Winter 1994

PLS Update, Winter 1994

University of Northern Iowa. Malcolm Price Laboratory School

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Malcolm Price Laboratory School - University of Northern Iowa
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PLS Resource Program

by Kim Miller

In the late 1980's, federal departments began looking at providing a more cohesive instructional program for students with mild disabilities. Resource teachers typically provided "pull-out" support to these students but also voiced the following concerns: lack of communication, insufficient generalization of skills, negative stigmas, and a curriculum disjointed from the regular classroom. A "your students" and "my students" mentality had also been established. States were encouraged to come up with alternatives to the typical "pull-out" options.

The state of Iowa accepted this initiative and developed the Renewed Service Delivery System. This initiative revamped the process of how and where to deliver special education services. It was founded on the belief that some students didn't need to be "pulled out" but could receive support services in the regular classroom. This involved the regular and special educators collaboratively teaching. By having two teachers working together in the regular classroom, it was possible to meet the individual needs of everyone in the classroom. Students with mild disabilities and at-risk students received more effective instruction with a special education teacher in the classroom. The average and accelerated students also received more attention by having two teachers in the classroom. In return, the students became more accepting of student differences which fostered positive peer relationships.

These results have occurred at the Price Laboratory School. Since the resource program began implementing collaborative instruction seven years ago, collaborative models have included whole, small, and individual group instruction in the regular classroom. Change occurs every year according to teachers' styles and students' needs. A strong emphasis is placed on adaptation of whole language, goal setting, active student participation, peer tutoring, and peer mentoring. The following survey question was given to last year's 6th graders. Responses confirm the positive attitudes students have displayed about collaborative instruction:

What did you think of the resource teacher and regular classroom teacher collaboratively teaching 6th grade writing?

(21 students responded with "yes they enjoyed it" and identified their reasons)

- more teacher conferences
- questions answered faster
- get more work done
- more attention - more of a chance to learn
- don't have to wait so you're more productive
- teachers shared responsibility
- two different perspectives about things
- teachers aren't alike - more of a variety
- if one person isn't sure they can ask the other person
- example of how people can work together
- teachers complemented each other
- fun, interesting
- keep things under control

When the resource teachers are not in the regular classroom, they are meeting with students in a "pull-out" program. This provides an environment where some students can work on individual objectives and won't be threatened by the pressures of the regular classroom. Also some students that may need special attention or are highly distractible could benefit from this environment.

Providing both regular classroom and "pull-out" options addresses the individual needs of all the students served. It provides the best of both worlds and advances appropriate education for students with special learning needs.

For information regarding the PLS Resource Program contact Kim Miller, MPLS, UNI, Cedar Falls, IA 50613, (319) 273-2233.

Integrating Math and Science Curriculum

by Karen Couch

It was a little over one year ago when Karen Couch and James Maltas began utilizing each other's expertise to compliment what they were doing in their own classroom. Karen Couch (physics instructor) realized that many of the concepts and techniques used in advanced math/pre-calculus could enhance her physics students' ability to analyze the data collected for an investigation, strengthen their problem solving capabilities, and increase conceptual understanding. At the same time, James Maltas (mathematics instructor) was looking to focus the advanced mathematics on applications which would help motivate the learning of mathematics concepts--an obvious source of applications, for this mathematics was physics.

This collaborative work eventually led to discussions of an integrated course in Physics and Advanced Mathematics. They soon realized that a course of this nature was not only possible, but that it would benefit students in ways they hadn't counted on, and help prepare them for college courses.

It is now the middle of the 1993-94 academic year and Couch and Maltas find themselves in the middle of developing and team teaching a fully integrated, year long course in high school physics/pre-calculus. The curriculum materials and instructional/assessment models that are being developed address the concerns, goals and benchmarks that are being advocated by the **American Association for the Advancement of Science, National Science Teachers Association,** and the **National Council of Teachers of Mathematics.**

Couch and Maltas are creating a new instructional learning model, as well as providing

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leadership in the reform of curriculum, instruction and assessment. This project will provide not only the necessary leadership, but will offer teachers throughout the state of Iowa an opportunity to collaborate on a curriculum reform project that may very well shape the teaching of physics and pre-calculus throughout the nation.

For more information, contact Karen Couch at (319) 273-6467 or Jim Maltas at (319) 273-2066 at MPLS, UNI, Cedar Falls, IA 50613.

Reaching Out: Making Teacher Education Connections

by Terri McDonald

As early as 1904, John Dewey described the need for observation in the preparation of teachers. He noted the importance of preservice teachers observing master teachers in the natural classroom environment. Because observation is a critical component of teacher education, many institutions of higher education struggle to provide valuable opportunities for students.

Malcolm Price Laboratory School (MPLS) is meeting this demand by providing observation opportunities through the use of fiber optic technology. The project provides live observations of MPLS classrooms via television broadcasts to several locations on UNI's campus. A mobile television production unit, which can be moved to any MPLS classroom to originate a transmission, allows UNI students to observe an MPLS lesson and participate in a debriefing session with the MPLS teacher. The teacher education program has been modified to infuse these observation opportunities into the curriculum.

Students and faculty, alike, have responded very positively to the live broadcasts. Informal written and verbal responses from observers have been used to modify the system to better fit the needs of the teacher education program.

During the process of carrying out the project, several advantages have emerged. The most obvious advantage allows UNI students to observe the same lesson as their professor, thus providing common ground for discussion. A second advantage of the fiber optic system is providing the opportunity for interaction. Because of time constraints and scheduling conflicts, UNI students rarely get a chance to talk with elementary and secondary classroom teachers when they visit schools for observation.

Another advantage of live transmission is greater focus. By placing microphones and cameras in strategic locations, observation by television has proven to be more effective in certain situations than direct observation. For example, when an MPLS teacher is using cooperative learning groups, it is impossible for observers in the back of the room to hear the process going on in each individual group. The mobile production unit, however, can zoom in on individual groups and capture voices that allow television observers to follow group dynamics and interpersonal activity in each group. Research is now being conducted to pinpoint whether significant differences exist between direct and indirect observation techniques.

The fiber optics project has also provided MPLS faculty with the opportunity to become acquainted with basic television production techniques. Many have become involved in producing model teaching videos and presenting information about the project at local and state conferences. Each lesson is videotaped and stored in the school video collection for later use, provided media release documentation has been received from participants. Eventually, the videotape footage can be pressed onto laser discs for national dissemination.

MPLS is in the process of being connected to the Iowa Communication Network, a two-way interactive television/computer network linking regents institutions, community colleges and other schools in the state of Iowa. This connection, along with UNI's mobile satellite uplink, will provide even more transmission opportunities for MPLS faculty. Access to satellite technology will make it possible to communicate with most school locations around the world and permit shared services, personnel, materials, and other resources.

UNI's students, inservice teachers, preservice teachers and university faculty members are just beginning to explore the potential of collaborative activity using electronic communication systems. The fiber optics project participants have discovered the potential of using these technologies for enhancing learning is limited only by their imaginations.

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