

CAN PROGRESS TOWARD INTERDISCIPLINARY EDUCATION
BE BUILT ON A DISCIPLINARY BASE?

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For interdisciplinary educators, such as the members of the Association for Integrative Studies, two observable trends in American higher education are depressing. We are laboring in institutions which appear increasingly to value vocationalism, specialization, and compartmentalization with many faculty members identifying more readily with national professional groups than with local academic communities. And, correspondingly, the number of islands of innovative interdisciplinary educational experimentation and development is diminishing. Financial constraints, political conservatism, and student vocational orientation all are instrumental in this retreat from integrative education.

This essay is a response to those trends and is an attempt to promote consideration of integrative options for educational institutions which are unable to sustain or create unified interdisciplinary programs such as Evergreen or Western College of Miami (Ohio) University or Wisconsin-Green Bay or our own recently deceased Centennial Educational Program at the University of Nebraska--Lincoln. The demise of the latter, with which I had had several years association, and the knowledge that its death is not a unique event, causes me to offer these reflections on ways in which "integration" may be created or nurtured even in a rather traditional "disciplinary" environment. These ideas and experiences are offered as stimuli to discussion rather than reports on completed research.

At root, each of the integrative possibilities suggested in these paragraphs is based on a set of premises which appear to be commonly held by most members of the Association for Integrative Studies. Most of our work assumes that interdisciplinary education presents more realistic analytic

opportunities than does narrowly specialized study; that it allows consideration of vital societal concerns in a fashion which has the potential to lead to serviceable conclusions and recommendations; and that it tends to break down the authoritarian nature of an educational process in which students in a discipline-oriented curriculum are confronted with a single "expert" or "expert opinion" about a particular topic of investigation. Interdisciplinary value the multi-faceted reality, complexity, ambiguity, and adaptability which most interdisciplinary, integrative education represents and models.

Here are offered some reflections on interdisciplinary educational opportunities which have worked or may work within the confines of a traditional discipline-oriented college or university.

I. Organization of courses or faculty around a thematic focal point.

Perhaps the clearest model of this approach is the Federated Learning Community described in some detail by Professor Eli Seifman of SUNY-Stony Brook at the 1979 AIS meetings. The Federated Learning Community is able to create interdisciplinarity by grouping existing courses around a common theme relevant to each of the courses. A group of students is then able to consider integrative elements in the FLC courses via a common seminar and with the help of faculty who have also had opportunities to evaluate the relationships between their courses. Past FLC themes at Stony Brook have included "Society, Values, and Technology," "World Hunger," and "Cities, Utopias and Environments."

And fortunately, just as experimental integrative "colleges" are fading, thematic programs seem to be on the ascendancy in higher education. As one example, Centers for the Study of the American Business System are sprouting everywhere. And, while their primary reason for existence is to funnel corporate funds into universities which then will say nice things about corporations, such Centers may provide handy vehicles for faculty or course groupings. Why not a CSABS-funded semester of courses integrated around the theme of "The Ideological Base of the American Economic System" or "The American Business System and Third World Economic Development"? Such a program of study could draw upon courses from departments of history, political science, economics, and, perhaps, philosophy, or literature, or area studies programs.

Any other existing thematic program seems suitable as a host for creative interdisciplinarity. At the

University of Nebraska, an expanding Center for Great Plains Studies is one possibility. Similar programs might surely be found to serve a similar function at most institutions.

And, on a still smaller scale, thematic integration can be created out of thin air. One such example, of some success, is an introductory course in Slavic Studies created by the faculty members of the University of Nebraska-Lincoln Slavic Studies committee (representing History, Political Science, Economics, Geography, Modern Language) who team-teach this integrative course on an overload basis.

Or, perhaps a campus can host a community-wide seminar on a theme of current interest. Recently, again at UN-L, the community seminar was "American Survival," co-led by a philosopher, an anthropologist, and a professor of English. It had, as students, other university faculty members, undergraduates, gifted high school seniors, public school teachers, and interested citizens. It helps to have an "umbrella" course designation, and a few dollars as stipend to organizing faculty members.

II. Integrative education via a pedagogical or epistemological focus.

An alternative way of looking at integrated rather than fragmented education is to concentrate on integrative teaching styles or educational goals, rather than subject matter. One such approach is the ADAPT program at UN-L. (ADAPT is an acronym for Accent on Development of Abstract Processes of Thought.) The integrative force in ADAPT is a shared faculty commitment to the goal of student cognitive development along dimensions suggested by Jean Piaget and a "constructivist" epistemology. Overly simplified, these faculty operate on the hypothesis that students "construct" knowledge through interaction with a stimulating environment, rather than "absorb" or "catch" or memorize understanding. In such a program a developmental goal can be simultaneously pursued in all classes, even though the subject matter and faculty concentration on thought processes, problem solving, and experiential education are another way to achieve an integrated, integrative education within traditional disciplinary structures and forms. In fact, it might well be argued that only if a faculty shares a common view of learning can coherence be achieved in an educational program. The integrative element may be an epistemological viewpoint rather than a common topic.

Of course, the shared educational philosophies or pedagogical strategies from which one might

choose are varied. An integrative program built on a behaviorist rather than a developmental base can be imagined. Whatever the base, the principle of coordinated faculty consideration of student learning behaviors, and the consistent design of appropriate teaching strategies are integrative processes which reduce educational fragmentation.

III. Integration via Technology.

One area, often cursed by humane educators, which may be surprisingly adaptable for integrative education, is educational technology. Consider computer-assisted instruction, video or audio cassette modules, videodiscs, and other such mechanical adjuncts to classroom instruction. A major obstacle to interdisciplinary education in the traditional classroom is the expense and administrative difficulty of assigning several faculty members, representing several disciplines, to a common study group or class. However, the one-time placement of the contributions of those faculty members on appropriate soft-ware to be used and re-used for integrative purposes seems to alleviate some of those logistical and budgetary problems. For example, while it might be prohibitively difficult to place an economist, a physicist, and a political scientist in a class on energy semester after semester, the development of an educational videodisc with appropriately organized and related inputs from all three might be a significant addition to a class taught by a single instructor from any one of those departments. Technology might, in this way, bring interdisciplinary contributions and challenges into many traditional "disciplinary" classrooms. And, as opposed to a book which might be assigned, the computer or disc might well be "student-interactive" in any of the disciplines used. This technological development of interdisciplinary packages seems to lie on an underexplored educational frontier.

IV. Shared classrooms or "team teaching."

The idea of team teaching or shared classrooms is by no means novel; nor is it feasible economically for an extended period of time on most campuses. What might be suggested here, therefore, is the development and extension of experiences which tend to create an "interdisciplinary instructor" in a disciplinary environment. As a personal example, on three occasions I have been able to share a classroom with a faculty member from another discipline for one or two semesters. These opportunities involved a course on energy shared with a physicist, a course on economic

ideas in literary form with a professor of English, and a course on ethical underpinnings of economic systems with a philosopher. In each case, the specific course was short-lived, and was intended to be so. Most of us cannot, semester after semester, share courses while teaching our assigned loads within our home departments. But the essence of those experiences remains in the form of enhanced appreciation of literary expressions of economic ideas, philosophical presumptions underlying economic forms, and physical parameters to economic possibilities. I am an enriched "interdisciplinary" for these experiences, and if they were replicated across a campus the experience of students within "traditional" disciplinary courses would be quite untraditional.

Where budgets and course loads allow, such a shared classroom could be part of a faculty member's load for one semester. Where such flexibility is not present, an overload assignment, which would be extraordinarily stimulating, might be the only practical way to accomplish the task. This procedure of "interdisciplinary" of a traditional faculty member is recommended only for the already-tenured.

V. Faculty Exchange Programs: Intra and Inter-Campus.

An extension and elaboration of the previous "shared classroom" idea is the concept of a semester-long (or year-long) faculty exchange. But contrary to the normal exchange program, the proposed exchange would cross disciplines. Thus an economist might exchange positions not with another economist, but an historian, philosopher, or political scientist on the home campus or elsewhere. The exchangees would probably not be asked to "teach courses" as such (here again, some administrative and budgetary flexibility is important) but would instead participate in an agreed-upon set of courses from the host department's standard curriculum. Thus, students would receive interdisciplinary education in the shared courses and the involved faculty members would undergo an intellectually broadening experience which would become a permanent part of their mentality. Again, the benefits last long beyond the immediate semester which the department, college or university subsidizes.

VI. Faculty Development and Curricular Modification.

This suggestion, fortunately, is able to reinforce rather than counteract contemporary currents in

higher education. Many colleges and universities are realizing the need for renewal of faculty creativity, scholarship, and teaching energy and are expanding faculty development leave or sabbatical possibilities. Additionally, a nationwide curricular reform movement seeking to re-establish the concept of a "core" liberal education curriculum for all students is underway. Each of these trends can be used to foster integrative or interdisciplinary educational change.

For example, in curricular reform processes, one clear goal is the broadening of a student's vision through completion of an array of courses "distributed" appropriately across the curriculum. Cannot the same objective be approached by encouraging enrollment in interdisciplinary courses, which provide assistance to the student in developing processes of academic integration? And just as colleges require at least one or two courses in a variety of specified areas, might we not also consider the requirement of one or two interdisciplinary courses as particularly valuable examples for the synthesizing intellect?

Similarly, as our educational orientation becomes more consciously holistic, might not some of those faculty development leaves be earmarked specifically for acquisition of interdisciplinary competence? Obviously, an institutional interest in interdisciplinary courses as part of a core curriculum and interdisciplinary faculty members to teach them go hand-in-hand. The College of Arts and Sciences at the University of Nebraska-Lincoln is currently seeking such interdisciplinary course construction to be added to their newly drafted "liberal education options." Might not other institutions be encouraged to do the same?

VII. Cluster registration of students and parallel concept development.

One last option, related to one or two of the earlier alternatives, suggests itself. Perhaps least "integrative" at the level of faculty development or participation, it at least allows students to integrate analyses and to discuss concepts across disciplines as they are taught the same or similar skills and methods in several disciplines at the same time. Such a process would require some faculty coordination and planning to assure that a given tool or idea (perhaps graphical, or mathematical, or statistical, or sociological, or psychological, etc.) emerges in several courses simultaneously. Students would at least have the benefit of seeing the relevance of a concept in several disciplinary frameworks, and would be able to discuss its multiple applicability with fellow students and with the

participating faculty members. Although not "interdisciplinary" in the sense we normally use the term, this process would allow students to peek at the "unity of knowledge" with respect to a group of analytical concepts or tools.

For this suggestion to be implemented, administrative cooperation in facilitating group or cluster registration of students would be needed. That is, a group of students would have to be placed in the same sections of several courses to allow them to participate in the related activities of that set of instructors. Clearly, a side benefit of such clustering, at least at a large college or university, would be that a group of students would know one another in the classroom (would perhaps form a "community") with possibilities for further social and intellectual interaction.

The foregoing, then, are suggestions of a few constructive ways in which the objectives of integrative scholars and educators would be approached. This listing is neither qualitatively nor quantitatively exhaustive. If it serves to generate thought and discussion, fresh and improved ideas should emerge to supercede these. Some of these ideas have been successful in integrating a segment of the education process; others can be as well.

In concluding this commentary, a very few words should be added concerning the "circumstances and requirements," both administrative and budgetary, contributory to the success of some or all of the foregoing suggestions. The following is a list of a few "nurturing elements."

1. Some slight curricular "flexibility" is helpful. This might be as little as a few "special topics" course numbers to be used for interdisciplinary ventures -- or as much as an unstructured academic unit to house experimental ventures.

2. Some slight budgetary flexibility also is very significant. At UN-L, a "Teaching Council" with 50,000-100,000 discretionary dollars annually can provide room for faculty and curricular maneuver. And, most Deans have a few discretionary dollars.

3. Some network of contact and communication for faculty members across disciplinary lines is important, particularly at a large institution. On our campus, an informal "Chowder Society," meeting monthly around educational concerns, is one such vehicle. As a result of such regular sessions, groups of like-minded faculty members have coalesced around project ideas; it was here that ADAPT originated, for example.

4. The "excess capacity" in some segments of a college or university resulting from enrollment

shifts can be a constructive resource. Reductions in student demand may free faculty time and energy to explore possibilities discussed earlier. Such relative "cushions" within an institution are at least places in which resources can be sought for interdisciplinary creativity.

5. Grant support is, of course, helpful and is not a novel suggestion. Several of the types of activities mentioned earlier have been grant recipients; more can be. Grant proposals tying interdisciplinarity to technological innovation might be particularly fertile. Don't overlook outside funding possibilities.

6. A dedicated faculty is, perhaps, the key ingredient. A supportive, interactive, energetic, creative core group of enthusiastic educational innovators can bring results out of the paltriest resource base. If such a core exists on a campus, it should be activated. If it doesn't presently exist, it can be formed.

While the future of large-scale, free-standing interdisciplinary programs may be uncertain and contrary to prevailing winds in higher education, small havens of creative possibility can be found to nurture those who share integrative ideas. Institutions, no matter how tradition-bound and forbidding, often reveal themselves to be vulnerable to creative individuals with energy and wit to chip away at cracks and crevices. Perhaps these notes indicate a few points of attack.

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