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This Issue Features:

- 2 **Building Bridges: Integration and Faculty Collaboration
at Rock Valley College**
Scott Fisher, Rock Valley College
- 4 **Curriculum Integration and Faculty Collaboration
at South Suburban College**
John Geraci, South Suburban College
- 8 **Integration and Collaboration: Views of Community College
Instructors and Administrators**
Dolores Perin, Teachers College, Columbia University
- 10 **Integration Projects Impact Curriculum
at John A. Logan College**
Cheryl Diedrick and Gayle Pesavento, John A. Logan College



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TO OUR READERS

In this special issue of *Update* we focus on collaboration among faculty, institutions, and researchers. The significance of collaboration has become more apparent to educators of late, especially in the context of integrating academic and occupational curriculum. Scott Fisher (Rock Valley), John Geraci (South Suburban College), Marcus Harris (Parkland) with Steven Aragon (UIUC), and Cheryl Diedrick and Gayle Pesavento (John A. Logan College), discuss their experiences with collaboration in support of curriculum integration at their various community colleges. Dolores Perin, Ph.D., reports on her research on integration at 19 community colleges, with attention to successful interdisciplinary faculty collaboration. The message of these articles for community colleges is that, although community college leaders have a role in initiating the integration of curriculum, effective collaboration takes place in an atmosphere of friendly and open dialogue, collegiality, when collaborators see both a personal advantage in collaboration, and value in working toward the common goal of the collaborative. Donna Schaad describes collaboration at the level of the consortia in her article on the creation of online degrees in Illinois. Latrice Eggleston and Frankie Santos Laanan interviewed Romero Jalomo who spoke at UIUC last December, and who now offers our readers a researcher's perspective on collaborative research among 4-year and 2-year scholars.

See OCCRL's website at <http://bragg.ed.uiuc.edu/occril> for previous issues and other resources.

OCCRL was established in 1989 at the UIUC. *Our mission is to provide research, leadership, and service to community college leaders and assist in improving the quality of vocational-technical education in the Illinois community college system.* The Office is supported by the Illinois State Board of Education, Business, Community and Family Partnerships Center, with funding from the Carl D. Perkins Vocational and Applied Technology Education Act of 1998.

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Building Bridges: Integration and Faculty Collaboration at Rock Valley College

by Scott Fisher, Rock Valley College

A river separates technical programs from liberal arts and science courses. On some campuses the river is as narrow as a drainage ditch, and on others it is wider than the Mississippi. It has always been there, and it probably always will be. On our campus, the river is no metaphor: An actual stream flows through the middle of our campus, physically dividing the two areas. The dissociation these rivers create is not necessarily bad, as long as there are plenty of strategically placed bridges up and down the channel. I enjoy building and maintaining those bridges.

I teach English, and one way I have found to engage students from each bank is to create meaningful classroom activities, which require them to experience both sides of the river. By far, the best activities involve collaboration with instructors from the technical programs.

Introduction to Technical Writing

Introduction to Technical Writing (English 110) naturally lends itself to collaboration. It follows freshman composition in a two-course writing curriculum. Students have a wide variety of writing skills and very eclectic goals. The first half of the semester is spent writing basic memos, business letters, reports, and polishing their writing styles to create clear, effective documents. During the second half of the semester, we take on a "class project" during which each student conducts research and develops text and illustrations for a "chunk" that will ultimately become part of a larger whole. Depending on the scope and content of our project, students may work individually, in pairs, or in small groups. However, even when working individually, each writer constantly communicates with other class members to maintain unity in style and format of the class project.

How Student Projects Work

A few of the class projects we have accomplished in the past include:

Instructional booklets describing safety procedures for laboratory tools and equipment for the Automotive Service Technology program.

Aircraft checklists describing engine start-up and shut-down procedures for our college Aviation Maintenance Technology program.

Instructional charts demonstrating the use of exercise equipment for our college physical education department.

Automotive Service Technology Safety Instruction Booklets

- Automotive Technology instructors, Dennis Palmer and Russell Knodle, brainstormed a list of tools and equipment with inadequate written safety instructions and provided instructional booklets and videotapes so that students had relevant research materials.

- Students selected their own topics – everything from air ratchets to welding torches to electric hoists and familiarized themselves with basic terminology and procedures ahead of time.
- During class time, we met at the Automotive Department Lab where the instructors demonstrated each piece of equipment – and encouraged student participation – while the students took notes or even videotaped the procedures.
- Students had one week to develop clear, written drafts which the Automotive Instructors and I reviewed carefully, making suggestions and corrections, and praising the good parts.
- I gave the students one week from the time I returned the reviewed drafts to them to complete the revisions. The students corresponded with the Automotive Technology instructors by phone or e-mail as necessary for clarification and questions.
- When they submitted their final booklets one student said, “It’s kinda cool that we got to write something that someone’s going to really use. Plus I learned about my car!”

Aviation Maintenance Technology Start-Up / Shut-Down Checklists

- On their own time, Aircraft Maintenance instructors, Brian Black and Mike Merriman, demonstrated the start-up and shut-down procedures for each of their aircraft engines.
- The class divided into teams of three or four students and met at the local airport where the college hangar is located.
- One student, an aeronautical engineer at a local company, remarked, “I guess now I have a little more awareness of what mechanics have to go through to work on these planes we design.”
- The Aircraft Maintenance instructors skillfully reviewed each draft, making corrections and positive comments on student papers.
- Team members then used the suggestions to create clear, useful checklists for aviation students to use in class.

Physical Education Instructional Charts

- Physical Education instructors, Stephanie Raach and Norm Matzl, requested that the class develop clear, written instructions to accompany simple diagrams for each piece of exercise equipment, to help senior citizens in an upcoming fitness course designed specifically for that age group.
- Students worked in pairs for this project. One team member, aided by an instructor, actually used the piece of equipment, while his or her teammate (often suppressing laughter) took notes. Then, to be fair, they switched places.
- As with the other projects, the teams developed rough drafts.

- The following week we returned to the gym where, again under instructors’ supervision, the teams exchanged their drafts of written procedures, to proofread and verify the instructions to a piece of equipment different from the one they had written about. While one team member read the instructions out loud, the other attempted to use the device strictly according to what he or she heard.
- The Physical Education instructors made suggestions for revisions, along with explanations of what muscles each machine enhanced. They also provided the students with basic diagrams to be turned into accompanying illustrations for their revised written procedures.

Faculty Collaboration

None of these projects could have been effective without collaboration with faculty from the respective technical departments. For each project, the basic organizational plan was the same:

1. The two biggest factors, not surprisingly, were: (1) how much time will be necessary for students to do the research, write and review drafts, make revisions, and deliver final materials to the department; and (2) how to schedule the demonstration of equipment for students and faculty to avoid conflicts with other classes and commitments. Once we all sit down with a calendar, the meeting usually takes less than an hour.
2. An informal initial conference between myself and the other instructional staff determined very specific goals and time frames. I usually followed up with them to clarify details.
3. Instructors checked to see what kind of supplementary materials they could provide to the students to help them develop professional looking documents.
4. I decided whether the students would be working individually or in teams.
5. The other instructors gave me phone numbers and e-mail addresses students could use to contact them with questions.
6. We created a detailed timetable for demonstrations of equipment, submission and return of first drafts, and delivery of final materials.
7. I provided the other instructors with a class list of students and which piece of equipment each student or team would be writing about.

As a final professional courtesy, when each project is over, I send each faculty member a thank you letter or memo, with copies to their department chair or appropriate dean. All too often in education, extra activities by faculty are under-appreciated, sometimes just because nobody knows about them. I am not shy about mentioning their efforts to anyone who wants to listen, and often to those who do not!

In addition, I reciprocate by visiting other instructors' classes, teaching short units on such topics as basic writing/proofreading fundamentals, research techniques, or letter/resume development. You never know which students in a technical course might be persuaded to take a "dreaded English class" (or any other liberal arts course) as a result of spending part of a class period with you in their own "safe" area. They might discover that faculty from "the other side of the river" are not so bad after all.

Make no mistake. Collaborative activities, large or small, if done effectively, are a lot of extra work. And they are not for everyone. Do not be surprised, hurt, or discouraged if you ask another instructor to collaborate with you and get turned down. Keep asking. All it takes is one success story to create that bridge. But fair warning: once you start becoming a bridge builder, it is tough to stop. ♦



Scott Fisher has taught for twenty-five years, primarily at the community college level – on "both sides of the river" – in automotive and aircraft technology and in English and literature. He is currently an Instructor of English at Rock Valley College in Rockford, Illinois. For more information, contact Scott at SMF43@aol.com.

Curriculum Integration and Faculty Collaboration at South Suburban College

by John Geraci, South Suburban College

Curriculum integration in the Communication and Humanities Department at South Suburban College (SCC) has existed in some form or another for a number of years. For example, several of the Department's General Humanities courses are "multi-disciplined," and include units in Art, Literature, and Music. Much of the success of these courses comes from integrated co-teaching. Pedagogy and content are consistently being updated, making these hybrids advantageous to students and their learning.

On a smaller scale, curriculum integration can be found within related disciplines in the Department. For example, the disciplines of Philosophy and Communication often share strategies to help students understand the material. By exchanging ideas on a regular basis, faculty in these disciplines eventually present the students with a shared pedagogy in courses such as the *Introduction to Philosophy*; *Oral Communication* (Speech); *Ethics, Logic, Persuasion*; as well as *American Studies* (with English), *Writing for Radio and Television* (with Journalism), and the *History of Rock n' Roll* (with Music).

Toward Academic and Vocational Integration: Collaboration Begins

In 1997, Dr. Linda Uzureau, then Dean of Liberal Arts and Sciences, and Mr. Dan Segebarth, Dean of Career Education, approached faculty members in Allied Health and Communication and Humanities with the idea of creating specialized sections of two courses, *Oral Communication* and *Ethics*, specifically designed for the Radiology Technology and Occupational Therapy programs.

The first initial meeting of faculty — Jody Ellis (Rad Tech Coordinator), Jennifer Myler (Occupational Therapy Coordinator), Dr. Herman Stark (Philosophy), and myself — and administration took place over a casual lunch and served as a brainstorming session. It was decided that the pilot project between Liberal Arts and Sciences and Career Education would not only benefit student learning but also faculty development.

After the initial meeting, the administration let the faculty "run with the ball." The faculty focused on how to integrate course content, provide specific examples for a specialized audience, and perhaps most importantly, how to learn and master content from a different discipline. In March of 1997, the four pilot-project faculty and two administrators attended the Academic/Vocational Integrated Curriculum Conference in New Orleans, sponsored by the National School Conference Institute. Although there were some interesting seminars and workshops, perhaps the greatest thing to emerge from the conference was the camaraderie established among the faculty. During that short stay in New Orleans, (perhaps because the faculty was away from SSC), more detailed work took place than at any other point in the development process.

Curriculum Integration

Numerous changes took place in the design and implementation of the *Oral Communication* course. We adapted curriculum to meet the needs of Allied Health students, while still maintaining the requirements of a general education course demanded by the

State of Illinois, by retaining the original skeleton of the course but changing specific subject matter and assignments:

- Allied Health students chose their speech topics from a list of career-specific topics.
- More individual exercises and group work replaced the minor speech and classroom exercises.
- In response to employers' needs, Jody Ellis and Jennifer Myler designed realistic "phone" exercises and doctor/nurse/intern scenarios.
- Specialized group assignments reflected true work situations.
- Written assignments were tailored toward specific Allied Health-based content.

Changes like these were also made in the *Ethics* course, most significantly in the course content. As Dr. Stark pointed out, "I had to learn and master, medical writings that cover the details of various illnesses and on-the-job responsibilities of Allied Health professionals." Stark also pointed out that he had to make sure, more than normally in regular ethics, that his students also "mastered such details." Finally, Stark added that he had to "emphasize the distinction between the legal and moral more heavily in the integrated course," and that he had to "fight the tendency of students to collapse ethics into a set of tricky, often anomalous biomedical cases," since the focus on such cases "can cause students to forget the deeper and richer concerns of ethics, like what are the virtues possible in the modern world, etc."

Over the past three years, the two integrated courses received positive student evaluations. Nevertheless, the *Oral Communication* course enrollment declined in its third year because many Allied Health students were taking regular *Oral Communication* prior to entering their specific program. The *Ethics* course has fared far better and is now part of the required curriculum in the Nursing program.

The success of curriculum integration in the Communication and Humanities Department at SSC is based upon several poignant issues:

- The willingness of faculty to participate;
- Administrative cooperation;
- Adequate preparation time to learn and master course content;
- Giving faculty freedom to explore and develop new ideas; and
- Availability of requisite resources.

The failures of these courses can be traced to:

- Not fully understanding student needs;
- The lack of a coordinated public relations campaign, e.g. the failure to synchronize the printing of program descriptions;
- The lack of institutional understanding, e.g. registration of non-Allied Health students in the integrated courses; and
- The inability to properly advertise the integrated courses to their specific audiences.

As of the writing of this article, the Spanish discipline (in Communication and Humanities) is currently designing integrated courses as well. Spanish for Allied Health Students and Spanish for Law Enforcement Agents are being developed and will be implemented in the upcoming fall semester. ♦

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Recruiting New Students for Graduate Education in Community College Leadership at UIUC

The Community College Leadership faculty at the University of Illinois at Urbana-Champaign (UIUC) is recruiting new students for two graduate programs for the Fall 2000 and Spring 2001 semester. The programs include: 1) Community College Executive Leadership Program (CCELP) jointly sponsored by the Departments of Human Resource Education and Educational Organization and Leadership; and 2) Community College Teaching and Learning Online (CCTL) offered by the Department of Human Resource Education. Certificate, Master's and Doctoral degrees are available in the Community College Leadership specialization at UIUC. For application forms or additional information, please contact:

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Crossing Imaginary Boundaries: Creating Collaborative Relationships Among Community College Faculty

by Marcus L. Harris, Parkland College and Steven R. Aragon, University of Illinois

Community colleges can use curriculum integration to meet challenges associated with the changing composition of students, faculty, curricula, and communities. At the heart of this reform is improving what and how learners learn by organizing the best curricular and pedagogical practices of academic and occupational education into a single, "integrated" experience. Increases in diverse student populations served by community colleges demand that community college educators give more attention to curriculum and instruction that address students' varied learning needs.

The 1990 and 1998 Perkins Act Amendments and the 1994 School-to-Work Opportunities Act encouraged academic and occupational integration. Thousands of high schools and community colleges took this challenge by implementing some form of integration: career academies, clusters, majors, Tech Prep, or a combination of these approaches. Teachers employed in these comprehensive reform settings are often expected to integrate, coordinate, and articulate on a regular basis. However, educators are often not sure how to start this type of process or may not be familiar with some of the models that will lead to these integrated, coordinated efforts.

The title of this article contains the phrase "imaginary boundaries" because we feel that is exactly what they are: imaginary. As educators, we create imaginary boundaries that isolate us, but no one has told us not to talk with colleagues or interact with others outside our disciplines. Somewhere along the line, we have adopted this mindset, and now it is time to open the lines of communication and share ideas. In this article, we present basic guidelines and ideas for initiating curriculum integration and coordination among academic and occupational faculty at the community college using the linked course model.

Initiating and Creating Collaborative Relationships

Marcus Harris facilitated an integrated project that cut across both occupational and academic subject areas. Either the occupational or academic faculty member can initiate the steps that he discusses. This process of linking courses is one of the more basic models of curriculum integration, yet it can lead to very positive outcomes for both students and faculty.

The process follows these steps:

- Define the project.
- Define the key players.
- Determine overall goals and timeline.

- Set individual objectives.
- Discuss individual objects with group.
- Plan overlapping instruction.
- Implement the project.
- Showcase the project.
- Evaluate and determine what can be improved.
- Report results to foster faculty involvement in future projects.

Define the project. Often when educators try to create collaborative projects, they meet and try to think of things that tie the various disciplines together. This approach often leads to frustration and not much success. A better strategy is to choose a project or some type of product that one of the teachers already uses and build on that. In education we tend not to think in terms of multiple disciplines; instead, we divide and isolate them. Implementing a curriculum that utilizes "real world" principles and projects, on the other hand, can lead to more student buy-in.

Recently, Marcus met with an art teacher at Parkland College whose sculpture class was beginning a mobiles and kinetic balancing sculpture unit. At the time, he was teaching a basic welding course and wanted his students to use their welding skills in a real-world application instead of in artificial practice. Marcus and the art teacher decided that the art students would design the sculptures and create models, which the welding students would then attempt to build. This gave the welding students an opportunity to apply their skills, and allowed the art students to work with an artistic medium (metal), for which they had neither tools nor skills. It also created a dialogue between the artist and the fabricator. The art students had to be very clear in their instructions and the welding students had to frame technical questions in a language the artist could understand.

Define the key players that will participate in the collaboration. After deciding on a project, think of what educational pieces are needed to create the product. Often this is difficult for educators because they are experts in a specific field and do not clearly see potential ties with other disciplines. Sending a letter to colleagues describing the project and asking for ideas on how this project ties into their curriculum is a good method of initiating discussion and collaboration, discovering who else should become involved. Marcus and the art teacher decided they did not know enough about physics to help the students with the balance part of the sculpture so they enlisted the aid of the physics instructor.

Determine the overall group objective as well as the timeline for completion. This is an important initial step; without clear direction, no one can move forward. An example of an objective statement would be: "Students will work together to create a sculpture project constructed of steel not to exceed a certain size, using a certain amount of materials." At this point, it is important to create a timeline for the project and to make everyone involved aware of what tasks need to be completed and when. This will facilitate individual faculty scheduling and planning.

Determine the individual objectives for faculty. The project should allow each instructor to teach the concepts, ideas, and processes of his or her own course through the media and strategies of the collaborative project. Faculty should define additional objectives to be covered and suggest ways that their particular disciplines tie into the overall project. Collaborating teachers should think broadly in terms of what they want their students to learn. What concepts do they hope to reinforce by having the students participate? Often a project such as this lends itself to the application of a skill and not specific facts.

Discuss and explain individual faculty objectives to the group. After the key faculty have defined their educational objectives, they should discuss how the project ties into their objectives. It is important that the participants have a good understanding of what the other instructors are doing. During this phase more advanced integration can take place. It will not be uncommon to find that teachers have overlapping objectives and that instructional plans can accommodate these objectives. An example of this is presented in the next step.

Plan how instruction will overlap and how faculty will facilitate each other's objectives. The instructors must decide what collaboration needs to take place. For example, Marcus taught the art class about the different materials students would be using, the mechanical properties of steel, machining processes that could be conducted in the welding lab, and what skills that welders possess. The art teacher, in turn, taught the welding class artistic terms, processes, materials, and the overall artistic goal of the project. Marcus also attended the art class when the students designed their sculpture to answer questions related to what was possible and not possible in terms of the welding aspects of the project. The welding students attended the art class to begin communication with the art students. The physics instructor talked to both classes about how to find the center of gravity, using a physics formula and methods of calculation to balance their sculpture. The physics teacher also served as a facilitator to aid students with the specific formula.

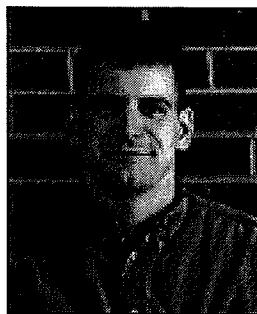
Implement the project. All members of the collaboration needed a clear schedule for the project. Lines of communication needed to be open so that, if there were a change in the schedule, everyone knew about it. It was important to be as flexible as possible with other instructors because often instructors' styles can clash during collaboration projects. Students may also feel uncomfortable with the project, because this is not a type of instruction to which they are accustomed.

Showcase the project to the public. For the sculpture project, the logical venue would be to have an art exhibit showing the sculptures. All the students who helped with the creation of the project should be on hand to meet and greet viewers.

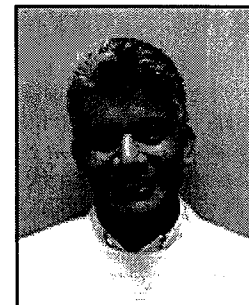
Have students complete a debriefing/wrap-up exercise to reinforce educational objectives and understand each other's roles in the project. It is important to show students how other subject areas related to what they study; seeing these connections is where the true learning occurs. In the sculpture project, the art students might review for the welding students how they completed their part of the design. The welding students might describe some of the difficulty they had in creating the sculpture.

Evaluate what worked, what did not, and what could be done to improve. If an integrated project involves real-world applications, it will include real-world problems, such as delay, miscommunication, setback, and sometimes failure to complete. Students should therefore be evaluated on the process, as well as the product. In the sculpture project students were rated on design, communication, collaboration, and presentation of information—not solely on how the sculpture turned out. Alternative forms of evaluation like peer evaluation could be used. The artist could evaluate how the fabricator communicated. The welding instructor could evaluate the quality of construction of the project. The art instructor could evaluate the model and design.

Complete and distribute a report to other faculty to foster more involvement in future projects. As faculty begin to see these collaborative efforts taking place across different disciplines, more will become interested in participating. Reporting on the project gives a sense of closure and satisfaction to those involved. ♦



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Integration and Collaboration: Views of Community College Instructors and Administrators

by Dolores Perin, Community College Research Center, Teachers College, Columbia University

Academic-occupational integration is not new to readers of this publication, as the State of Illinois has played a leadership role in developing this concept. Following in the footsteps of pioneering research, the Community College Research Center (CCRC) at Teachers College has conducted two case studies of integration in 19 community colleges in urban, suburban, and rural areas in seven states.

Although integrated instruction within general education disciplines is becoming more widespread, when we began the research in 1997 we found it surprisingly difficult to identify colleges where courses integrating occupational and general education were being offered. Many of the colleges we studied did not use the terminology of academic-occupational integration and had a wide variety of ways of referring to instruction that we recognized as integration. Academic-occupational integration was primarily confined to small pockets of instructors within a few programs, rather than part of a systemic, college-wide drive to reform instruction. However, administrators and faculty who were involved in curriculum integration were highly enthusiastic about it and placed their own personal stamp on it through a diversity of teaching strategies and professional development practices. Interviewees described the colleges' reasons for adopting this approach, perceived benefits, and conditions for successful faculty collaboration across disciplines. They also detailed a number of obstacles and pitfalls that community college leaders need to address when attempting to integrate academic and occupational education.

Teaching Strategies

Academic-occupational integration in our research took the form of linked courses, course clusters (learning communities), infused occupational, infused academic, and hybrid courses. Usually, any one college used only one model. Although all the classrooms we observed were presented to us as integrated, only 68% were "strongly" integrated, defined in terms of overt connections between occupational and academic content. In the remainder, it was hard to tell that the course was integrated. For example, in a manufacturing management class that was linked to a sociology class, neither the instructor nor student assignments made reference to any aspect of sociology.

Across the sites, the majority of instructors utilized a mixture of student- and teacher-centered approaches, rather than one or the other. This finding was unanticipated, as previous research has described integrated instruction as student-centered. We found that very few occupational instructors provided explicit instruction in academic skills. Rather, they assigned academic tasks such as the writing of technical reports, but did not provide di-

rect instruction in the reading or writing skills that would be needed to accomplish these tasks.

Rationale for Integration

We asked faculty and administrators why their colleges were integrating academic and occupational instruction. A large proportion (60%) referred to student performance, especially the need for basic academic skills. For example, an administrator stated, "Faculty said they were dumbing down their instruction. (Integrated instruction) was a response to this. It was recognized that the great majority of students, not just those who had tested into remediation, needed help with basic skills. The idea developed that all faculty had to take responsibility for English skills, especially writing." The remaining 40% referred to efficiency of instruction, student retention in programs, and improvements in faculty motivation. In some cases, basic skills and student retention were connected, as stated by another administrator: "The college never had completers in the technology program because the students would not take the general education courses... From the employers' point of view, the reason for integration is the SCANS skills – workers need communication skills."

Benefits

- Students benefited from academic integration because, as an electronics instructor put it, "They can see the application, the sooner the better. As in the military, you teach it as needed. I would like to see all math totally integrated, so they wouldn't even know where the math began."
- Faculty who integrated instruction experienced increases in their own personal motivation to teach, especially because integration "forced" them to collaborate with other instructors in a normally isolating profession. Some stated that the academic instructors improved their teaching skills as a result of working with occupational instructors.
- Colleges benefited from opportunities to modify curriculum and form relationships with industry.
- Industry itself benefited by the improved skills of the future workforce.

Successful Interdisciplinary Collaboration

If integrated instruction is to be effective, it is essential that faculty collaborate across disciplines. They need to learn each other's subject matter and approaches to classroom instruction, and engage in the hard work of curriculum alignment. While

these collaborative efforts undoubtedly presented challenges, faculty reported that they found it exhilarating to work with others in a different field of study. For example, an English teacher found it "exciting" and "refreshing" to work with nursing faculty in a learning community.

Within the context of interdisciplinary collaboration, faculty may need to iron out some basic differences. They may have different perceptions of the same students, emanating from different disciplinary backgrounds. Similarly, they may have different standards for the same work or may not feel inclined to grade work in a discipline in which they were not trained. At two colleges, collaborating faculty resolved this problem by having the academic instructor grade papers for style and mechanics and the occupational instructor for content. However, this solution may fragment the educational experience for the students, which would defeat the intention of integrated instruction.

Faculty who were involved in collaboration across disciplines described seven different conditions necessary for effective collaboration, four relating to personal characteristics of the instructors involved.

- Willing to collaborate
- Sensitive to others' pressures
- Diplomatic
- Skilled teachers
- Enjoy working across disciplines
- Faculty knowing each other well
- Opportunities to work together on a daily basis so that they could become friends.

Obstacles, Pitfalls, and Challenges for Community College Leaders

Although we interviewed advocates of integrated instruction, they candidly described difficulties in implementation:

- Some colleges found it expensive to pay for the release time and other incentives necessary to recruit teachers to the new approach.
- Integration can become overly dependent on a single leader; when he or she is promoted or otherwise moves on, the effort can come to a halt, having lost its champion.
- Integration requires increased instructor workload; beyond the time needed to collaborate with other faculty, it takes considerable effort to plan to teach individual class sessions in a new way.
- Student workload also increased. At one college, students were required to do a greater amount of homework than in traditional classes to prepare for teamwork being used in their integrated accounting classroom.
- Some instructors found that they were not able to cover all required curriculum when they incorporated new content or skills. This issue was particularly sensitive in fields that were bound by State regulations, such as nursing and allied health.

Faculty Resistance to Integration

Efforts to integrate instruction were sometimes hampered by faculty resistance to integration. Occupational teachers sometimes found the idea of teaching academic skills distasteful, averring that students should enter with the requisite skills rather than learn them in their classes. Similarly, general education faculty resisted integration on philosophical grounds, arguing that it was not their job to "train workers."

Faculty resistance is also related to issues of educational quality and transferability of integrated courses to the baccalaureate level. General education instructors are known to refuse to integrate occupational content into their coursework, fearing that utilizing concrete applications would deprive students of opportunities for abstract thought. The transfer issue goes beyond perceptions and preferences of individual faculty, however. It is a reality that baccalaureate institutions often refuse to accept applied academic courses, considering them to be watered down, low-quality instruction.

Conclusions

The enthusiasm for academic-occupational integration was palpable at the case study sites, but the evidence for effectiveness was anecdotal. The reported positive effects of this approach would need to be substantiated by institutional data documenting learning gains and increased retention. There is a clear role for community college leaders, not only in initiating integrated instruction, but in facilitating on-campus evaluation.

The emphasis on integrated instruction as a means for providing basic academic skills to occupational education students suggests that it may become a productive remedial intervention. However, if integrated instruction is, consciously or unconsciously, intended as a way to build academic skills, our research indicates two areas for improvement.

First, occupational instructors must share in the task of explicit instruction in academic skills. Second, integrated instruction needs to be genuinely integrated. Instructors need to make frequent use of the content and skills taught in the companion discipline area. Both of these issues can be addressed in the context of interdisciplinary collaboration, perhaps stimulated by professional development efforts. ♦



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Integration Projects Impact Curriculum at John A. Logan College

by Cheryl Diedrick and Gayle Pesavento, John A. Logan College

Tech Prep Postsecondary Grant Facilitates Integration

Since 1997, John A. Logan College has regularly funded course-level integration projects through the Tech Prep Postsecondary Grant as one way to develop workplace skills in both transfer and career students. Using the "Eight Transferable Skills of John A. Logan College Graduates" as a starting point, academic and career faculty have joined forces to develop and implement creative approaches to integration. The "Eight Transferable Skills" came about as a result of an assessment plan done by the College for the 1994 North Central Association (NCA) accreditation process, and include:

- Critical Thinking Skills
- Oral and Written Communication
- Mathematical Reasoning
- Maintaining Mental, Physical, and Emotional Wellness
- Ethical Awareness
- Being Responsible Members of Local, National, and Global Communities
- Aesthetic Awareness
- Workplace Readiness Skills

Faculty Collaboration Begins

Academic and career faculty identified areas in their classes where they believed assistance from a colleague in another area would be beneficial. Through the Office for Instruction using funds from Education-to-Careers and Tech Prep, the Associate Dean for Business and Industry and the Associate Dean for Allied Health coordinated the solicitation of proposals from faculty that included goals, objectives, activities, a timetable, and assessment procedures. Faculty submitted proposals that were then matched with appropriate colleagues from academic or career areas. Each faculty member received a stipend for his/her work, and the resulting materials were taught and assessed. The categories for integration also included partnerships with business, infusing work-based readiness components into academic or career courses, or developing an integrated career course that includes one career and one academic instructor.

The majority of the projects continue to be used in total or to a great extent. The responses of colleagues who had never worked with others outside their discipline, and the responses of students who made new connections with the course content in the integrated classes, have been most significant.

Integrated Projects at John A. Logan

Art in the Workplace. What do art and business have in common? Plenty, according to Renee Mavigliano, art, and Linda Taylor, business, who developed a unit for a humanities class that looked at architecture in the workplace. Students also created a quilt to illustrate the power of teamwork, different working styles, and meeting responsibilities, and they viewed and discussed paintings that showed work. According to Mavigliano, students seemed genuinely interested in the topic and liked the practical application of the arts. She plans to use the teamwork project in art appreciation.

Math for Nurses. Nursing instructor Joyce Steber and math instructor Roberta Brown created a series of math modules for pediatric nursing. Its success in the pilot project led to its continuation as part of the course. According to Steber, students initially resisted the modules, but the end result continues to be "light bulbs" flashing as the students better understand and grasp key mathematical concepts related to pediatrics and medication administration.

Technical Reading. Jon Rivers, computer integrated manufacturing, helped Kathleen Carl, English, integrate technical reading material into a developmental reading class. The course includes application of reading techniques to a variety of materials, but few of the sample readings used technical reading material as practice exercises, despite the significant enrollment of career students. Selections were added from autobody, auto mechanics, computer-integrated manufacturing, drafting, electronics, heating and air conditioning, and industrial maintenance. Carl stated that Rivers helped her locate course readings in technical and professional journals that she could not have known about otherwise.

Business Case Studies. Business instructors Cheryl Bernhardt and Shayne Crawshaw learned that a variety of skills could be taught using case studies. With the assistance of Kathleen Carl, textbook case studies were used to simulate the decision-making process using reading and writing skills and to infuse humanities concepts. Bernhardt and Crawshaw challenged students to develop deeper levels of critical thinking skills, examine cultural values that affect business decision making, and explore the ethical dimensions of the case studies. Although the textbook for the course has changed since the original project was completed, the instructors have continued to integrate the humanities concepts with some modifications to the new text.

Infusing Cyberspace into the Medical Office. Phyllis Jackson, business, and Beverly McCabe, English, taught students how to access and present material available on the Internet and how to

collect information and make critical decisions. Jackson continues to use basic elements of this project in her medical office procedure classes. She noted, however, that in the two years since this project was implemented, students now enter the course much more familiar with the Internet and e-mail procedures. Students no longer need the detailed task sheets developed for the project but continue to need assistance to evaluate and report information found on the Internet.

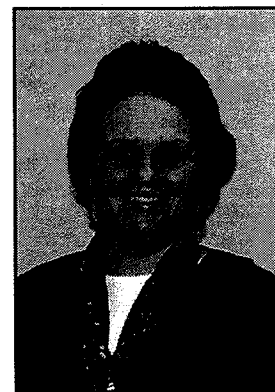
Law Enforcement and Deaf and Hard of Hearing Issues. Rick Ellet, criminal justice, and Paul Menkis, interpreter preparation, developed a course in community policing/interpersonal relations. This project addressed issues within the deaf and hard-of-hearing community and hearing loss and communication needs as related to the criminal justice system. The module examined both educational needs for the deaf and hard-of-hearing community about law enforcement and other criminal justice agencies and training needs for law enforcement personnel on dealing with deaf and hard-of-hearing issues. Specific topics included traffic incidents, individual rights, witnesses, access to the criminal justice system, and domestic violence.

John A. Logan College intends to send more academic faculty members to "Connections" conferences, award mini-grants for additional program enhancement, and increase faculty participation in Academic/Vocational Instructor Practica (AIP/VIP). For more information, contact Cheryl Diedrick, Tech Prep/ETC Coordinator at (618) 985-3741, ext. 8250 or cheryl.diedrick@jal.cc.il.us. Individual instructors involved in the projects may also be contacted. ♦



Cheryl Diedrick has an Associate of Arts degree from John A. Logan College, a Bachelor of Science in workforce education and development from Southern Illinois University-Carbondale, and is currently completing her master's degree in the same area. She supervises Tech Prep and ETC activities with eleven area high schools in the John A. Logan College district.

Gayle Pesavento is an associate professor of communications at John A. Logan College. She was a member of the Illinois Task Force on Integration, the facilitator of a Tech Prep team on transportation, and has participated in two AIPs. She also serves as the International Education Coordinator at the college.



Conference Planner

- **May 10-12, 2000** – National Association for Workforce Improvement (NAWI) Conference in Scottsdale, AZ. For more information contact Dr. Frances Beauman at 217-782-4620.
- **June 13-14, 2000** – Connections Conference in Springfield, IL, Crowne Plaza. For more information go to <http://lilt.ilstu.edu/connections>.
- **June 28-July 1, 2000** – 2001 Integration Conference in Beaver Creek, CO. For more information go to <http://www.schoolteacher.org>.
- **July 9-13, 2000** – AACC Presidents Academy Summer Experience in Breckenridge, CO. For more information go to <http://www.aacc.nche.edu>, contact Eden Lalor at 202-728-0200, ext. 261.
- **August 6-11, 2000** – Executive Leadership Institute in Newport Beach, CA, Newport Beach Marriott Hotel. For more information go to http://www.league.org/league/conferences/eli/eli_main.html.
- **October 10-13, 2000** – National School to Work Conference in Washington, D.C. For more information go to <http://www.stw.ed.gov>.
- **October 13-15, 2000** – National Tech Prep Conference in Charlotte, North Carolina, at the Charlotte Convention Center. For more information go to <http://www.cord.org/>.
- **October 26-28, 2000** – NCOE National Conference in Denver, CO, Westin Westminster Hotel. Theme: "Strategic Alliances for the Future." For more information go to <http://www.ncoeonline.org>.
- **November 15-18, 2000** – 2000 Conference on Information Technology in Anaheim, CA at the Anaheim Convention Center. For more information go to <http://www.league.org/league/conferences/contech.asp>.
- **November 16-18, 2000** – ICCCA Conference in Springfield, IL, Crowne Plaza. For more information go to <http://www.iccca.org>.
- **February 28-March 3, 2001** – Annual Innovations Conference in Atlanta, Georgia, Hyatt Regency Atlanta. For more information go to <http://www.league.org/league/conferences/confinn.html>.

A Consortial Agreement for Online Degrees in Illinois: A Collaborative Approach

by Donna Schaad, Black Hawk College

Sharmin is a young, newly married woman, originally from Bangladesh, who had taken online classes at Black Hawk College the previous semester. Even though her husband was transferred to Florida, she was still able to complete her online courses. When she returned to the Quad Cities for a brief period of time and tried to enroll in more online courses, while her husband received job training in Kansas City, Black Hawk, unfortunately, did not have online courses in her desired major. Also, Black Hawk was two weeks into the spring semester, and online classes had already begun. Because the college could not offer an online degree with a flexible start date, all that could be done was to supply Sharmin with information about accessing online courses through another provider.

Sharmin's story illustrates a fundamental disadvantage for online students at community colleges. It would probably take several years before any individual institution could develop enough courses for an online degree, but by pooling resources of a consortium, however, member institutions can collaborate to meet the online needs of their students immediately.

Online Degree

The Presidents' Council of the Western Illinois Education Consortium (WIEC) has been the catalyst and motivating force behind the establishment of a consortial agreement for an online degree. A longstanding consortial distance learning agreement was recently expanded to include online learning.

Steps taken by WIEC in developing an online degree are:

- Audit existing courses and degree requirements.
- Plan new course development, staff development, and marketing.
- Develop a student services agreement.
- Faculty adoption of online degree.

The first step in developing an online degree was to determine how close the combined pool of courses came to meeting degree requirements. The Illinois Articulation Initiative (IAI) requirements were also considered. Since each institution will confer the degree to students in its community college district, each conducted a degree audit using the available online courses. All requirements for an Associate in Arts or an Associate in Science degree were met for each institution with the exception of speech. Although a student could take speech online from institutions outside the consortium and transfer it to a WIEC institu-

tion, the consortium plans to develop an online speech course. The existing consortium committee structure developed plans for course development, staff development, and marketing. The WIEC Course Development Plan is simply a compilation of each institution's course development plan. The purpose of compiling the plans was to make everyone aware of what is being developed and identify any areas where development is needed. Special attention is given to courses that fulfill requirements for specific transfer majors, such as business/international, accounting, and economics.

The WIEC Staff Development Plan is another compilation of each institution's plans for staff development. The institutions share staff development opportunities with other member institutions. The WIEC Director met with the Marketing Directors for the member institutions to discuss the marketing of the online degree. The Marketing Directors developed a menu of ideas for marketing the online degree, including a press release, a sample trifold flyer, institutional fact sheets, institutional web pages, and more. Each institution will then develop and implement its own individualized marketing plan.

To develop a student services agreement, the Presidents' Council formed an initial student service committee comprised of the WIEC Director, four student services personnel, a director of counseling, a director of financial aid, and a director of admissions to determine the student services issues. The committee identified ten issues related to registration, financial aid, and student services. They recommended each institution send representatives from the various student service areas to a consortium-wide meeting to develop policy statements about the identified issues. Those policy statements were sent forward to a joint meeting of students services and instructional personnel. A small group discussed each statement and brought its recommendation forward to be voted on by the entire group. That meeting resulted in the WIEC Student Services Agreement to be approved by the Presidents' Council.

Faculty adoption of the consortial online degree is an essential requirement for the success of the agreement. Administrators initiated the effort, determined the viability of the degree, and worked through student services issues. The small number of faculty who were the early adopters of online learning provided the core of courses that meet degree requirements. Hopefully, the majority of faculty, especially those involved in faculty governance, will develop a sense of ownership for the online degree. Each instructional department must plan for the development of online majors. The planning for online courses should be as commonplace as the planning for interactive compressed video courses, independent study courses, Public Television courses, or any other form of distance learning.

Advantages of A Collaborative Approach

There are several advantages to taking a consortial approach to online degrees.

- An online degree is available to students when they need it.
- Each institution does not bear the development costs of all courses.
- A course is more likely to have enough enrollments to be viable with the larger population base found in the consortium.
- The sharing of staff development contributes to institutional savings.

Two fundamental questions still need to be addressed by the state with respect to the online degree:

1. How could a student access financial aid for courses not bound in time by semesters?
2. Since each institution has all necessary state approval for the online courses it offers, can member institutions provide online courses to the consortium by consortial agreement rather than filling out the state paperwork to get the course "on the books" at each institution?

Philosophically, the state probably agrees with the need to address financial aid issues for online students, as well as the consortial sharing of courses. Practically, it will mean making adjustments in existing systems to accommodate the needed programmatic changes.

WIEC member institutions have the tools to offer an online degree. The student services are in place. Required courses are available. WIEC member institutions look forward to Fall 2000, when they can meet the needs of students like Sharmin by offering online degrees that students can access from any location at their convenience. Each institution will decide its own timeline for developing and marketing the online degree to students. ♦



Donna Schaad completed a doctor of education in community college leadership at UIUC in May of 1997. Learning Communities was the topic of her dissertation. She is currently Director of the Western Illinois Education Consortium (WIEC). The consortium is in the final stages of developing an online degree by sharing courses. For more information, contact Donna at schaadd@bhc1.bhc.edu.

Community College Leadership Retreat — June 1-2, 2000



The University of Illinois at Urbana-Champaign will hold its first Community College Leadership retreat for students, faculty, and friends, on June 1-2, 2000, at Allerton Park in Monticello, Illinois. The keynote speaker at this event will be Ms. Jacqueline Woods, Community College Liaison with the United States Department of Education, who will speak on community college leadership, policy, and legislative issues. A panel presentation is also planned involving community college leaders from throughout the state, addressing 21st Century Leadership concerns. Other panel presentations are planned on current research and how to succeed as a graduate student in a community college leadership program. If you have any questions or would like to attend this event, please feel free to contact Linda Iliff at 217-333-0807, by e-mail at l-iliff@uiuc.edu, or visit the web site at <http://www.hre.uiuc.edu/hrewebsite/currevents.html>. ♦

Collaborative Research: A Researcher's Perspective

by Latrice Eggleston and Frankie Santos Laanan, UIUC

The Community College Leadership (CCL) faculty in the Department of Human Resource Education (University of Illinois) hosted a guest lecture by Dr. Romero Jalomo, Jr., assistant professor of higher education and faculty affiliate in the Center for Urban Community College Leadership at New York University, on December 3, 1999. Dr. Jalomo spoke on "Improving the Educational Pathway for Community College Students: The Value of Analyzing In- and Out-of-Class Learning Experiences." One of his recommendations for improving the education of community college students was to identify and implement new models of collaboration in community college research that contribute to the understanding of students and their transition to higher education. In an interview with UPDATE, Dr. Jalomo shared more of his insights into the value of collaborative research.

UPDATE: As a scholar and leader in the community college arena, how do you define collaboration? Who are the key players in the collaborative movement?

Jalomo: My definition of collaboration would include "a partnership of diverse views, skills, and experiences that values and employs a collective approach to examine a social situation." I have, at different times, found myself part of a team of senior and junior scholars, quantitative and qualitative experts, and researchers who examine large scale data sets, disseminate and analyze national surveys, employ case-based field projects, and research community colleges or four-year college settings. I have learned that differing views and philosophies must be respected, that all parties invited to "collaborate" on the team should be treated as equals, and that each team member (when necessary) should at least try to "step out of the box" where they feel comfortable (paradigmatically, methodologically) and respect how alternative views and explanations might help to develop a deeper understanding of the situation.

Overall, I believe those doctoral programs that focus on community college education tend to do a good job of promoting collaboration. Research findings written by colleagues affiliated with four-year college programs and community college representatives (often their doctoral students who work in nearby community colleges) are common. Universities noted for their community college graduate programs continue to engage in

ongoing collaborative research efforts with in-state community colleges.

UPDATE: What challenges do researchers at four-year institutions face when collaborating with community colleges in research activities?

Jalomo: Although collaborative projects involving researchers from two-year and four-year colleges can prove beneficial and rewarding, most are usually directed at research involving some aspect of community college education. The benefits of such projects have been documented in the *Community College Review*, *Research in Higher Education*, *The Review of Higher Education*, and the like. However, I seldom read about studies, in the transfer area for instance, that involve a collaborative team of researchers investigating a four-year college concern. A follow-up study of student experiences after transfer to a four-year college might be a good candidate for such a project. My opinion is that the collaborative team could be enhanced with the expertise and views of two-year college researchers who may be able to provide valuable data and insights into how students prepared for transfer.

A challenge for collaborative teams engaged in investigating community college education issues is gaining access to data and people. I cannot overstate the importance for researchers to state their research aims openly, honestly, and explicitly in their letter of invitation to community college representatives, and from the President to members of an Internal Review Board. Since my

research directly relates to student experiences in college, I have found that many faculty, counselors, and administrative staff have a concern for the general welfare of their students. They are not easily persuaded into believing that my research findings could prove more useful in identifying potential areas of concern or processes that facilitate retention than their past practices, experiences, or institutional reports. This approach suggests that we, as four-year college researchers, can possibly do a better job of revealing elements that can help or hinder student retention than those practitioners and institutional researchers who have been employed in community colleges for years. Collaboration can help to alleviate suspicion and doubt among some community college faculty, staff, and researchers about our work on their campuses.



Participants on a guest discussant panel on December 3, 1999, include J. D. Ross, President of Joliet Junior College, Fay Rouseff-Baker, Director of the Center for Excellence in Teaching and Learning at Parkland College, Romero Jalomo, Assistant Professor, New York University, and Steven Aragon, Assistant Professor at UIUC.

UPDATE: Describe how your research process is influenced by the collaborative process.

Jalomo: Because much of my research to date has been case-based, it is vital that my research team derive a more holistic view of a campus. In my current research project, I have invited the Director of Counseling in a nearby community college to join our research team. He has conducted his own research projects in the past and has helped us by providing his insights and expertise into the issue of first-year student experiences on campus.

In order to study students, we need not only collect data from them and about them, but also about the context where learning takes place: the campus. To obtain a "snap shot" of campus life, I must meet with a cross section of members who form the campus community, including presidents, vice-presidents, deans, department chairs, faculty, administrative staff, and institutional researchers in order to request reports on various aspects of student life and outcomes. Gaining cooperation from community college educators is fundamental to the success of my research projects.

I try to enter each project by asking questions and establishing an open line of communication with campus agents, most notably institutional researchers. I realize that, as a researcher representing a four-year institution, I can sometimes be viewed as an "outsider." I must earn the respect and trust of those who work on a daily basis to provide information to decision makers in community colleges. From this vantage point, I feel that two-year college researchers and I have similar research aims.

UPDATE: What advice would you give to graduate students who are interested in conducting research on community college issues in terms of research collaboration?

Jalomo: I believe collaborative research among graduate students and representatives from community colleges can prove valuable to both parties. Students can conduct meaningful exploratory or dissertation projects, while community colleges can obtain information about some aspect of their campus environment or students. The support and cooperation of researchers, faculty, and administrators at community colleges can greatly improve the research design, data collection, analysis, and findings for graduate student research and dissertation projects. However, it is imperative that a "feedback loop" be developed among three key agents: the graduate student, a community college representative(s), and a faculty advisor at the four-year institution. Together this team approach should ensure that a manageable research project is developed and conducted with continuous feedback to all stakeholders.

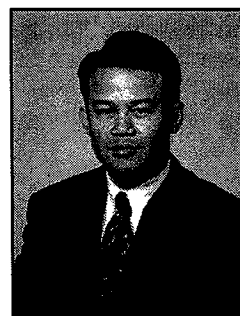
UPDATE: How important is the collaboration movement for community colleges and why?

Jalomo: I am an advocate of collaboration, both in terms of conducting research projects and disseminating research find-

ings. I believe the "voices" of community college researchers need to be heard at many of the national research and policy conferences beyond American Association of Community Colleges or Council for the Study of Community Colleges. Too often, few community college researchers beyond those who have dual responsibilities as doctoral students and community college employees attend other national research and policy conferences. Thus, research findings disseminated about community colleges (including important student outcomes) are sometimes skewed by opinions of four-year college researchers who may not have employed more holistic designs or ignored the all-important "insider" view provided by community college representatives.

Community college researchers can help the greater higher education community better understand aspects of these complex organizations by sharing their expertise and knowledge in collaborative efforts. However, I would urge community college researchers to insist that they are treated as equal partners in the design, implementation, and dissemination of any research project that involves collaboration with four-year college researchers. Only then can a "partnership of diverse views, skills, and experiences that values and employs a collective approach" be achieved. ♦

Latrice Eggleston is a doctoral student in Educational Policy Studies and research assistant with Dr. Frankie Laanan. She is currently working on research projects focusing on transfer and articulation. For more information, contact Latrice at egglest@ntx1.cso.uiuc.edu.



Frankie Santos Laanan is assistant professor in the Department of Human Resource Education. His research focuses on community colleges, teaching and learning, and college student development. For more information, contact Frankie at laanan@staff.uiuc.edu.



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