

# CILC Vistas and their Impact on Students, Teachers, and Communities:

## Emerging Themes from Vista Research and Evaluation

### Executive Summary

#### Introduction

The Center for Interactive Learning and Collaboration (CILC) initiated its first CILC Vista in 1999 as an effort to connect classrooms and communities. The vision for the program was to use real community issues—in this case, traffic congestion in the city’s northeast corridor—as the impetus for authentic learning. Teachers, students, and community partners would collaborate, supported by Vision Athena, the CILC’s two-way, interactive, videoconferencing network.

Even before the Northeast Corridor Classroom concluded, another Vista was on the horizon, and between 1999 and 2002, the CILC managed nine Vistas. For each Vista, Rockman et al, an independent educational research and consulting firm, has conducted research and evaluation studies. This report summarizes findings from those separate studies, highlighting results that have consistently emerged for each group of participants: students, teachers, and communities.

#### CILC Vistas and Student Learning

Our research has measured changes in students’ skills and abilities and explored the Vistas’ impact on attitudes and motivation. Do students who have participated in a CILC Vista demonstrate better mastery of skills than those who have not? Are Vista students more motivated? Do they develop more positive attitudes toward their schools or communities? Thus far, we have found that students who have participated in CILC Vistas:

**Use data more frequently, accurately, and persuasively.** Analysis of student scores from a standards-based math assessment, administered to two teams of 8th grade students in the same school, showed that CILC Vista students, in contrast to their

counterparts, were more accurate in their calculations, more organized in their presentation strategies, and more logical and innovative in their solutions. The average holistic scores for Vista students was 3.6, compared to 2.4 for non-Vista students. Student pre/post data indicates increases in the opportunities Vista students have to work with data, and teacher data reveal growth in students’ abilities to collect, analyze, and interpret diverse sets of real-world data important to their Vista research.

**Demonstrate better problem-solving skills.** Data from a problem-solving assessment showed that Vista students demonstrated higher-level thinking skills than their non-Vista peers. Analytic scorings of these assessments indicated that Vista students were better able to

outline a research plan, formulate specific research questions, identify credible resources, collect rich data, and reach logical conclusions. Findings were consistent in studies conducted in two different years, with academically-matched students in the same school.

Teacher pre/post survey data also reflects measurable differences in specific critical thinking skills. Over the course of the 2001-2002 Vistas, a majority of teachers—67%, 57%, and 57% respectively—indicated a “great” or “significant” difference in students’ abilities to paraphrase ideas in their own words, find new solutions, and assess statements and arguments. During the Vistas, teachers also reported using multiple resources and research methods, and shifting towards instructional practices that encouraged “sense-making” and thinking.

### **Develop more effective**

**communication skills.** Student and teacher data show that, during Vistas, students communicate and collaborate more frequently than usual—and they do so with more diverse audiences and for more authentic purposes. Vista students are also more skilled and persuasive writers, who use a variety of organizational and prewriting strategies, thereby meeting more advanced persuasive writing standards than their peers. Teachers consistently report that students’ communication and collaboration skills improve considerably due to the Vista: In 2001, for example, teachers rated students’ gains in communication skills at 2.9 on a 3-point scale, (1= not at all, 3=greatly); in 2000, teacher pre/post data showed an increase from “less than satisfactory” to “good.” Gains were due in part to the fact that Vistas gave students more opportunities to use technology—videoconferencing, email, presentation software, web pages—to communicate with others.

Are more positive about school and learning. Over the years, students have consistently said that what makes their Vista experience different from any other school project is that the issues are real and that they can make a difference in their communities. This translates into higher motivation about school and learning. Over half the students in the Northeast Corridor Classroom rated their classes more highly after their Vista experience. Upon conclusion of the 1999-2000 Vistas, students found what they were learning to be more interesting, more important, and more relevant. Even those teachers who typically use more constructivist practices say that Vistas out-distance other activities, motivating students to explore, collaborate, thoroughly research solutions to problems—and present these to community partners with the skill of professionals.

“This project has been a resurrection for me as a young person. The way I look at things is different; it’s really amazing how much I have learned. This project has bridged the gaps between teacher and student; student and city, politics, and decisions; student and parents; and inner city and suburbs...connecting the different races of people, different ages of people, and different beliefs and way that we look at things and planting a seed in us and that’ll make us more involved in the future and other important decisions that the city will have to make.” –Student

### **CILC Vistas and Teacher Practices**

All the CILC Vistas share a model of defining characteristics, but, within that framework, classroom teachers and their students set the course and destination of each Vista. The Vista process requires teaching strategies that support critical inquiry, but teachers follow no prescribed set of interventions

intended to change pedagogy. Our research has focused on measuring change in instructional practices and subsequent impacts on student learning. Thus far, we know that CILC Vista teachers:

**Meet academic standards.** Teachers in all nine of the Vistas have successfully integrated the problem-solving process into core courses and met required state academic standards. The multi-disciplinary nature of the Vista issues also helps teachers incorporate standards from other content areas. In fact, every teacher in the 2001-2002 year indicated that students learned required state academic standards better through the Vista than through previous methods. These teachers also felt that students learned the content more thoroughly and would retain it much longer. “We used state standards daily in our classrooms. Language arts, science, and math standards were easily met...the content was taught in a way that related to real life. It wasn’t teaching from a required textbook.”  
—Teacher

**Use more student-centered learning strategies.** In post-project surveys, reflections, interviews, and focus groups, teachers have attested to changes in their classrooms—students have taken more responsibility for their learning, and teachers themselves have assumed the roles of facilitators and guides. Pre/post student data from 2000-2001 revealed a significant decrease in the number of teacher-led discussions and an increase in open-ended, student discussions. After the Vistas, fewer students considered the teacher to be the primary source of information in the classroom. Students consulted experts more frequently, and teachers arranged more classroom guests, videoconferences, and field trips than they typically do.

During Vistas, teachers and students used sources such as community and Internet resources significantly more often, and traditional resources such as textbooks, less. Over the past three years, teacher survey data have also indicated a growing use of authentic assessment strategies; student data have reflected corresponding increases in opportunities for peer and self-evaluation and presentations.

“Working with the CILC was a professionally rewarding experience as well as an excellent experience for the student participants to develop leadership, technological, academic, and special skills.” —Teacher

Use technology as a teaching and learning tool. Over the years, pre/post data have shown consistent increases in teachers’ technology use during the Vista. While the most significant increase is almost always

in teachers’ use of video-conferencing, increases in teachers’ and students’ use of the Internet, graphics, email, and PowerPoint are also evident: 82% said they used the Internet “often” or “almost daily” during the project. Student data corroborates: 74% of students said they regularly conducted research on the Internet during the Vista, as opposed to 45% at other times. With increased use comes increased proficiency. Data from 2000-2001 show that 80% of teachers increased their general computer expertise at least slightly during the Vista. Over half the teachers said that the Vista increased their proficiency in using the Internet as a tool for learning; The most marked increase is in teachers’ use and proficiency with videoconferencing: 63% of first-year Vista teachers indicated a “moderate” or “significant” increase in their ability to use videoconferencing. Student data indicate a significant increase in the

frequency with which videoconferencing is utilized during a Vista.

### **CILC Vistas and the Community**

The community is the context of CILC Vistas. By teaming students with community partners, the Vistas create collaborative learning communities that together explore solutions to real problems. Our evaluation has focused on the outcomes of expanding the classroom into the community, and the impacts of the collaborative learning environment on students, teachers, and the communities. Our findings show that CILC Vistas are:

**Creating community classrooms.** The focus of the Vistas on community issues led teachers to tap into their local communities, which teachers found to be a rich source of content and curricular applications. Teachers

“With a normal project, you’re learning out of a textbook, you’re working with other students, and you’re basically doing what the textbook says...With this one we got to talk to a lot of people, get information from neighborhood associations and you’re getting it from a primary source, rather than one opinion in a book that says, ‘This is how it is.’ It’s more of a hands-on approach.” —Student

reported that they used these resources far more often during the Vista than in their regular teaching, and teachers with a year or two of Vista experience become especially creative in garnering new resources and collaborative partners.

As teachers and students themselves indicate, an authentic audience is a powerful motivator, adding relevance and real-world authenticity to what students are learning. Math concepts translate into highway routes, informational writing into brochures, marketing into community awareness

campaigns, and science into environmental action. Community interactions took many different forms, from surveying community members at local retail stores, attending community meetings, to revitalizing brownfields. Students’ awareness of various careers typically grows as a result of their interactions with the community. By the end of Indianapolis Insights, 67% of students indicated that had gained an increased awareness of career opportunities in public service and business.

“The most significant aspect is that the students were involved in the community and engaged with a variety of people and experts.” —Teacher

**Fostering citizenship.** Through Vistas, students become more aware of the issues and needs in their communities and develop the skills and confidence to address them. Eighty-three percent of 2001 teachers say Vistas are “very effective” at developing students’ understanding of community issues. Student data reflects similar outcomes: over 80% of students in I-69 felt the project increased their understanding of complex, controversial issues related to the extension of the interstate. Pre/post surveys conducted for each of the Vistas show consistent, substantial gains in students’ understanding of Vista-related issues.

Closing the gap between schools and the community. Pre/post data from 2001-2002 indicate that over two-thirds of students show more concern for their communities and feel they can make a difference—both as a result of their Vista participation. Nearly one-third of students felt their opinions were more important to their community; 23% felt their opinions were valued by city leaders as well. Likewise, community members feel they that their

collaborations with students have made them a part of the educational process. Consistently, teacher data have shown that the project significantly increases the frequency of school/community collaborations, and teachers' use of the community for resources. Data also suggest that it's not only the issues at hand that Vistas students are engaged in: Over 80% of teachers feel that, as a part of the Vistas, their students are engaging in community service. Early indications are that the desire to become more invested in the

communities will continue to be in the future.

"It's encouraging to see that students are willing to take difficult subject matter and make sense of it. I'm not sure that adults would have applied themselves with an open mind to see what these issues mean in any given community."  
—Community Partner

## Conclusion

Thus far, our studies have provided a growing body of evidence that CILC Vistas have a positive impact on teaching, learning, and school/community relationships. Vista students are gaining the skills and expertise they need as students, citizens, and future employees. In some schools, students have been motivated to return as mentors for subsequent projects. Teachers are also returning to the program, many of the teachers have participated for two or more years. Teachers have found the Vistas effective in enriching the teaching and learning experience. Community members and groups are enthusiastic about the collaborations formed with teachers and students, and what those partnerships mean for the future.

At this point, the focus of our ongoing research is shifting from evaluating independent Vistas to conducting research on the CILC Vista program as a whole. We plan to continue to look at impacts of CILC Vistas on students, teachers, and communities, while looking more closely at student achievement, professional development, and community impact.

The CILC has full research reports for each year of the Vista program; please contact the CILC or ROCKMAN ET AL for copies.

## ROCKMAN ET AL

---

ROCKMAN ET AL ([www.rockman.com](http://www.rockman.com)) is an independent research and consulting firm that specializes in exploring the impact of technology on learning with offices in San Francisco, California, Chicago, Illinois, and Bloomington, Indiana; the company has working relationships with contractors, university faculty, and consulting groups in all regions of the country.