

Pathways to Success

Pathways to Success, a whole-school improvement project developed and coordinated by the University of Kansas Center for Research on Learning, stands as a testament to the power of partnership and innovative thinking.

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Students in the schools served by the project are showing encouraging gains in reading comprehension and writing skills as teachers, administrators, and KU-CRL project staff work together to help them develop the reading, writing, problem-solving, and motivational skills they need to succeed in school and beyond.

“Our big accomplishment with this project is that it shows you *can* bring about change on a really big scale,” said Jim Knight, KU-CRL research associate and project director. “So far, we’ve had 141 out of 183 teachers participate. It grows on its own now.”

Pathways to Success is a partnership consisting of KU-CRL, the Topeka, Kansas, public school district, and the International Telemenor Center (www.telemenor.org). Project staff and Topeka middle school teachers work together to offer a unique combination of targeted academic skill instruction for students, effective professional development and support for teachers, and opportunities for parents to become involved. (See *Pathways components* on page 3 for a more-detailed description.)

Pathways is funded through the U.S. Department of Education’s GEAR UP program (Gaining Early Awareness and Readiness for Undergraduate Programs). GEAR UP’s mission is to significantly in-

crease the number of low-income students who are prepared to enter and succeed in postsecondary education.

The project originally targeted three Topeka middle schools that reported academic scores far below average. Math scores at the schools, for example, ranged from 36 to 43, compared to the Kansas standard of excellence of 80. Economically, 65 to 83 percent of the students at the schools are disadvantaged, compared to the 31 percent state average.

Because of its success in the originally targeted schools, *Pathways* has expanded to include all of the middle schools in the Topeka district. It will be implemented at Topeka high schools in the 2002-2003 school year.

Pathways in the classroom

Pathways puts a spin on the traditional approach to teaching strategies. Instead of offering strategies to students with learning difficulties in a pull-out setting, most strategies instruction during this project occurs in general education classrooms with all students participating.

“The thing we’ve really tried to accomplish is to get good at teaching strategies to large classes and still get really good results,” Knight said. “We’re still working on that. We’ve come a long way, but we’re watching the data carefully to see what works and what doesn’t. It’s important that we study this and validate our methods through research.”

Anecdotes from classroom teachers at the schools indicate that this approach to strategies instruction has resulted in im- >>>

Pathways links

Pathways to Success

www.ku-crl.org/pathways

Project newsletter

www.ku-crl.org/pathways/htmlfiles/newsletter.html

Teacher-Guided Professional Development

www.ku-crl.org/htmlfiles/tgpd.html

Possible Selves

www.ku-crl.org/archives/1997/797spot/797spot.html

Strategic Tutoring

www.ku-crl.org/archives/2001/0201spot.html

U.S. Department of Education GEAR UP

<http://www.ed.gov/offices/OPE/gearup>

International Telementor Center

www.telementor.org

>>>proved student performance in individual classes as well as on standardized tests administered by the district. In addition, teachers see students using strategies in a variety of settings, evidence that they have mastered the strategies and generalization has begun.

Improved performance. At Robinson Middle School, teacher Sue Sander believes that the combined use of the *Framing Routine* and the *Sentence Writing Strategy* made a difference in student scores on a sixth-grade multidisciplinary assessment.

The sixth-graders used the FRAME device to take notes about the rainforest during science and social studies classes. They then used the *Sentence Writing Strategy* to develop their written assessments.

Early reports showed good results on the assessments. In addition, Sander says students like the *Sentence Writing Strategy*, an important factor for future

use and generalization of the strategy to other settings.

Generalization. Student generalization of strategies has been helped immensely by the willingness of teachers across disciplines to support and encourage use of strategies in their classrooms.

In some cases, general education teachers are taking a break from content instruction because they see benefits to their students learning strategies.

At French Middle School, 100 students in a team-taught social studies class spent three weeks learning the *Test-Taking Strategy*. The students practiced using the strategy on several social studies tests. Then, their teachers, Lucinda Evans and Bruce Mellen, helped them make durable copies of the *Test-Taking Strategy* mnemonic, PIRATES, to keep in their notebooks.

By the end of the school year, students were allowed to refer to the PIRATES steps during tests in other classes. Several other

teachers at the school noticed and encouraged use of the strategy during tests.

At Eisenhower Middle School, students who learned the *Paragraph Writing Strategy* in their English classes generalized use of the strategy to their social studies papers. Social studies teacher Rhonda Rouck-Karolevitz reminded students of transitional, opening, and clincher words as they worked on papers for her class. She also prompted them to think about their writing strategies devices while they conducted research for their papers.

“It’s common knowledge among educators that the more you can reinforce instruction in a variety of settings, the better it is for students,” Knight said in noting the significance of teachers encouraging strategies use across content areas.

“I think that we’ve been very lucky to have the teachers we work with,” he said. “We’re way ahead of where I expected to be. Our success is partly due to our instructional collaborators, but the teachers have played a significant role.

“What’s more, the teachers have been a great source of knowledge for us. We’ve learned something from almost everyone who’s tried something out.”

Adapting instruction

Because the Strategic Instruction Model was designed for small-group instruction, the *Pathways* project staff and teachers have had to make adjustments to instructional methods to teach strategies in the larger general education classes.

They have significantly increased the amount of modeling involved in learning strategies while at the same time simplify- >>>

Pathways components

Pathways combines four elements into a single, comprehensive project. Each of the components—academic skills, *Teacher-Guided Professional Development*, community support, and hope—are essential to the success of the project and ultimately to the success of the students it serves.

Academic Skills

Pathways is based on the notion that for student outcomes to be affected, teachers must use instructional methods that have been shown to be effective in producing the desired outcomes. All of the instructional methods used in *Pathways* have been shown to be effective with at-risk students in rigorous studies.

Academic skills instruction includes intensive instruction in reading comprehension and writing skills, focusing on four basic areas:

First, sixth-grade students who are reading at levels significantly below grade level are taught the *Word Identification Strategy*.

Second, students are taught the *Self-Questioning*, *Paraphrasing*, and *Visual Imagery* strategies in their reading classes.

Third, students are taught the *Sentence Writing* and *Paragraph Writing* strategies in their language arts classes.

Finally, all students are encouraged to pursue academic success through the *Possible Selves* personal development program.

Teacher-Guided Professional Development

Teacher-Guided Professional Development is designed to make it as easy as possible for teachers

to learn about effective instructional practices. Teachers and professional development personnel work together as equals as they implement practices that respond directly to their needs.

Pathways employs a full-time professional developer, called an instructional collaborator, at each school to prepare and support teachers as they implement components of the *Pathways* project.

Community Support

Pathways project staff offer workshops for parents each month. Parents learn key strategies for supporting students' goals, acquire essential information about financial aid and educational options for their children, and discuss and develop supportive practices for their children's post-secondary goals.

Hope

Pathways leverages two interventions in its efforts to instill hope for the future in students.

The first, *Possible Selves*, is a personal development program designed to enable students to reflect on their hopes, expectations, and fears; create a personal mission statement; set long- and short-term goals; and explore ways in which they can expand, modify, or change their goals and the plans they develop for achieving them.

The second is *Pathways'* mentoring program, a partnership with the International Telemotor Center, in which students have the opportunity to establish personal connections with successful professionals using the Internet. This component allows students to draw on their mentors' expertise to develop personal, step-by-step plans for accomplishing their goals.

>>> ing scoring (see page 7 for a checklist of teacher behaviors associated with the modeling phase of strategy instruction). They have developed devices to help students with the reading strategies, looked at alternate feedback structures, and created games (some of these were described in "Additional strategy practice for the classroom" in *Strategram* Vol. 13, No. 4, May 2001).

"Developing and validating adaptations is central to this project and is one focus of con-

tinuing research," Knight said.

Team members continue to investigate what works, and they are interested in hearing suggestions from other strategies teachers. Comments or suggestions can be mailed to Knight at KU-CRL, 521 Joseph R. Pearson Hall, 1122 West Campus Road, Lawrence, KS 66045.

Project results

The degree to which *Pathways* components, including strategy use in general education classrooms, have been

adopted far exceeds original goals for the project. In addition, pretest and posttest scores reflect a significant improvement in students' academic skills.

- At Chase, Eisenhower, and Robinson middle schools, 103 students have learned the *Word Identification Strategy*. More than 98 percent of these students have learned to decode at their grade level, and students on average have shown an improvement of more than 25 percent on tests of comprehension.

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- >>> • All sixth-graders and most seventh-graders (more than 700 students) have learned the *Sentence Writing Strategy* and have shown improvements of more than 20 percent on tests of more than 20 percent on tests of writing ability.
- More than 600 students have learned the *Paraphrasing Strategy* and have shown increases of more than 20 percent on tests of their ability to paraphrase while reading.
- More than 230 students were matched with telementors this year, and numerous outstanding projects have been developed through a partnership between teachers, students, and telementors communicating through the Internet.
- All students at Chase and more than 100 students at Robinson have completed the *Possible Selves* program. These students have clearly written what their hopes and expectations for the future are, and they also have written a statement about the kind of person they are striving to be. They will revisit these throughout their academic career within *Pathways to Success*.
- All students at Jardine Middle School learned the *Paraphrasing Strategy* this year. Schoolwide statistics show an increase of 30 percentage points in paraphrasing scores from pretest to posttest.
- Six Content Enhancement Routines have been implemented widely in these schools. More than 2,000 students have experienced content enhancement in their courses.

Attracting attention

The hard work of the Topeka middle school teachers and KU-CRL project staff has gained both state and national attention during the past year.

Recently, the *Pathways to Success* program at Chase Middle School was named one of 10 “best practices” in a Kansas education competition.

The Teacher Development Coalition chose *Pathways* from among 44 applicants to its “What’s Working Well with School Reform in Kansas” competition.

Lynn Barnes is KU-CRL’s instructional collaborator at Chase, and Tammy Heenan is the school’s principal.

“This award is a testament to Lynn’s outstanding work and Tammy’s leadership,” Knight said. “Although the award honors progress at Chase, any of the middle schools could have received this award. They all have made impressive gains.”

Other programs across the country are taking notice of *Pathways*’ success, too.

Baltimore schools have adopted a program, called *Passport to Success*, modeled on the *Pathways* project.

In addition, instructors from Dodge City, Kansas, have been attending workshops sponsored by the *Pathways* project to integrate components of the project into their own program.

The future

The 2001-2002 school year will be the third year of this five-year program. *Pathways* staff

will build on the successes of the first two years as they expand offerings to include students from sixth- through eighth-grade.

Mike Hock, KU-CRL research associate, is overseeing the development of strategic tutoring programs at each of the middle schools next year. He will be experimenting with one-to-one and group tutoring.

The teachers and schools involved in the project are deep into planning for next year, too.

At French Middle School, the technology and consumer science teachers are developing plans to integrate course and unit organizers to ensure continuity as they move to a full-year course offering. Students in the course will rotate among teachers, and teachers expect the organizers to help students link the information they receive across units and instructors.

All six middle schools will host parent/student “Weekly Strategies Nights” in the

fall. Among the topics to be covered are organization techniques as well as information about several strategies for completing assignments, taking notes, taking tests, improving memory, and solving problems.

“The goal of *Pathways to Success* is nothing less than to bring together all the resources of the Center for Research on Learning to help dramatically improve the lives of kids at risk for failure,” Knight said. “We hope to quickly make a difference in the lives of students in Topeka and, eventually, in the lives of students throughout the nation.” ●

Students find 'hope' in e-mail mentors

One of the most innovative features of the *Pathways to Success* project is its partnership with the International Telementor Center, based in Colorado and serving students around the world.

Telementoring, part of the *hope* component of the project (see *Project components* on page 3), pairs students with professionals around the world.

The student and telementor communicate through e-mail, with the student asking questions about school projects and the mentor offering guidance and advice.

Susan Claflin, instructional collaborator for telementoring for all of the participating schools, coordinates the telementoring component of the *Pathways* project.

She is responsible for ensuring that students and teachers are communicating and that lesson plans and goals have been developed with the telementoring relationship in mind.

She travels to each of the participating schools each week during the school year to help the students with the Internet, troubleshoot technical problems, and answer any questions students and teachers might have.

Claflin said students love the program. "It's like having a friend do work with you," they tell her.

While they're working with their new friends, students learn a lot about geography, technology, business, and culture, in addition to the subject they are studying.

Students are matched with telementors from all over the world, including the United



Students at Landon Middle School in Topeka, Kansas, developed a web site as part of their involvement in the Pathways to Success project. The students interviewed key Pathways staff as well as teachers and students participating in the project. The result of their work is a comprehensive web site describing the project from the points of view of all Pathways players.

Kingdom, Germany, and Australia.

By the end of the school year, a student writing to his Australian mentor had begun signing his e-mail messages "G'day, mate," and a mentor based in London had taught the Topeka student he was matched with about differences in U.S. and British English.

"Talk about geography lessons! They're always looking at a map trying to figure out where everyone's mentor is," Claflin said.

One day, a student received a link from his telementor to a web site that had a live camera depicting London scenes.

"The sun was going down and there was Big Ben. These kids were like 'Oh my goodness, that's London. We're looking at London

right now!'" Claflin said.

Claflin said she is impressed by the support students receive from their telementors, who hold jobs on every level of the corporate ladder, including top executives.

One of her favorite stories to come out of the telementoring experience involves a student who wanted to write a report about Muhammad Ali. The student's telementor immediately went to his Washington, D.C., neighborhood bookstore and purchased two copies each of three big, hardbound books about Ali. A day later, the student received a box containing one set of the books, and he and his telementor read them together.

Not every mentor gets involved in projects to that ex- >>>

>>> treme, Claflin said. But they do provide support, inspiration, and role models that students might not get elsewhere.

“It’s profound what it does for these kids,” she said. “They’re proud of what they send off to their mentor because the mentor will write back saying ‘This is so cool what you’ve done. You need to be really proud of yourself.’”

“It’s not the teacher. It’s not me. It’s somebody out there that they believe can do no wrong, and they feel so special.”

Claflin asked one of the students whether she had ever had a mentor before. The student replied that she had one across the street who helped her with her math.

“I said, ‘Isn’t that amazing! You have one that lives across the world in Germany, and then you have one that lives across the street. And they’re both helping you with your homework and projects,’” Claflin said.

Although strategies instruction in the *Pathways* project occurs mainly in general education classrooms, telementors get involved, too.

During the past year, three or

Lesson plans

Teachers invest a great deal of time and effort in the telementoring project. Their responsibilities range from creating extensive lesson plans that incorporate opportunities for the students to interact with their mentors to ensuring that students and mentors are on track and communicating throughout the project.

For examples of the types of projects undertaken by the Topeka teachers and students, visit

www.telementor.org/Telementorsys/public_view/topeka_projects.cfm

four student projects involved using the *Sentence Writing Strategy*. Students wrote a few simple sentences and sent them to their mentors. The mentors then wrote a few simple sentences to send back to the students or offered suggestions or corrections to the sentences the students wrote.

They progressed through the different types of sentences this way until both students and mentors were writing compound-complex sentences for

each other.

Some of the mentors wrote to the instructional collaborator for the project saying “We had to go find an English book to figure this stuff out. We didn’t know you studied this in seventh grade!” As a result, the instructional collaborator sent information about the *Sentence Writing Strategy* to the telementors, who learned right along with the students. ●

—Julie Tollefson
Center for Research on Learning

Three new strategies, routines introduced

Three new manuals were introduced during the 2001 International SIM Trainers’ Conference in July.

- *Following Instructions Together* is the second program in the *Community Building Series*. This program helps students follow instructions and work effectively with partners. Students learn to check their written assignments to ensure they have followed all of the instructions. Practice activities are included for both younger and older students.
- The *Question Exploration Routine* is a package of instructional methods that teachers

can use to help a diverse student population understand a body of content information by carefully answering a “critical question” to arrive at a main idea answer.

- The *Vocabulary LINCing Routine* is designed to help students use two powerful tools for learning and remembering the meaning of complex terms. The routine is designed for use by general education teachers.

Look for more information about each of these products in future issues of *Strategram* and on the Center for Research on Learning web site, www.ku-crl.org.

Teacher Checklist for Strategy Instruction

*This checklist provides a list of behaviors for teachers to keep in mind during the modeling and practice stages of strategy instruction. It progresses from the teacher modeling the strategy, to the teacher and students practicing the strategy together, to independent student practice.**

Learn by Watching

- Review the steps of the strategy
- Explain how it will help students learn
- Specify what students need to do
- Think out loud
- Problem solve
- Attack the challenge in different ways
- Address categories of error that arose in the previous day's work

Learn by Sharing

- Ask for strategy steps
- Call on a variety of students to explain how to perform steps
- Ask students to explain how they are thinking
- Shape student responses
- Encourage students with authentic praise
- Evaluate student understanding
- Re-instruct if necessary

Learn by Practicing

- Let students perform independently
- Give brief, specific, constructive feedback
- Identify categories of error to identify in the next day's session
- Have students record their grades on their progress charts

*References

- Archer, A. (July 1997). Keynote address. International SIM Trainers' Conference, Lawrence, Kansas.
- Ellis, E.S. (1998). The Clarifying Routine: Elaborating vocabulary instruction. *Strategram* 10(3).

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