guest lecturer

finished the chemistry module). The insistence of the scientists on the sanctity of disciplinary expertise contrasted sharply with the other faculty who spent most of the year learning related disciplines and unfamiliar subject matter a step or two ahead of the students. Still, the scientists did join with the humanists for two weeks in a combined unit on Benjamin Franklin, and the course showed some concern for living-learning ties, with student tutors, faculty-led evening help sessions in the residence halls, and student participation in the revision of the course for the following year; indeed, the evaluation of the course by the two scientists at the end of the year lamented that it had not pointed out more connections with the students' own lives. This course might have benefited from some general discussion in the faculty on the nature of interdisciplinary studies.

The format of the curriculum was varied through workshops in Creativity and Culture emphasizing active student participation in a variety of creative activities; the use of the fourth hour each week in Social Systems to discuss the connection between the course material and the lives of the students; and the Benjamin Franklin unit mentioned above. All regular classes were halted for one week in the spring for a "curriculum fair," a pot pourri of student-led workshops on everything from wildflowers to logical paradoxes, faculty-led ones on tennis and values-clarification, and workshops by half a dozen artists-in-residence teaching folkdancing, dulcimer-building, leatherworking and the like. These activities broke down the roles of student and faculty members and contributed to a sense of community much like that in the Paracollege, one where faculty could

safely learn other disciplines alongside (or just ahead of) their students.

These freshman courses underwent some transformation during the formative years of the program. The Natural Systems course put increasing emphasis on scientists as human beings and on science as a creative activity, as well as on conceptualizing historical scientific developments within a Kuhnian framework of scientific revolutions. In the spring, an integrative Darwin unit was developed with the other two cores. These revisions all appear as responses to the prevailing ethos of holism on the part of faculty members who were convinced of the need to present students with a solid disciplinary background of "real science" before undertaking interdisciplinary studies.

Social Systems tightened the organization of the education-focused course for one year, and then shifted to its present sequence which focuses on the individual in society first semester, moving up from the micro-level to groups and institutions second semester, followed by macro-level examinations of societies and their interactions and evolution in the sophomore year. The individual in society course focuses on the rationality and the autonomy of individuals, retaining much of the subject matter of the older course, but organizing it abstractly instead of topically so that the contrasts between disciplinary world views and their underlying assumptions might be more explicit. Dropping the focus on education also meant that more disciplinary concepts and theories could be introduced in an interdisciplinary context, better preparing students for upper-division disciplinary courses. The course concluded with an explicit synthesis (in which it was argued that people oscillate between

the two poles) followed by an antithesis (in which examination of another culture demonstrated that the entire question is culture-bound). The second semester course came to focus on the earlier issue of inequality, examining the interrelated topics of racism, poverty, and powerlessness. A number of experiments were tried and discarded in an attempt to make explicit the interdisciplinary method--for example, one year students in each section were split up with each subgroup assigned a different disciplinary treatment of poverty. After discussing it in their subgroups, they all came together to argue out how best to understand the causes and cures of poverty, acquainting other students with their discipline's perspective in the process. These changes were all designed to make students more aware of the interdisciplinary process and to give them the requisite sensitivity to disciplinary perspectives to undertake interdisciplinary studies themselves.

The Creative Self course underwent a curious transformation, first to a self-consciously and explicitly interdisciplinary course focuses on various disciplinary approaches and how to relate them, and then to a strictly disciplinary approach introducing students to literature and philosophy first semester and to the fine arts and history second semester. To some extent this turnabout reflected a growing belief in the need to develop some appreciation of the disciplines before undertaking interdisciplinary studies and a desire to bring the course more in line with the perceived multidisciplinary approach of the other two courses, but it probably also represents the difficulties in persuading free-spirited faculty to cooperate to the extent necessary to develop a serious inter-

disciplinary course. Here, the failure of the faculty to discuss interdisciplinarity was partly responsible for an ironic movement away from interdisciplinary studies.

The first sophomore courses were offered in the second year of the program, and since all students now had some grounding in the disciplines, all the faculty were eager to offer relatively ambitious interdisciplinary courses. Following the recommendations of the Interim Committee,[27] the Creative Self faculty tried a different organizing principle each quarter: comparative cultures (literature, art, and film of South Africa and the U.S.) in the fall; the spirit of an age (Victorian England through literature, history, architecture, drama, science, and politics) in the winter; and the development of an idea (utopia) in the spring. When the university switched to a semester system the next year, the least fruitful strategy (comparative cultures) was dropped and the others expanded. The Spirit of an Age course was particularly ambitious and successful, drawing faculty in from the other two cores and organizing the entire semester around the interpretation and reinterpretation of Fowles', The French Lieutenant's Woman, asking if this work embodied any such spirit.

The focus of the sophomore Social Systems course on modernization meant that macro-level theory from the various social sciences was applied to such topics as the Industrial Revolution, the demographic transition, and organization, with each viewed in historical context. A subtheme throughout the year was the interaction of nations and cultures, especially the conflict between traditional and modern.

The Natural Systems faculty examined world food and health problems

from an ecological perspective in the fall, and the role of fossil fuels in the energy crisis in the spring. All three cores combined for several weeks at the end of the year in a unit on the future.

The fourth year of the program the entire sophomore year was restructured to make it even more interdisciplinary by allowing faculty from different cores to teach together. The natural and social scientist then taught a course on the ecology and politics of scarcity in the fall, and an expanded energy course in the spring which showed the interrelations of economics and politics with the science and technology of the energy crisis. A humanist and scientist combined to teach a course on historical American attitudes towards the environment as they develop out of scientific and technical discoveries, evolve into public policy, and become portrayed in literature, art, and architecture. In the spring another humanist and scientist revived the course on the spirit of an age. Finally, a humanist and social scientist offered a course on change agentry, designed to raise social consciousness and develop and apply strategies of change; in the spring, another pair examined modernization in the Western world as a process with roots in the ancient and medieval eras.

It should be clear that the lower-division curriculum formed a "core" in the sense that it was required of all students in the program, not because it formed a coherent, integrated package. While some vertical integration was developed within the areas (shifting scale from micro to macro in Social Systems, and the use of energy as a theme in Natural Systems), the holistic vision of the program was never successfully

applied to coordinating the three courses in each quarter or semester. Continuing pressure from students, as well as a few faculty and the dean, for such integration led to a colloquy each year on the curriculum, and after the formative years, to a major curriculum task force, but the difficulties of obtaining agreement and cooperation among so many faculty of diverse backgrounds proved so great that inter-area units on Franklin, Darwin, or the future were all that could be managed. The redesign of the sophomore year offered a feasible alternative which allowed at least some integration of the three areas of the core curriculum. The definition of interdisciplinary studies, ironically, was never raised.

Even though junior seminars were not team-developed or team-taught, most tended to be interdisciplinary since they reflected the current scholarly interests of the faculty, either interests building on inter-disciplinary graduate work in the case of the humanists or interdisciplinary research interests promoted or developed through two years of exclusively interdisciplinary teaching in the lower division. Humanities courses dealt with the regional character of the American South (literature, history, architecture, and sociology), Jewish studies (literature, history, and sociology), the Harlem Renaissance (literature, music, history, and art), and landscape visions (literature, anthropology, art, and geography). The social sciences focused on research methods, such as team projects in quantitative local history (with the faculty member as senior scholar) and in field work (employing participant-observer techniques and structural analysis). The natural science seminars varied from the interdisciplinary (food, public policy, and agricultural innovation; methods in the social

study of science) to the disciplinary (environmental chemistry). In all cases, these seminars were designed to serve as an introduction to research and scholarship in the hopes of helping students to prepare, if only by example, for work on their senior projects.

Senior projects ran the gamut of student interests, and only a few were self-consciously interdisciplinary. Senior workshops provided some final sensitivity to interdisciplinary studies, however, as students with various disciplinary backgrounds critically evaluated the projects of their peers. The junior seminars and senior workshops also provided the only link between the upperclassmen and the Western community.

Summary and Implications for the 1980s

A number of factors affecting interdisciplinary curriculum development can be deduced from the experiences of the Paracollege and the Western College Program during the 1970s. These factors fall under the broad headings of structure and ideas, and are not listed in any order of importance. While these factors are identified from an analysis of cluster college programs and meant to apply primarily to their prospects in the 1980s, several may be applicable to independent interdisciplinary institutions as well.

Structural Factors:

1. The Educational Mission

While the formal statement of the educational mission of a program may include interdisciplinary studies as a goal, if the central educational

vision does not include interdisciplinary studies or lead logically to them, then interdisciplinary studies will tend to languish as scarce faculty time is drawn to higher priority tasks. The educational mission of the Paracollege included a genuine interest in interdisciplinary studies, but its guiding vision was of student-centered education, which led faculty to devote time to advisorial tutorials, for example, instead of interdisciplinary course preparation. Further, an antistructure bias underlay that student-centered vision, undercutting the development of interdisciplinary curriculum which depends on the imposition of a systematic process onto intellectual inquiry. (That process is discussed below.) The Western program was favored with a mission of holism, which placed interdisciplinary studies at the center of its goals.

2. Faculty Appointments

Full-time appointments, and hence control of the promotion and tenure process by the program, are essential to faculty commitment to interdisciplinary studies and to faculty willingness to take the professional risk of allotting time to learn other disciplines and to develop interdisciplinary scholarly or research interests. Further, those professional incentives must be used by the program to encourage such professional development activities. Otherwise, faculty may well redefine the educational mission of the program in a non-interdisciplinary way, or simply fail to develop truly interdisciplinary courses. The Paracollege, with its system of joint and part-time appointments, suffered from a lack of faculty commitment to interdisciplinary studies, especially as the

proportion of part-time faculty grew, and those committed to that approach were by and large unable to afford the time to learn related disciplines. The Western program, by way of contrast, was blessed with a system of faculty appointments which promoted commitment to its interdisciplinary mission. The full-time appointments of the Western faculty created some estrangement from the rest of the university (and a siege mental among the Western faculty), but the faculty at Western were well-respected by their disciplinary counterparts, and the program was easily approved.

3. Faculty Assignments

Team-developed and team-taught courses greatly improve the prospects for achieving an interdisciplinary curriculum because faculty must come to take seriously the insights of other disciplines and then come to grips with how those insights relate to those of her or his discipline. Team-teaching is not necessary if faculty are required to cover all course material in their sections of the course, and of course, it is much less expensive to have only one faculty member in a classroom. Over time, of course, this factor becomes less important as faculty are encouraged to develop some expertise in other disciplines. The Paracollege encouraged faculty to cooperate in the development of area syllabi for the General Examination, in particular; the Western program required team-course development of all its faculty in all lower division courses (where three-quarters of the courses were offered).

Ideas

1. Ambience of Innovation

Interdisciplinary courses are risky the first time they are offered, because it takes practice to learn how to organize them so that they are coherent to the students. It also takes time for the faculty to learn the relevant literature in new disciplines. A spirit of innovation among both students and faculty, and the willingness to administrators of the program to accept occasional failure, are essential in the early years at least. Both programs provided such an ambience, and this factor (along with the encouragement to cooperate in curriculum development) accounts for much of the development of interdisciplinary curriculum in the Paracollege.

2. Clear Definition of Interdisciplinary Studies

When one considers the structural advantages of the Western Program relative to the Paracollege, as well as its ambience of innovation, it may appear surprising that more of the Western courses were not interdisciplinary more of the time. The one factor working against the development of interdisciplinary curriculum in the Western program, as well as in the Paracollege, was the lack of a clear agreed-upon definition of interdisciplinary studies. The faculty must come to some explicit agreement about the meaning and nature of interdisciplinary studies so that they can have a clearcut interdisciplinary process in mind as they devise their courses.

The experience of both the Paracollege and Western shows that faculty

willingness and administrative support are not enough to achieve fully interdisciplinary courses if faculty are unclear about what constitutes an interdisciplinary course. Faculty in some disciplines, especially perhaps in the natural sciences, need to be encouraged to view their discipline as only one interpretation of reality, one which can benefit through interaction with other disciplines.

As a first step towards achieving this goal, the following definition is offered. An interdisciplinary study can be defined[28] as an inquiry which critically draws upon more than one discipline and which attempts to integrate the resulting disciplinary insights. What is envisioned here is a process that starts with a question of sufficient breadth that it cannot be satisfactorily answered using only one discipline. The question is then reformulated more narrowly by each discipline so that the characteristic concepts, theories, and methods of that discipline may be brought to bear on the question. It is the set of disciplinary answers to these reformulated questions which must then be reconciled and integrated in order to provide an interdisciplinary answer to the original question. This definition is consistent with the presumptions set out at the beginning of the paper, and with most uses of the term in the two programs; indeed, it grows out of attempts in both programs to devise interdisciplinary courses. What it offers is a process, an operational approach to the concept of interdisciplinarity, which clarifies how a course can be designed to meet that goal. If consensus can be reached on some such definition, the prospects look much better for the development of strong interdisciplinary courses.

The 1980s:

The factors of structure and ideas drawn from the experiences of the Paracollege and the Western College Program are all compatible with the fiscal austerity and low enrollments expected in the 1980s. Because they are structural or attitudinal, not requiring additional resources, they are inexpensive. In fact, the relatively structured nature of interdisciplinary courses, which constituted a liability in the 1960s and early 1970s, may prove an asset in the 1980s.

The Western Program, and to a greater extent the Paracollege with its tutorial systems, was more expensive because it insisted on small classes and close student-faculty contact, not because of anything inherent in the interdisciplinary nature of the curriculum. In fact, a program could offer team-developed multiple-section interdisciplinary courses where every faculty member teaches the same material in his or her own sections of 35 students, and provide students with an innovative interdisciplinary education at a lower cost than most other departments in the parent institution. In the absence of very large enrollments in the program, such a plan would necessitate required courses to allow such multiple-section courses, an unlikely development in the 1960s or early 1970s, but quite feasible in the 1980s.

Footnotes

1. In keeping with the de-emphasis of personalities, names of individuals are not included in the body of the paper.

2. Gaff defines a cluster college as ". . .a semi-autonomous school on the campus of a larger institution which shares, to a significant extent, facilities with the other schools." Jerry G. Gaff, The Cluster College (San Francisco: Jossey-Bass, 1970), p. 3.

3. Frequently cited works include L. Richard Meeth, "Interdisciplinary Studies: A Matter of Definition," Change Report on Teaching, 6 (August 1978), 10; William V. Mayville, "Interdisciplinarity: The Mutable Paradigm" (Washington, D.C.: ERIC, 1978); Centre for Educational Research and Innovation, Interdisciplinarity: Problems of Teaching and Research in Universities (Paris: OECD, 1972); and Joseph J. Kockelmans (ed.), Interdisciplinarity and Higher Education (University Park, Pennsylvania: Pennsylvania State University, 1979).

4. Paul Fjelstad, William Narum, and David Wee, "Report of the 1968 Summer Study Committee," September, 1968, ms.

5. The St. Olaf Bulletin, April 1974, p. 95.

6. "Report of the Planning Team on the Western College of Miami University," The Miamian (Special Edition), 12 November 1973.

7. "Report of the Interim Committee on the Western College," March 15, 1973, ms.

8. While members of the Upper-Division Task Force were aware of several different models, the forms used in the Paracollege were reviewed in designing ones for Western, and the central concept of the Paracollege major--the Statement of Educational Objectives--was borrowed directly by Western.

9. See the discussion of "student-oriented curriculum" in Lewis B. Mayhew and Patrick J. Ford, Changing the Curriculum (San Francisco: Jossey-Bass, 1971), p. 3 passim.

10. In fact, Paracollege faculty subsequently developed proposals for a values-based program and for teaching mathematics to non-majors. The former is described in Arthur W. Chickering et. al., Developing the College Curriculum (Washington, D.C.: Council for the Advancement of Small Colleges, 1977), pp. 233-235.

11. Fjelstad, p. 2. See also pp. 1, 3, and 4.

12. Gaff, pp. 220, 225.

13. Fjelstad, p. 1.

14. Letter from David Lightner dated January 29, 1973.

15. "Grades and Readers (sic.) Comments on the Sample Answers from the Integration Part of the General Exam 1973," ms.

16. "Description of the Integration Part of the May General Exam, 1972," ms.

17. Half of faculty time in the basic Paracollege curriculum, and a third of the total faculty load was projected for tutorials. See Fjelstad, p. 10.

18. Fjelstad, p. 14.

19. Catalog, p. 95.

20. "A summary report from the task force on Interdisciplinary Studies," prepared at the Paracollege Retreat at King's House, Buffalo, MN, February 24-25, 1973, ms.

21. Meeth, p. 10.

22. Ibid.

23. Larry J. Kennedy, A Policy Analysis of a Merger in Higher Education: Miami University and the Western College (Oxford, OH: Miami University, 1975), p. 113.

24. Ibid., p. 81.

25. Ibid., p. 84 passim.

26. "Notes from the General Meeting (7/28/74)," p. 2, ms.

27. "Report of the Interim Committee," appendix B, pp. 3 and 5, ms.

28. This definition is developed more fully in William Newell and William Green, "On the Nature and Teaching of Interdisciplinary Studies," unpublished.