In fall 1994, Saint Louis Community College (SLCC), in Missouri, developed a process to integrate general education faculty members into the college's tech prep program. Faculty teams from biology, communications, chemistry, English, mathematics, and physics were charged with determining the current degree of integration between general education and career courses and developing entry and exit competencies for the basic college-level course in their respective departments. The teams questioned members of their departments regarding the integration of career courses, competencies expected by instructors of entering students, and competencies gained by completion of the course. All the reports developed by the faculty teams, except for mathematics, stated that the most important entry competency was the ability to read at college level or close to it, while the second most important competency was the ability to write at college-entry level. The reports also indicated that there should be more integration between communication skills courses (i.e., English composition and oral communication) and other general education and career courses, with instructors of non-communication skills courses integrating writing and speaking into their courses. Recommendations from the project include developing a procedure to ensure that students have an adequate reading level, instituting a writing-across-the-curriculum program, and assigning faculty liaisons between general and career education programs. The project proposal is appended. (TGI)
Integration of Academics Project

Ann Roberts Divine
Marcia Pfeiffer
INTEGRATION OF ACADEMICS PROJECT, 1995

Project Method

Under the coordination of Marcia Pfeiffer, faculty members from a number of career programs have worked with high school instructors to develop tech prep agreements which will allow students to take an articulated program of courses and move smoothly from high school to St. Louis Community College in their chosen career area. This work has not involved general education faculty members, nor have the agreements included articulation of any general education courses.

In the fall of 1994, Vice-chancellor Pat Donohue asked Dean Ann Divine to work with Marcia to develop a process to bring the general education faculty into the tech prep project. They did so and received approval from the vice-chancellor and the executive deans; a copy of their proposal is in appendix A. In summary, the process called for teams of faculty members in six fundamental general education areas that most affect the career programs—biology, communications, chemistry, English, mathematics, and physics. The teams were charged with two basic tasks: (1) determining the current degree—if any—of integration between general education and career courses and (2) developing entry and exit competencies for the basic college-level course in their respective departments.

The executive deans presented this plan to the relevant department chairs and other faculty members in a college-wide meeting held at Forest Park on December 7, 1994. Following that meeting, the department chairs appointed representatives to the teams. A representative from each department made up each team; the Florissant Valley physics representative was a part-time faculty member, and Florissant Valley chose not to appoint a representative to the biology team, but agreed to go along with its recommendations. The teams picked one member to be the coordinator.

During the spring semester, the teams worked independently but in similar ways. They questioned members of their own departments about integration with career areas, as well as about what instructors expected entering students to be able to do. They also questioned their colleagues about the competencies students gained by successful completion of the basic course. And they questioned instructors in the career programs about integration with general education areas.
Final reports were due at the end of June. The reports vary considerably in their degree of detail, but all include entry and exit competencies for the basic course, an assessment about the current amount of integration between courses, recommendations about ways to increase that level of integration, and, especially in some reports, clear evidence of a lot of serious consideration and thinking about how we are educating students and how we need to make some changes. Anyone interested in either how we are preparing students in the career programs or in general education courses should read the individual reports.

While the original intention of this project was to focus on the degree of integration between career and academic courses, much of what the teams learned and made recommendations about was integration among the general education areas themselves. A running theme through all the reports is the need to help students see that their courses, career or general education, are not isolated subjects but constitute a network of knowledge and skills that support each other and all of which are required for understanding of and success in late-twentieth-century America, whatever work the students ultimately do. We need to demonstrate this relationship by using math problems from the physical world, by expecting competent oral presentations in chemistry, by assigning technical subjects in composition classes, and by requiring written lab reports in biology.

A second recurrent theme, almost as strongly sounded, is the need for faculty members from these different areas to establish firmer relationships so they understand how what each one teaches supports and illuminates the rest.

Results

Several specific recommendations of the six reports stand out. Most clearly, all the reports (except math, which is limited to discussion of the math curriculum) state that the most important entry competency necessary for student success in the basic course is ability to read at the college level or close to it. Several also point out that students must also be able understand and use the features of the textbook such as the index, glossary, and format elements such as bold print and highlighted sections.

The second most important competency is writing. While most of the reports state specifically that students should be ready for ENG:101, that is able to write at the college-entry level, one is less specific, but speaks about the importance of writing and the students’ lack of writing skills.

The last general recommendation of these reports is that in general there should be more integration between the
communication skill courses--English composition and oral communication--and other general education courses and career courses. Instructors of courses other than composition and oral communication should incorporate writing and speaking into their courses as part of the teaching/learning of the specific subject, and they should evaluate students in these areas and help them improve. In turn, instructors of English composition and oral communication courses should make written or oral assignments on technical, mathematical, or scientific subjects to reinforce the relationship between a subject itself and the methodology of communicating about it.

Special Note on Mathematics

The math team devoted itself to examination of the math curriculum and how well it serves the needs of the career programs. The team did a detailed examination of which math skills are important to individual career programs. Its report contains many observations about math courses and a number of recommendations for adjustments to be considered by the math faculty. As a result of this project and the recent math program review report, the math departments are talking seriously about a major revision of the curriculum.

Next Steps

Each team reported entry and exit competencies for the basic college-level course in its area. This fall, at meetings with the curriculum coordinators and some instructors from high schools in tech prep consortium, they will present their recommendations. These meetings will be a first step to determine how the entry competencies fit with the exit competencies for the appropriate high school course. If there are serious discrepancies, the two groups will work together to close the gaps as much as they can, without compromising the students' best chance for success.

Each team needs to work with members of its own department to implement its findings that affect the department and are within its control. For example, the English team has already assembled a collection of possible writing assignments that focus on technical or scientific subjects. The biology team recommends that the department institute a prerequisite for BIO:111, Introductory Biology, that would require a minimum competency level in reading, writing, and math.

Recommendations

Each of the individual reports contains specific recommendations, many of which are directed at faculty in the career program or academic area. But because of the pervasiveness of some of the recommendations, as well as the importance of this
project, Ann Divine and Marcia Pfeiffer make these recommendations, based on their reading of the written reports and discussion of the oral ones.

1. The college needs to develop some procedure to assure that students are able to read at a high enough level to have a reasonable chance of success in basic college courses.

2. The college needs to institute a writing across the curriculum program.

3. The faculty in career programs and in general education departments need to establish a closer relationship. One way would be to assign faculty members as liaisons between the two.

4. Instructors of English composition and oral communications should expand their range of assignments to incorporate more technical, mathematical, and scientific subjects.

5. Instructors of career and general education courses should incorporate oral and written communication into their teaching and evaluation of students.

6. The staff development coordinators need to develop some training for instructors that will prepare them more and make them more confident about their ability to implement these recommendations, especially 2, 4, and 5.

The integration of academics project has provided a good arena for faculty members to expand their thinking beyond what they provide students in their own courses and departments. This has been an opportunity to think about how the education the college provides--taken as a whole--affects students and their ability to succeed in their personal and their working lives. The people involved in this project have generated a great deal of excitement in the course of their thinking and talking with their colleagues. It is time to broaden the group and spread the excitement to the entire faculty. This project may have come to life under the auspices of the tech prep project, but it has opened a window on the fundamental mission of St. Louis Community College, indeed of all education.
APPENDIX A

TECH PREP
INTEGRATION OF ACADEMICS PROPOSAL

Hold general meeting of all relevant faculty (career areas, biology, chemistry, communication, English, mathematics, physics) December 6, 1994. Vice-chancellor Donohue will introduce the concept of integration of academics. We will outline the project to begin in the spring semester with at least some of the general education departments.

Appoint committees of three faculty members (one from each campus for each department). They will receive released time in the spring to start the project, which includes these components:

1. Determination of the expected entry and exit competencies for the affected courses (tentatively BIO:111, CHM:101, COM:101, ENG:101, MTH:140 or 160 or something else?, PHY:101?). This could be done through a modified DACUM process.

2. Determination of how the entry-level competencies relate to the exit-level competencies from high school courses. This will involve working with high school teachers to review the specific content and competencies of relevant high school courses.

3. Investigation of how much integration currently exists within our own curricula. Examples include graded writing assignments in career courses, career area assignments in general education courses (i.e., a job description for ENG:101, business applications in math), and topics correlated between career and general courses.

This will involve reviewing specifics of course syllabi and assignments with instructors as a group or individually.

4. Recommendations of course modifications to achieve greater integration. This could be as simple as leaving space in a communications course for an assignment related to the student’s career field or it could involve revision of a course.

5. Recommendations of any faculty training required, which might include guidelines on how to help students prepare and then the instructor evaluate a written or oral assignment or technical information about career
fields.

6. Recommendations of course modifications based on the competencies the students will have mastered in the relevant high school course.

7. Writing a report that will summarize exactly what the committee did relative to the above activities.

8. Proposing any necessary course revisions through the usual curriculum revision process.

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